McKinsey & Company

The future of cloud in Africa

Capturing Africa's potential for accelerated digital growth

29 May 2023

Cloud by McKinsey

Cloud has the potential to deliver 3 critical sources of value – Rejuvenate, Innovate, Pioneer

1. Rejuvenate

IT cost optimization

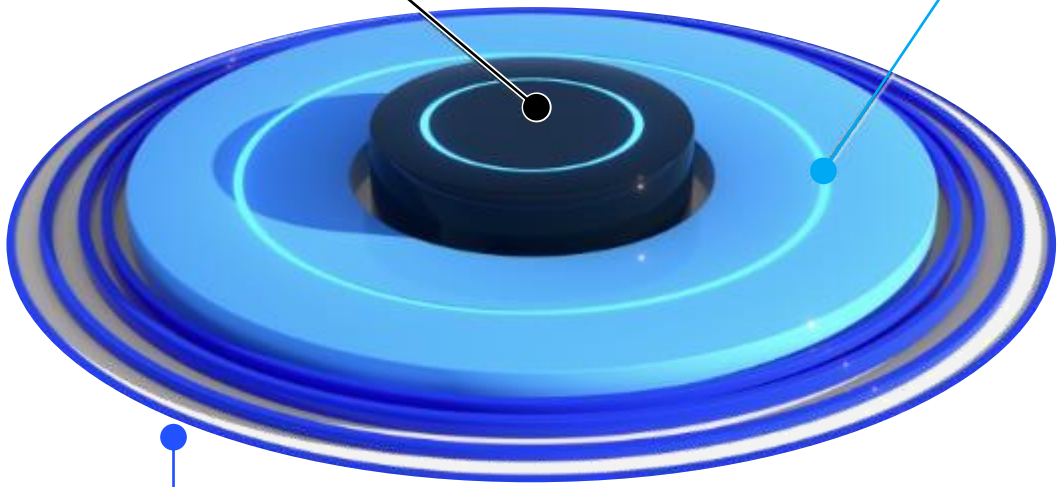
Cost optimization of application development and maintenance and IT infrastructure

IT resilience improvement

Improving business resilience of the organization

Core operations digitization

Implementation of latest technological/digitization achievements in core operations



3. Pioneer

Early adoption of cloud technology

Embracing culture of experimentation with low cost of failure and gaining experience in cloud technology which is an enabler for early adoption of future tech such as Quantum computing, AR/VR/MR (mixed reality), Blockchain, and 3D/4D printing, etc.

2. Innovate

Innovation driven growth

Business growth from new and enhanced use cases in Analytics, IoT, and Automation

Accelerated product development

Enhancement of operating model agility, ease of cloud configuration, and democratized access to computational power

Hyper scalability

Access to instant on-demand elasticity in compute and storage capacity to scale across customer segments, geographies, channels

Source: Industry and McKinsey expert interviews, McKinsey D2020 IT cost benchmarking, MGI research, Independent third-party research data (OmnicomGroup and Known), team analysis

Companies are unlocking Business, IT, and additional value from cloud innovation

Not Exhaustive

Rejuvenate

e.g., lower infrastructure and dev. spend, ability to release updates quickly, fewer outages

Global PharmaCo is saving **$200M in IT costs, by moving 60% of applications to public cloud** and consolidating data centres

Multi-national consumer goods company **moved 100% of all IT assets to public cloud, achieving a 40% cost take-out** and significant reductions in outages

Innovate

e.g., frictionless customer experience, optimized supply chains, enabling advanced analytics

Large auto manufacturer is **integrating its global supply chain** – more than 30,000 locations and 1,500 suppliers and partners using cloud, **enabling >EUR1B impact**

Leading provider of payment processing solutions modernized with a **new, cloud-native payments gateway to create a frictionless user experience across multiple consumer channels**

Pioneer

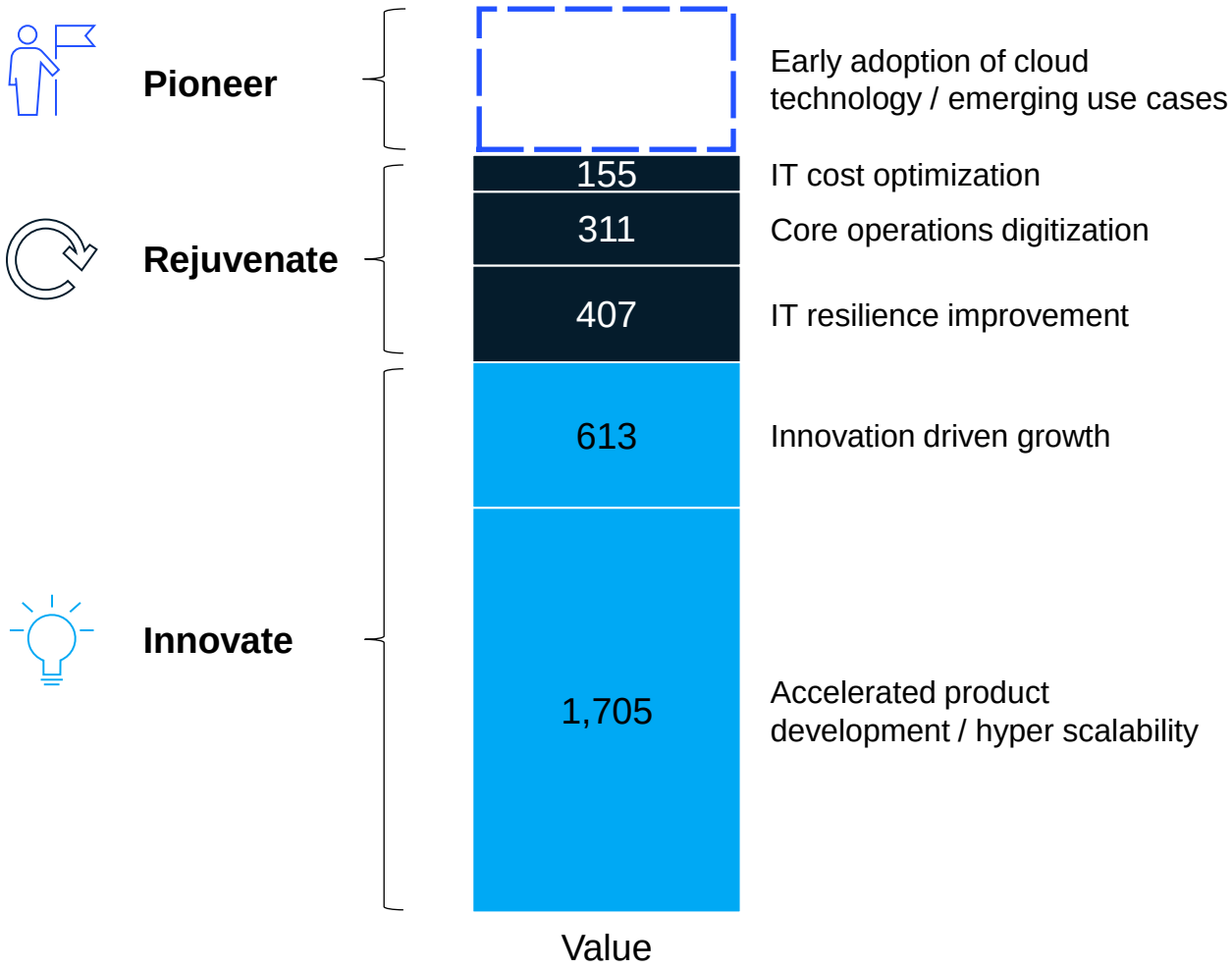
e.g., greater organizational transparency, greater agility, ability to innovate and experiment

Global telecom created **cloud-based enterprise-wide data lake** to aggregate disparate data sources that enabled **new customer insights and analytics capabilities**

Global financial data analytics provider used public cloud to **reduce cost to enter new markets by 50% and time to market by 75%** compared to on-premise deployments

Adoption of cloud platforms could generate USD 3 Trillion in EBITDA for the Forbes Global 2000 by 2030

Estimated 2030 EBITDA run-rate impact, USD in billions



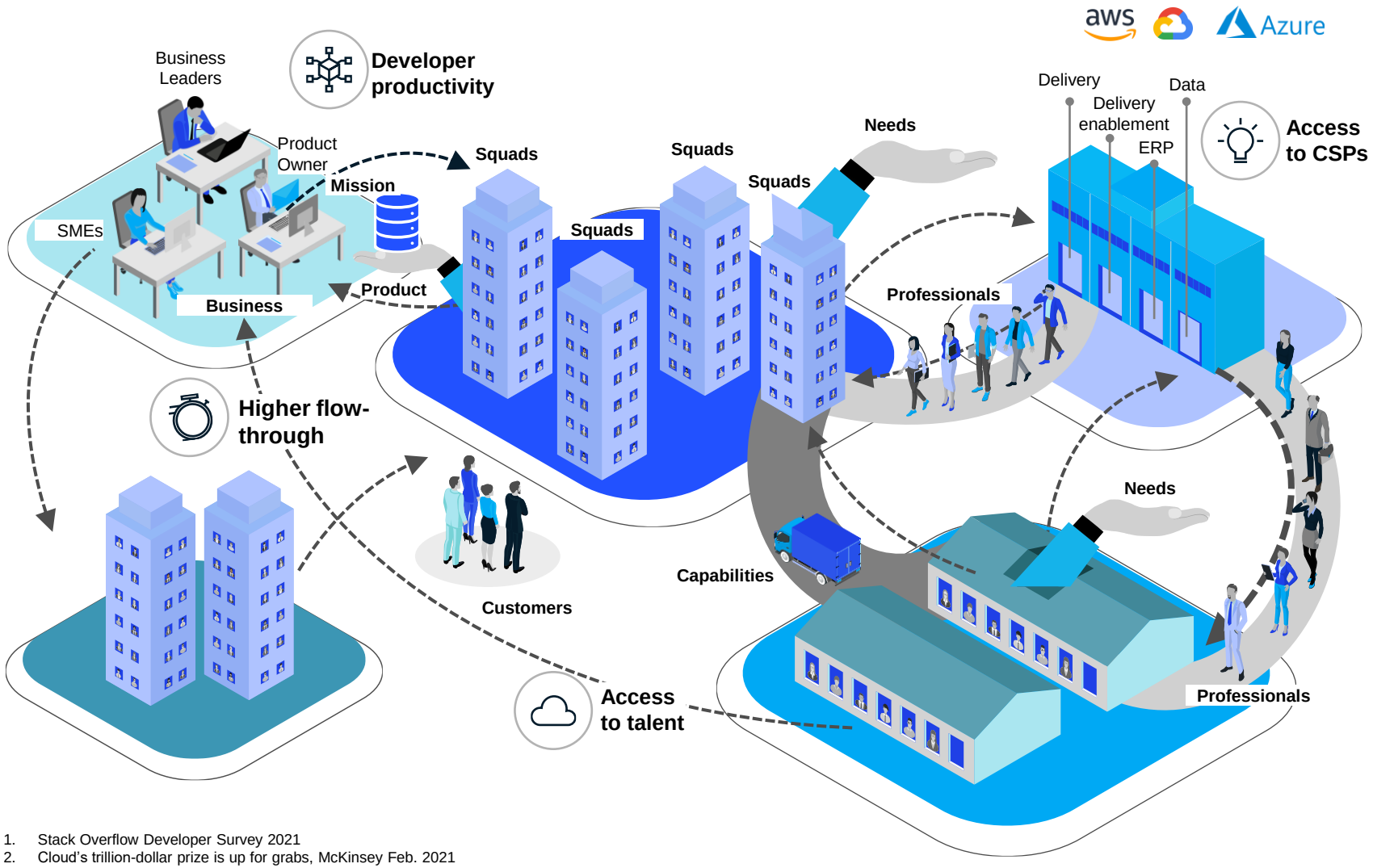
$56.5T in projected revenue for 2030

1850 companies represented of the Forbes Global 2000[1]

$3.1T in EBITDA run-rate impact

1. Excludes 150 private equity firms from the Forbes Global 2000 as their cloud value is largely tied to their holdings

Business value will be unlocked from a much-shortened development cycle



1. Stack Overflow Developer Survey 2021
2. Cloud's trillion-dollar prize is up for grabs, McKinsey Feb. 2021

Customer and business benefits

- **Developer productivity** goes up **40%**
- **Easier access to and integration of third-party innovation**
- Access to CSPs unlocks **20x talent** pools
- **Flow-through time** reduction cuts time-to-market by as much as 90%[1], leading to increased **customer satisfaction**

To understand how this relates to Africa we interviewed 50+ technology executives across 13 countries…

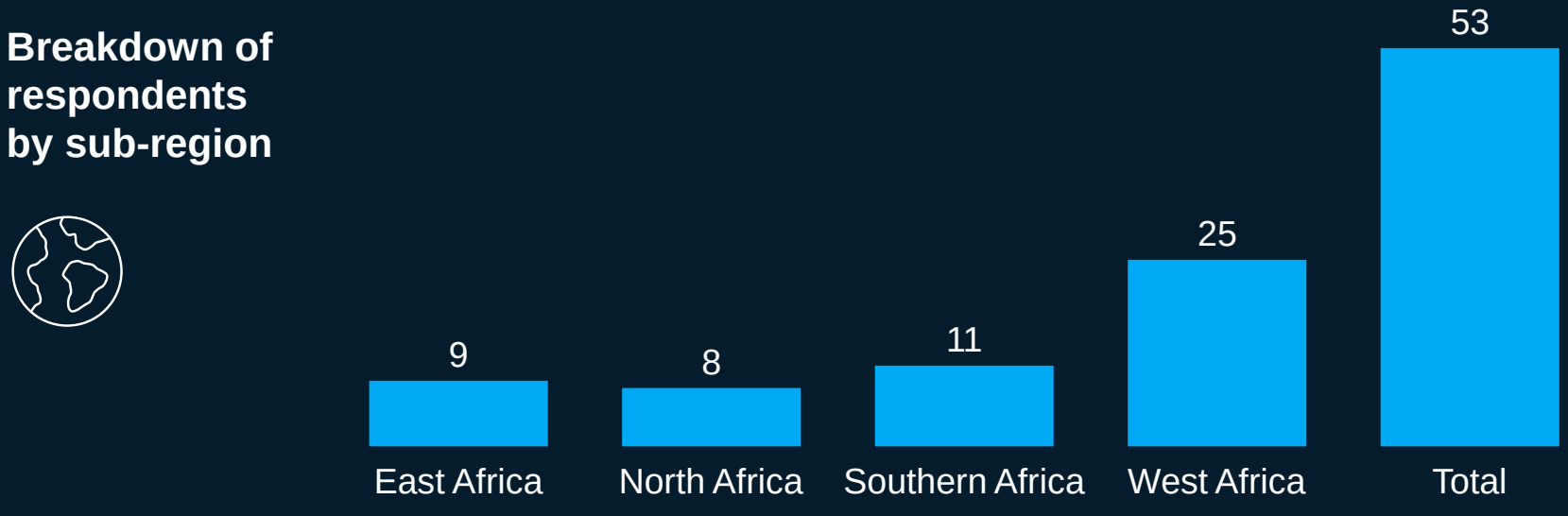
Other quick facts on participant group:

All participants are directly involved in their organization's key technology decisions, as a **C-suite member, VP, or IT director**

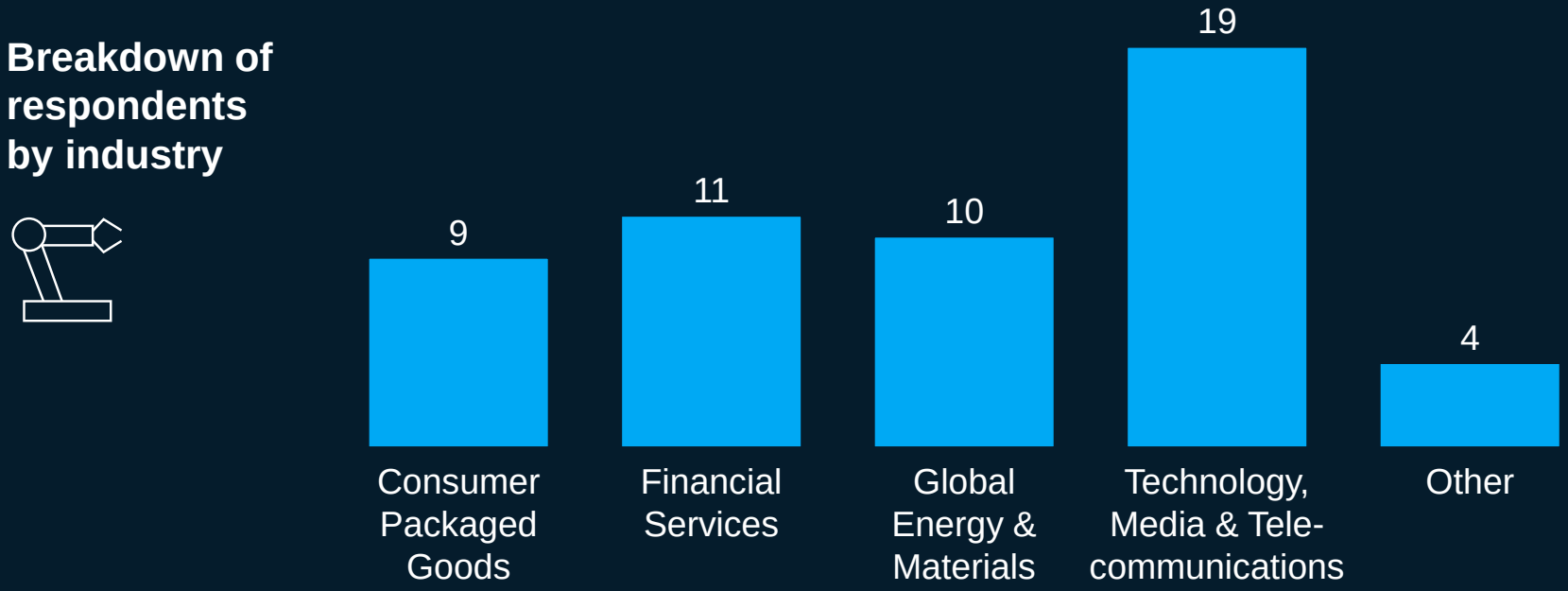
~60% of participants have been in their role for over **5 years**

..And across all sectors and regions...

Breakdown of respondents by sub-region



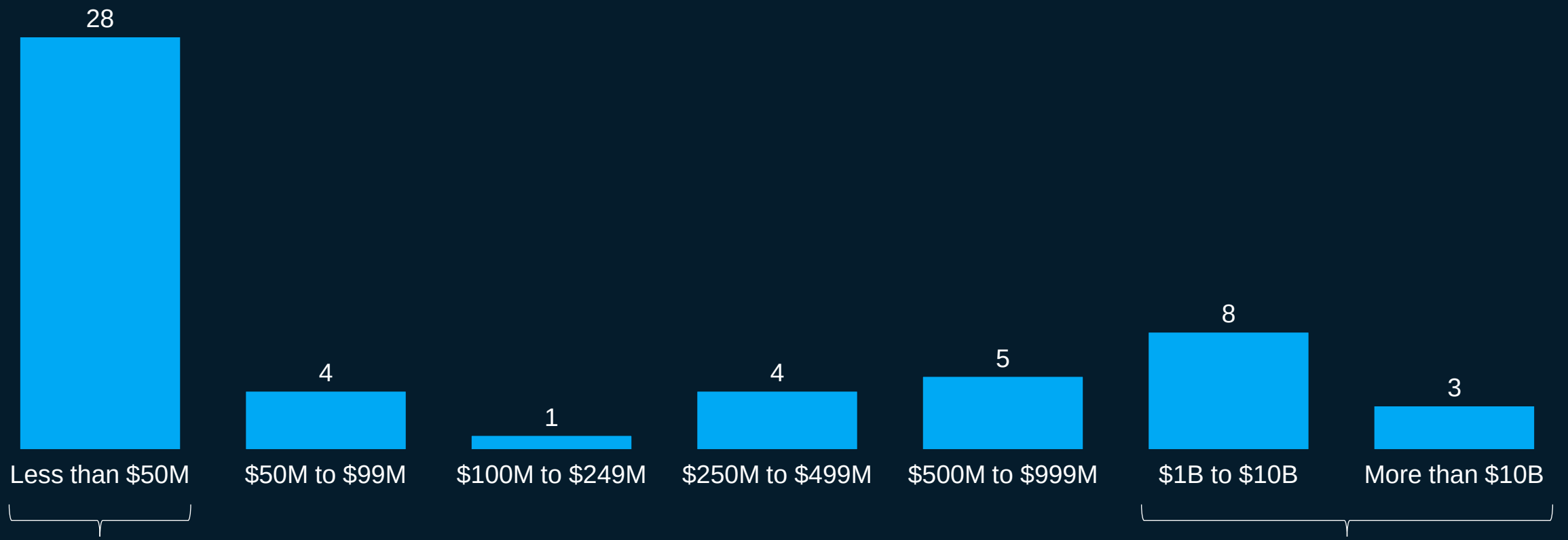
Breakdown of respondents by industry



Our participants reflect the full range of business size from revenue of <$50m to over $10b with 38% being listed entities

Breakdown of participants' annual revenue (USD)

Number of participants



53% of participants come from **smaller revenue companies** (<$50M USD / year)

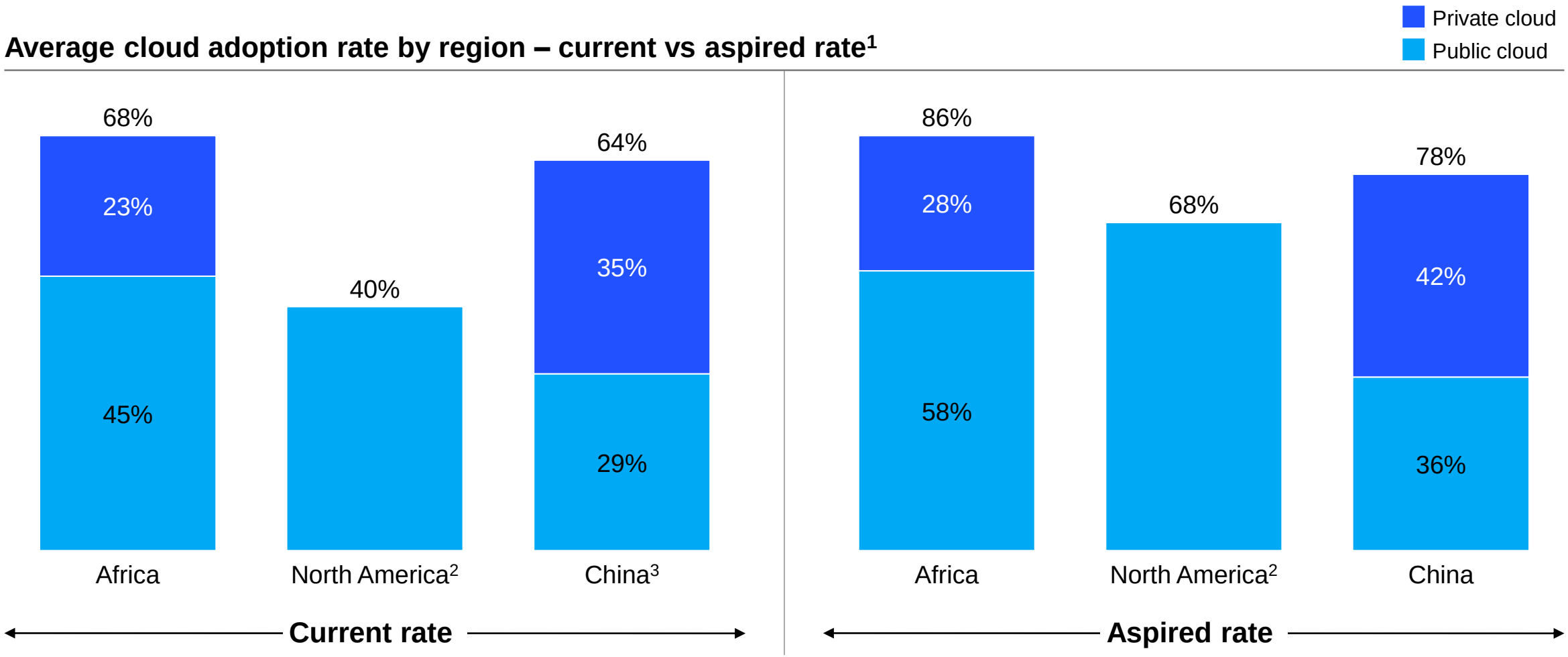
21% of participants come from **large revenue companies** (>$1B USD / year)

So… What's really happening with Cloud in Africa?

African cloud adoption looks more like North America than we thought…

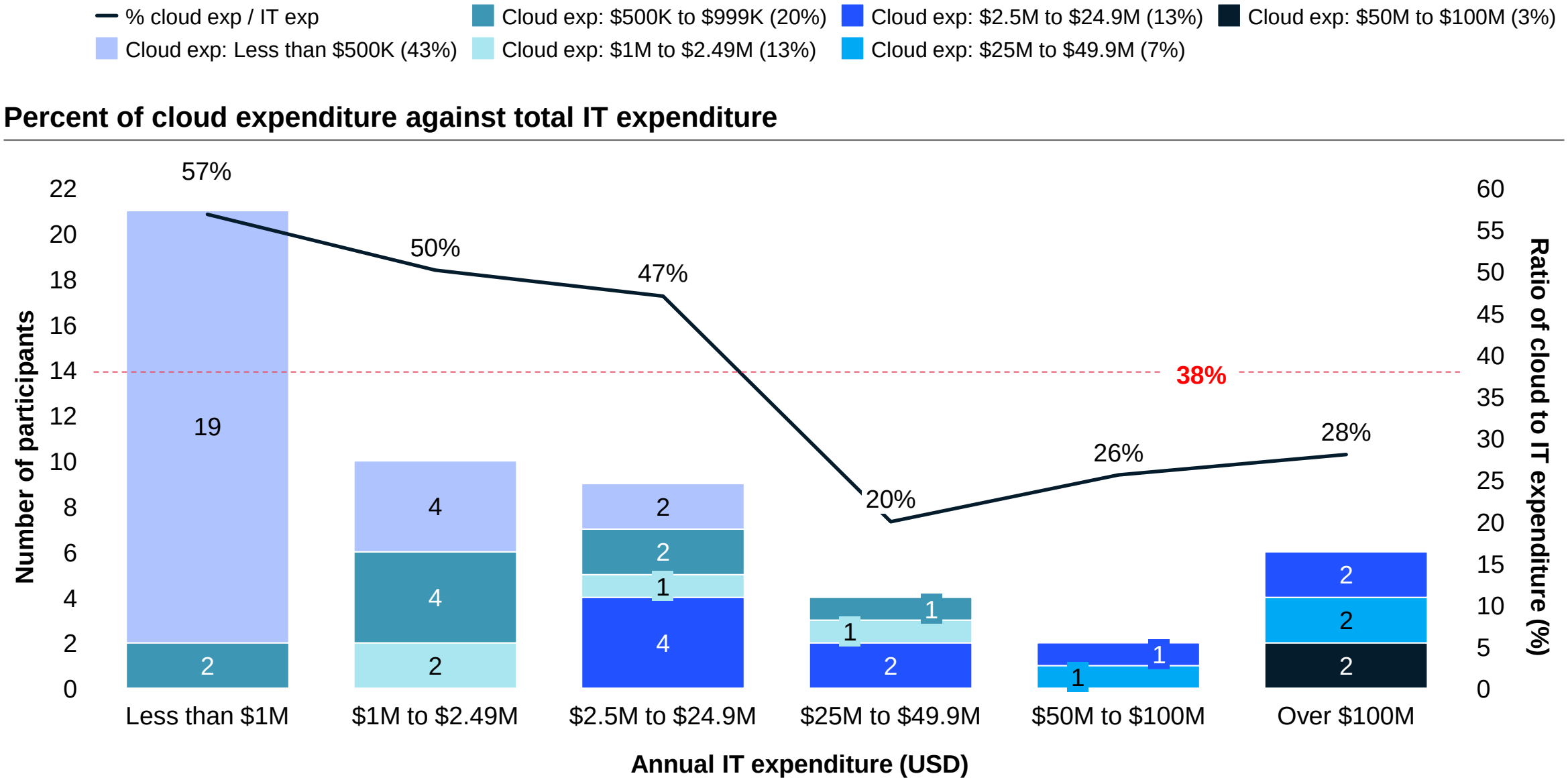
Public cloud adoption rates in Africa is comparable to North America

Average cloud adoption rate by region – current vs aspired rate[1]



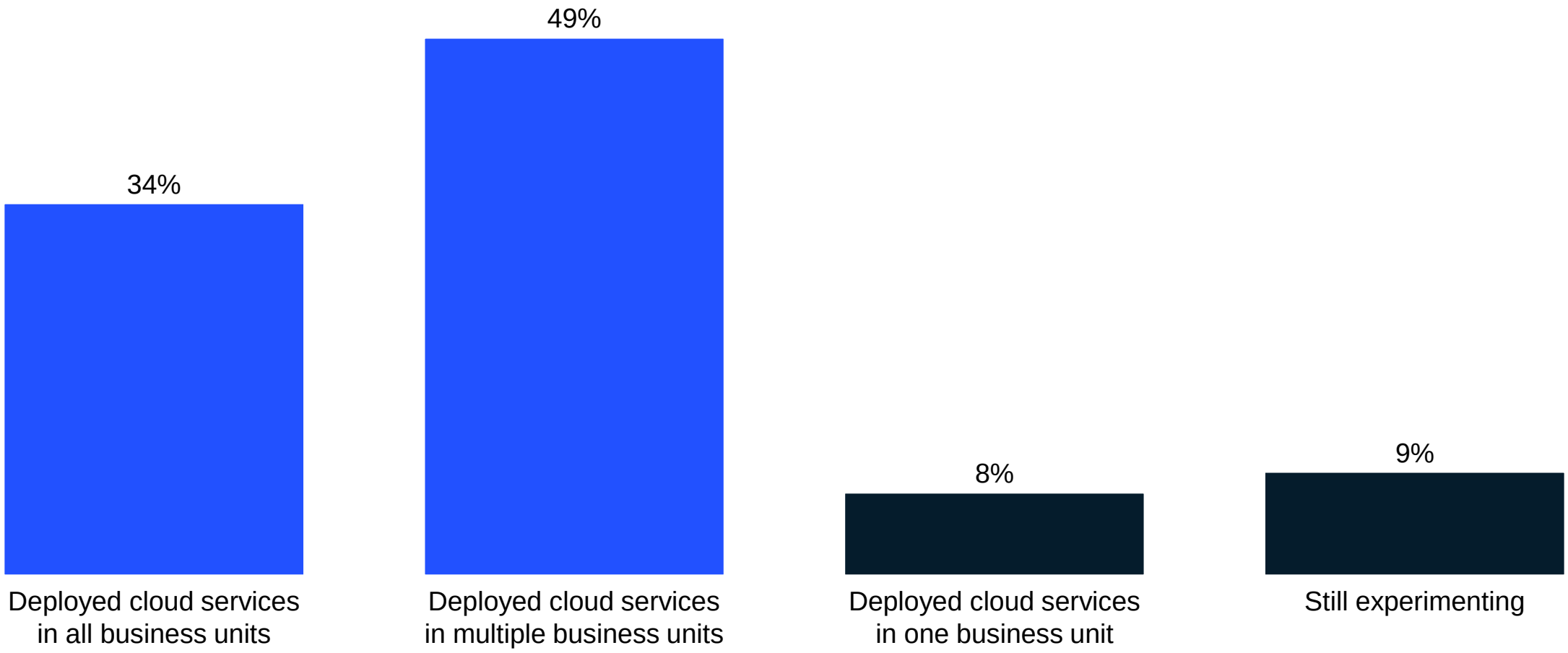
1. 2022 serves as the benchmark for the current rate, while 2025 represents the desired or aspirational rate. North America and China data sourced from CloudSights – Cloud Value dashboard (N = 30) & Cloud in China: The outlook for 2025 (N = 278). Public cloud includes IaaS, PaaS and SaaS; 2. Private cloud data unavailable for North America; 3. Projected growth for 2022 assuming steady growth rate from 2021

On average they spend ~38% of their annual IT budgets on Cloud...

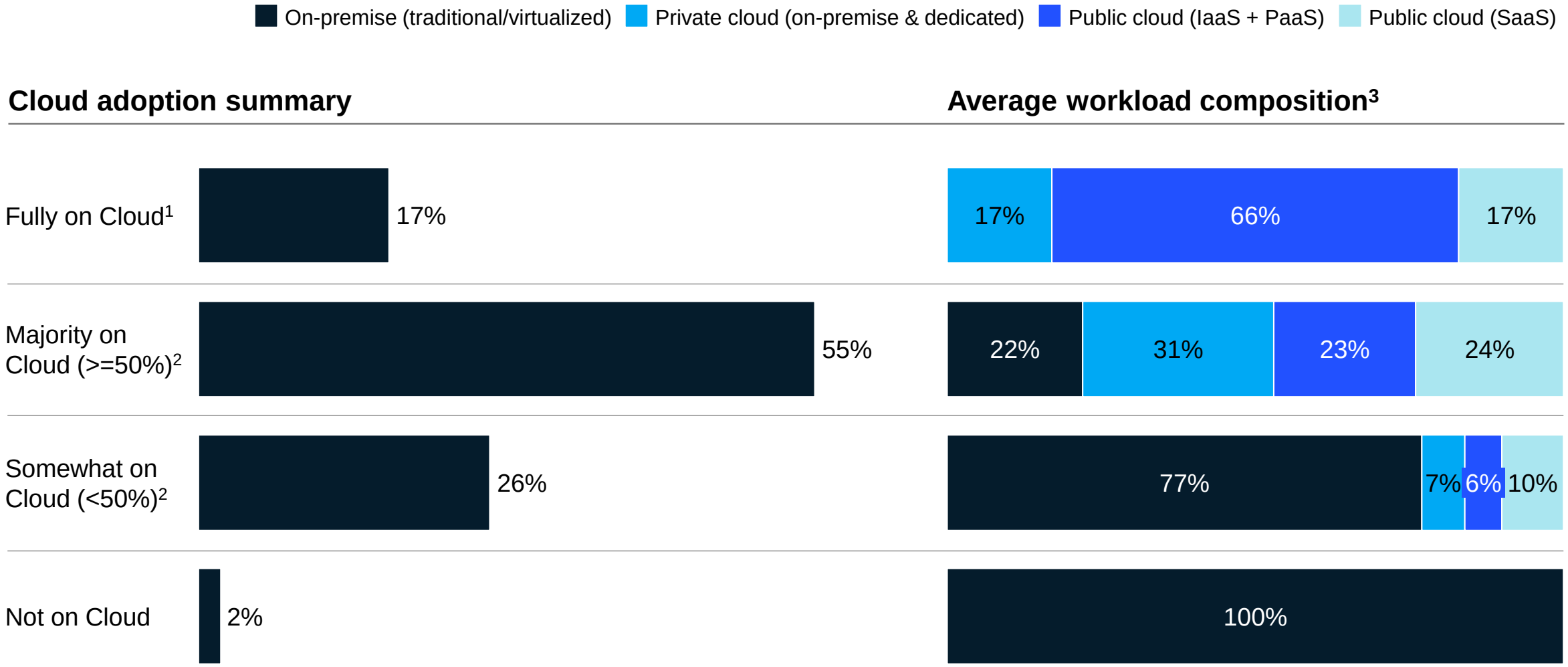


..And most participants deployed cloud to multiple or all business units in their organization

Level of org-wide cloud adoption (% of participants)

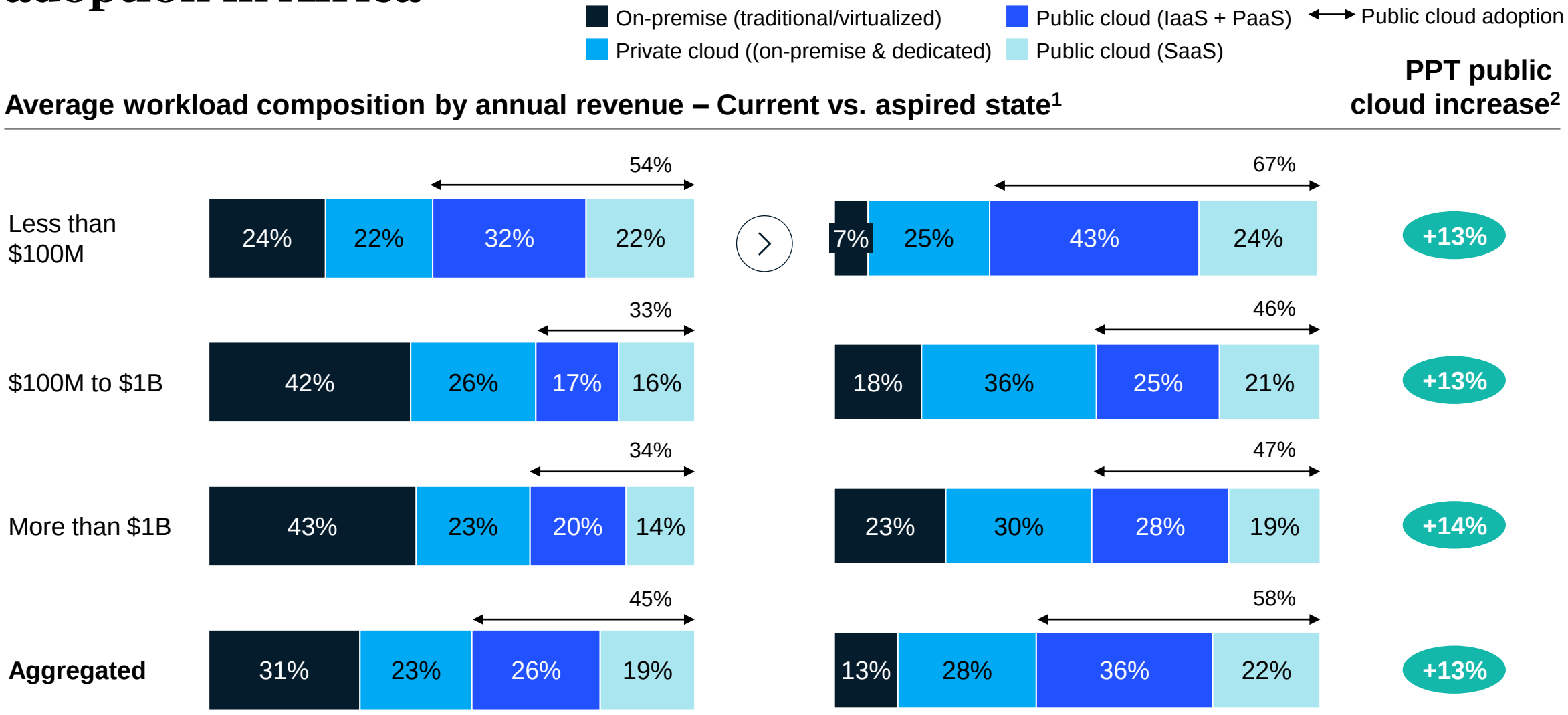


17% participants are fully on cloud, whilst 81% have a mix of on-premise and cloud workloads



1. Either dedicated private cloud, IaaS, PaaS or SaaS with no workloads on-premise (traditional / virtualized)
2. Includes on-premise (traditional/ virtualized) and on-premise (private cloud)
3. Breakdown included compute, storage, network, database

Smaller organizations tend to have higher rate of cloud adoption in Africa

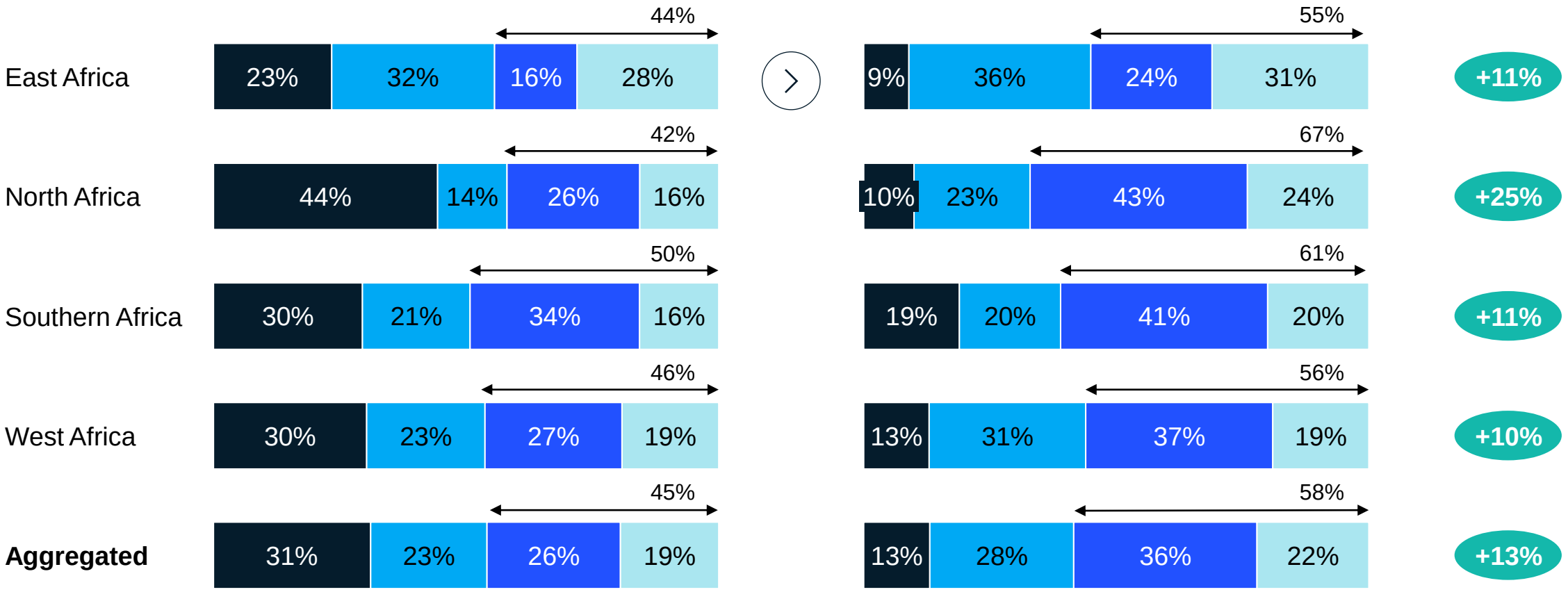


1. 2022 serves as the benchmark for the current rate, while 2025 represents the desired or aspirational rate
2. Percentage point difference between the aspired and current state on cloud adoption

North Africa is lagging other sub-regions with 44% workloads still on-prem

On-premise (traditional/virtualized) | Public cloud (IaaS + PaaS) | Public cloud adoption
Private cloud (on-premise & dedicated) | Public cloud (SaaS)

Average workload composition by sub-region – Current vs. aspired state[1]



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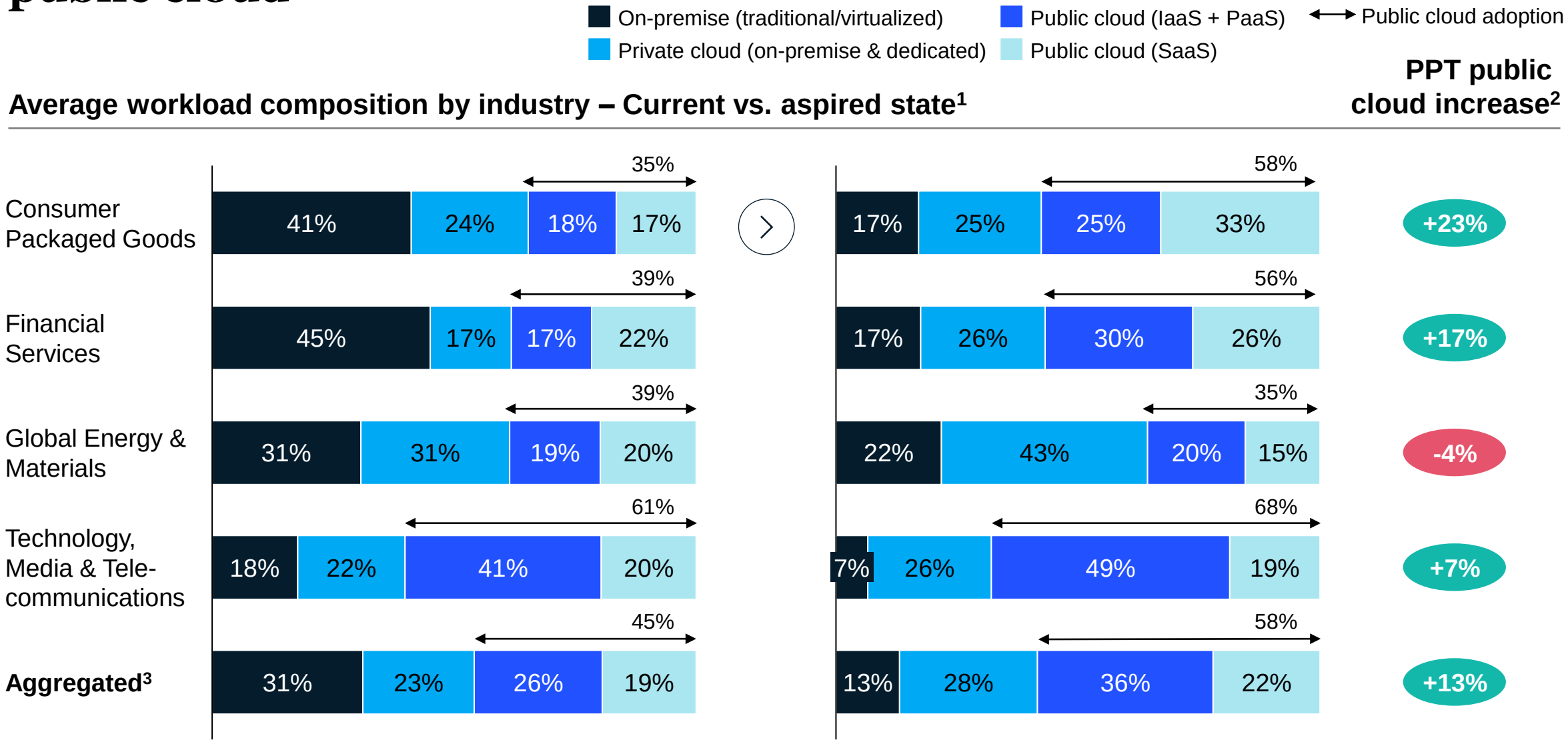
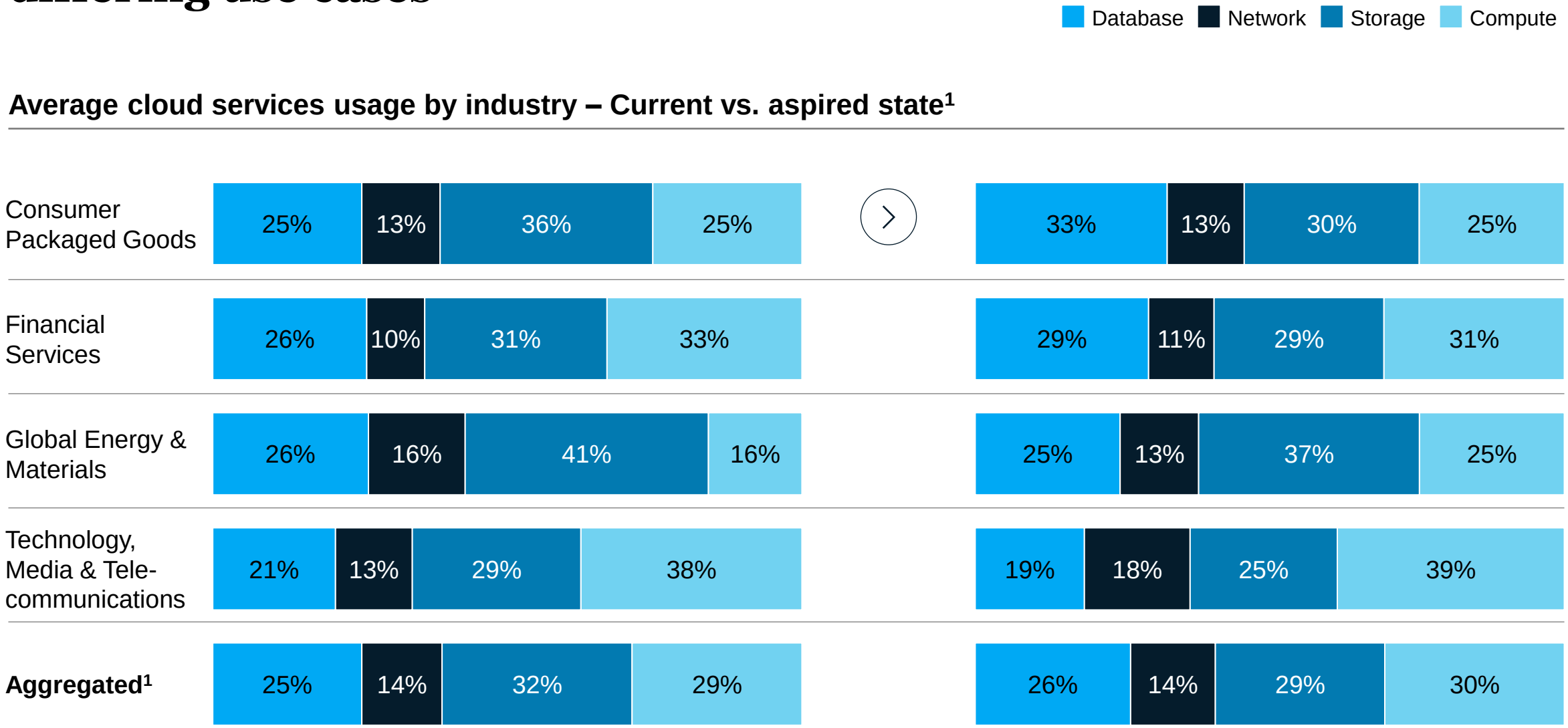
TMT is leading the cloud adoption with 61% of workloads hosted on public cloud



1. 2022 serves as the benchmark for the current rate, while 2025 represents the desired or aspirational rate;
2. Percentage point difference between the aspired and current state on cloud adoption
3. Includes organizations in research/consulting, NGO and public sectors

Usage of cloud services vary widely across the industries with differing use cases



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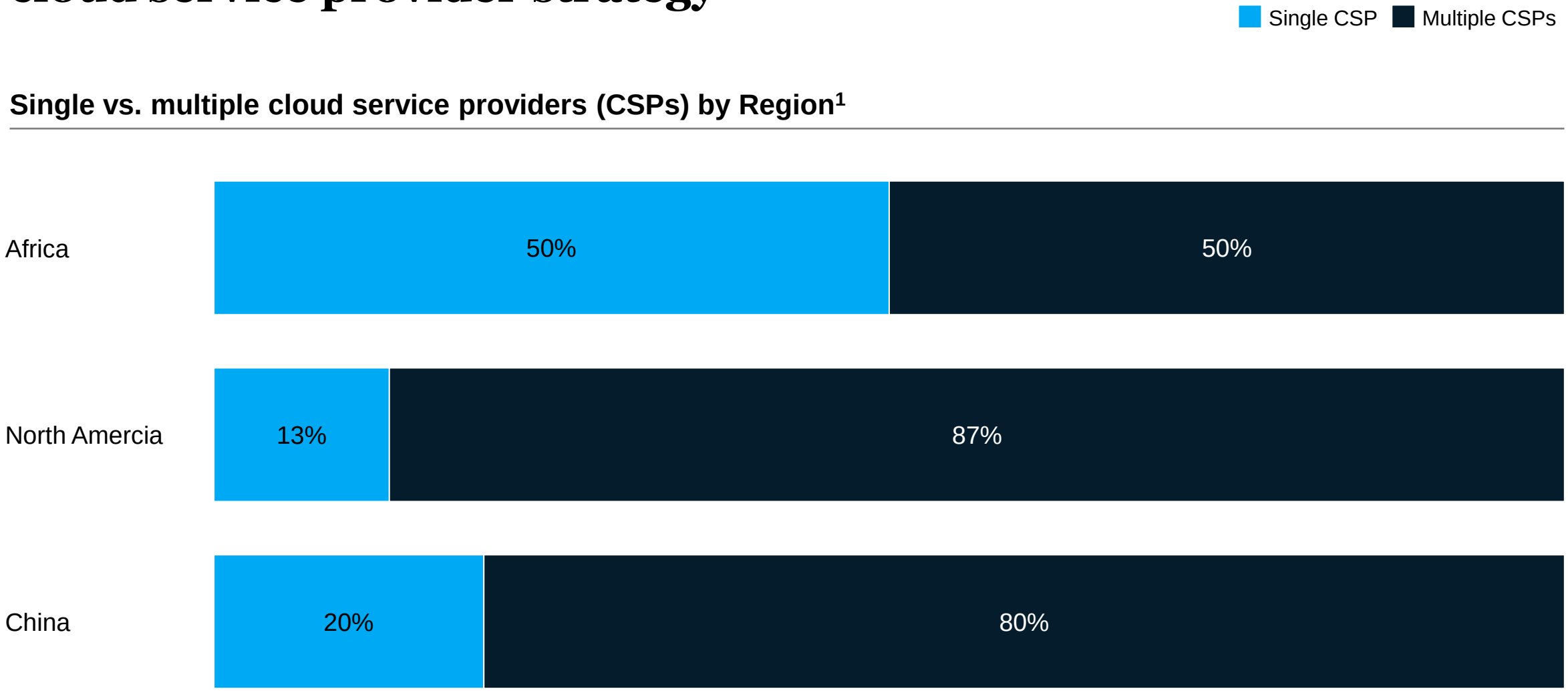
African organizations are split between a single and a multiple cloud service provider strategy

Single vs. multiple cloud service providers (CSPs) by Region[1]



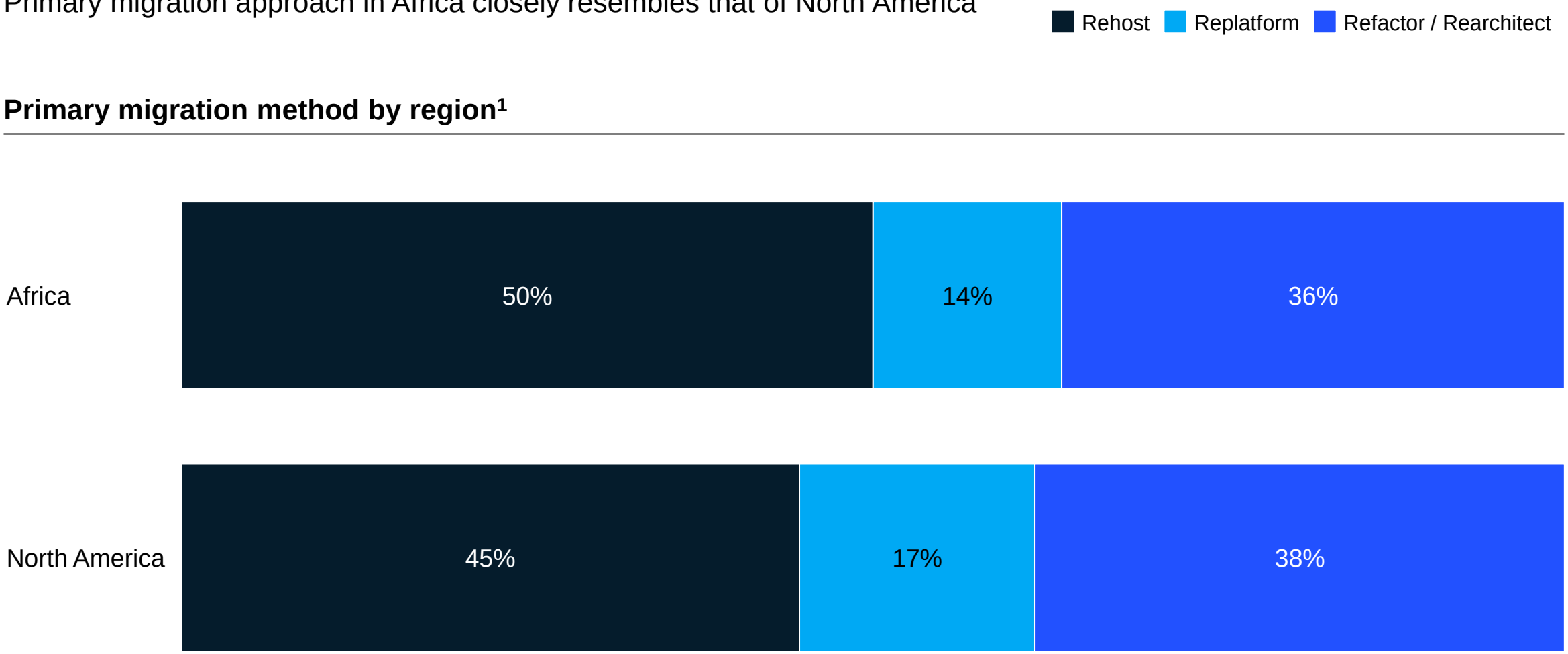
1. Data for North America (N = 30) sourced from CloudSights – Cloud Value dashboard. Data for China sourced from Cloud in China: The outlook for 2025 (N = 278) excluding the category of self-built without external cloud partners

How are they approaching migration?

Once again, they look more like North America than we previously thought…

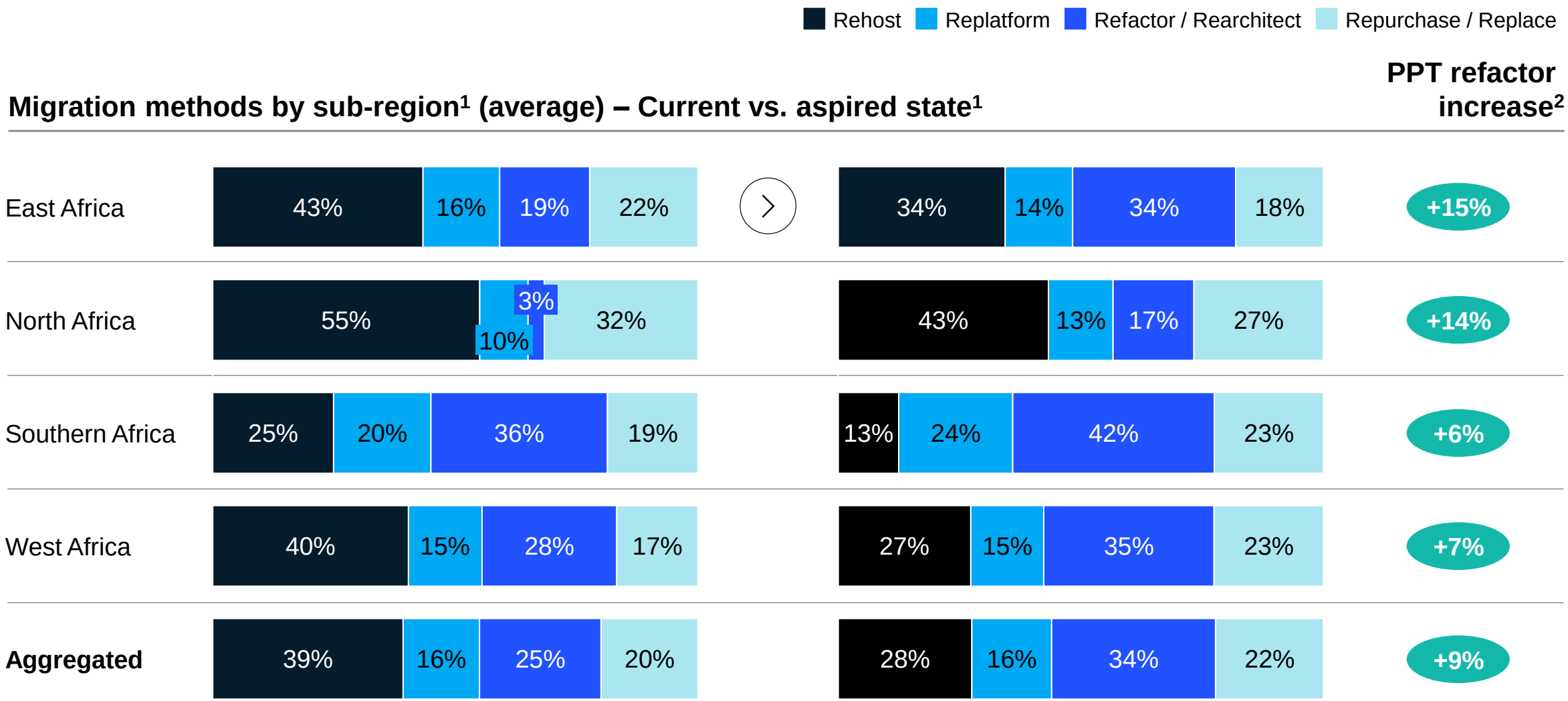
Primary migration approach in Africa closely resembles that of North America

Primary migration method by region[1]



1. Data for North America (N = 47) sourced from CloudSights – Cloud Value dashboard. Comparison excludes repurchase / replace

Most workloads in Africa are rehosted, but organizations plan to use more refactoring / rearchitecting in the future



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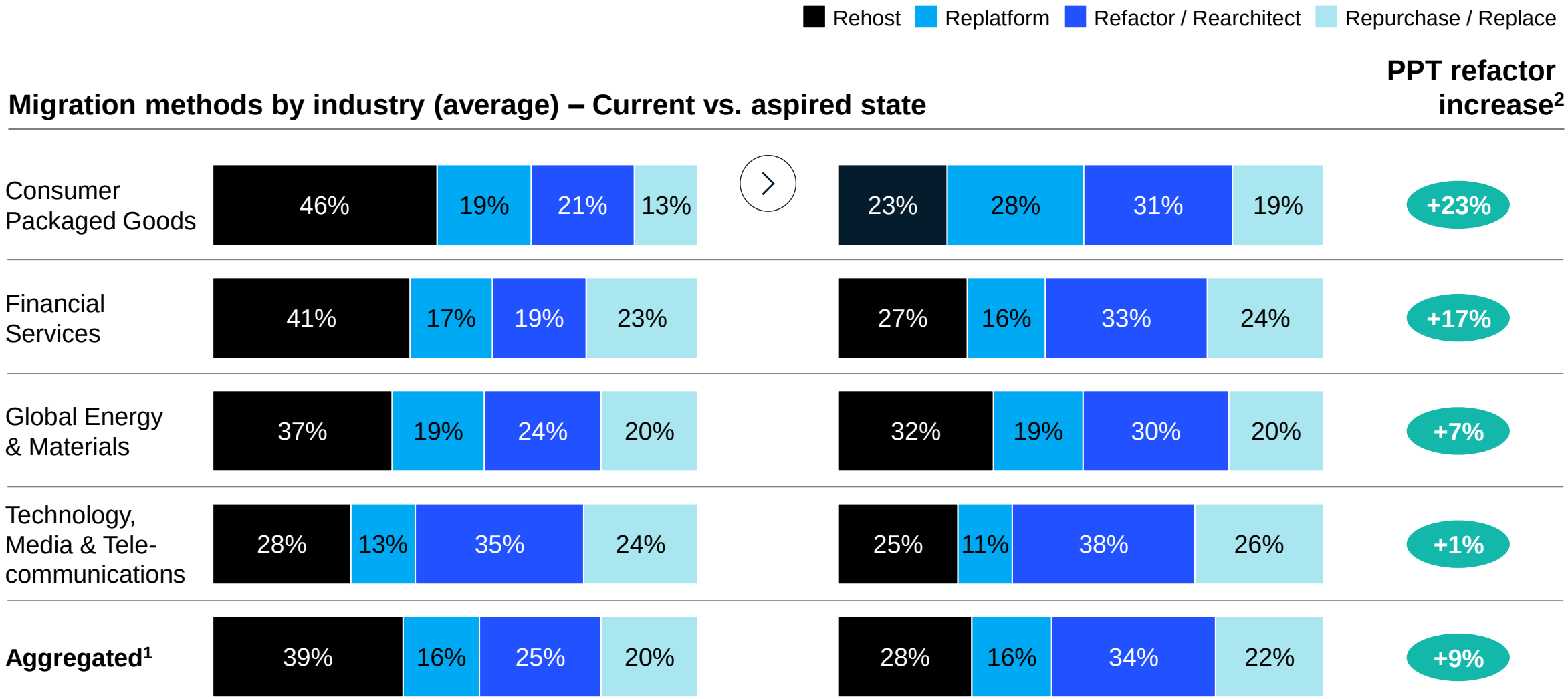
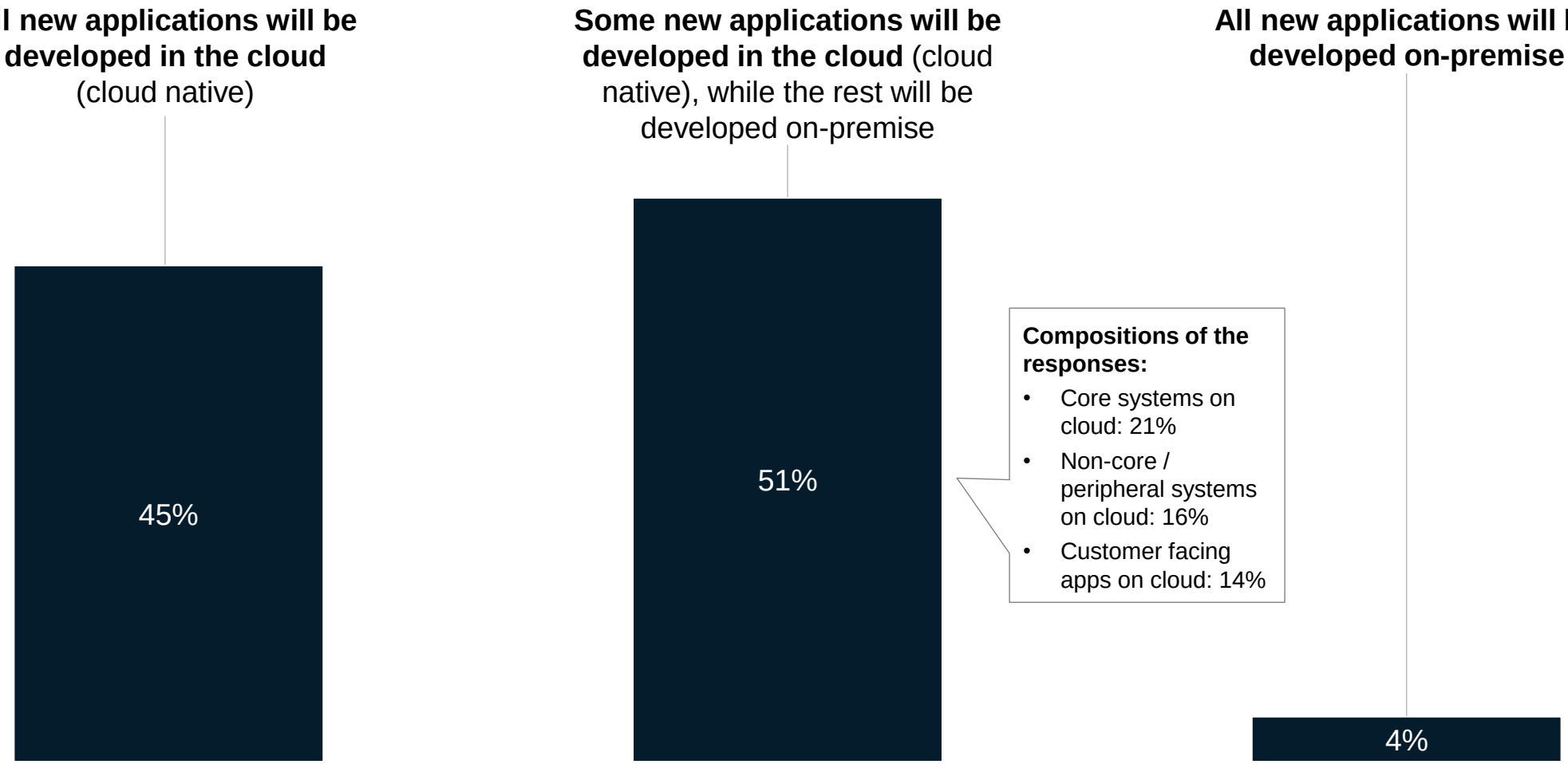
Refactor / rearchitect is most common migration method in TMT; other industries primarily use rehosting



1. 2022 serves as the benchmark for the current rate, while 2025 represents the desired or aspirational rate. 2. Percentage point difference between the aspired and current state on applying refactor

Most organizations will adopt cloud-native development, either across all or selected new applications

Future cloud strategy (% of participants)[1]

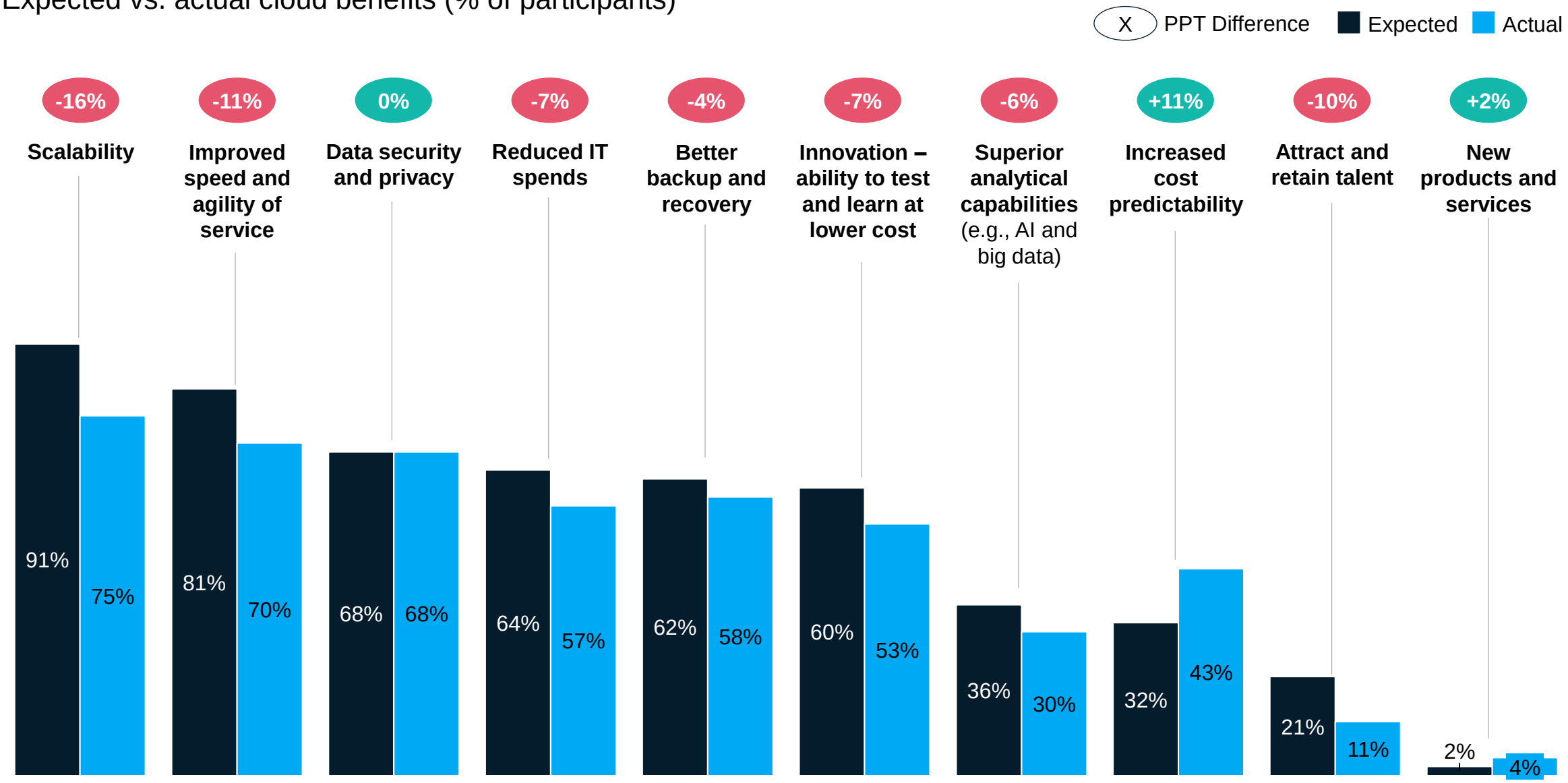


1. Excludes one response that indicated that strategy on cloud native development is not yet decided

What are the benefits and challenges technology leaders are facing?

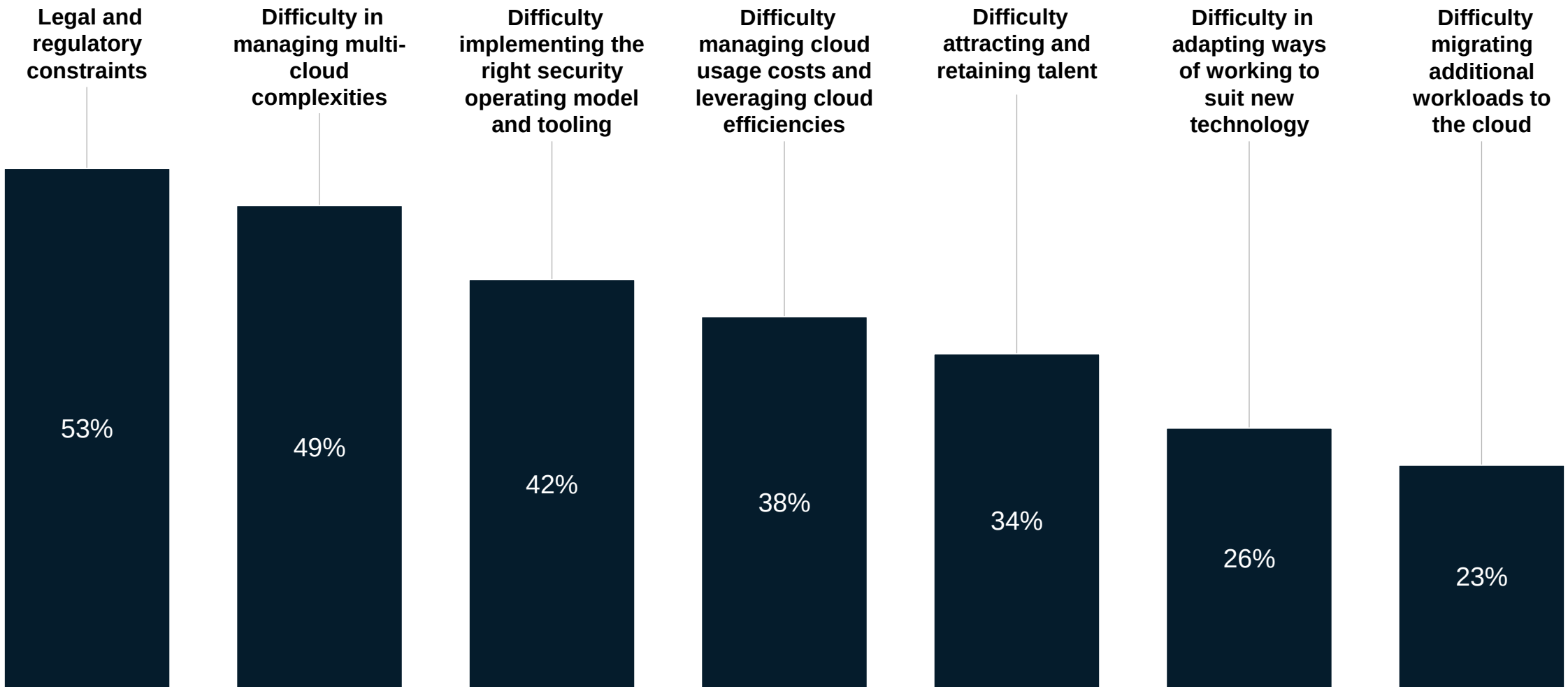
Majority of expected cloud benefits are not being fully realized

Expected vs. actual cloud benefits (% of participants)



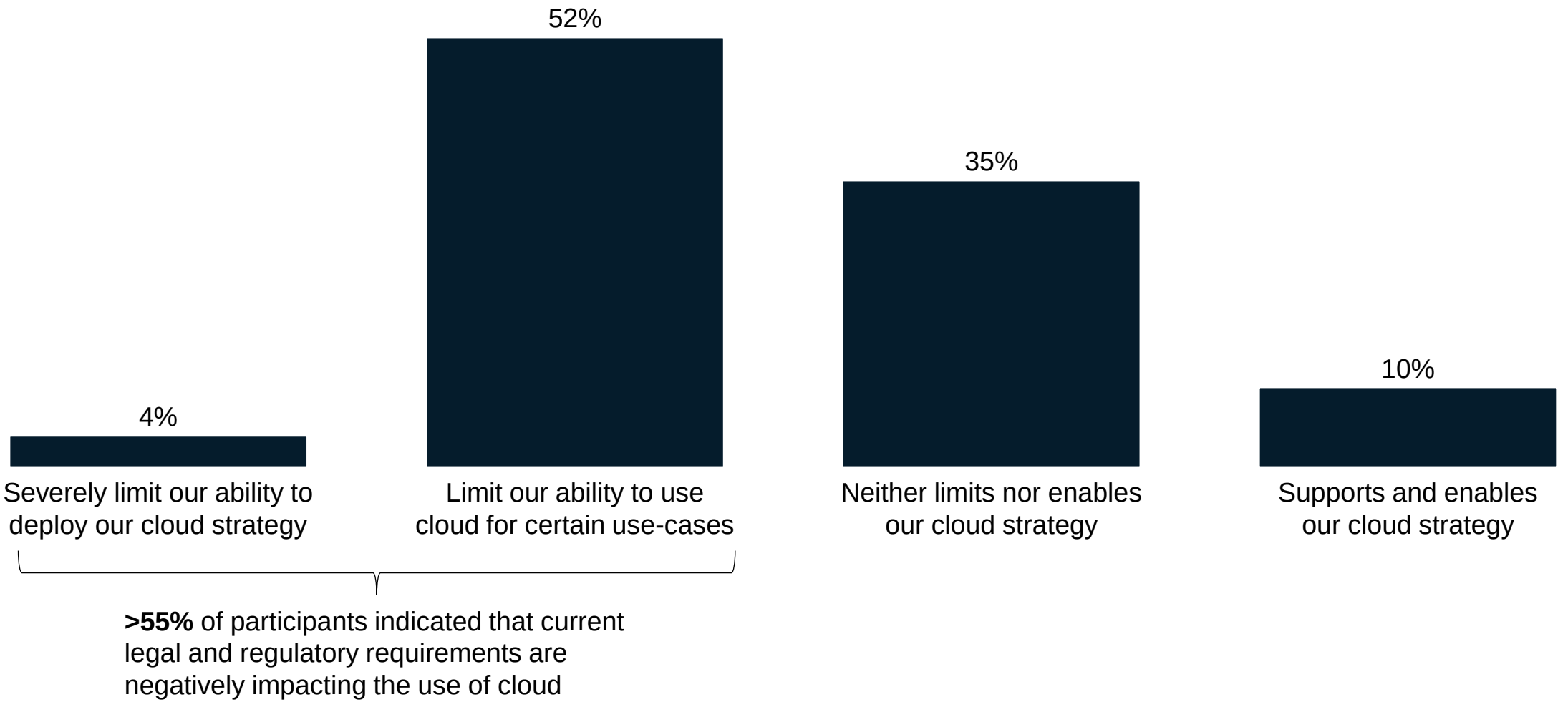
Legal/reg constraints and multi-cloud complexities are the two biggest barriers to cloud adoption

Factors impacting current cloud adoption (% of participants)



Only 10% of participants indicated that the current regulatory environment supports and enables their cloud strategies

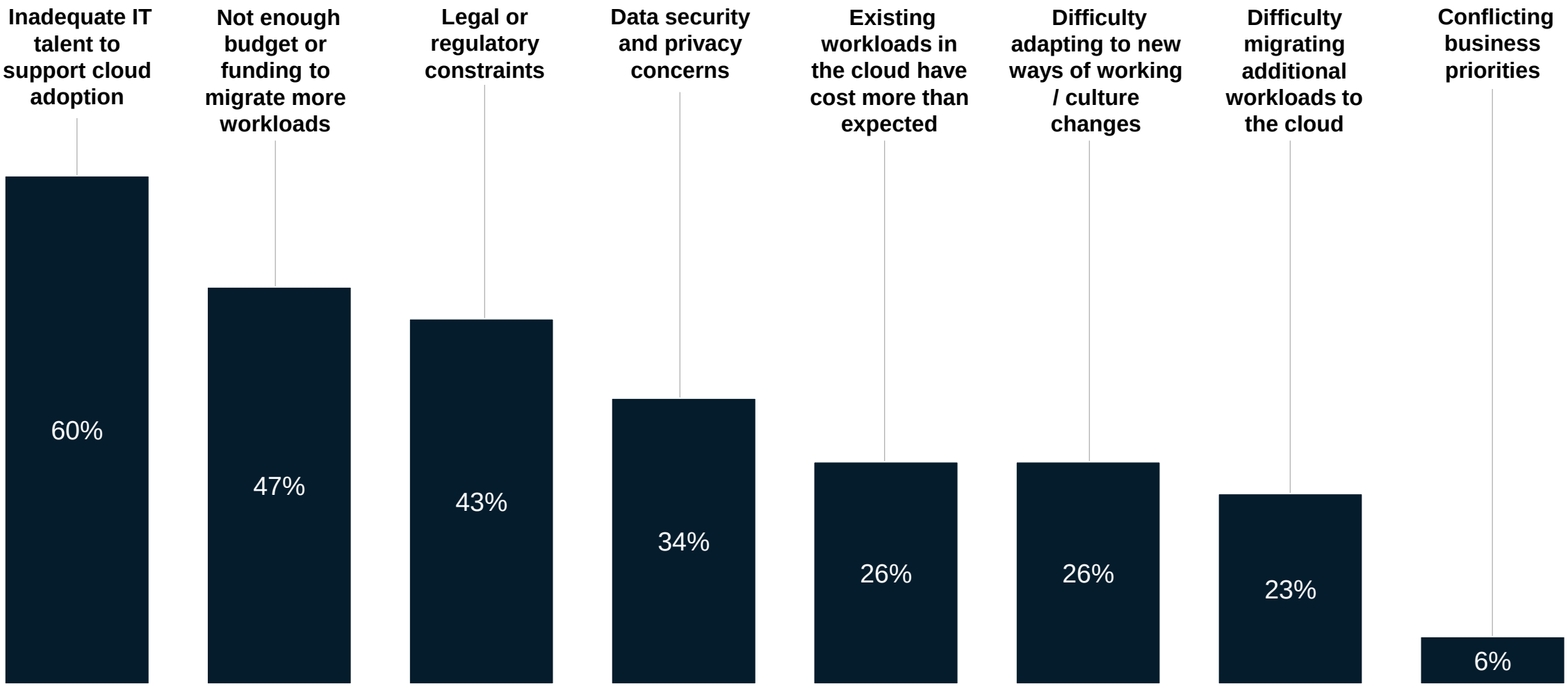
Legal and regulatory impact on cloud adoption (% of participants)



How do they think about the future of cloud in Africa?

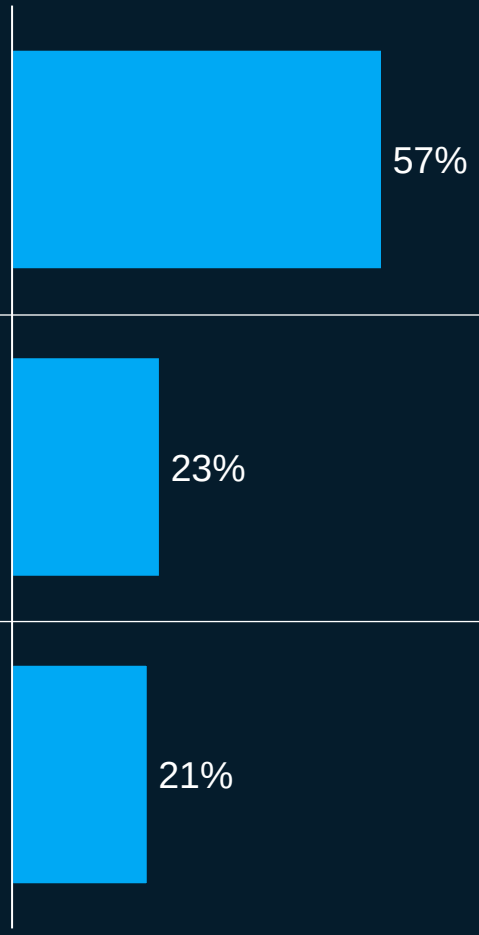
Availability of talent is the biggest factor prohibiting further cloud expansion

Factors that can slow down further cloud expansion (% of participants)



Majority of participants anticipate most African organizations will broadly adopt cloud in the future

Perception of cloud outlook in Africa (% of participants)



Participants' viewpoints

"Cloud technology allows organizations to access data and applications from anywhere, at any time, with minimal downtime"

"Cost and scalability benefits will push most organizations to adopt cloud"

"Cloud is already more popular than we think. Gradually, every business could be run fully on cloud"

"The desire to adopt cloud is strong but the biggest hindrance will be regulatory restrictions on data privacy, residency, etc. These will slow down adoption for more regulated industries."

"Many organization will face some regulations and legal constraints that restrain them from using cloud technology to its full extent"

Organizations will remain mostly on-premise for many reasons: control mindset (on-premise is controllable), security concerns, the low level of maturity of local cloud providers, and legal constraints.

There will be for sure be many organizations who use cloud but they will be limited to specific use cases.

Any Question?