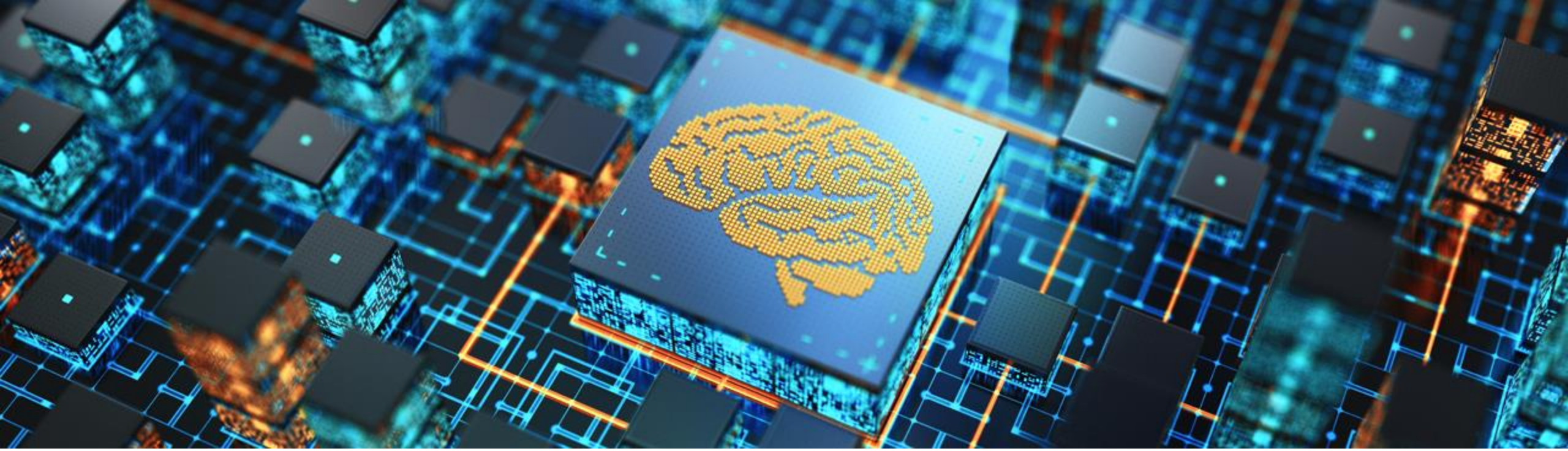

Generative AI Adoption – Examining Real-world Use in Horizontal Functions and Future Outlook

June 2024

Market Report

Artificial Intelligence (AI)

POWERED BY CALYPSOAI

Everest Group®

Our research offerings

This report is included in the following research program(s):

Artificial Intelligence (AI)

- Amazon Web Services (AWS)
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- Cloud and Infrastructure
- Contingent Staffing
- Contingent Workforce Management
- Customer Experience Management Services
- CX Excellence
- CXM Technology
- Cybersecurity
- Cyber Threat Detection and Response
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- Employee Experience Management (EXM) Platforms
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- Financial Crime and Compliance Operations
- Financial Services Technology (FinTech)
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- Global Business Services
- Google Cloud
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- Insurance Information Technology
- Insurance Technology (InsurTech)
- Insurance Third-Party Administration (TPA) Services
- Intelligent Document Processing
- Interactive Experience (IX) Services
- IT Services Excellence
- IT Talent Excellence
- Life Sciences Business Process
- Life Sciences Commercial Technologies
- Life Sciences Information Technology
- Locations Insider™
- Marketing Services
- Market Vista™
- Microsoft Azure
- Microsoft Business Application Services
- Modern Application Development (MAD)
- Mortgage Operations
- Multi-country Payroll
- Network Services and 5G
- Oracle Services
- Outsourcing Excellence
- Payer and Provider Business Process
- Payer and Provider Information Technology
- Price Genius – AMS Solution and Pricing Tool
- Pricing Analytics as a Service
- Process Intelligence
- Process Orchestration
- Procurement and Supply Chain
- Recruitment
- Retail and CPG IT Services
- Retirement Technologies
- Revenue Cycle Management
- Rewards and Recognition
- SAP Services
- Service Optimization Technologies
- Software Product Engineering Services
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Contents

For more information on this and other research published by Everest Group, please contact us:

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Introduction and overview

Background of the research

Our research methodology is based on four pillars of strength to produce actionable and insightful research for the industry

01 Robust definitions and frameworks

Function-specific pyramid, Total Value Equation (TVE), PEAK Matrix®, and market maturity

02 Primary sources of information

Annual contractual and operational RFIs, provider briefings and buyer interviews, web-based surveys

03 Diverse set of market touchpoints

Ongoing interactions across key stakeholders, input from a mix of perspectives and interests

04 Fact-based research

Data-driven analysis with expert perspectives, trend-analysis across market adoption, contracting, and providers

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Proprietary contractual database of over 1000+ AI contracts (updated annually)

Year-round tracking of 25+ AI service providers

Large repository of existing research in AI

Over 30 years of experience advising clients on strategic IT, business services, engineering services, and sourcing

Executive-level relationships with buyers, providers, technology providers, and industry associations

Background of the research

Gen AI technology is moving at a break-neck speed. While perspectives and opinions abound, limited research, if any, **distills insights from real-world data.**

This research, conducted in collaboration with CalypsoAI, brings to the fore insights based on validated instances of gen AI adoption in various horizontal functions across industries. It will help establish a view based on the ground reality and help readers cut through the noise around gen AI.

The data is indicative of primarily large enterprises in North America, and we will update it periodically to include a wider cross-section of geographies, use cases, and enterprise types.

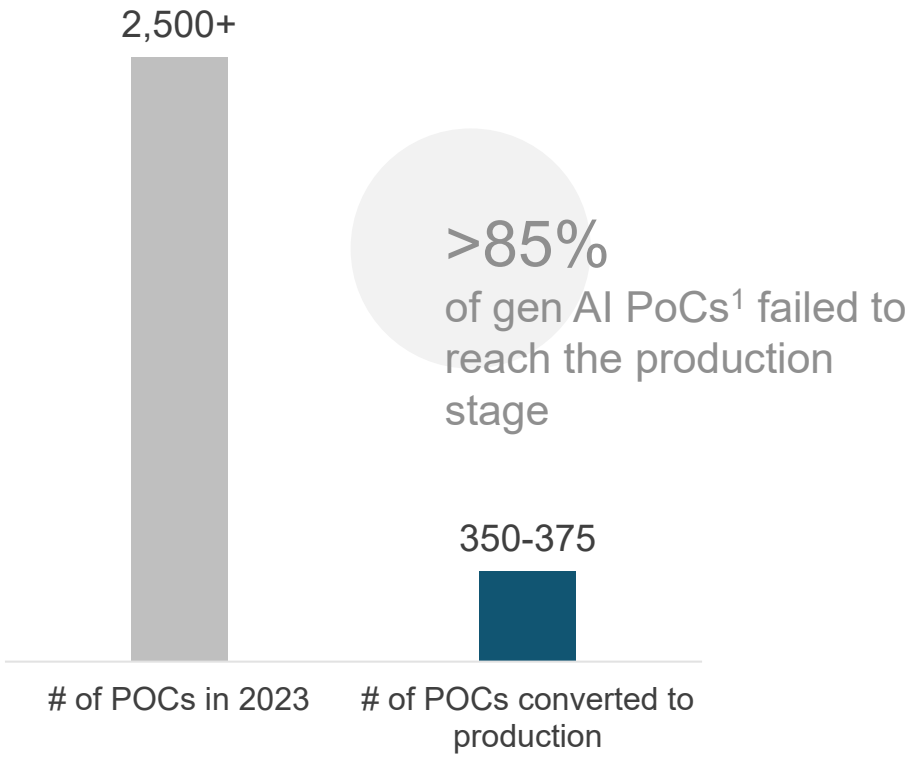
Gen AI – current state of adoption in horizontal functions

Gen AI use cases – pilot versus production

Function-specific adoption trends and use cases

Industry-specific adoption trends and use cases

The market is turning impatient as more than 85% of Proofs of Concept (PoCs) have failed to move to production



Chief Investment Officer (CIO) perspective

Executives are **losing patience** with experimental PoCs and pilots.

To keep costs down while driving the movement to full-scale production, **enterprises are using different models for specific use cases**, including Small Language Models (SLM).

While it is still early to consider the rise of SLM as an impactful trend, it is important to note that this trend is creating the problem of model sprawl, which requires its own governance and orchestration layer.

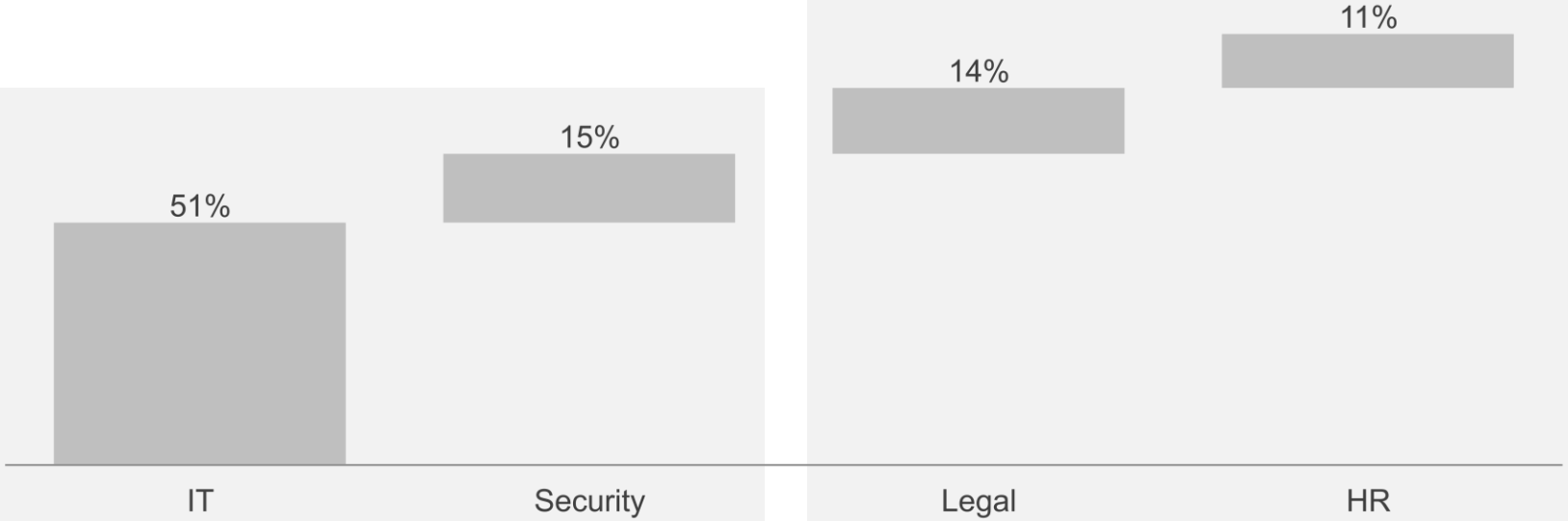
1 Based on Everest Group proprietary data from 30+ AI service providers

IT leads the charge in gen AI adoption

[NOT EXHAUSTIVE]

Gen AI adoption across key horizontal functions

Enterprises with scaled implementation = 135



IT and security, which are technology-centric functions, are at the **forefront of adopting gen AI** and account for the majority share of enterprises' gen AI spend.

Notably, legal and HR, despite accounting for a smaller share of overall enterprise spend on gen AI, are showing **a strong appetite for gen AI** to process large unstructured document volumes.

While the data set examined does not include customer support and sales and marketing, evidence indicates that these functions also have high gen AI adoption rates.

Use cases across functions address efficiency and productivity improvements, spanning content generation, ingestion, and pattern detection

RANK	IT	Security	HR	Legal
1	Automated code generation and debugging	Threat detection and response	Recruitment and talent acquisition	Document review and analysis
2	Enhanced cybersecurity	Phishing detection and prevention	Employee onboarding	Drafting legal documents
3	Virtual assistance and support	Anomaly detection	Customized learning and development	Compliance and regulatory monitoring
4	Software testing and quality assurance	AI security chatbots	HR operations	Legal chatbots and virtual assistants

Automated code generation and debugging are the top use case for IT whereas effective threat detection and response are the top use case in security

Top gen AI use cases in IT[1] and security[2]

IT		Security	
Automated code generation and debugging	35%	Threat detection and response	38%
Enhanced cybersecurity	30%	Phishing detection and prevention	32%
Virtual assistance and support	20%	Anomaly detection	20%
Software testing and quality assurance	15%	AI security chatbots	10%

- In addition to building code, gen AI is being used to assist in testing, debugging, and patching applications
- Threat/Anomaly detection relies on finding patterns and has long seen the application of AI. Larger foundational models have accelerated AI adoption in this area
- Gen AI-powered chatbots offering IT and security support help reduce the volume of support requests to contact centers

1 Percentage of total enterprises with scaled implementation of a particular use case in IT
2 Percentage of total enterprises with scaled implementation of a particular use case in security
Source: CalypsoAI (2024)

While gen AI finds applicability across the hire-to-retire cycle, it finds the highest adoption in talent acquisition; Legal predominantly leverages gen AI in document-centric processes

Top gen AI use cases in HR[1] and legal [2]

- Resume screening and candidate matching are top use case in talent acquisition
- Gen AI is currently used to personalize learning paths within the L&D function, but it can potentially be used to create content too
- Other use cases include the automation of operational tasks in payroll, benefits, and employee onboarding

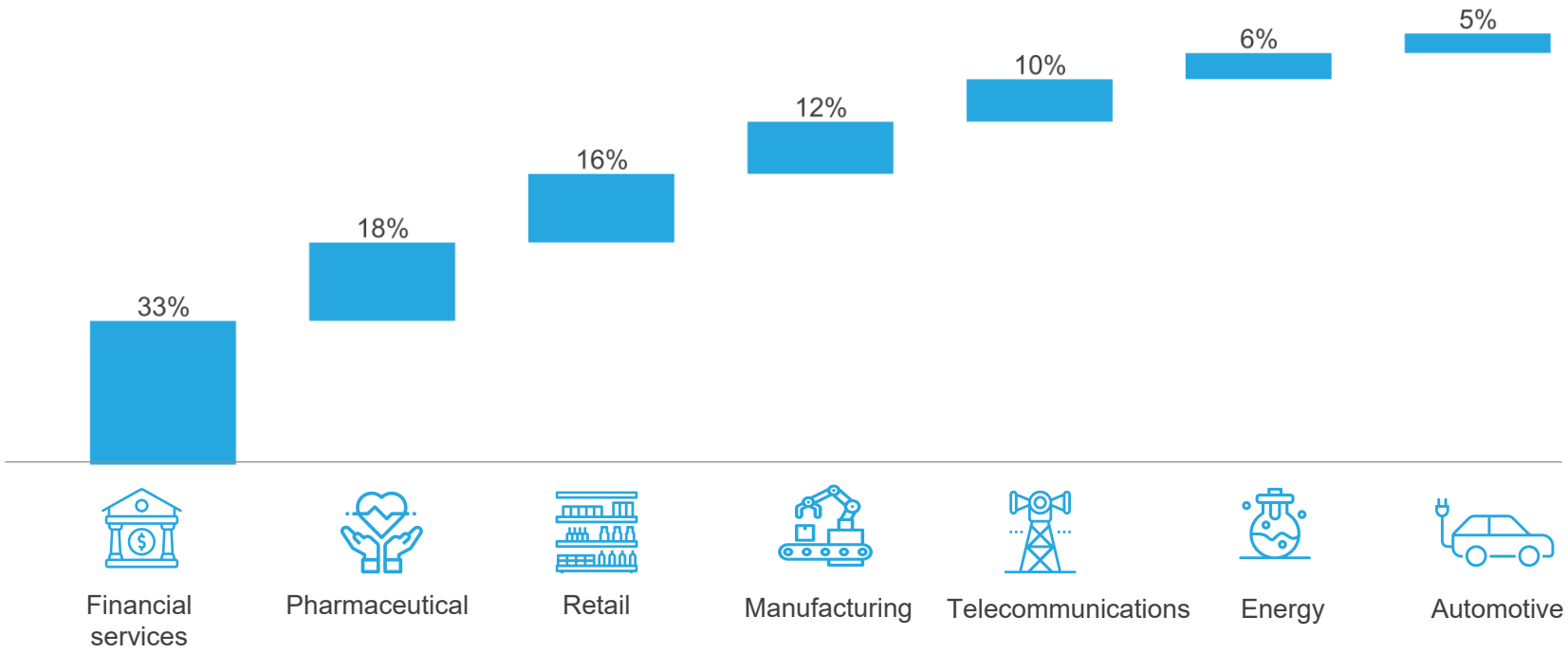
HR		Legal	
Talent acquisition	40%	Document review and analysis	35%
Employee onboarding	25%	Drafting legal documents	30%
Learning and Development (L&D)	20%	Compliance and regulatory monitoring	20%
HR operations	15%	Legal chatbots and virtual assistants	15%

- Large Language Models (LLMs) have significantly enhanced the effectiveness of AI in reviewing contracts and legal documents
- LLMs are also helping to create initial drafts of complex legal documents, based on templates used in training data sets
- With specialized training and/or fine-tuning, we expect to see more legal chatbots answering increasingly complex client queries

1 Percentage of total enterprises with scaled implementation of a particular use case in HR
2 Percentage of total enterprises with scaled implementation for the particular use case across Legal function
Source: CalypsoAI (2024)

Financial services and pharmaceutical together account for about half of gen AI adoption across verticals

Gen AI adoption across key industries



While the data set examined does not contain the technology industry, broader evidence indicates that gen AI adoption is also high in this industry.

Source: CalypsoAI (2024)

Beyond horizontal functions, gen AI also finds applicability in various industry-specific use cases

RANK	Finance	Technology	Pharmaceutical	Retail	Manufacturing	Telecommunications	Energy	Automotive
1	Fraud detection and management	Software development	Drug discovery and development	Personalized marketing and promotions	Predictive maintenance	Network optimization	Smart grid management	Autonomous vehicle training
2	Enhanced cybersecurity	Customer support automation	Protein structure prediction	Supply chain and inventory management	Production planning	Fraud detection in telecommunication	Predictive maintenance for energy assets	Smart manufacturing

Barriers in adopting gen AI

Top challenges CIOs face with gen AI adoption

Key risks in adopting gen AI

Corporate guardrails for gen AI

Though enterprises are interested in adopting gen AI, they are yet to identify what constitutes success for the technology

Top challenges CIOs face with gen AI adoption

By percentage of enterprise leaders who counted the specific challenge as one of their top three concerns

73%

Lack of clarity on success metrics

68%

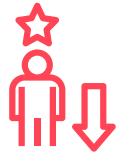
Budget/Cost concerns

64%

Fast-evolving technology landscape

55%

Data security and privacy concerns



41%

Talent shortage

Source: Everest Group (2024)

CIOs grapple with four key risks when adopting gen AI

[NOT EXHAUSTIVE]

Degree of concern: High | Medium | Low

		Impact magnitude	Continuity and business Impact	Trigger stage
01 Data security and privacy	Confidentiality – using confidential data for model training	• Financial loss • Legal implications • Reputational damage	Existential threat	Data collection and storage
	Data leakage – exposure of private information			
	Data reliability – incorrect output			
	Plagiarism – using copywritten data produced by LLMs			
02 Interpretability	Trustworthiness	• Social impact • Reputational damage	Product/service level threat	Model development and deployment
	Hallucinations			
	Deepfakes			
	Data reliability			
03 Ownership and responsibility	Copyright/Ownership – protecting IP generated by gen AI	• Legal implications • Reputational damage	Product/service level threat	Post deployment
	Accountability – legal issues arising from incorrect data generated or IP infringement			
04 Bias and ethical considerations	Biased output	Social impact	Limited/no impact	Training data and model training
	Unethical responses			

While regulators move to build legal frameworks around AI, organizations are putting their own guardrails in place

AI expertise in legal firms

- Recent regulations are pushing legal firms to build AI expertise to better advise clients
- Legal teams will become more involved in decision-making

BRYAN CAVE LEIGHTON PAISNER BCLP

Auditing AI

- Oversight groups will carry out internal auditing on gen AI use cases and tools
- Third-party auditing and validation of gen AI models and solutions to ensure safe implementation

Deloitte.

TOYOTA

AI provider accountability

- IP indemnity for clients to address legal challenges that result from using AI products
- Explicit creator permission and compensation

Adobe

gettyimages®

Microsoft

Responsible gen AI consortiums

Collaboration among AI developers, providers, research institutes, and/or regulatory bodies to accelerate responsible AI practices

AI Responsible Artificial Intelligence Institute

IBM

Meta

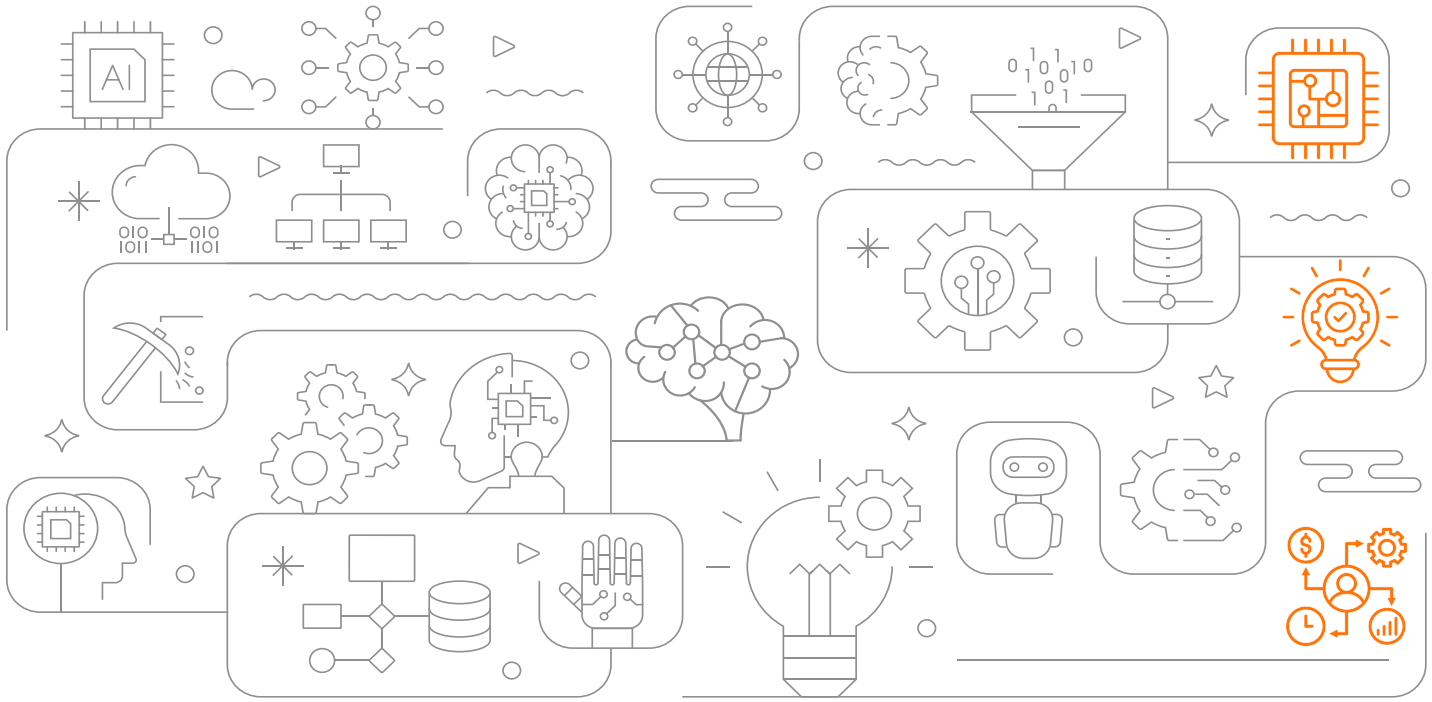
Future outlook

Core technologies

Nature of solutions

Anticipated impact

The generative AI landscape is evolving rapidly, improving adoption and capabilities, significantly impacting business functions' priorities



Core technologies

- Gen AI compute is moving to the edge
- Resource efficiency challenges are resulting in the rise of SLMs
- Proliferation of models is creating the need for orchestration

Nature of solutions

Agentic AI is moving the needle from knowledge-based assistance to goal-fulfillment and process automation

Anticipated impact

- Gen AI adoption is expected to increase across the board
- It will improve productivity and impact the nature of work across functions

Efficient models combined with transformation in AI computing will enable AI at edge, leading to personalization

Ultra personalization

Next-level personalization with low latency as gen AI reaches smartphones and wearables

> We are starting to see, as early as 2024, some very interesting use cases, even with flagship [smartphones].
>
> – Cristiano Amon, President and CEO, Qualcomm

Next generation of robotics

A high level of intelligence and adaptability, as robots leverage gen AI to become more sociable and handle complex tasks

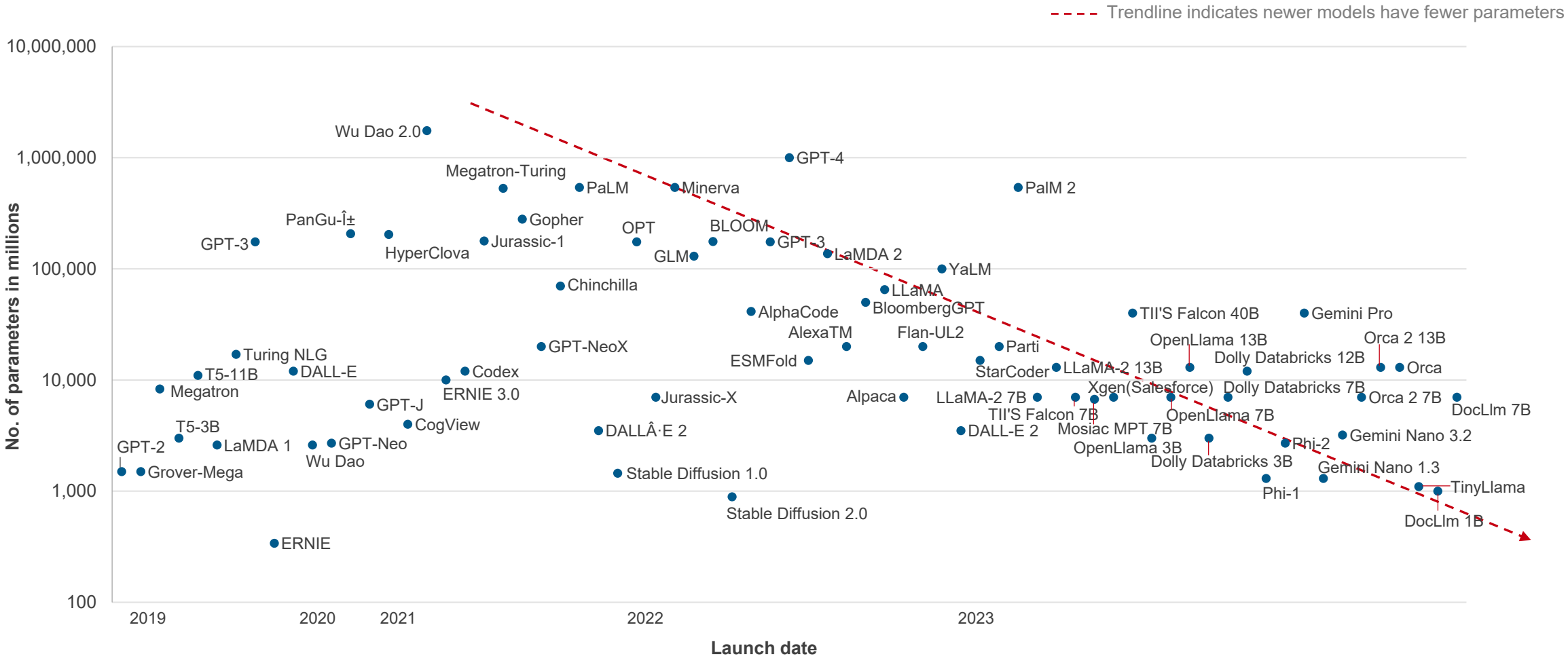
> LLMs will enable robots to more easily understand human instructions, learn from one another, and comprehend their environments.
>
> — Deepu Talla, Vice President and General Manager, Mobile Business Unit, NVIDIA

Personal LLMs

Incorporation of LLMs in existing smartphones or an upgrade cycle for smartphones that support gen AI applications

> We plan to build a complete edge computing ecosystem designed to accelerate AI application development on devices.
>
> – MediaTek, a Taiwanese semiconductor company

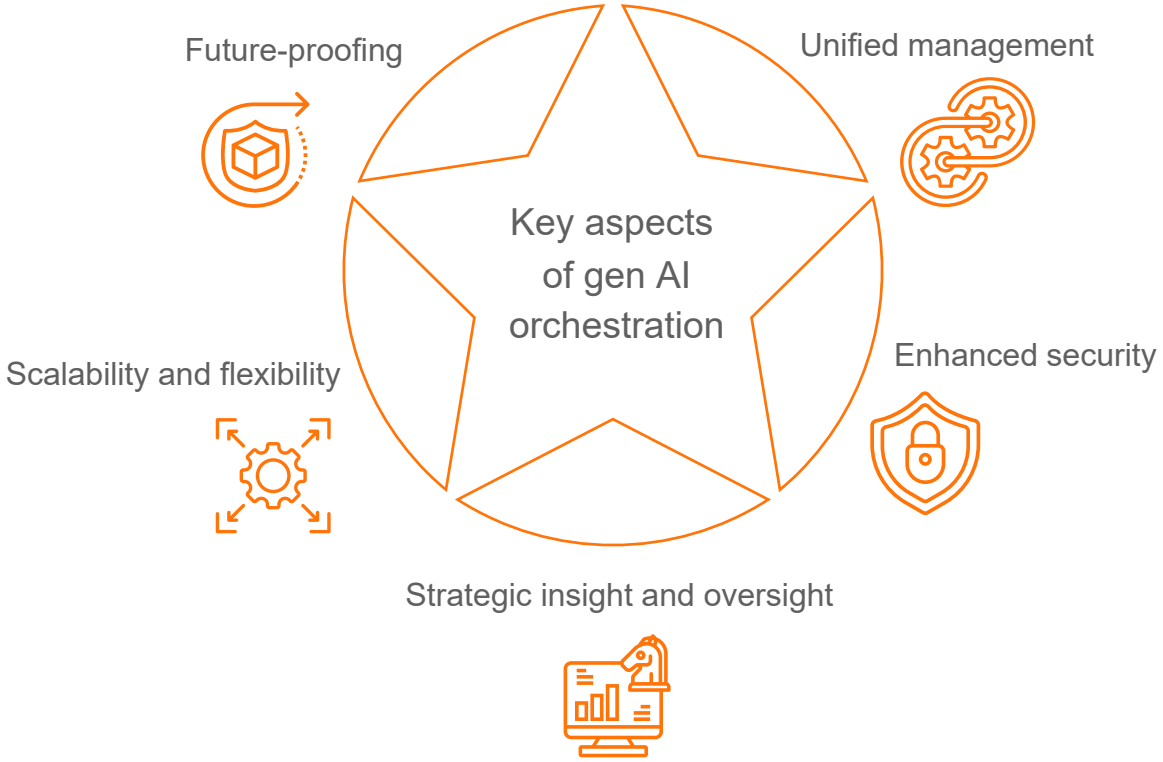
Model developers are launching smaller and more efficient foundational models, including SLMs



Source: Everest Group (2024)

AI orchestration will be necessary to manage the tech sprawl, including LLMs, SLMs, and multi-modal models

AI orchestration is the strategic management and integration of multiple gen AI functions within an enterprise's technology framework, including various LLMs and multi-modal systems. This comprehensive approach ensures the seamless coordination of diverse AI capabilities across different operational domains, enhancing functionality and security.



Agentic AI in the enterprise will move the needle from knowledge-based assistance to action-oriented automation

Examples of agentic AI software

Gen AI-powered coding assistant tool

Copilot

Duet AI in Google Workspace

- Generates code snippets, completes code, and suggests fixes or improvements during coding sessions
- Generates deployment scripts, configuration files, and deployment instructions for setting up environments

Autonomous AI agent

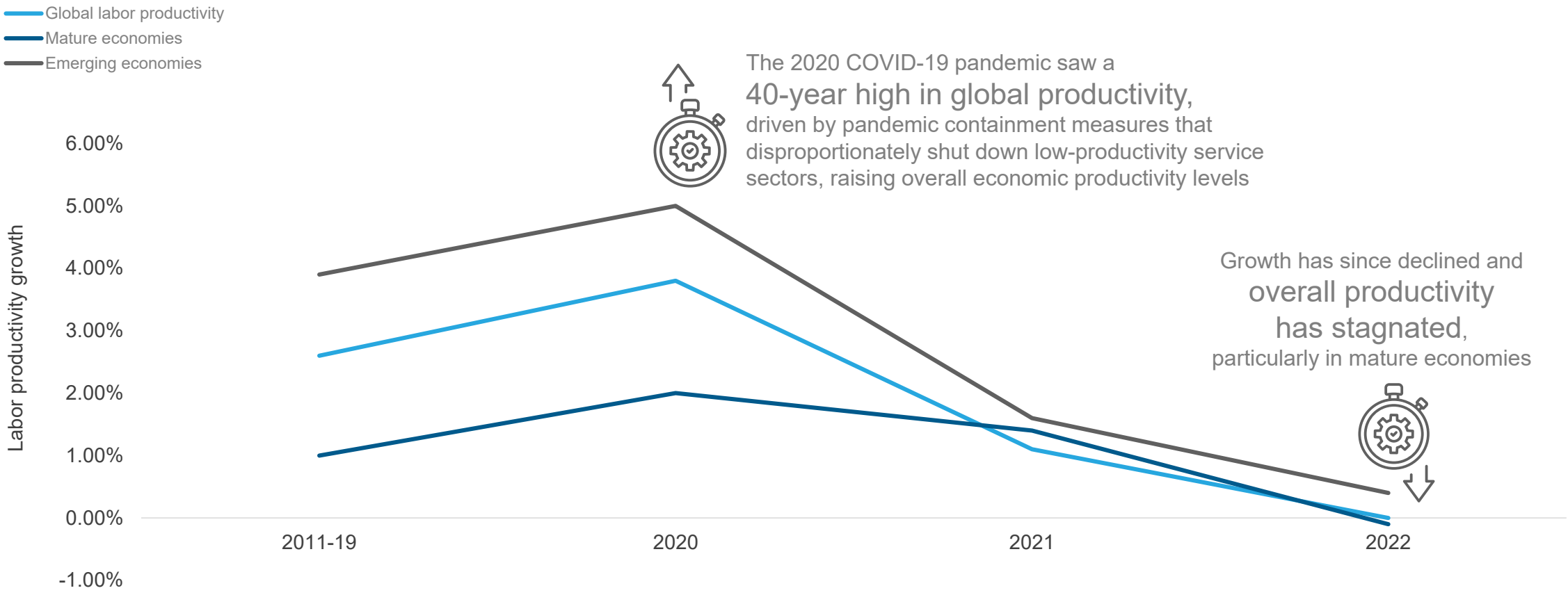
Devin

Magic

- Streamlines the development process, from conceptualizing interactive websites to deploying fully functional applications
- Beyond code generation, Devin excels in maintaining and troubleshooting codebases and deploying the solution

Parameter	gen AI	Agentic AI
Purpose	Designed to create new content based on patterns in existing data	Designed to act on behalf of users, making decisions or taking actions
Functionality	Focuses on generating code, text, images, music, etc.	Focuses on performing tasks, solving problems, or managing processes
Decision-making	Limited to creating outputs based on input without making decisions	Capable of making autonomous decisions based on pre-set criteria or learning

Global labor productivity has declined since its 2020 peak, but gen AI can reverse this trend by boosting productivity in key enterprise functions

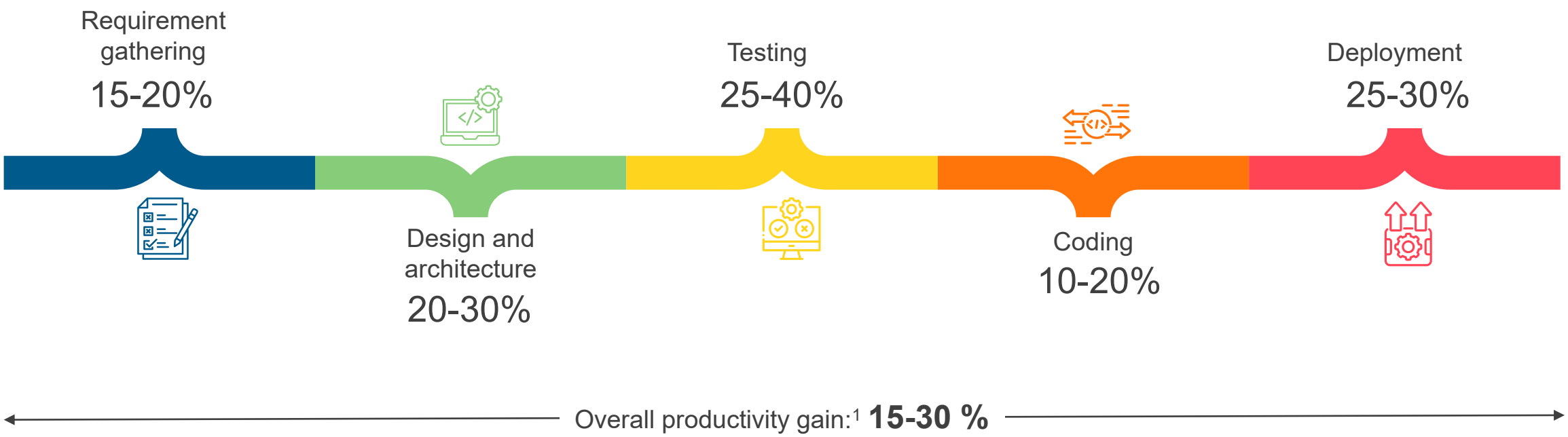


Source: The conference board

Global labor productivity has declined since its 2020 peak, but gen AI can reverse this trend by boosting productivity in key enterprise functions

Productivity in the software development life cycle through gen AI

Productivity gains through gen AI[1]



1 Everest Group estimates

The promise of productivity gains combined with broadening gen AI decision rights will accelerate adoption across the board

Adoption trends and outlook of gen AI across horizontal functions

Low ○○○○○ Very high

	HR	Legal	IT	Security	??	??
Interest	●●●●○	●●●●○	●●●●●	●●●●●	○○○○○	○○○○○
Adoption	●●○○○	●●○○○	●●●●○	●●●○○	○○○○○	○○○○○
Outlook	●●●○○	●●●○○	●●●●●	●●●●●	○○○○○	○○○○○

Functions included are based on the examined data set. Gen AI has broad applicability across many other functions/areas, including customer support, marketing services, and industry-specific functions.

Gen AI will also change the dynamics of functional priorities and impact employment

Impact on employment requirement: Reduce ○ ○ ○ ○ ○ Increase

Function	Employment impact	Expected change
HR	●●●○○	• Admin work will decrease through automation • Increased focus on employee/candidate experience and engagement
Legal	●●●○○	• Fewer in-house lawyers • Higher integration with business functions facilitating self-service in many cases
IT	●●●●○	• Lower cost of IT and higher volume of IT-based interventions • The IT function will play an enhanced role in facilitating and supporting business
Security	●●●●○	• AI adoption will enhance security capabilities • AI-leveraged attacks and other threats will outpace AI-based prevention mechanisms
Customer support	●●○○○	• Automated customer support leads to higher containment. Agent-assisted human customer support will mean more productivity • Increased depth and breadth of support will drive higher customer satisfaction
Marketing/ Sales	●●○○○	• Automated media content generation will reduce the time-to-market for marketing campaigns • Higher focus on providing personalized experiences to clients

Appendix

Glossary

Research calendar

Glossary of key terms used in this report

ACV	Annualized Contract Value is calculated by dividing the Total Contract Value (TCV) by the term of the contract
BPO	Business Process Outsourcing refers to the purchase of one or more processes or functions from a company in the business of providing such services at large or as a third-party provider
Buyer	The company/entity that purchases outsourcing services from a provider of such services
Contract term	The duration of the outsourcing contract. It drives the schedule over which the buyer or provider amortizes capitalized costs or the period over which Net Present Value (NPV) / Internal Rate of Return (IRR) is calculated
FAO	Finance and Accounting Outsourcing is the transfer of ownership of some, or all finance and accounting processes or functions to a provider. This could include administrative-, delivery-, or management-related processes or functions
FTEs	Full-Time Employees on the rolls of the company
GIC	Global In-house Centers are service delivery operations in low-cost geographies, which are owned and operated by the same company receiving the services (i.e., not third-party outsourcing)
HRO	Human Resources Outsourcing is the transfer of ownership of some, or all human resource processes or functions to a provider. This could include administrative-, delivery-, or management-related processes or functions
ITO	Information Technology Outsourcing is the transfer of ownership of some, or all information technology processes or functions to a provider. This could include administrative-, delivery-, or management-related processes or functions
TCV	Total Contract Value is the potential revenue associated with the contract and estimated at the commencement of the contract (e.g., sum total of revenue accrued to the provider from the contract over the entire contract term, usually measured in millions of dollars)

Research calendar

Artificial Intelligence (AI)

Published Current release Planned

Reports title	Release date
High-quality Curated Data: Scaling Up AI Using a Data-centric Approach	July 2023
Unleashing the Potential of Gen AI (GAI): A Game-changer for Property and Casualty (P&C) Insurance Claims	August 2023
Generative AI: the Next Chapter of Artificial Intelligence	September 2023
Webinar Deck: Untangling the Risks of Generative AI: Solutions to Your Safety Concerns	October 2023
AI Top 50	November 2023
Innovate or Stagnate: the Generative AI Imperative	November 2023
Artificial Intelligence (AI) Services PEAK Matrix® Assessment 2023	December 2023
Generative AI Solutions – Provider Compendium 2023	December 2023
Capturing the Generative AI Pulse	December 2023
Artificial Intelligence (AI) Services – Provider Compendium 2024	March 2024
Generative AI Adoption – Examining Real-world Use in Horizontal Functions and Future Outlook	June 2024
Powering Tomorrow: The Role of AI in Transforming Energy and Utilities	Q2 2024
Role of Synthetic Data in Scaling AI	Q2 2024
Data Annotation and Labeling (DAL) Solutions for AI/ML PEAK Matrix® for Services Assessment 2024	Q2 2024

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