60

IDC Directions

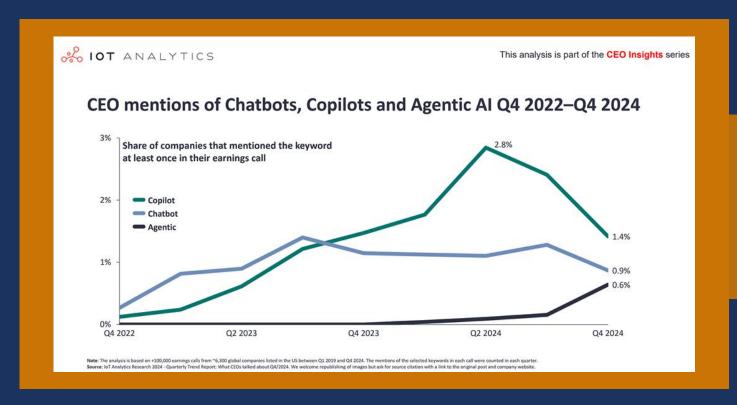# Agentic AI: A playbook for corporate innovation

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GM/GVP, IDC

AI. Here, there, everywhere.

Number of companies mentioning AI, along with total number of mentions in earnings call transcripts, 2022Q1 – 2023Q3

Numbers of companies

Numbers of mentions

Chat CPE relesed in Nov 2022

1,625	1,508	1,333	1,321	1,372	1,933	2,247
2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2	2023Q3

Number of companies

Total mentions

Source: Accenture Research NLP analysis on earnings call transcripts (S&P Global Transcripts) across 10,452 companies and over 70K transcripts; Jan 2022 – Sep 2023

AI mentions in earnings call transcripts **increased 6x** since the release of ChatGPT in Nov 2022.

According to Wallstreet Zen analysis, companies that mentioned AI in earnings call saw an average stock price increase of **4.6%**, while those who did not only saw a **2.4%** increase.
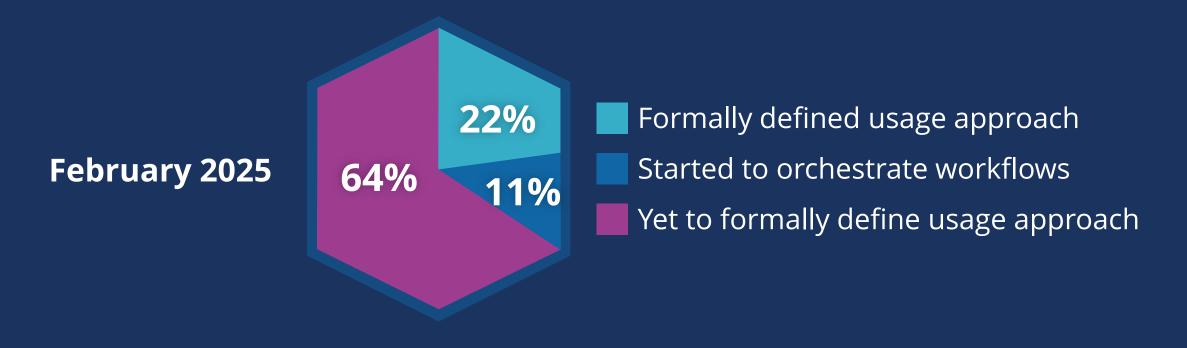
Agentic AI is subtly reshaping corporate strategy

IoT ANALYTICS

This analysis is part of the **CEO Insights** series

CEO mentions of Chatbots, Copilots and Agentic AI Q4 2022–Q4 2024

Share of companies that mentioned the keyword at least once in their earnings call

- Copilot
- Chatbot
- Agentic

2.8%

1.4%

0.9%

0.6%

Q4 2022 — Q2 2023 — Q4 2023 — Q2 2024 — Q4 2024

Note: The analysis is based on +100,000 earnings calls from ~6,300 global companies listed in the US between Q1 2019 and Q4 2024. The mentions of the selected keywords in each call were counted in each quarter.
Source: IoT Analytics Research 2024 - Quarterly Trend Report: What CEOs talked about Q4/2024. We welcome republishing of images but ask for source citation with a link to the original post and company website.

Now, in Q4 2024, the new rising star is Agentic AI; **The topic jumped 250% QoQ to 0.6% of earnings calls.**

Agentic AI - *Subset of ML and DL techniques that enable computer systems to exhibit agency: set goals, make decisions and take actions through perception, reasoning and action loop.*
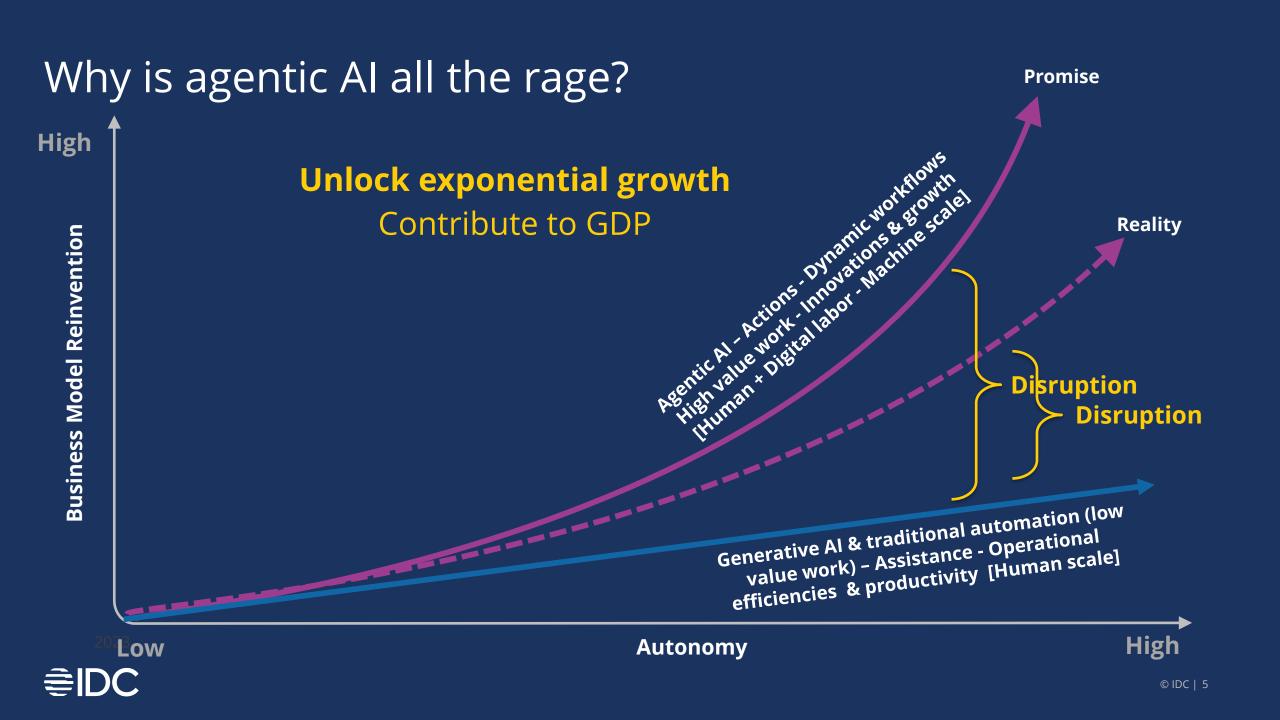
Agentic AI is getting a lot of attention
Over 60% survey respondents noted it as a business model disruptor; 97% report commitment

February 2025

22%

64%

11%

■ Formally defined usage approach

■ Started to orchestrate workflows

■ Yet to formally define usage approach

Why is agentic AI all the rage?

Unlock exponential growth
Contribute to GDP

Business Model Reinvention

High

Low

Autonomy

High

Promise

Reality

Agentic AI – Actions - Dynamic workflows
High value work - Innovations & growth
[Human + Digital labor - Machine scale]

Generative AI & traditional automation (low
value work) – Assistance - Operational
efficiencies & productivity [Human scale]

Disruption
Disruption

2025

IDC

Multitude of factors converge - diverge for agentic AI adoption

Agentic AI - Higher agency - Human-on-the-loop

Macroeconomic – Social – Business - Technology

- Economic stimulus
- Labor shortage solution
- Opportunity the business status quo
- Accelerate time to value - workflow reinvention
- Unlock machine scale – dynamic and agile businesses –beyond productivity gains
- Elevate the customer experience – Personalizations at scale
- Availability of advanced reasoning models
- Reduce technical debt – take cost of day-to-day operations
- Data and computing power advancements
- Superior support for adaptable edge-to-cloud workloads

Inhibitors

Drivers

Macroeconomic – Social – Business - Technology

- Social divide; Job displacement fears
- Geopolitics; Sovereign AI
- AI trustworthiness (bias/hallucinations)
- Exposure to brand/regulatory requirements; Security vulnerabilities
- Skills gap
- Immature end-to-end multi-agent systems
- High costs to sustain continuous connectivity and data logistics across agents and systems
- Sustainability (Energy, network and water) constraints
- Human scale cloud native infrastructure
- Human empathy

Degree of autonomy will increase with trust, technology and policy maturity

We are at an inflection point for autonomous AI agent development

Humans "on" the loop

Humans "in" the loop

Q42024

1H2026

Trust, tech and policy maturity

AI assistants	Autonomous AI agents	AI agent fleets
AI provides Insights or recommendations	Humans are "architects and orchestrators" of workflows	Complex problem solving, collaboration across agents
E.g. Order status inquiry	*E.g., Order refunds/exchanges*	*E.g., Fully autonomous customer service representative*
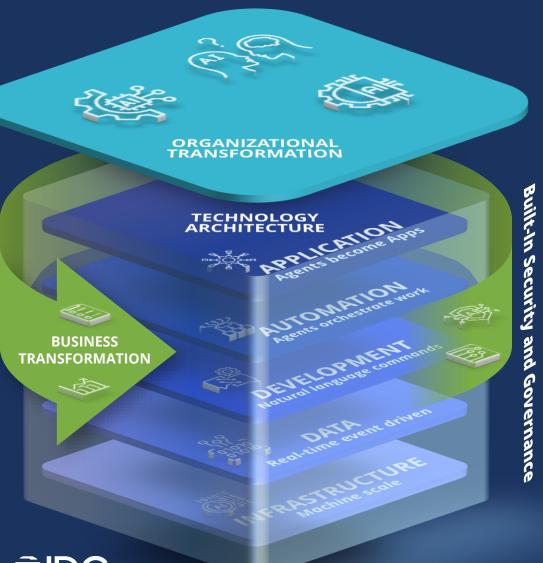
⬡IDC

Successful adoption hinges on business and culture

Clear business objectives and use cases

56.9%

Organizational culture and change management

40.0%

Governance and ethical guidelines

37.7%

Human-AI collaboration frameworks

34.6%

Resilient security and compliance

33.8%

Source: WW CIO Quick Poll (AI Agents), Feb 2025, N=130

Agentic AI

Playbook for corporate innovation
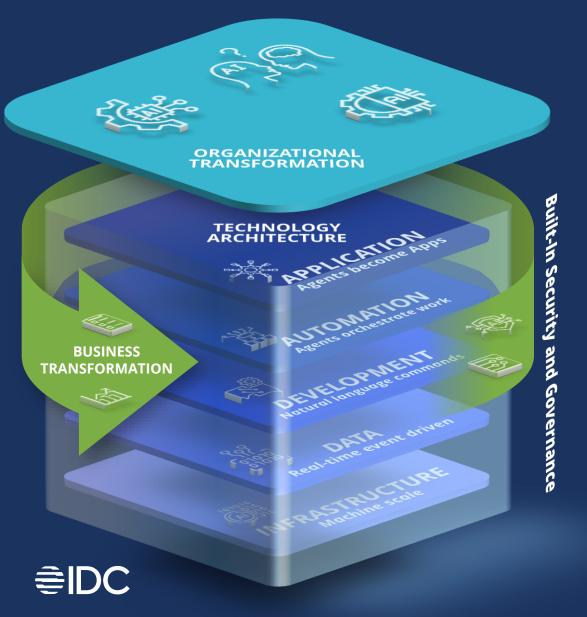
Business transformation for agentic AI era

Goal setting

Decisioning framework
High value use cases

Measurement and optimization

Risk management and governance

Agentic AI governance: From policies to practice

Over 30% survey respondents note governance and ethical guidelines, resilient security, and compliance as important factors for success

Proactive risk management – Build trust

Transparency

Ensure that stakeholders have a clear understanding of how AI agents reach decisions

Compliance

Integrate regulatory safeguards into AI workflows to prevent any breaches

Accountability

Establish frameworks that monitor outcomes and attribute responsibility for AI-driven choices
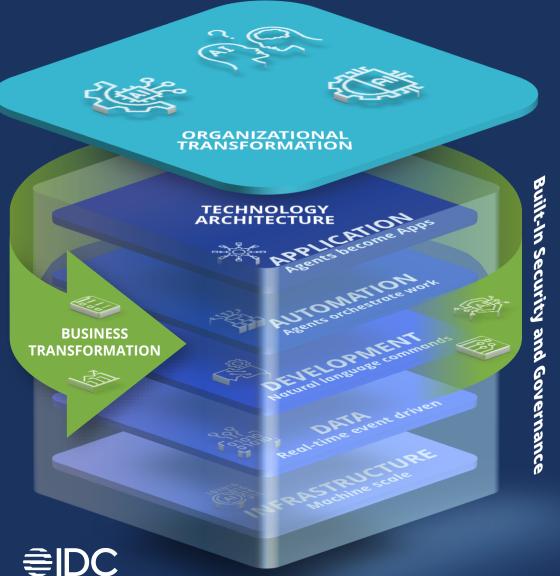
Adopt AI governance platforms to monitor and control agent behavior.
Incorporate real-time audit trails to ensure every action executed by an AI agent is traceable and verifiable. This transparency not only fosters trust but also minimizes the likelihood of operational errors, reinforcing the reliability and dependability of AI systems.

Organizational transformation for agentic AI era

ORGANIZATIONAL TRANSFORMATION

TECHNOLOGY ARCHITECTURE

APPLICATION
Agents become Apps

AUTOMATION
Agents orchestrate work

DEVELOPMENT
Natural language commands

DATA
Real-time event driven

INFRASTRUCTURE
Machine scale

BUSINESS TRANSFORMATION

Built-In Security and Governance

Relationships between AI and people
AI as assistant | AI as digital labor | AI as "army" of digital labor

Evolving work models
AI job roles | Required skills | Metrics

Services role transformation
As-needed human advice/talent | Business value alignment frameworks| Monetization evolution to expertise/outcome-based

3

Agentic AI

Disruptive impact on technology architecture

It is a journey at an **accelerated pace** like never before!

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Machine scale

Built-In Security and Governance

IDC

Infrastructure for agentic AI era

3

Operations
Policy driven AIOps, autonomously acted

Control planes and APIs
Machine created APIs and robust abstraction layer unifies hybrid system and storage operations

System architectures
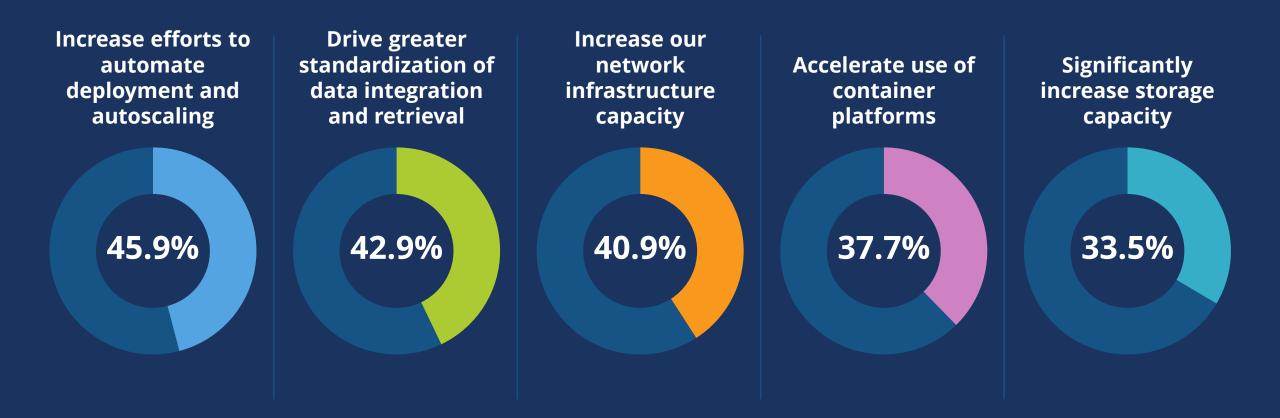Edge-centric, inferencing intensive, fit-for-purpose processors

Deployment
Highly interconnected data & workload driven deployment diversity

Consumption
Policy optimized and workload aware

APPLICATION

AUTOMATION

DEVELOPMENT

DATA

INFRASTRUCTURE
Machine scale

Agentic AI driven infrastructure investment priorities for 2025

3

Increase efforts to automate deployment and autoscaling

45.9%

Drive greater standardization of data integration and retrieval

42.9%

Increase our network infrastructure capacity

40.9%

Accelerate use of container platforms

37.7%

Significantly increase storage capacity

33.5%

IDC

Enterprise intelligence: data stack for agentic AI era

APPLICATION
Agents become Apps

AUTOMATION
Agents orchestrate work

DEVELOPMENT
Natural language commands

DATA
Real-time event driven

INFRASTRUCTURE
Machine scale

Built-In Security and Governance

Enterprise intelligence: data stack for agentic AI era

Business Activity Plane
Data Synthesis Plane
Data Control Plane
Data Plane

DATA
Real-time event driven

Business activity
Agent actions: Dynamic insights, Autonomous operations and Decisioning support

Data synthesis
New capabilities: RAG, Graph, Search and multimodal

Data control
Real-time data, policy, and change intelligence inform agents of events upon which they can act

Data & content management
Event brokering, change enabled table formats and systems, vector, graph and synthetic data

APPLICATION
AUTOMATION
DEVELOPMENT
INFRASTRUCTURE

Investment priorities for agentic AI

61% Data Quality and Governance

38% Data Integration

Software development in agentic AI era

APPLICATION
Agents become Apps

AUTOMATION
Agents orchestrate work

DEVELOPMENT
Natural language commands

DATA
Real-time event driven

INFRASTRUCTURE
Machine scale

Built-in Security and Governance

Software development in agentic AI era

DEVELOPMENT
Natural language commands

APPLICATION

AUTOMATION

DATA

INFRASTRUCTURE

ADLC

AI

Agents take responsibility for development

Increased investment in personalized software built by AI agents

SDLC transitions to ADLC
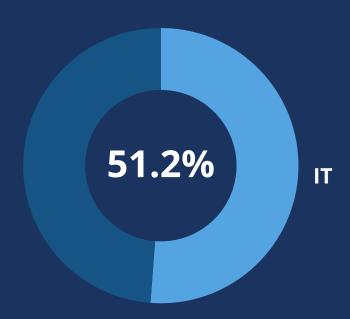
AI agent builder platforms alongside code editors, IDEs; **AI-assisted developer tools** transition from copilots to agents

Natural Language – language for development

IDC

Focus area for integrating agentic AI

51.2% IT

◉IDC **Prediction**

By 2029, GenAI-based software testing tools, capable of writing **85%** of tests, will be augmented by AI agents and agentic workflows, improving code coverage and quality, but demanding governance.

Enterprise automation fabric in agentic AI era

APPLICATION
Agents become Apps

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Natural language commands

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Real-time event driven

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Machine scale

Built-In Security and Governance

Enterprise automation fabric in agentic AI era

AI agents begin to orchestrate work

AI agents create draft automation apps

AI assistants accelerate automation development & optimization

Predictive models   RPA bots

AI Assistants   AI Agents

Tool foundation expands

Deterministic, Predictive/Interpretive, Generative/Agentic

IDC Prediction

By 2026, **20%** of frustrated knowledge workers with no development experience will take charge of transforming how they work by building their own agentic workflows, improving cycle times by **40%**.

Enterprise applications stack in agentic AI era

APPLICATION
Agents become Apps

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Natural language commands

DATA
Real-time event driven

INFRASTRUCTURE
Machine scale

Built-In Security and Governance

Enterprise applications stack in agentic AI era

APPLICATION
Agents become Apps

AUTOMATION

DEVELOPMENT

DATA

INFRASTRUCTURE

Agent as apps – workforce – Self-learning

Agents provide
core functions within apps –
connect data and workflows

Agent led Agents become the workflow
within and across apps

AI infused AI is the UI
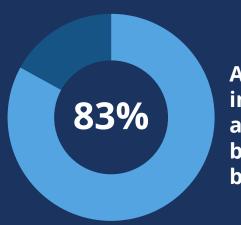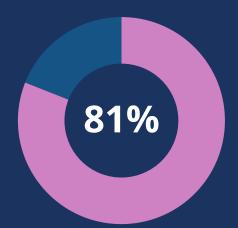
AI assisted Systems of record/experience

High percentage of survey respondents agree/strongly agree on agents as apps and packaged apps disruption

3

83% — **AI agents create a new intelligence layer over apps, eliminating barriers to switching between app vendors**

81% — **AI agents are the new enterprise apps, triggering reconsideration of our investments in packaged apps**

Essential guidance

0-12 months
Proof of concepts

- Prioritize core differentiated business areas
- Assess your readiness and evaluate use case specific build vs. buy/customize strategy
- Establish clear top-down policies, governance and guardrails
- Establish an event-driven data strategy
- Assess agentic AI infrastructure impact
- Explore green field opportunities for agentic automation
- Redesign people strategies for an autonomous world

12-24 months
Focused rollouts

- Experiment with metrics and KPIs
- Develop business semantics
- Implement policy driven automation for Infrastructure
- Prepare to embrace agent led workflows
- Determine what practices will be services-led and which will be in-house
- Reskill employees for hybrid human-agent work model
- Strive for limited autonomy – focus on low-risk workflows

24-36 months
Prepare for scale

- Prepare to replace traditional system of intelligence w/ multi-agent architectures
- Extend cloud-to- edge agentic AI ops
- Expand use of multi-agent development and deployment
- Consider new business models that value services expertise in new ways
- Establish AI governance controls
- Redeploy talent to work alongside agents and expand autonomy for broader use cases - workflows

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In closing: Key takeaways

Is SaaS dead?

- SaaS remains viable as a business model (subscription/consumption)
- Agents eliminate barriers to switching applications
- Agents initiate business process as a service

Is RPA dead?

- RPA for repetitive, structured tasks
- Agentic AI - advanced autonomous automation
- Enterprise automation toolbox evolves - aligns with specific use cases

Are AI agents job disruptors / creators?

- Agentic AI extends automation to knowledge workers
- Drives significant job displacements in certain sectors
- Creates new jobs in certain sectors

IDC

Case studies: Early adopters
Varied levels of autonomy - mindful of risks

Drug discovery
Chemical synthesis process – best time to conduct solvent switch

Market research
Complex topics like analyzing the financial fitness of a company

Code development
Marketing campaigns
Home-grown agent framework orchestrator – semi-autonomous

Is your company the future?

The future belongs to organizations that can navigate the complexities of human-machine collaboration with speed, precision, and trust.

60
IDC Directions