KPMG

The future of cloud

Scaling performance, security and cost efficiency

Big Data & Cloud Computing 2025
Theme: Cloud, Data & AI Synergy: Driving Growth and Innovation

24 September 2025
Berkeley Hotel
Bangkok, Thailand

What strategic directions must enterprises consider to gain competitive advantages on the future of cloud?

Technology Focus…Today

Technology core
A lot of the hyperscalers pioneer the base infrastructure services

Capability enhancement
on technology core
IaaS, PaaS, SaaS

Business Disruption…Tomorrow

- Cloud-native adoption
  i.e. the Future of Enterprise AI
- Multi-cloud strategy
- Industry cloud acceleration
- Sovereign cloud considerations

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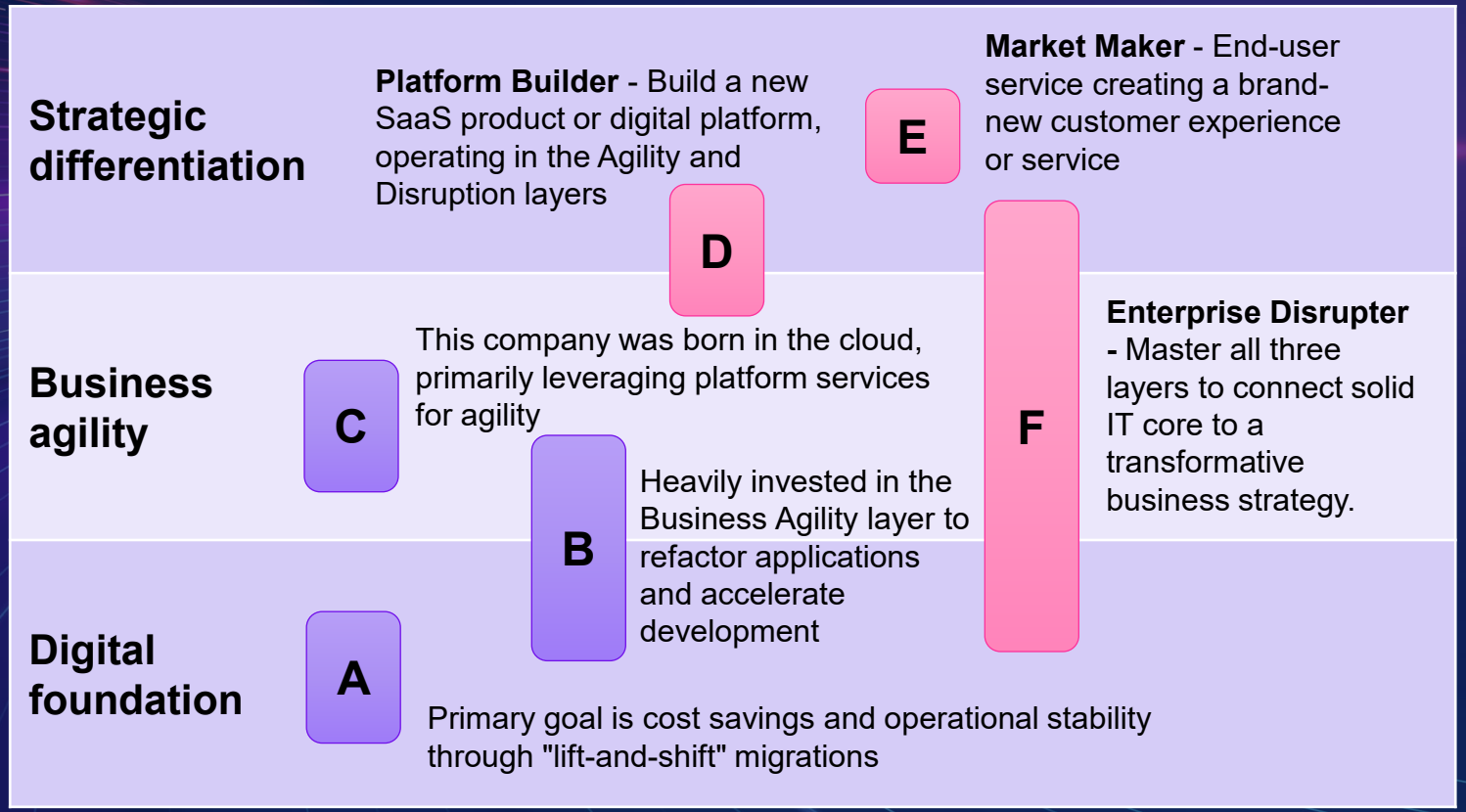
Leaders in digital transformation see cloud adoption as the engine for business disruption.

The future of IT

KPMG Global Tech Report 2023/2024

XaaS Champion

- **Exponential shift from on-premises to IT consumed as a service (XaaS)**
- **64 percent of respondents increased profitability or performance as a result of their digital transformation efforts with public cloud and XaaS technologies**



Source: KPMG The future of IT strategies to advance the IT function in a cloud and AI-enabled era

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Shaping cloud strategies

Global cloud outlook

Cloud adoption realities

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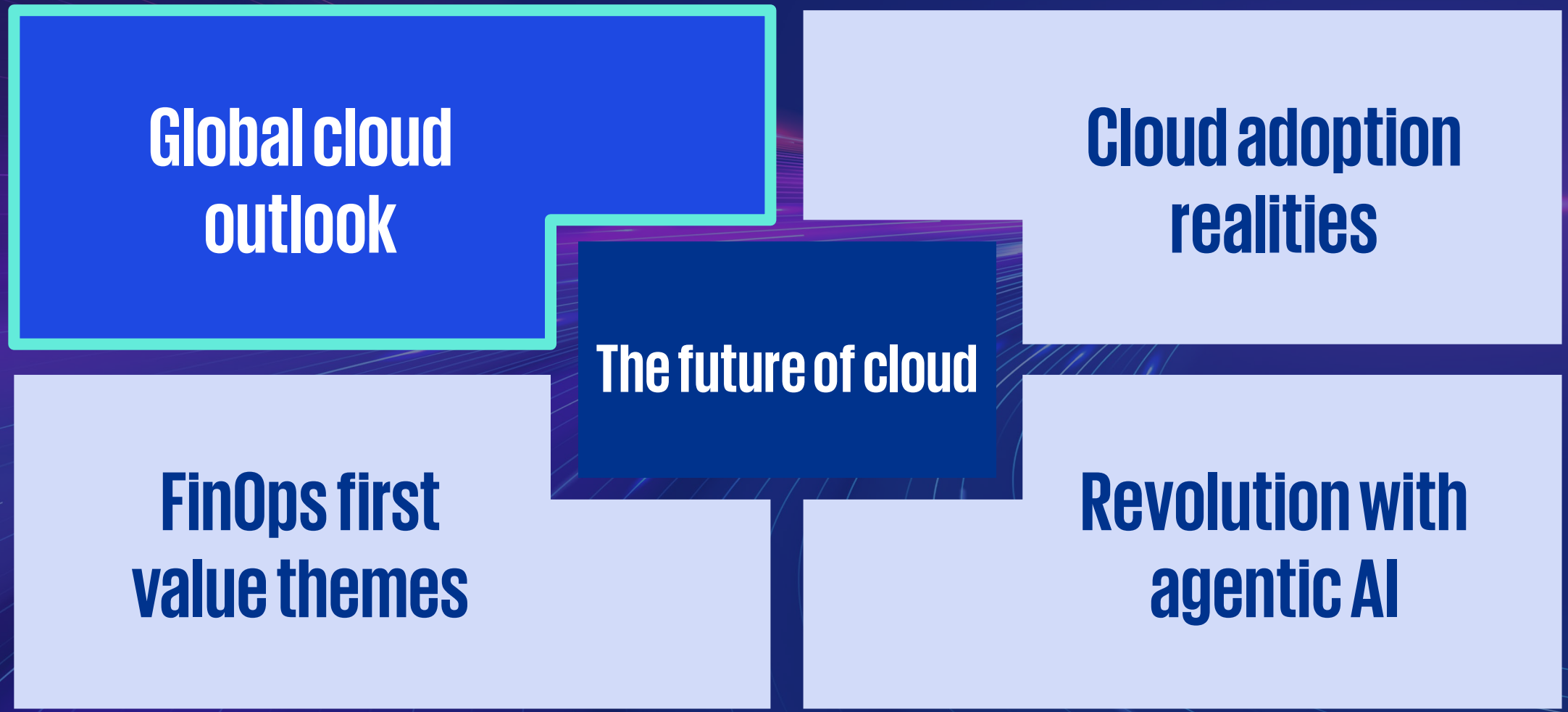
Shaping cloud strategies



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The macro-economic landscape of global cloud consumption

Worldwide End-User Spending on Public Cloud Services

2024

US$595.7 billion

21.5% YoY

2025

US$723.4 billion

2030-2032

US$2.2 trillion (est.)

Total cloud computing market

Source: Gartner Report

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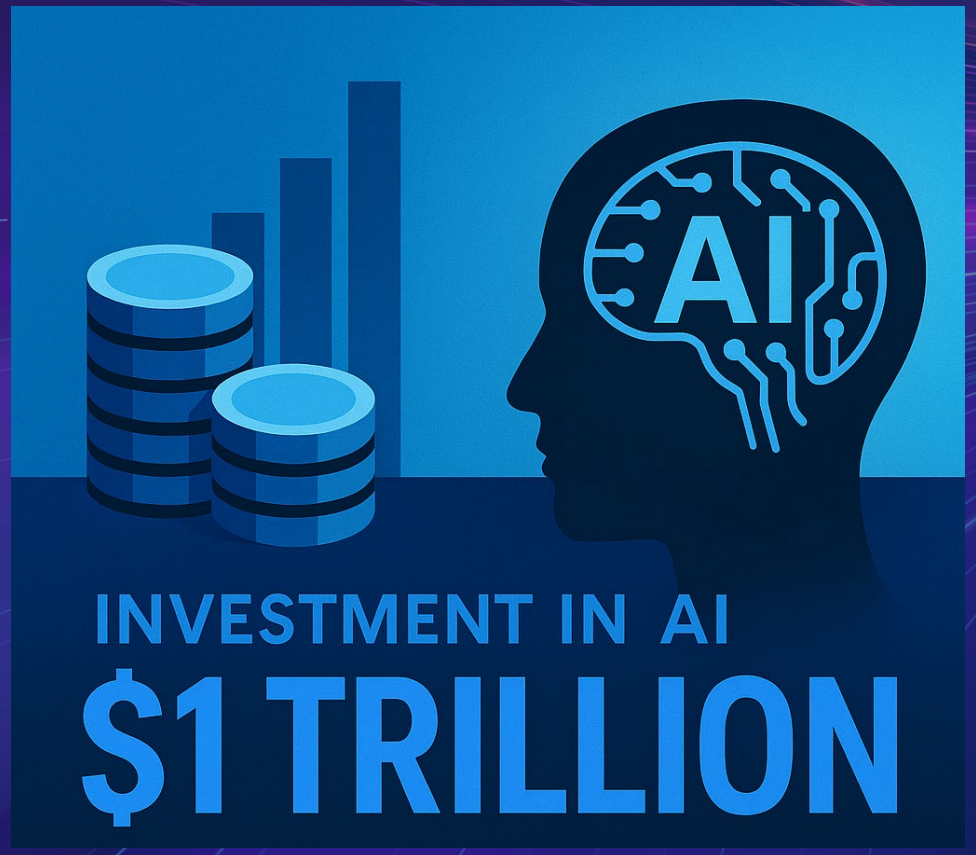
AI cloud titans race for trillions: Tech firms set to spend over USD 1 trillion on data center by 2026



Cloud suppliers and chipmakers are driving an AI boom, investing trillions to build new data centers and reshape enterprise technology.

AI disruption is now the core infrastructure for all enterprises; treating it as optional is no longer viable.

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Agentic AI market analysis

- *As advancements in technology continue to accelerate, leaders are charting a course to capitalize on innovative AI software functionalities.*
- *According to IDC – By 2029, 55% of the A2000 will suffer combined annual losses totaling over US$50 billion because of tech debt and lack of modernization as they struggle to protect older infrastructure and meet demand for AI.*

US$749B

By 2028, Global AI spending will surpass 749 billion

Source: IDC

US$47 billion

The Global Agentic AI market size is expected to be worth around USD 47.1 billion by 2030, from USD 5.1 billion in 2024

Source: Gartner

CAGR => 44%

Agentic AI market is growing at a CAGR of 43.8% during the forecast period from 2025 to 2034.

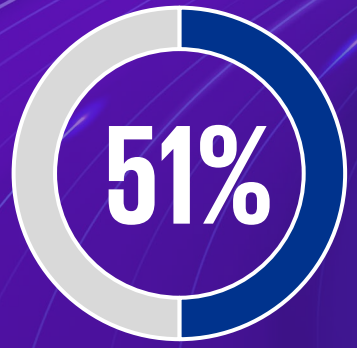
Source: Market US

2028: 33%

Gartner predicts that by 2028, 33% of enterprise software applications will include Agentic AI.

2024: Less than 1%

Source: Gartner



The KPMG AI Quarterly Pulse Survey reveals that 51% of organizations are exploring the use of AI agents, with another 37% piloting them.

Source: KPMG

2%

of business leaders believe AI will have a significant impact

1 year ago

45%

of business leaders believe AI will have a significant impact

Today

Source: KPMG AI Pulse Survey

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Geographical analysis: a world of differentiated cloud adoption

Rank	Region/country	2024 public cloud spending (USD billions)	Global market share (%) of public cloud	Key growth drivers/market characteristics
1	**United States**	**$432+**	**53%**	• *Mature, hyperscaler-led* • *AI-driven innovation* • *Early adopter of new technologies*
2	**Western Europe**	**$167**	**21%**	• *Strong growth* • *Heavily influenced by data sovereignty & GDPR* • *Steady adoption*
3	**China**	**$40**	**N/A**	• *Second-largest country market* • *Dominated by local providers* • *Geopolitically isolated*
4	**Asia-Pacific (excl. Japan and China)**	**$51+**	**6%**	• *Fastest-growing region* • *Mobile-first* • *Driven by digital transformations & emerging economies*
Key highlights from the Asia-Pacific (APAC) region				• *APAC is forecasted to achieve the **highest CAGR** of any region with estimates as **high as 25%.*** • *The expected total cloud spending is estimated to be **beyond US$200 billion annually**.* • *Rapid economic development in countries like India and Indonesia, coupled with increasing internet and mobile penetration, is creating a massive new user base for digital services.*

Source: Cloud Computing Market (2025-2030)

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Dissecting the cloud service stack: IaaS, PaaS, and SaaS

- *The global cloud computing market is not a single entity but a layered stack of services, each catering to different needs and exhibiting distinct market dynamics.*
- *The three primary service models: Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS) form the core of this stack.*

Service model	2024 spending (USD billions)	2025 projected spending (USD billions)	Year-on-Year growth (%)	Key growth drivers
Software as a Service (SaaS) ***The Dominant Incumbent***	**$250**	**$300**	**18.1% - 19.2%**	• *Business applications (CRM, ERM)* • *Ease of deployment* • *Mature market*
Platform as a Service (PaaS) ***The Engine of Innovation***	**$172**	**$209**	**19.1% - 21.6%**	• *Application development needs* • *Data management requirements* • *AI platforms (51.1% CAGR)*
Infrastructure as a Service (IaaS) ***The High-Growth Foundation***	**$170**	**$212**	**21.3% - 24.8%**	• *AI/ML workloads* • *Big data analytics* • *Digital transformations* • *Raw compute/storage needs*

Source: Gartner Report Global end-user cloud spend forecast 2024-2025

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The future of cloud is industry-specific

*More than **70%** of enterprises by 2027 will use industry clouds to accelerate their business initiatives. Source: Gartner*

Government

Healthcare

Manufacturing

Automobile

Retail

Banking

Factors accelerating adoption of industry clouds

Sector-specific compliance needs

Strict compliance standards and specialized security features varying across industries.

Packaged industry solutions

Unified, end-to-end custom solutions

Cloud as a utility

Organizations set data standards, enabling interoperability and reuse

Emerging tech implementation

Leverage AI, ML, IoT to streamline operations

Source: KPMG Industry Cloud Platforms

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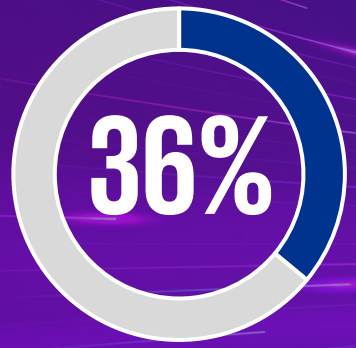
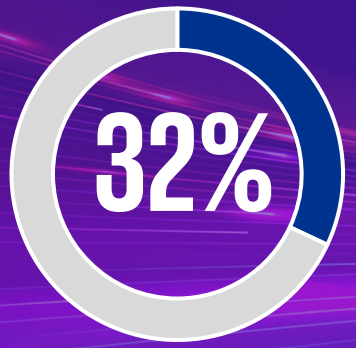
Building trust in the cloud

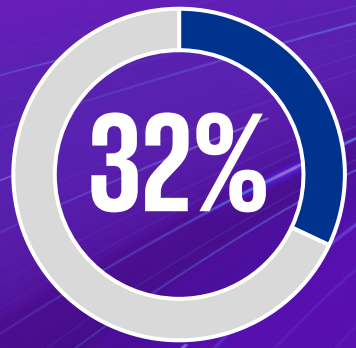
Top cyber threats in today's cloud landscape:



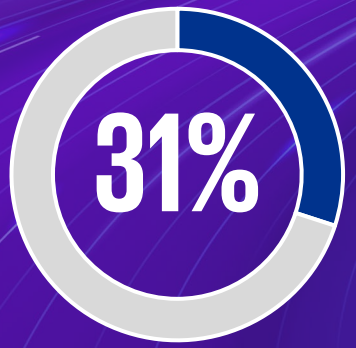
Malware that has moved laterally to cloud workloads



Unauthorized access by a third party



Attacks that result in data loss due to insecure use of APIs



Misuse of a privileged account, secrets, or access keys via stolen credentials

Top solutions to fighting these threats:

- Cloud strategy and governance
- Orchestration and automation
- Security analytics
- Managed services

Source: 2023 KPMG Cloud Transformation Survey: Building trust in cloud environments

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Cloud adoption realities - By organizational scale

Organization types	Top challenges	Primary value theme
Large corporations	Multi-cloud & cloud+ complexity	Enterprise-wide value realization
Medium enterprises	Expertise gap & tooling complexity	Operational efficiency & ROI
Small & medium sized enterprises (smes)	Foundational visibility & predictability	Cost predictability & control
Tech startups	Burn rate management & efficient growth	Capital efficiency for investors

Multi-cloud progression towards cloud maturity adoption

Tactical considerations

Cost, pricing, discounts, competition
Multi-cloud discovery or through acquisitions

Accepting change

Management/monitoring
Governance – best-of-breed
Complex workloads/integrations

Leveraging best practices

Portability
Dynamic provisioning/bursting
Availability

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Comparing IT service models: Legacy, public and private cloud

Legacy premises IT

- **Traditional on-site servers** and dedicated appliances in your own data center or plant room.
- **Single-tenant**, owned infrastructure managed by your IT team.
- **Limits**: Lower elasticity, longer provisioning, CapEx heavy.

IBM ACS 400

On-prem ERP (SAP ECC, Oracle E-Biz)

Local file/print servers, AD DS

Public cloud SaaS

- **Complete applications delivered over the internet;** you configure and use, provider runs everything else.
- **Subscription software** accessed via browser/API.
- **Benefits:** Fastest time-to-value, minimal ops, continuous updates.

Microsoft 365, Google Workspace

Salesforce, ServiceNow, Workday

SAP S/4HANA Cloud (public edition)

Public cloud IaaS/PaaS

- **Elastic infrastructure and managed platforms** for building and running your own applications.
- VMs, containers, databases, functions, and integration services in **public regions**.
- **Benefits**: Pay-as-you-go, global reach, broad service catalog.

Azure VMs, Azure Kubernetes Service (AKS)

Azure SQL Database, Azure Functions

AWS EC2, RDS, Lambda

Google Cloud Run, BigQuery

Private cloud

- **Single-tenant cloud** operated for one organization, often on-site or in a dedicated hosted facility.
- Cloud characteristics on **dedicated hardware**.
- **Isolation, latency, or residency demands** (e.g., plant-floor systems, regulated data).
- **Limits: Scale bounded by your capacity;** fewer managed services than public cloud.

Azure Stack Hub/Azure Stack HCI on-prem

OpenStack or VMware/vSphere with automation

Managed private cloud in a dedicated colocation

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36 months from now, approximately what percentage of all your organization's buisness applications will be run in the following ways?

Legacy Premises (e.g. On-prem ERP)

0

Public Cloud SaaS (e.g. Microsoft 365)

0

Public Cloud IaaS/PaaS (e.g. Azure VMs)

0

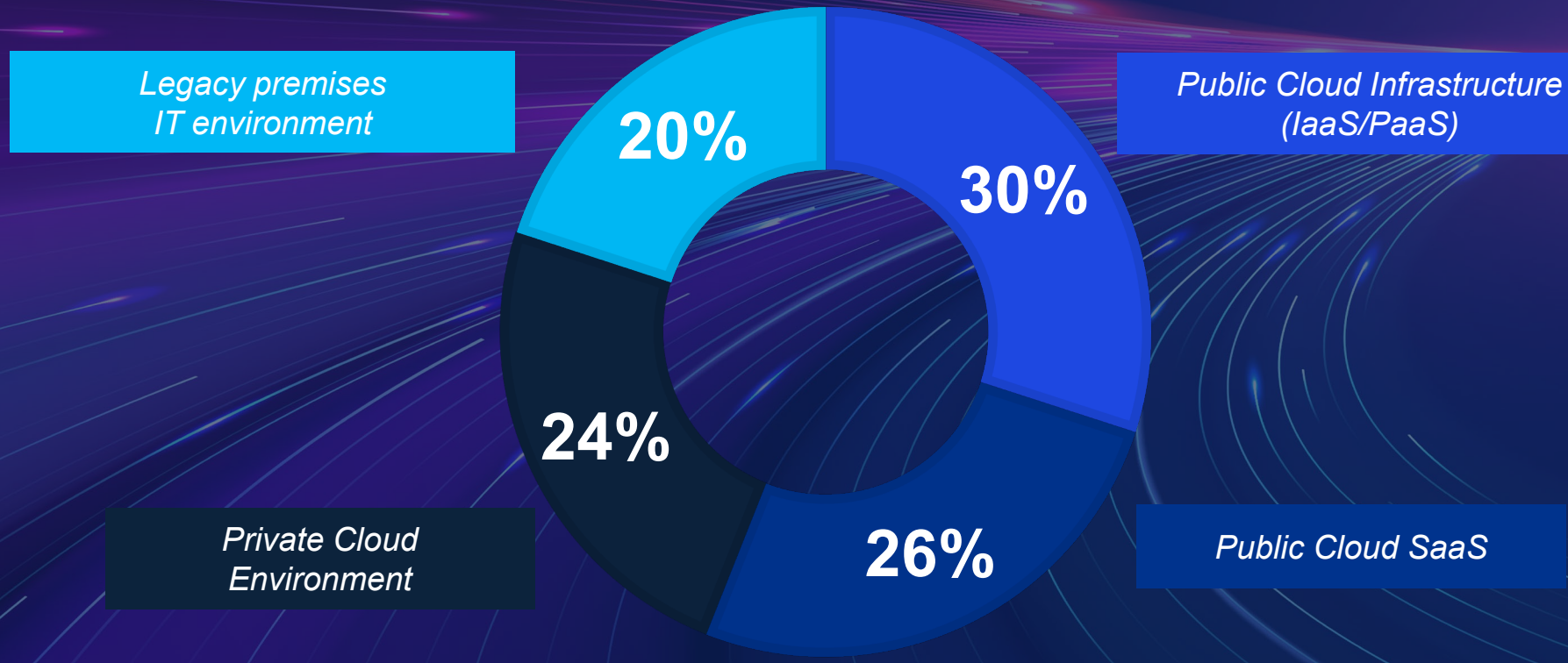
Private Cloud (e.g. OpenStack)

0

Mentimeter Result Page

Q. 36 months from now, approximately what percentage of all your organization's business applications will be run in the following ways?

KPMG estimates the demand for as-a-service public cloud will overtake demand for traditional IT in the next three to five years and, as a result, we believe public cloud could generate twice as much revenue as traditional IT workloads.



Source: KPMG - Preparing for the future of IT

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Driving cloud ROI: The critical partnership between CFO and CIO

CFO

CIO

As AI and cloud integration accelerate, closer alignment between CFOs and CIOs enables shared responsibility and faster, more effective financial reporting and operational outcomes.

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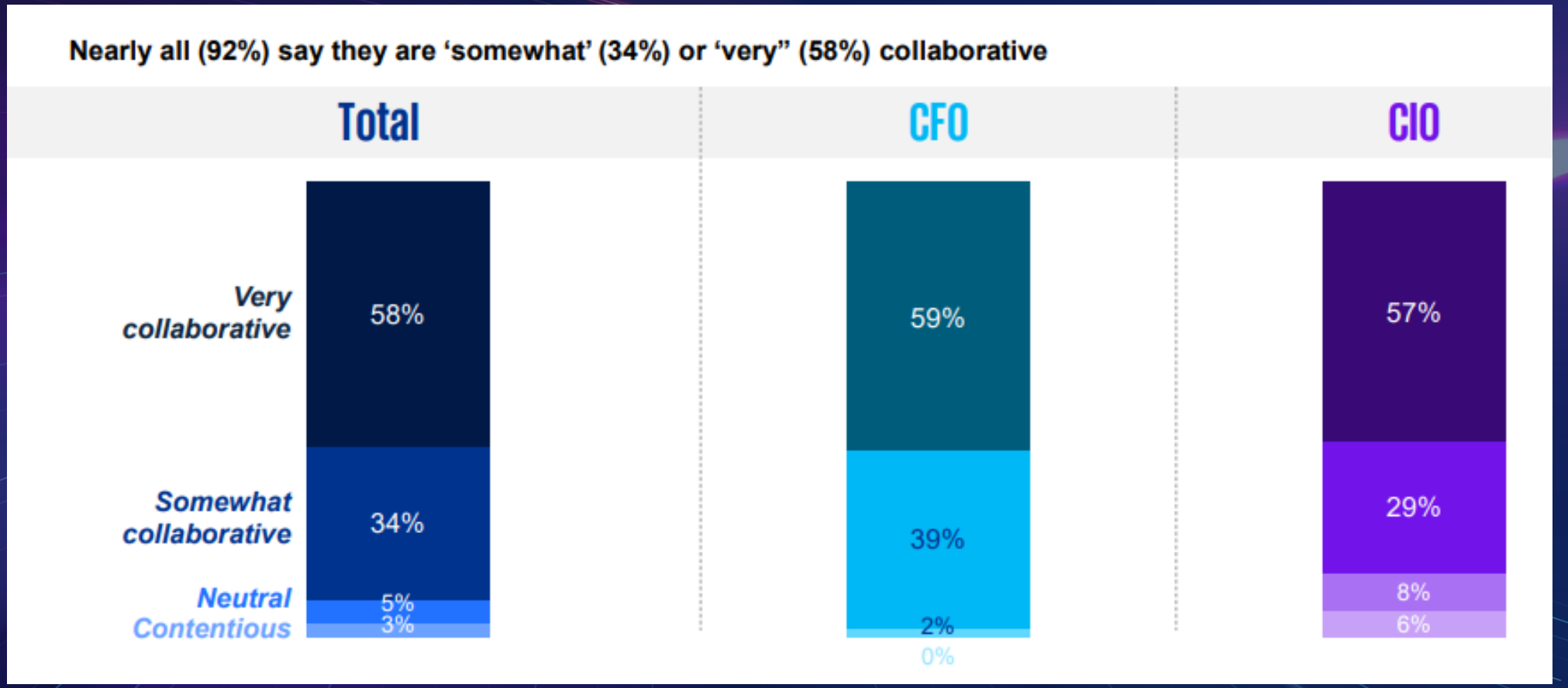
Q. How would you describe the current relationship between the CFO and CIO in your organization?

CIOs and CFOs characterize their relations as collaborative.



Source: KPMG CFO-CIO Collaboration Survey 2025

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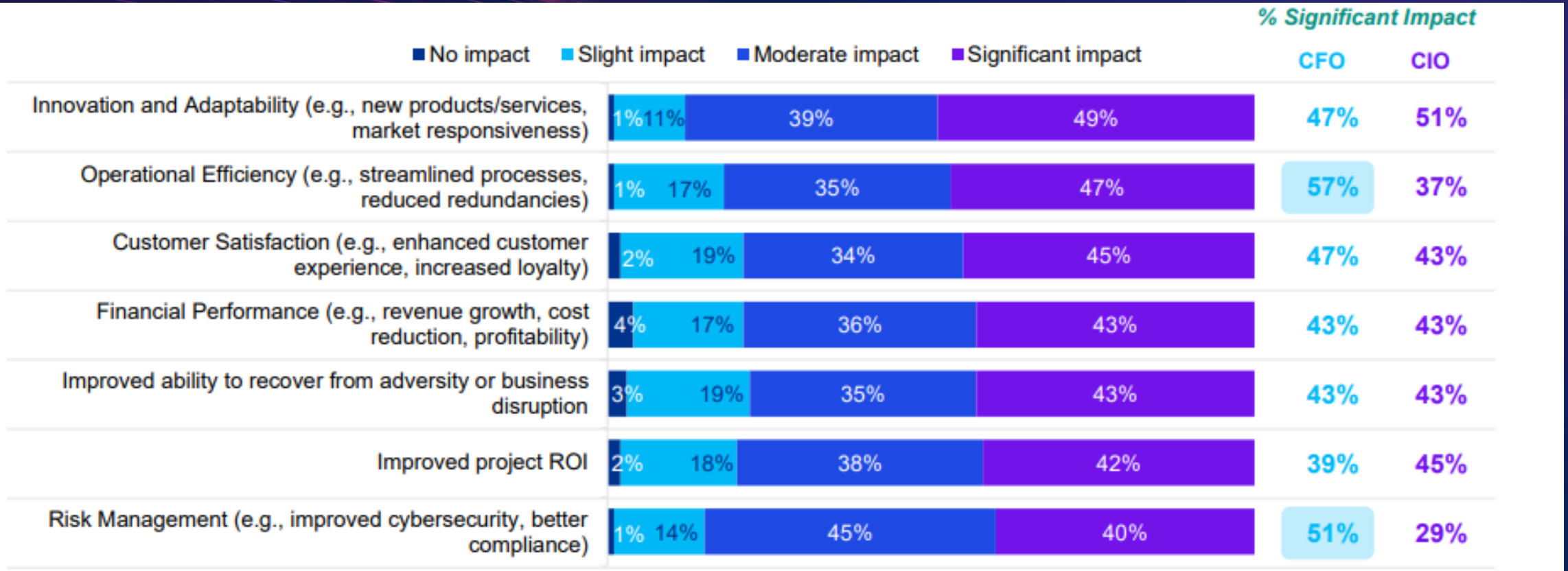
Q. To what extent do you think CFO-CIO collaboration has the most potential to make an impact on the following business outcomes?

More CFOs believe their collaboration with CIOs has a significant impact on operational efficiency and risk management.



Source: KPMG CFO-CIO Collaboration Survey 2025

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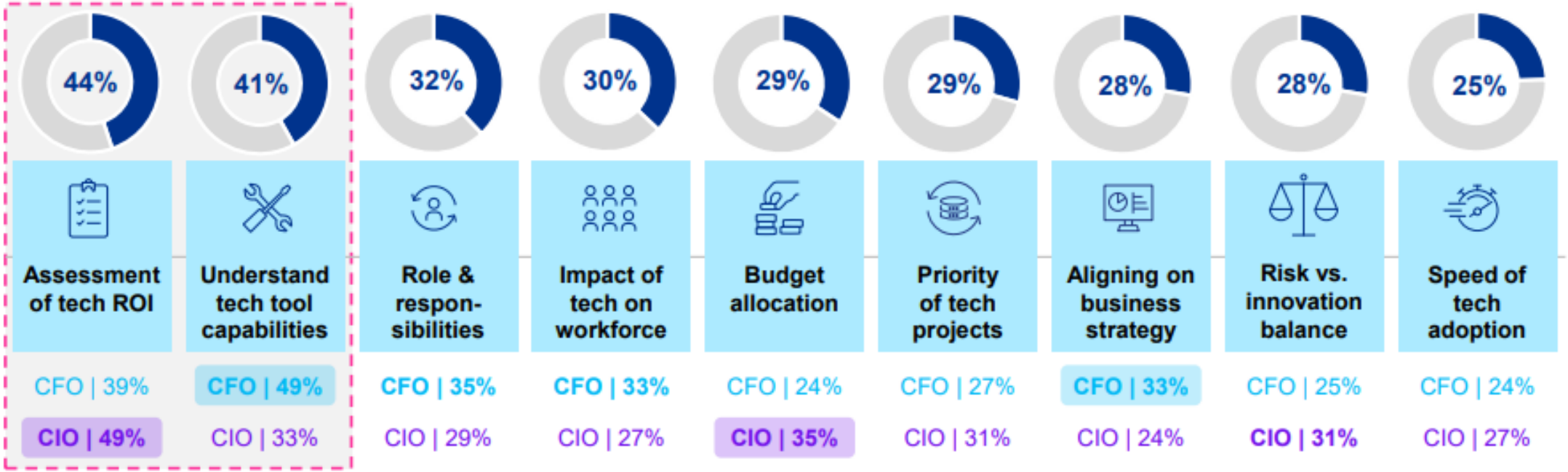
Q. What are the most common points of contention between the CFO and CIO in your organization?

CFOs and CIOs have differing perspectives around ROI and understanding technology capabilities.

CIOs cite more contention around the assessment of technology ROI, while CFOs feel there is more friction in understanding the capabilities of technology tools.



Note: Directional differences of 10% or greater are bolded.

Source: KPMG CFO-CIO Collaboration Survey 2025

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Adopting FinOps is critical to unlocking full value of cloud.

78%

of organizations see business growth as a key benefit of cloud adoption.

Source: ISG

84%

of companies cited managing cloud spending as their single biggest hurdle in cloud environment.

Source: Flexara

97%

invested in multiple AI infrastructure areas, highlighting the growing need for FinOps practitioners to manage AI-related spending.

Source: State of FinOps

85%

of organizations either have a FinOps team or planning to have one in the next 12 months or beyond.

Source: State of FinOps

Cloud FinOps covers:

Cost management

- *Real time cost monitoring*
- *Cost allocation and tagging*
- *Showback and chargeback*
- *Automated cost optimization*

Resource optimization

- *Rightsizing resources*
- *Identifying idle resources*
- *Automated scaling*
- *Utilize cost-effective options*

Compliance and governance

- *Policy enforcement*
- *Audit trails*
- *Access controls*
- *Regular reviews and reporting*

Budgeting and forecasting

- *Historical data analysis*
- *Predictive analytics*
- *Scenario planning*
- *Continuous monitoring and adjustment*

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FinOps first plus value themes embedded across the organization

Persona	Value themes	Value in the organization level
C-suite (CEO/CFO/CIO)	OPERATIONAL EFFICIENCY	**BU outcomes** (Business/customer-facing products with direct value): Conversion, Cycle time, Fraud loss, Cost-to-serve
BU leaders (COO/CMO/GM)	COST REDUCTION	**Tech enablers** (Reusable capabilities consumed by multiple products): Time-to-launch, $1/1k query, Accuracy, Efficiency
Technology (CTO/Heads of Eng/POs)	REVENUS INCREASE	**Foundation** (CTO-owned shared platforms and non-functional capabilities): $/vCPU-hr, Cost tagging, Data domain, Data availability
	RISK MITIGATION	
	QUALITY & EXPERIENCE	
	SCALABILITY & INNOVATION	

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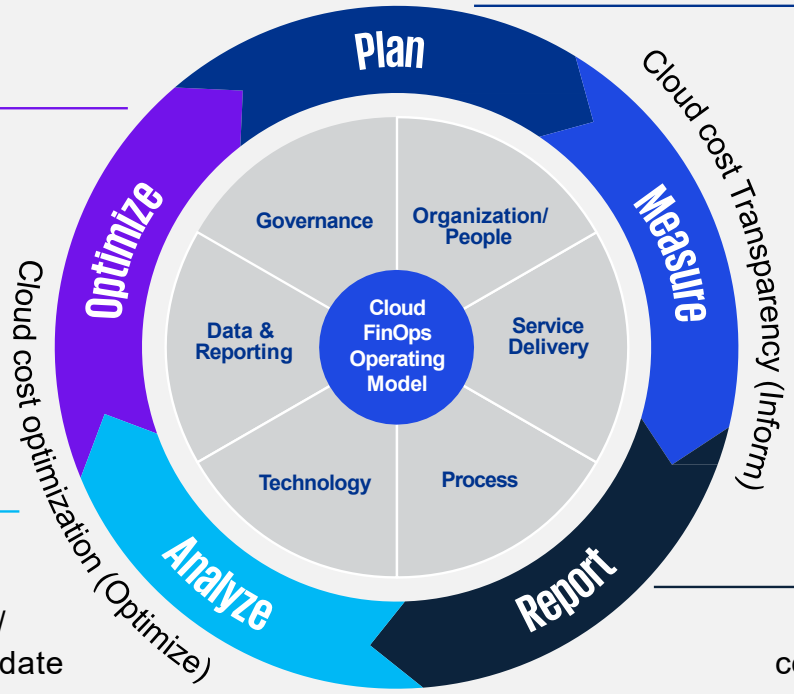
Measuring the success of your FinOps journey

$$\textit{Innovation project measurement of success} = \frac{\textit{Business value metrics (Data} \times \textit{AI} \times \textit{Analytics)}}{\textit{Cloud FinOps (Inform} \gg \textit{Optimize} \gg \textit{Modernise)}}$$

KPMG's approach

Drive accountability for implemented changes to improve performance and reduce costs

Identify optimization opportunities and collaborate with platform/ architecture teams to validate and prioritize opportunities



Determine the best cloud environment, modernization path, and cost, ahead of the move to the cloud

Establish KPIs, forecast costs, understand usage and actual costs, and identify trends/red flags

Relay cost insights (usage, costs, budget variances and trends) to all stakeholder groups

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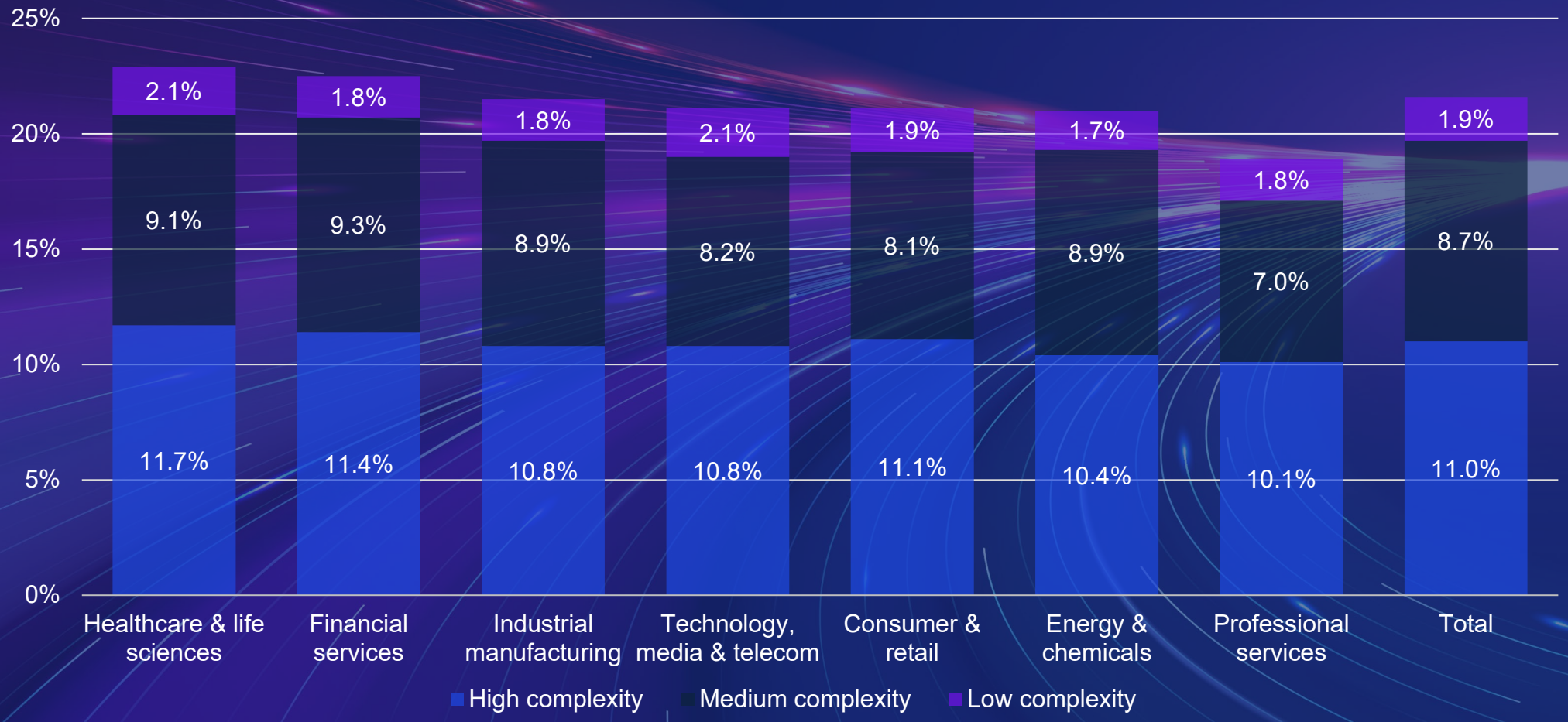
The GenAI opportunity equates to 19-23% of salary cost



Quantifying the GenAI opportunity

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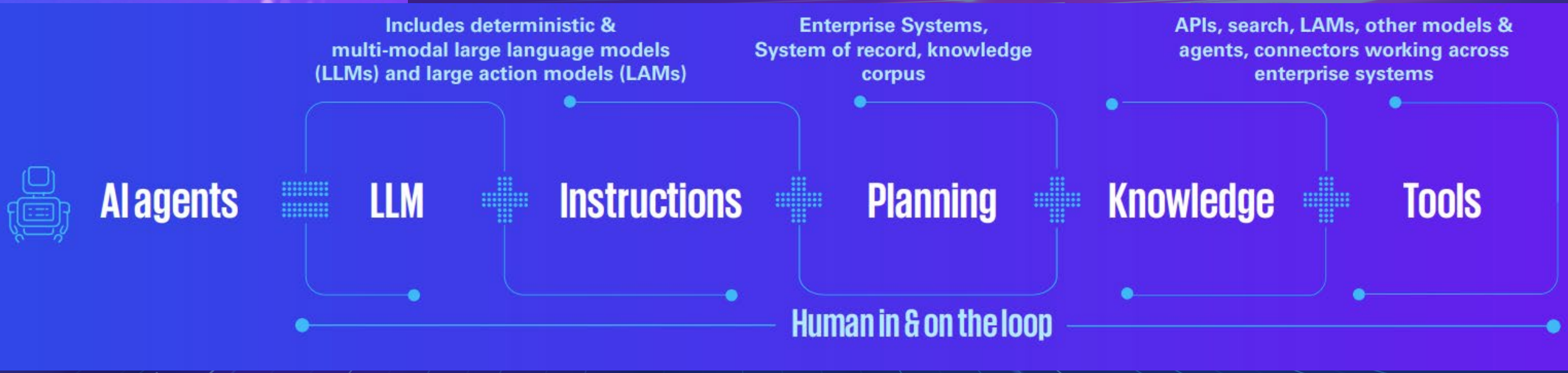
At KPMG, the future is agent-centric.

Do you really know what an AI agent is?



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The types of AI capabilities needed at KPMG

Everyday AI Stack

encompasses the foundational tools and applications representing the most common AI enabled tasks in our daily lives

All Employees

UI

Web | Mobile | Teams

AI Agent

Everyday AI Tools

Specialized AI Stack

includes advanced and sophisticated tools and apps designed to reshape professions, grounded in deep knowledge and specialized for transformative tasks

Audit | Advisory | Tax

Web | Mobile | IT App | Teams

Specialized AI Tools

Trained and Tuned Models

Internal/Specific knowledge

Instruction and planning

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KPMG's gen AI journey

ChatGPT released

OpenAI introduces ChatGPT to the market, setting a new precedent in Gen AI.

2022

2023

Independent Initiatives

KPMG MFs & functions start AI developments to secure a competitive edge and innovate client solutions.

Decision to Build Workbench

Participating MFs and global functions opt for a centralized AI platform, with an ambition to streamline efforts across all member firms and functions.

Mar 2024

2024 - 2025

Build once, deploy globally

KPMG workbench is built centrally underpinned by 6 AI platform architecture principles and deployed across the MFs and global functions

AI platform architecture principles

1. Internationalisation & T&Cs
2. Trusted AI
3. Maintenance & Support
4. Source Code Management
5. Monitoring & Metering
6. User Experience

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Thank you

Q&A

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