

AMERICAN BANKER

Live Webinar

Scaling AI in Banking Why Core Systems Matter More than Ever

amdocs
STUDIOS

Celent.
a GlobalData company



Speakers



Paul Holland
Chief Technical Officer

amdocs
STUDIOS



Daniel Mayo
Principal Analyst, Retail Banking

Celent.
a GlobalData company



Mike Sisk
Moderator

AMERICAN BANKER

What we will explore

How banks can modernize the core to scale AI with confidence and control

01 Banking priorities are converging

02 The core transformation choices

03 Agentic AI changes the delivery model

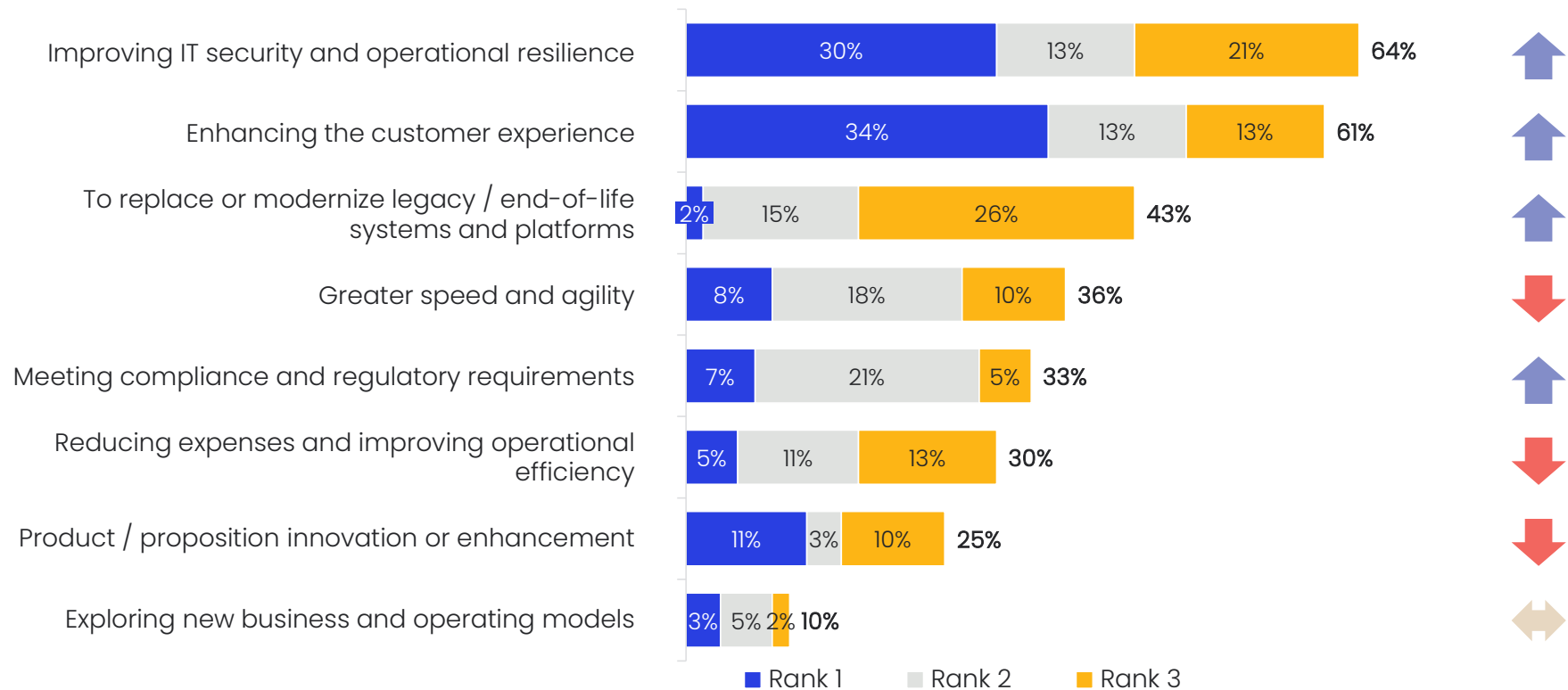
04 The foundation for an agent-ready bank

Resilience and customer experience driving banking IT strategy

Legacy modernization has become a significant supplementary priority

Top three drivers of IT strategy for North American banks in 2026

Change in
priority vs. 2025



Base: North American retail banking respondents (sample: 61)

Question: What are the top three drivers of your institution's IT spending strategy for the next 18 months?

Source: Celent Dimensions Survey 2026

Resilience is top driver in US with Canadian banks led by compliance

Legacy modernization drive led by US medium-to-large banks

Top three North American IT spending priorities for 2026 by country and tier

	Canada	US	US Large	US Medium	US Small
Improving IT security and operational resilience	45%	68%	73%	57%	70%
Enhancing the customer experience	55%	62%	69%	71%	30%
To replace or modernise legacy / end-of-life systems and platforms	18%	48%	58%	43%	30%
Greater speed and agility	45%	34%	35%	29%	40%
Meeting compliance and regulatory requirements	64%	26%	19%	36%	30%
Reducing expenses and improving operational efficiency	18%	32%	19%	43%	50%
Product / proposition innovation or enhancement	45%	20%	15%	14%	40%
Exploring new business and operating models	9%	10%	12%	7%	10%

Top priority

Second priority

Third priority

Based on % top three rank; where tied based on % ranked first

Base: North American retail banking respondents (sample: 61)

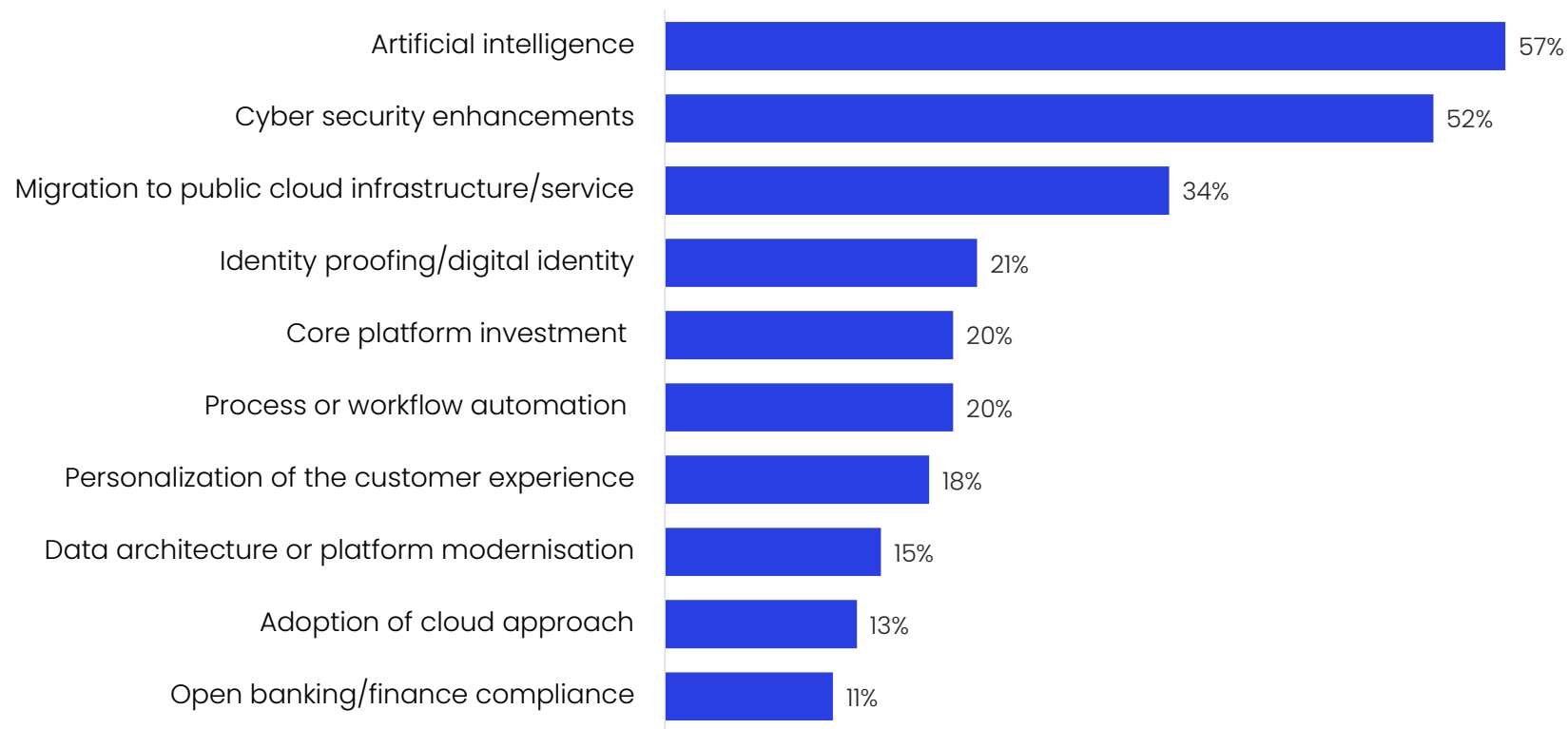
Question: What are the top three drivers of your institution's IT spending strategy for the next 18 months? (combined top three responses)

Source: Celent Dimensions Survey 2026

AI and cybersecurity are leading technology priorities

Cloud migration is a key secondary technology drive

Leading technology priorities in 2026



Base: North American retail banking respondents (sample: 61)

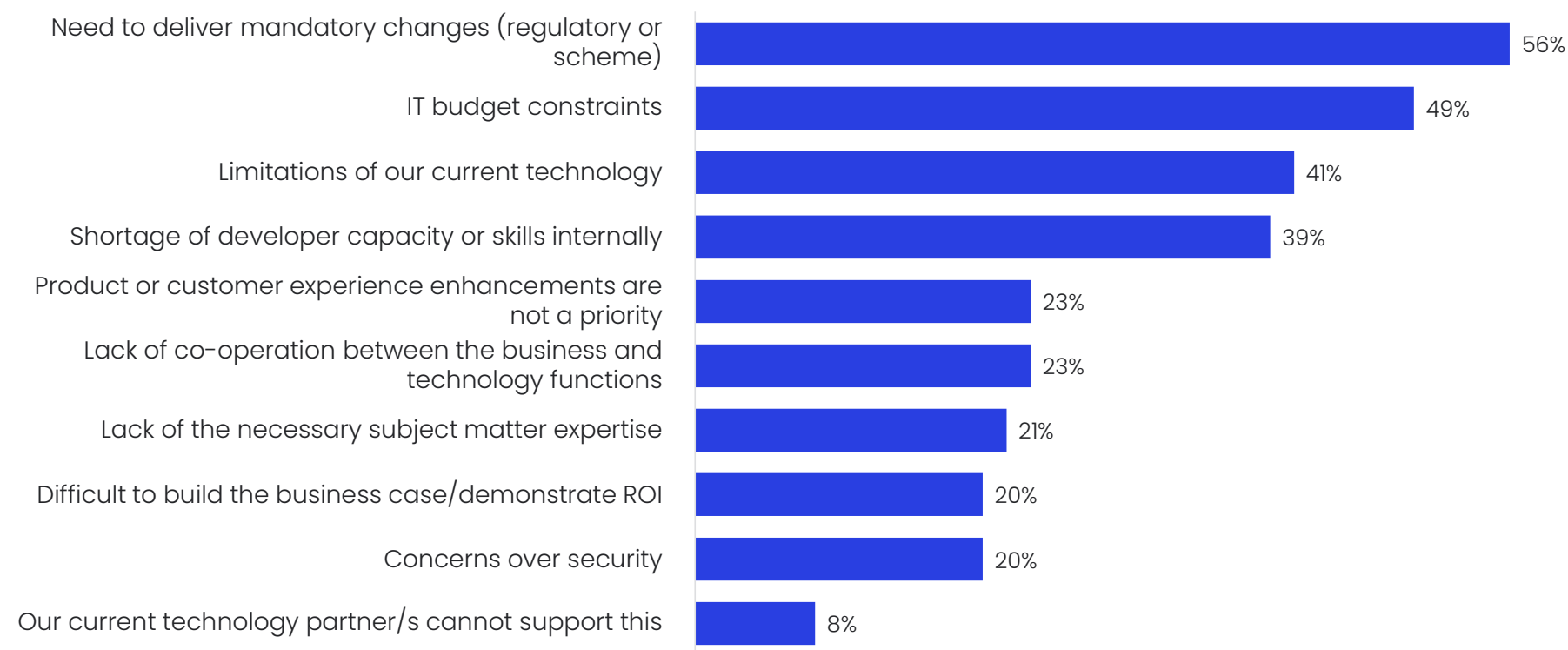
Question: Which of the following are your leading technology/process investment priorities in the next 18 months? (Top ten shown)

Source: Celent Dimensions Survey 2026

Mandatory demands and budget constraints impede innovation

Shortage of developer capacity and technology limitations are also notable barriers

Barriers to product enhancement in 2026

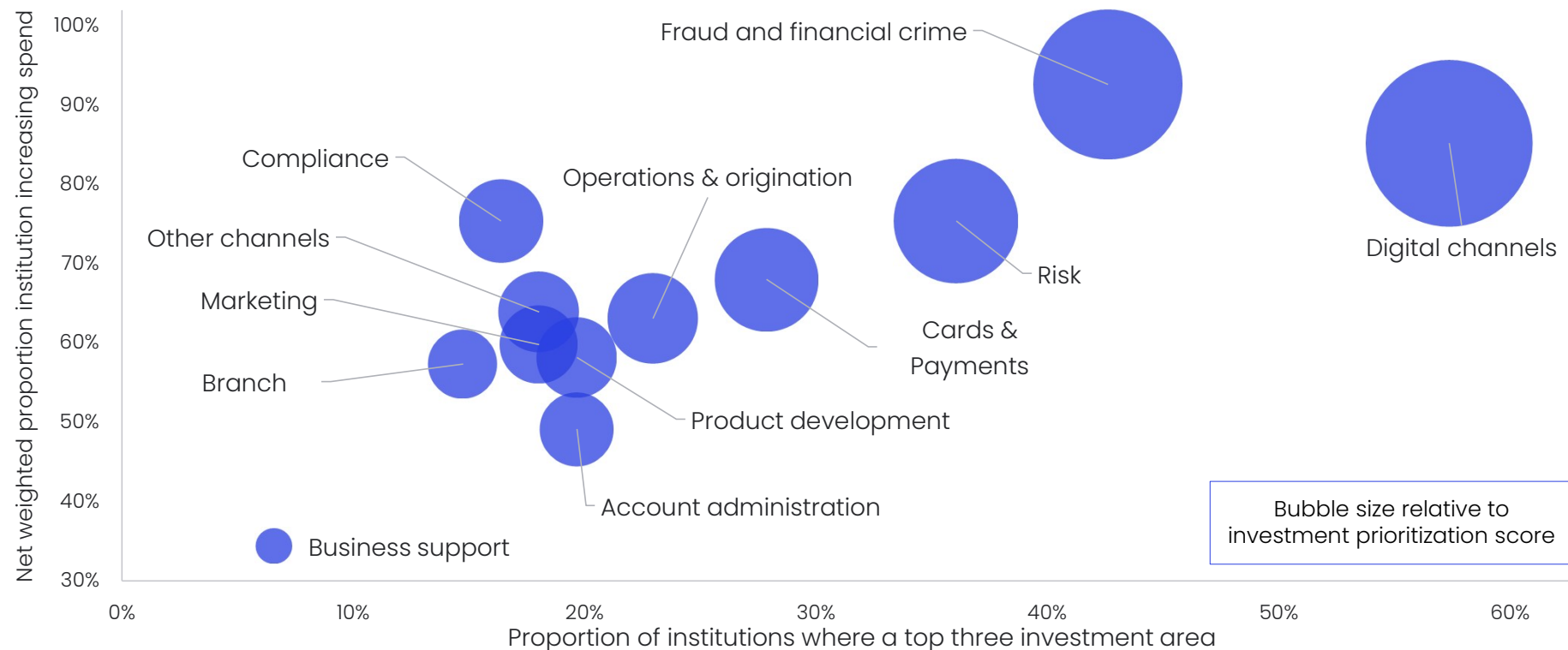


Base: North American retail banking respondents (sample: 61)
Question: Which of the following are the biggest barriers to delivering enhancements to your products and customer experiences? (Combined top three responses)
Source: Celent Dimensions Survey 2026

Digital channel, fraud & risk functions are top investment priorities

Account administration not a top investment area for most North American banks

North American retail bank IT investment priorities by business function 2026



Base: North American retail banking respondents (sample: 61)

Questions: Where are your largest technology investment projects for 2026? (X-axis);

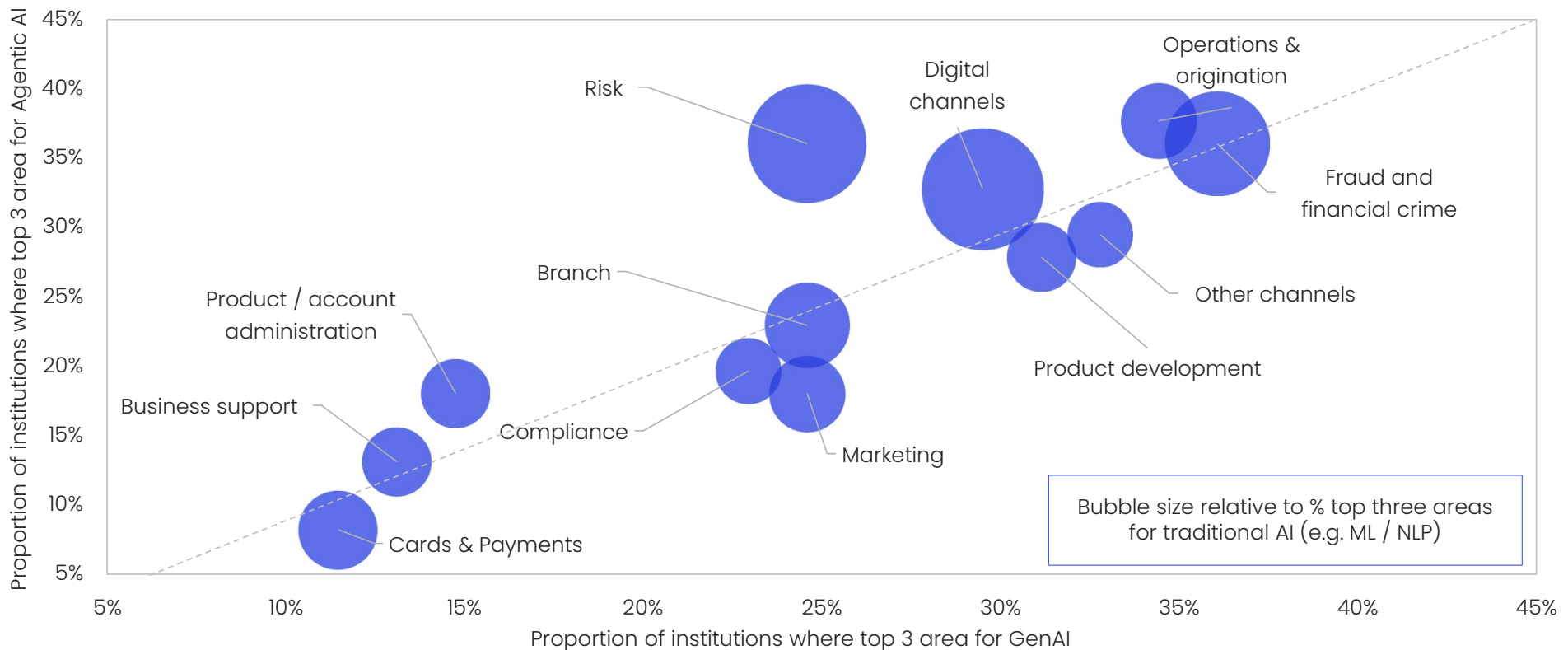
Please indicate the percentage change in IT spend expected in 2026 (vs. 2025) for the following categories (Y-axis)

Source: Celent Dimensions Survey 2026

Deployment of AI also directed toward digital channels and fraud

Strong focus on operations for Agentic AI deployment by North American retail banks

Deployment of AI by type across business functions, 2026



Base: North American retail banking respondents (sample: 61)

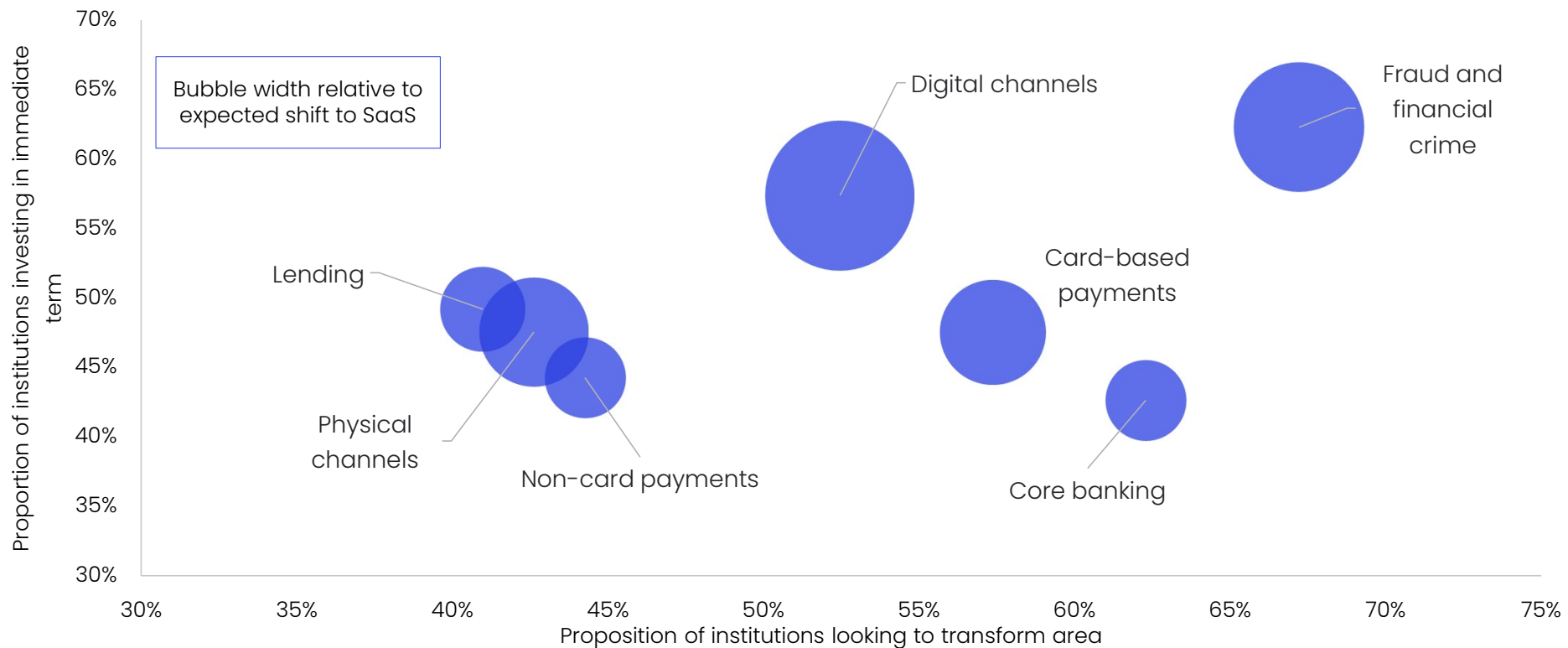
Questions: In which of the following areas will you make the greatest investment in GenAI (x-axis); Agentic AI (y-axis); traditional AI (z-axis) at your institution in the coming 18 months? (Top three combined)

Source: Celent Dimensions Survey 2026

North American banks are looking to transform core banking

However, this is generally a medium-long term priority, with immediate focus on digital and fraud

North American retail banking platform transformation strategies 2026



Base: North American retail banking respondents (sample: 61)

Question: Which of the following best describes your plans for the following systems for 2026/2027? (X-axis); When will you need to replace or undertake a major modernization of the main platforms or applications in each of the following areas? (Y-axis); Which of the following areas will see the greatest shift to SaaS or public cloud technologies at your institution in the coming 18 months? (Z-axis)

Source: Celent Dimensions Survey 2026

Transformation driven by challenges of legacy core

While a long-term issue, need to ensure resilience, driven innovation, and adopt AI catalyzing change



Difficult to make changes

It's increasingly difficult to make changes to legacy technology. Oftentimes, changes are reliant on change requests submitted to the supplier, adding additional cost or lengthy implementation.



Resource heavy to maintain & upgrade

The skills required to maintain legacy applications running on languages like COBOL are expensive, not only for system changes but for the IT resources required to do the job. Upgrades are often periodic and challenging, particularly if customizations have been made.



Risky to make changes

Legacy creates significant business risk, whether that's older technology, poorly understood customizations, a lack of available resources to maintain, or simply system performance. There are business and performance risks to maintaining legacy systems.



Closed and often monolithic

Integration into external providers of platforms and services can represent a major point of friction for traditional core platforms. Architectures aren't built for composability or ease of integration, but often as monoliths.



Expensive capacity requirements

Infrastructure platform costs are high, particularly with mainframes, with need to plan and provision infrastructure to manage future peak loads resulting in significant upfront investment.



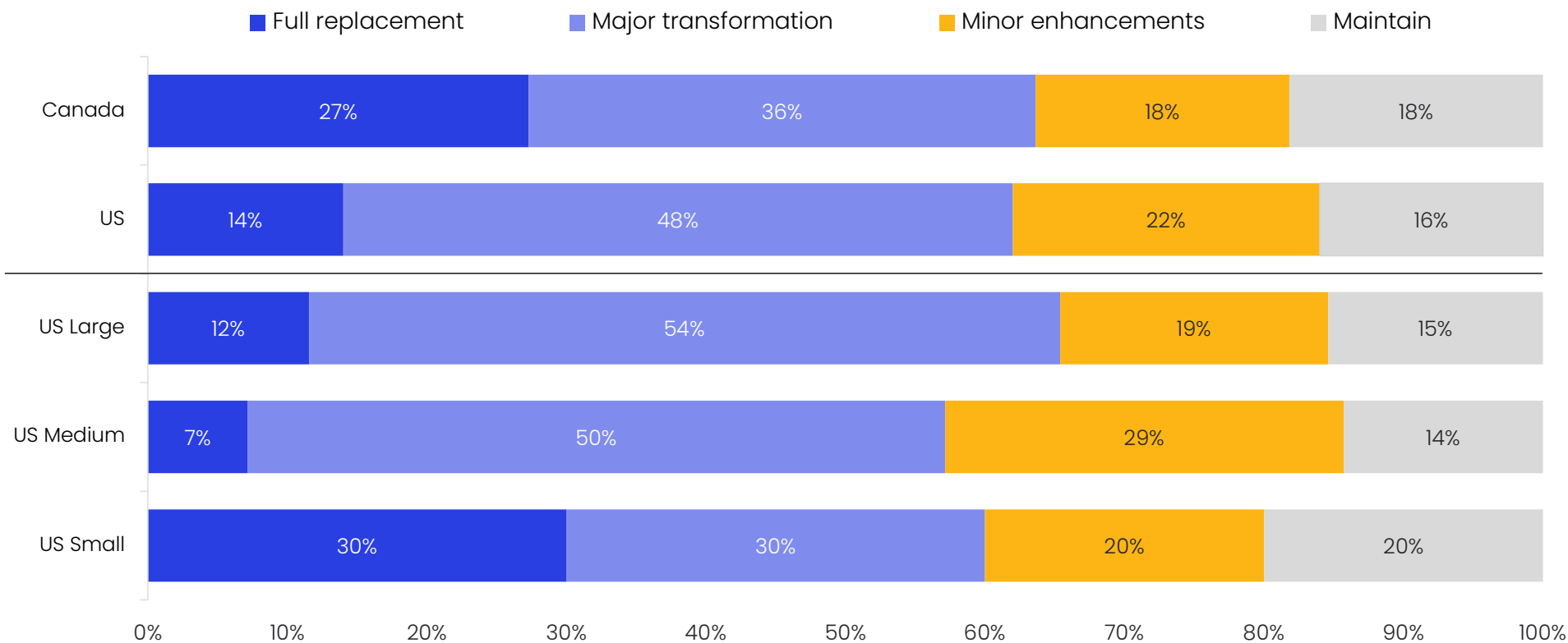
Impeded innovation

Innovation with traditional software packages is often difficult due to the lack of flexibility given to the institution. Changes to the platform are road-mapped by the supplier and rolled out to the entire customer base in a major release, limiting differentiation.

Most institutions are looking to transform rather than replace core

Replacement largely a strategy for small US banks, although Canadian banks are more open

North American core banking transformation plans 2026



Base: North American retail banking respondents (sample: 61)
Question: Which of the following best describes your plans for the following systems for 2026/2027?
Source: Celent Dimensions Survey 2026

Bank on Intelligence – Transforming from the Core

Strategic considerations for modernizing the bank's technology foundation

Hybrid compute

Mainframe, distributed platforms and cloud working as one estate

Workload placement

Processing runs in the best-fit environment, every time

API-everything

Seamless integration and flexibility across the estate

Legacy modernization

Breaking down monolithic architectures into manageable services

Strangling the core

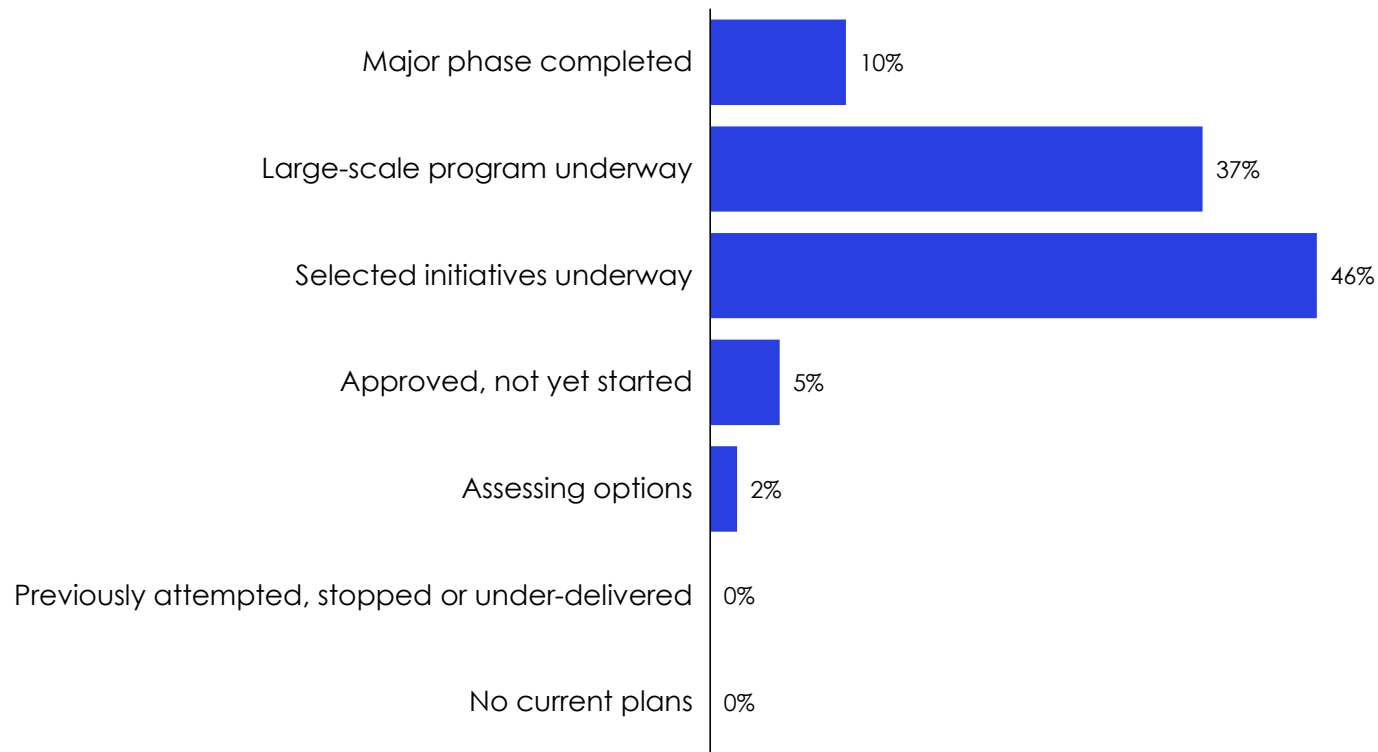
Migrating and modernizing peripheral applications first

AI adoption

Accelerating productivity and innovation across the bank

Mainframe modernization is in progress

Strong momentum, but most organizations are still navigating the path to enterprise scale



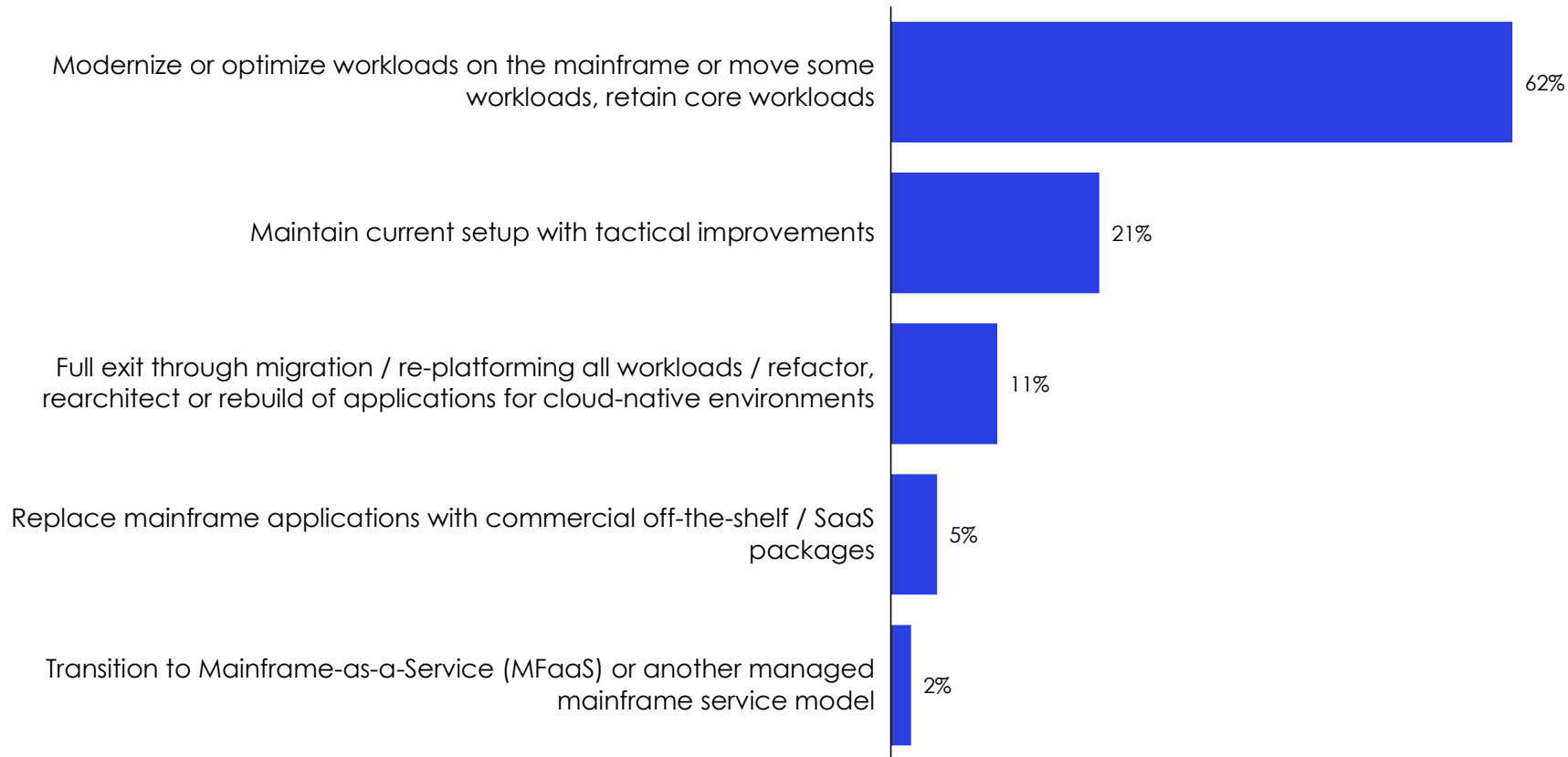
Question: Which of the following best describes your organization's current stage of mainframe modernization?

Base: 500 respondents

Source: Mainframe modernization market research, 2026

Full exit is rare. Core workloads are to remain on mainframe

The strategic question is not whether to exit, but where each workload creates the most value



Question. Which of the following best describes your organization's likely mainframe strategy over the next 5 years?

Base: 500 respondents

Source: Mainframe modernization market research, 2026

Banking has moved from 'whether' to 'how'

The leadership imperative is to translate ambition and investment into governed, enterprise-scale execution

87%

say mainframe
modernization is
*essential to cloud
and AI ambitions.*

88%

are increasing
modernization
investment.

83%

expect agentic AI
to become
essential to
enterprise-scale
modernization
within three years.

Market research carried out by Coleman Parks throughout July and August 2026.

How banks would put agents to work for modernization

Banks favor a progressive path: understand, validate and orchestrate before transforming

92%

*say AI-assisted
modernization
needs
deterministic
engineering
controls*

90%

*would allow
agents to
analyze
applications and
code*

81%

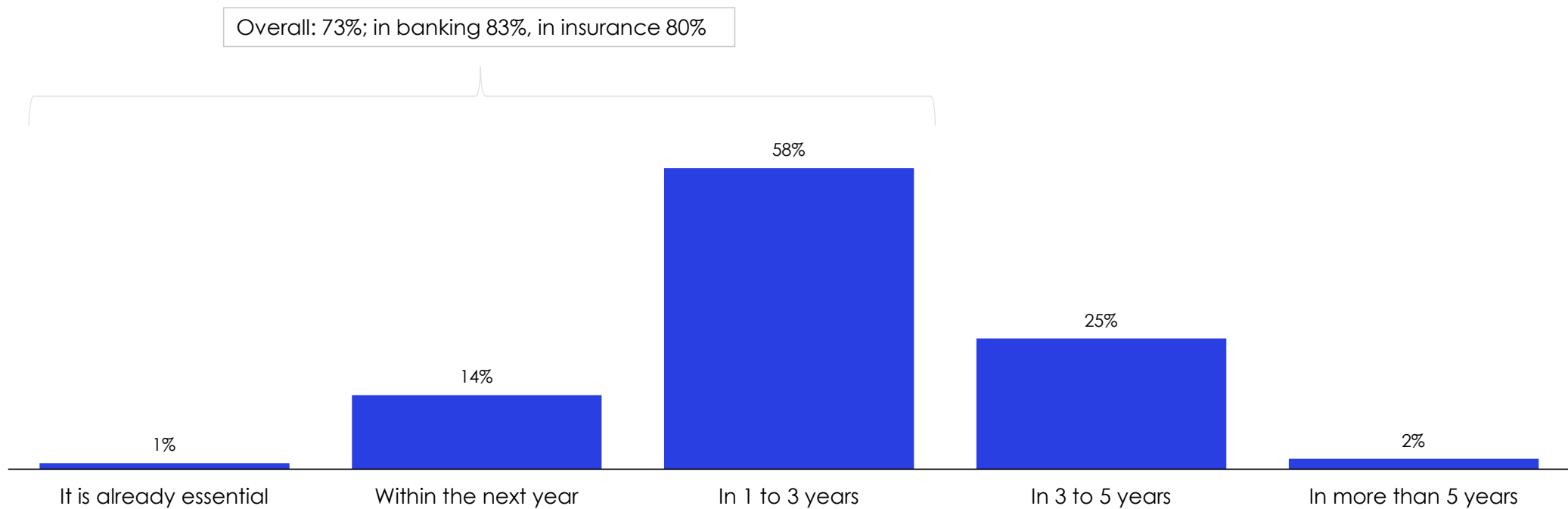
*would allow
testing,
validation and
orchestration*

29%

*would currently
allow agents to
transform or
rearchitect
applications*

Agentic AI for modernization becomes essential within 3 years

Organizations must prepare today for agentic AI to become a core modernization capability



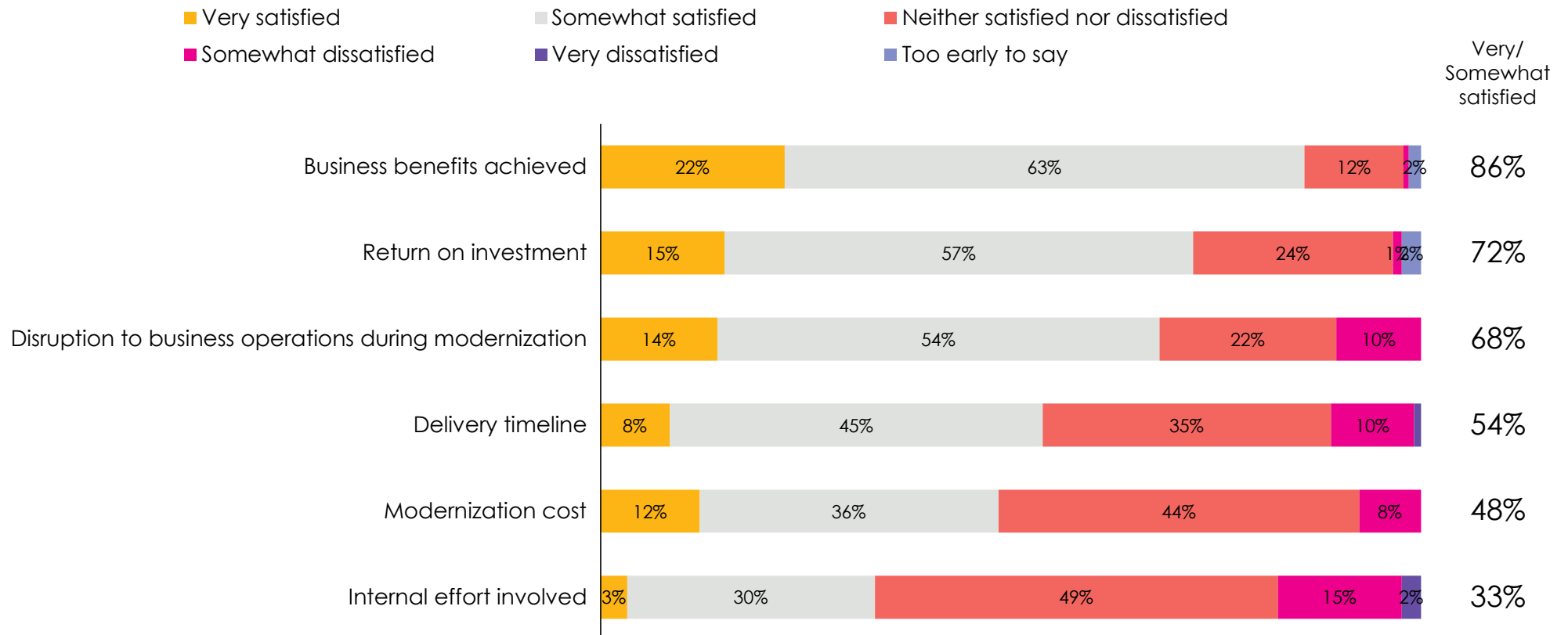
Question: When, if ever, do you expect Agentic AI to become essential to delivering enterprise-scale mainframe modernization?

Base: 500 respondents

Source: Mainframe modernization market research, 2026

Benefits and ROI are clear, effort is the pain point

Modernization delivers value, but execution models must become more efficient and scalable



Question: How satisfied or dissatisfied are you with the results of your organization's mainframe modernization initiative in each of the following areas?

Base: Those who are actively modernizing their mainframe = 464

Source: Mainframe modernization market research, 2026

To bank on intelligence, start with the core

Three strategic priorities for turning core modernization into enterprise intelligence

1

Modernize with purpose

Choose the right path for each workload — optimize, refactor, rearchitect, migrate or retire — based on business value and risk.

2

Scale intelligence with control

Use agents to understand, plan and orchestrate, while deterministic engineering, governance and human accountability protect critical banking operations.

3

Build an agent-ready bank

Make core business logic, data and services understandable, accessible and governable so bank-owned agents can act with confidence.

Modernizing the Core helps enable agentic AI for the business

An agent-ready architecture begins by making data, business logic and functions accessible and governed

Real-time data access

Live transaction data becomes accessible to agents through open, governed interfaces.

Business logic exposed

Processes and rules buried in legacy code are surfaced, documented and made explicit.

Functions as microservices

Application functions become consumable as microservices and events that agents can call.

Thank You!

Questions?



paul.holland@amdocs.com | dmayo@celent.com