REINVENTION WITH GENERATIVE AI: CalPERS

January 2025

accenture

Content

01 What is Generative AI?

The Evolution of Artificial Intelligence

Machines replicate
better than humans
1950

Machines learn
better than humans
~2000

Machines create
better than humans
2023

AI Type

Initial focus to lay the foundations

Accelerated growth by access to large scale cloud computing & internet-scale training data

Descriptive

Diagnostic

Predictive

Prescriptive

Generative
(Open vs Closed)

"You are seeing a screw"

"The screw is broken"

"The screw is about to break"

"The screw is about to break, and this is how you can fix it"

"The screw is about to break, and this is how you can fix it and here are options for how to prevent it in the future"

4

The Basics of Generative AI

Generative AI is a type of artificial intelligence that can create new content (i.e., text, images, and audio) based on patterns it has learned.

Inputs

- Text
- Image and Videos
- Voice
- Structured Data
- Code

Foundation model

Outputs

- Question Answering
- Summarization
- Coding
- Generating Content
- Automation

Massive datasets

Very large model trained once and used in many ways

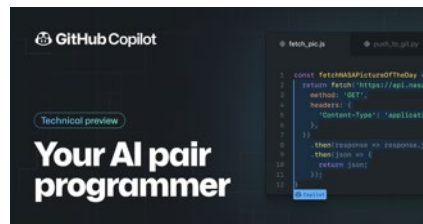Multimodal and emerging capabilities
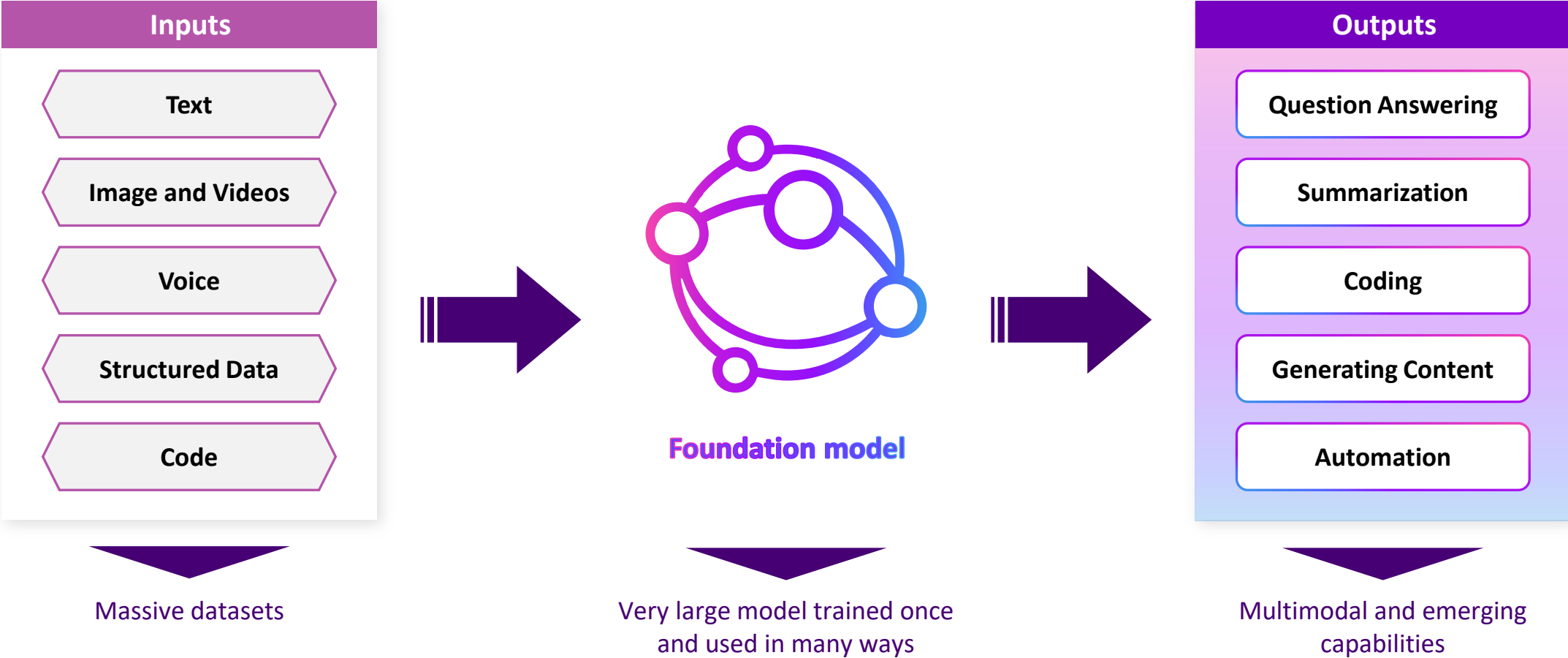
Generative AI: Enhancing Creativity

Generative AI is pushing creative expression forward by giving people tools to create content and optimize organizations.

Video

The Crow, an AI movie, won the 2022 Cannes festival in the category of short films

Code

For developers who enabled it, 40% of their code is written by CoPilot, GitHub's AI assistant. This will make the creative use of code more accessible to non-developers

Images

This is one of the most famous applications as the images AI can create are incredible and even won the top prize in a painting competition

Text

The most advanced domain, which has already passed Medical, Law, and Business exams. As models improve, we will see higher-quality outputs and longer-form content

Speech and Translation

Whisper understands speech better than humans, even with background noise, and can translate between virtually any language

# Generative AI Presents Unique Risks and Challenges

Workforce Displacement

- GenAI's impact is now viewed as more possible for roles that were initially viewed as outside of AI's immediate reach (creatives, lawyers, etc.)

Unreliable Outputs

- Hallucinations
- Explainability and traceability
- Quality, accuracy, interpretability
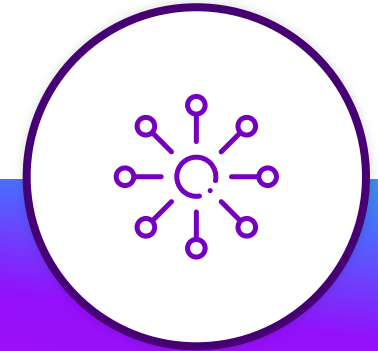- Relevancy / consistency
- Disclosure & transparency
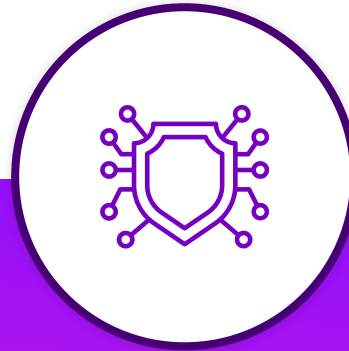
Confidentiality & Security

- Unauthorized disclosure of confidential information
- Security vulnerabilities

Liability & Compliance

- Copyright, IP, and content ownership
- Regulatory compliance
- Contractual liability
- Product liability
- Consumer protection concerns

Bias and Harm

- Representational harm
- Misinformation
- Toxicity
- Fraudulent attacks
- Disinformation spread
- Harmful content generation at scale

Best Practices in Generative AI
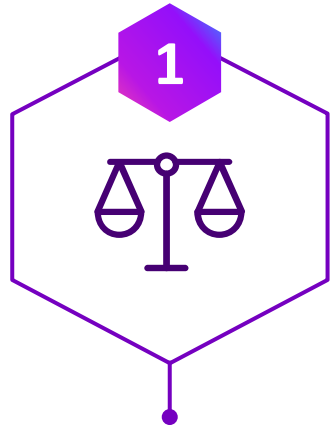
1
Ethics and Responsible AI Use

Develop guidelines to ensure AI is used ethically and responsibly, focusing on transparency, accountability, and mitigating bias

2
Data Privacy and Security

Ensure data protection, cybersecurity, and compliance with privacy laws, especially with the risks associated with AI systems accessing sensitive information

3
Workforce Development & Training

Prepare the workforce for an AI-driven future by offering training for state employees, upskilling residents, and integrating AI literacy into education to mitigate job displacement and equip workers with new skills

4
Public Transparency and Community Engagement

Prioritize public transparency to build trust in AI technologies through consultations, resident education, and establishing standards for clear, accessible information on AI usage in government and beyond
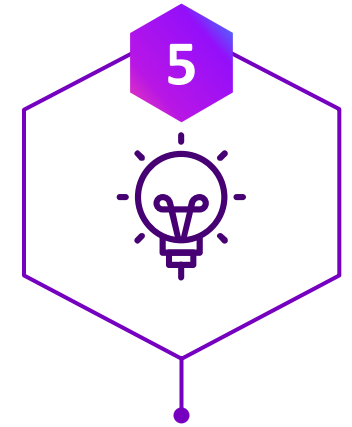
5
Economic and Innovation Impact

Explore how AI can drive economic growth, foster innovation, and create new industries by assessing its potential to attract investment, create jobs, and enhance competitiveness while promoting a regulatory environment for responsible AI development

02 Why is Generative AI Important?

Economic Impact of Generative AI

Ecosystem Investment

Technology companies are investing in AI more than any other technology
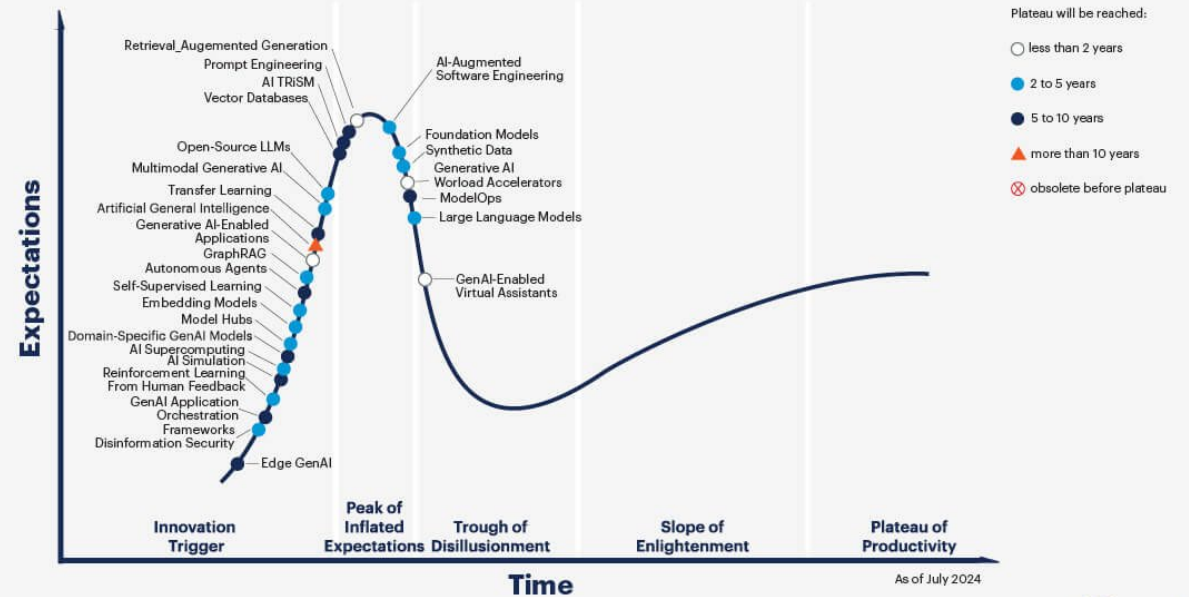
+$200 B

Ecosystem Impact

Generative AI could increase global GDP by

$7 T

Generative AI could increase annual US GDP by

up to
1.5%

Hype Cycle for Generative AI, 2024

Plateau will be reached:
- ○ less than 2 years
- ● 2 to 5 years
- ● 5 to 10 years
- ▲ more than 10 years
- ⊗ obsolete before plateau

Expectations

Retrieval_Augmented Generation
Prompt Engineering
AI TRiSM
Vector Databases
AI-Augmented Software Engineering
Open-Source LLMs
Multimodal Generative AI
Transfer Learning
Artificial General Intelligence
Generative AI-Enabled Applications
GraphRAG
Autonomous Agents
Self-Supervised Learning
Embedding Models
Model Hubs
Domain-Specific GenAI Models
AI Supercomputing
AI Simulation
Reinforcement Learning From Human Feedback
GenAI Application Orchestration Frameworks
Disinformation Security
Edge GenAI
Foundation Models
Synthetic Data
Generative AI Workload Accelerators
ModelOps
Large Language Models
GenAI-Enabled Virtual Assistants

Innovation Trigger | Peak of Inflated Expectations | Trough of Disillusionment | Slope of Enlightenment | Plateau of Productivity

Time

As of July 2024

Source: Gartner
Commercial reuse requires approval from Gartner and must comply with the Gartner Content Compliance Policy on gartner.com.
© 2024 Gartner, Inc. and/or its affiliates. All rights reserved. GTS_3291353
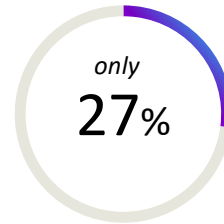
Gartner.

Executive Perspective on Generative AI

Catapulted by advances in GenAI, technology is the no. 1 cause of business change

76%
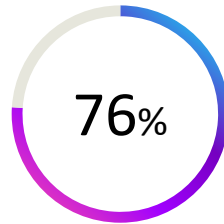
Of executives saw GenAI as more of an opportunity than a threat

only
27%

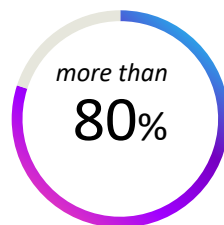Of executives claim their organizations are ready to scale up GenAI

GenAI has become a top priority for Executives

53.8% of Execs

"Lack of AI governance and risk management solutions limit scale"

GenAI has become a top priority for the C-suite

more than
80%

Of enterprises will have used GenAI APIs or models, and/or deployed GenAI-enabled applications in production environments by 2026

80%
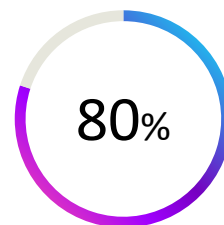
Of conversational AI offerings will have GenAI embedded by 2025, up from 20% in 2023

90%
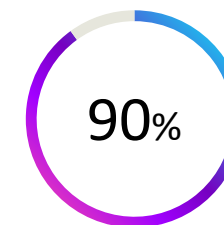
Of service providers will use GenAI for software development services by 2027

A Look at AI Task Forces Around the Nation

ESTABLISHED AI TASKFORCE

AL, AR, AZ, CA, CT, CO, DE, GA, ID, IL, IN, KY, LA, MA, MD, MN, ND, NJ, NV, NY, OH, OK, OR, PA, RI, SC, TN, TX, UT, VA, VT, WA, WI, WV

NO ESTABLISHED AI TASK FORCE

AK, FL, HI, IA, KS, ME, MI, MO, MS, MT, NE, NH, NM, NC, SD, WY

Generative AI in California

Through GenAI Executive Orders, summits, and partnerships, Governor Newsom is enabling California to lead the charge in Generative AI use in both the public and private sectors.

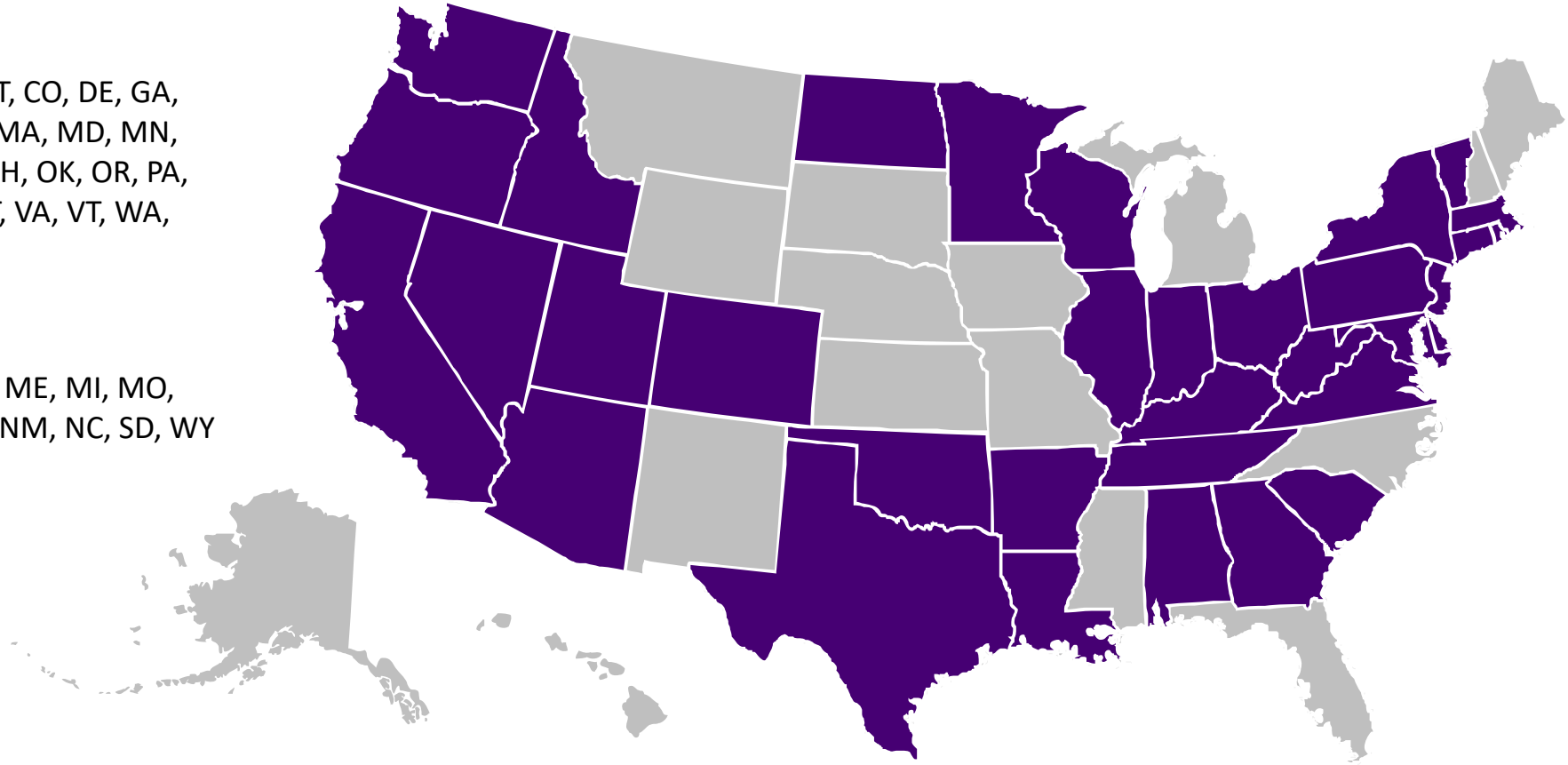## In the Public Sector...

> "*State agencies and departments shall consider procurement and enterprise use opportunities where **GenAI can improve efficiency, effectiveness, accessibility, and equity** of government operations*" – *Governor Newsom*

California is partnering with vendors to "test, iterate, and evaluate" Generative AI across agencies, including:

- **Protecting vulnerable road users**
- **Enhancing customer service**
- **Reducing roadway congestion**
- **Improving language access to state services**
- **Improving healthcare facility inspections**

In the Private Sector...

California is home to **32 of** the worlds **50 leading GenAI companies**

Governor Newsom has signed new partnerships with private sector companies to tackle challenges like:

- **Training & education**
- **Job creation and innovation**
- **Creating housing**
- **Connecting people to treatment**

Generative AI in the Public Sector

Priority Area	Objective	Top Use Cases	Example Client Story
Resident Services	**Changing the quality and value of resident experiences**	• Virtual Agent to Optimize Call Center performance • Case Management processing • Chat bots to accelerate citizen experience and access to data	**US State Tax Department:** Working with AWS to replace the existing machine learning algorithms with an LLM for incoming call intent Discovery. This will be available in August 2023.
Workforce	**Transforming workforce operations through automation and augmentation**	• Worker Co-pilot to reduce backlog and prioritize social service claims • Enhanced analytics to optimize decision making • Training and onboarding support	**UK Social Services:** Working with AWS building a worker co-pilot to help social services analyze and respond to 35k citizen communications and eliminate a 4 week backlog.
Enterprise	**Enabling end-to-end data led transformations at scale**	• LLMs deployed at enterprise scale to radically optimize complex workflows and document processing • Automated Benefit administration • Identity and security mgmt – addressing online threats to cyber security, improved response to non-emergency calls, etc	**Federal Agency:** Working with Google deployed LLM for a federal agency with 10,000 workers. Significantly reduced processing and submission time and estimated annual savings of $150M.

03 Examples: Contact Center, Healthcare, and Investments

Automation/AI Solutions Framework

Automation solutions to advance operational efficiencies and key performance in the following functional areas:

Potential Solutions

Residents

Interview Attestation

What it does: Client attestation prior to interview to attest documents are correct

Outcome: Processing Efficiency, Reduce interview time on phones

IVR to SMS Deflection and Channel Switching + GenAI Virtual Agent (VA)

What it does: Provides option upfront for callers to switch to digital channel and get answers to simple queries

Outcomes: Call reduction, improved user experience

GenAI powered multilingual VA & Live Chat Support

What it does: Offer instant, accessible help in their preferred language to answer queries quickly & a seamless transition to an agent when their query is too complex

Outcome: Call reduction, improved user experience

Case Workers

Intelligent Document Processing

What it does: Document scan for key information to provide to case worker to check

Outcome: Process Efficiency, Error Reduction

Employee Policy Coach

What it does: Case worker chatbot powered by intelligent automation on policy / training information

Outcome: Reduced handle time, error prevention

Enhanced Contact Center Agent Tools (Summarization/AI Assist)

What it does: Auto draft of call summaries and AI Assist to help the agent support callers' information requests; sentiment analysis

Outcome: Process Efficiency, Error Reduction

Language Translation AI

What it does: Real time interpretation via AI translation

Outcome: Reduced handle time, reduced costs of language line

Supervisors

Gen AI Quality Check

What it does: Review documents before submission to check for any errors

Outcomes: Error Reduction, Process Efficiency, Quality Process Checks

Contact Center Agent Assist

Accenture collaborated with a State to optimize Call Agent workflows using GenAI technology, enhancing both agent and caller experiences.

Post-Call Summary & Real-Time Transcript

- Real-time transcription of ongoing call, agents can follow along

- Summary gets generated 2-5 seconds after call ends

- Call summary provides high-level details of full conversation, including actions taken by agent and caller during the call, and next steps

Knowledge Article Suggestions

- Real-time suggestions of Knowledge Articles for agents to reference based on intent of the conversation between agent and caller

- Each suggestion will include a bulleted summary of the Knowledge Article to give the agent context

Benefits Include...

Reduced AHT – Simplifies the ecosystem the agents need to navigate and reduces multi-tasking, as well as talk time and time spent on hold.

AHT **decreased by 10%**

Increased First Call Resolution (FCR) & Customer Experience – By streamlining activities and prompting the right information agents deliver insights to the customers quickly and efficiently.

Increased Agent Engagement – Enables agents to improve active listening skills and remain engaged with the customers during calls.

Increased Consistency – The generation of the Call Summary creates standardization when it comes to details captured from calls.

Reduced Agent Attrition – The number of screens agents are expected to juggle during and after calls decreases with call details centralized in one place; provides an improved agent experience and helps them become more competitive and efficient.

FNS-Approved GenAI – This GenAI solution has been approved for other similar clients by FNS, due to the intended use.

How Does Agent Assist Work?

A day in the life with a Call Center Agent

Agent receives call through Agent Assist and an Inquiry associated with the call pops-up in Salesforce screen automatically

Once the call starts, **Agent Assist** begins generating a real-time transcript of the conversation between caller and agent.

Once the call is complete, **Agent Assist** generates a call summary which accurately details call intent, actions taken, and next steps.

In **Agent Assist**, agents can edit, review, and post the summary automatically to Salesforce.

Agent Begins Their Day

Agent Helps Caller During Call

1

2

3

4

Agent Receives Incoming Call

Agent Conducts Post-Call Work

Agents log into AWS Connect, Salesforce, and other statewide systems for their call center work.

Agents change their status to Available on **Agent Assist** to begin taking calls for the day.

As the call intent is deduced, **Agent Assist** suggests knowledge articles they can navigate to, with summarized bullets of the article's content, so they can quickly identify which article can best aid them.

Healthcare Document Lifecycle

Accenture collaborated with a local Healthcare Agency to optimize their lengthy document lifecycle using Generative AI.

Voice Recognition

- Speech-to-text solution allowing clinical staff to document patient interactions more efficiently

- Shortcuts embedded in the system, allowing providers to seamlessly dictate notes into a patient chart

Suggested Document Improvements

- Real-time suggestions of improvements for providers as they are documenting care

- Messaging tools allowing specialists to actively communicate with providers, aimed at improving quality and completeness of documentation

Benefits Include...

Improved Patient Care
by increasing the accuracy and quality of clinical documentation, as well as enabling providers to remain engaged with patients throughout their visit

Increased Healthcare Staff Satisfaction
by increasing efficiency and augmenting their work experience by using state-of-the-art tools and software

Improved Ability to Capture Revenue and Enhanced Financial Security
by increasing quality and completeness of clinical documentation, providers will have access to better data used for revenue capture and external reporting

Investment & Corporate Research

The Challenge

Investment researchers spend significant amounts of time to find relevant investment research content across various portals to generate insights and thesis before making informed investment decisions. This process is a costly and time-consuming process that may lead to inconsistent analysis that includes biases and subjectivity and potential errors.

The Solution

- Generative AI (GenAI) can be used to augment the investment research process by understanding a company and its nuances, the macro market trends, and determine analyst and social sentiment through analyzing a range of data sources, including financial statements, news articles, and social media; piecing together the different pieces to create investment research reports to help make investment decisions

- GenAI can create multiple financial models to test run simulations simultaneously with different set of variables and perform various calculations like DCF, P/E ratios & other valuation metrics to determine the valuation of the companies

The Outcomes

- Creating a pre-defined customized tool that will aid in extracting information from large reports into a summarized form will improve efficiency and focus of researchers, allowing them to use their time more effectively while reducing inputting error. With this tool, researchers have freed up time to review additional investment opportunities and have an increased level of customization to generate additional returns.

- We believe that this solution could **reduce time spent on summarizing documents by up to 30% and an overall 20% cost reduction on FTEs**, allowing FTEs to focus their attention on analysis rather than data gathering and other value-add tasks.
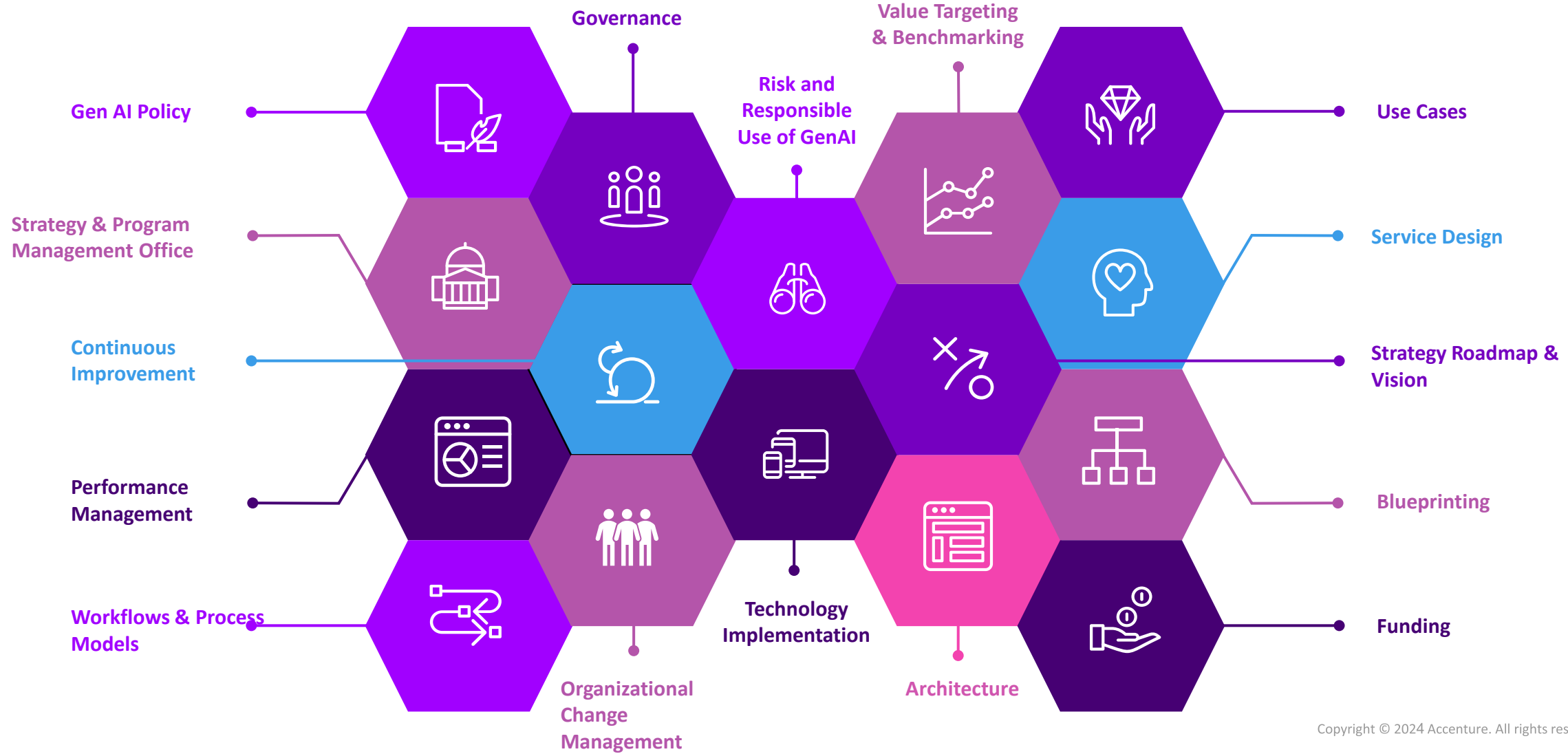
TARGET USERS
- Financial advisors
- Relationship managers
- Client facing financial services professionals

KEY INPUTS
- Financial statements
- Market data
- Regulatory filings
- News articles and reports
- Social media data

Note that the key inputs listed within the slide are not the complete list of key inputs that would be needed for the tool

04 Reinvention with Generative AI

Core Elements for an Organizations AI Strategy

Governance

Value Targeting & Benchmarking

Risk and Responsible Use of GenAI

Gen AI Policy

Use Cases

Strategy & Program Management Office

Service Design

Continuous Improvement

Strategy Roadmap & Vision

Performance Management

Blueprinting

Workflows & Process Models

Funding

Organizational Change Management

Technology Implementation

Architecture

Five Key Questions for Reinvention with AI

1

How do I prioritize investments?

2

Is my data & technology ready for AI?

3

How do I make the right ecosystem decisions?

4

Are my people ready?

5

Where is AI being used? Am I balancing the value and risks?

05 CalPERS Generative AI Readiness

CalPERS Generative AI Readiness

Project Objective: Accenture is supporting CalPERS in achieving **readiness for Generative AI implementation** through technology and policy evaluations, documentation and standards, and strategic road mapping.

Current State Assessment
Policy, Infrastructure, Data, and Governance

- Assess current CalPERS policies, infrastructure, data, and capabilities, **identifying growth areas** prior to Generative AI implementation
- Understand where CalPERS is now, to help **propel the organization into the future**

Documentation and Standards
Architecture & Security, Responsible AI

- Define **security and architecture standards** for GenAI implementation, including frameworks and **best practices**
- Create **workflows and process models** for GenAI risk mitigation and program management

Planning and Strategy
Future State Vision and Use Cases

- Refine and prioritize **Generative AI use cases** for CalPERS
- Create **strategic roadmap and vision** on prioritized use cases, including impact to current business processes

Thank You!