

New trends in Payments, AI & Banking

Master of Science in Business Administration,
Università Degli Studi di Roma Tor Vergata

25th February 2025

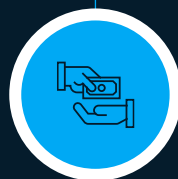


**What is on top of mind
of banking CEOs?**





What is on top of mind of banking CEOs?



New environment

Deposits, Liquidity, Capital



Growth

Affluent, SME, cross-sales revisited



Cost

More comprehensive, more structural, truly AI



Technology

Finally tackling the cloud-based CORE



Sustainability

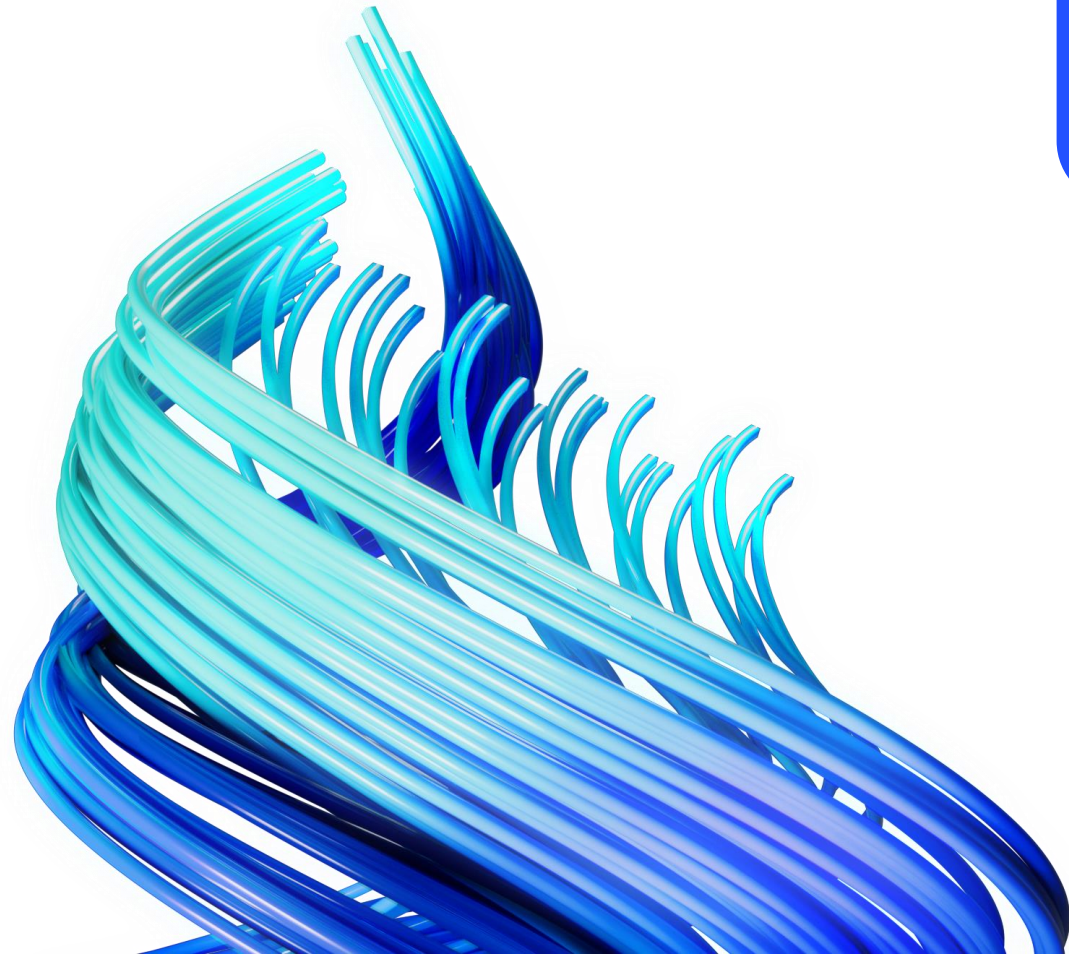
Moving from risk to business opportunity



M&A

What, when, where

Contents



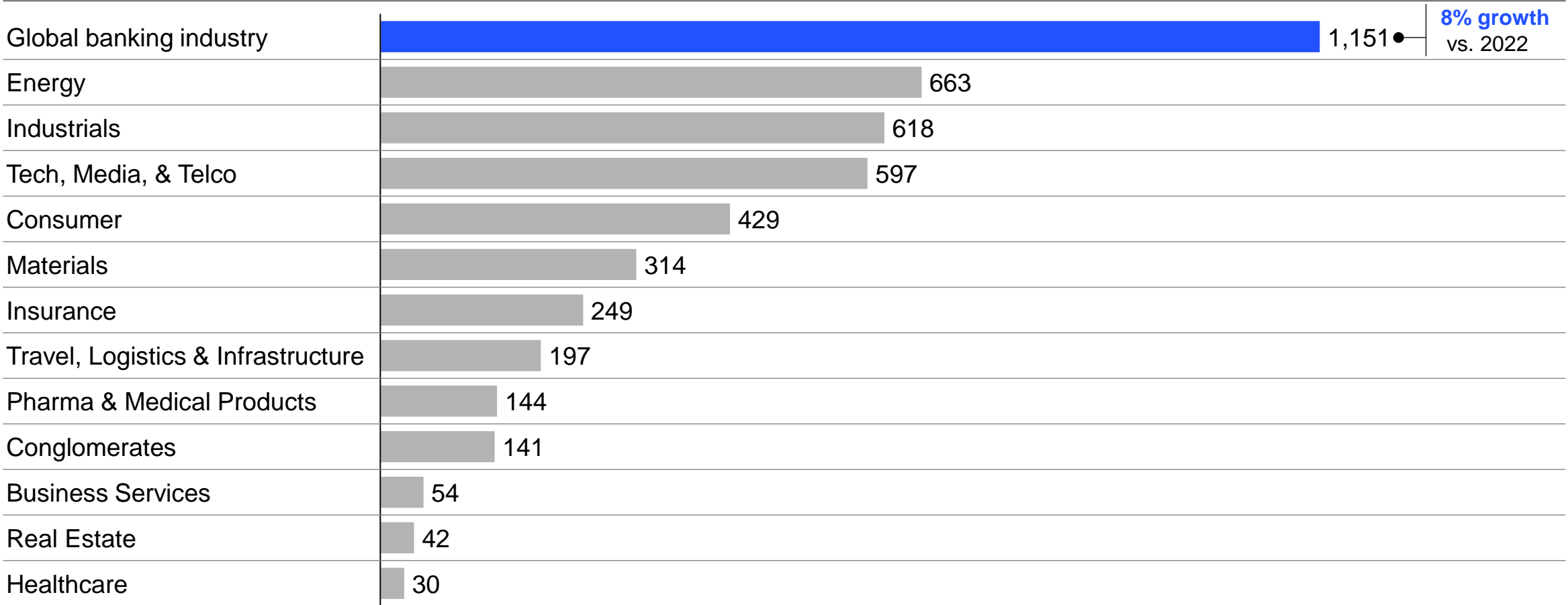
01. State of the market

**02. Next wave of growth and
key trends looking forward**

The global banking industry in 2023 generated \$1.15 trillion in net income, roughly the combined energy and industrials industries

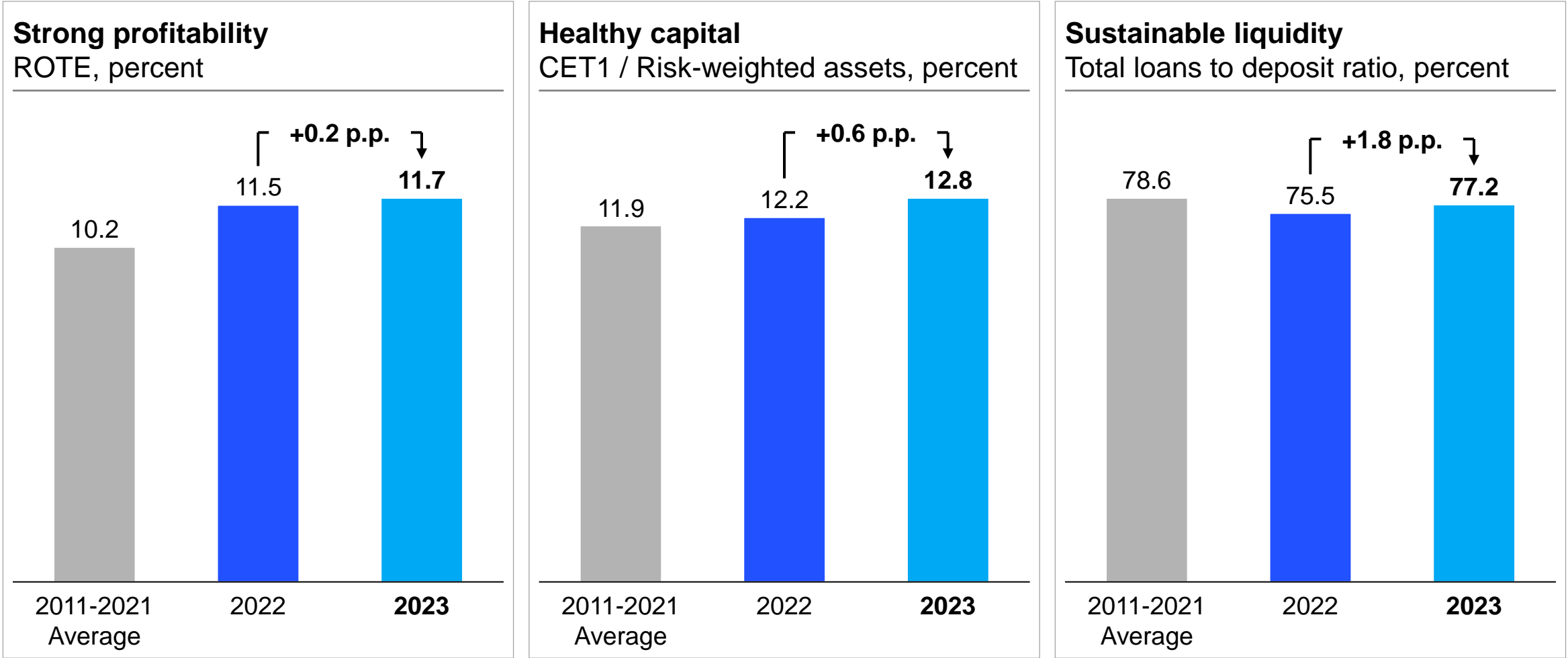
Net income by industry of publicly-traded companies¹

2023, US\$ billion



1.Based on ~35k publicly traded companies

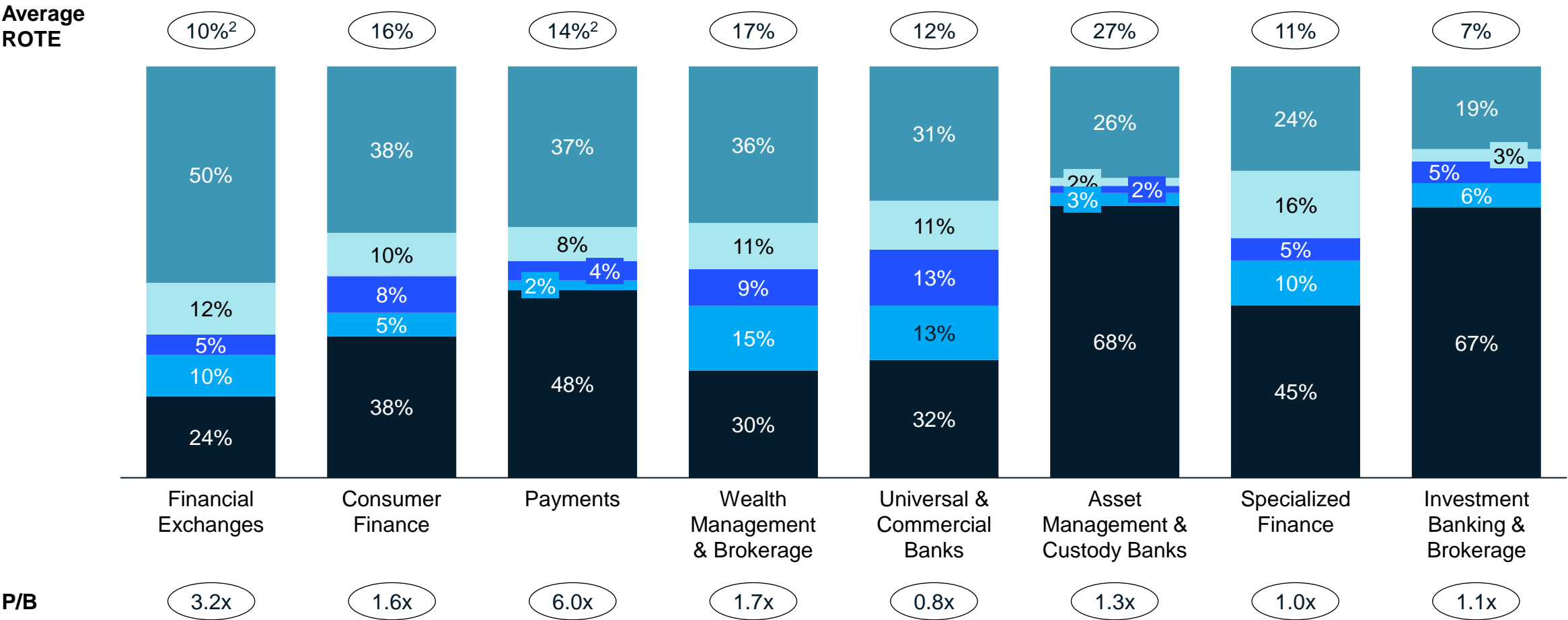
Banking revenues, return on tangible equity, and liquidity all grew in 2023, maintaining healthy levels across the board



However, the performance varies across and within sub-sectors of the banking industry

■ ROE <8% ■ 8% to <10% ■ 10% to <12% ■ 12% to <14% ■ ROE 14% and above

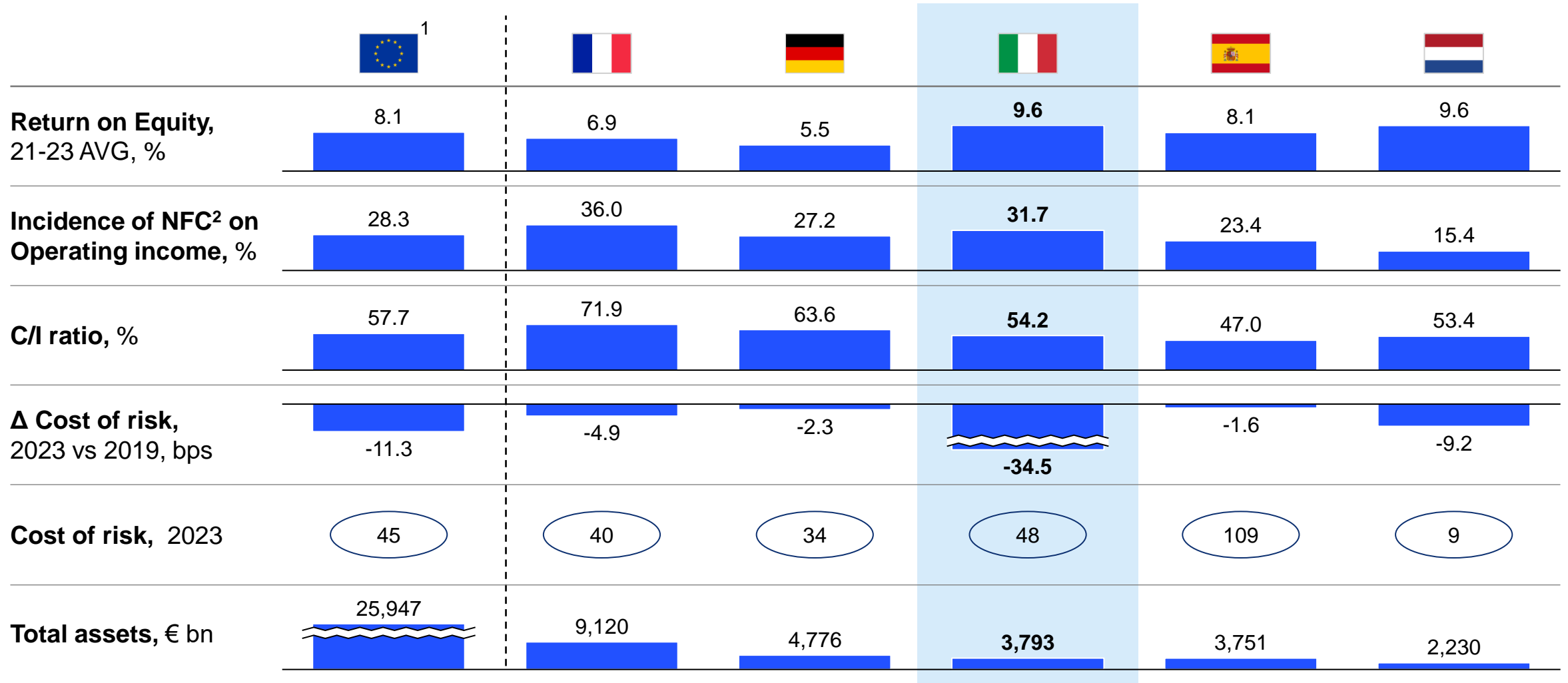
Distribution of financial institutions by ROTE¹, % of total institutions 2023



1. Based on ~2k financial institutions | 2. Indicates ROE, considering that substantial goodwill in the segment results in negative tangible equity

Within Europe, the Italian banking industry shows the best ROE performance...

FY23



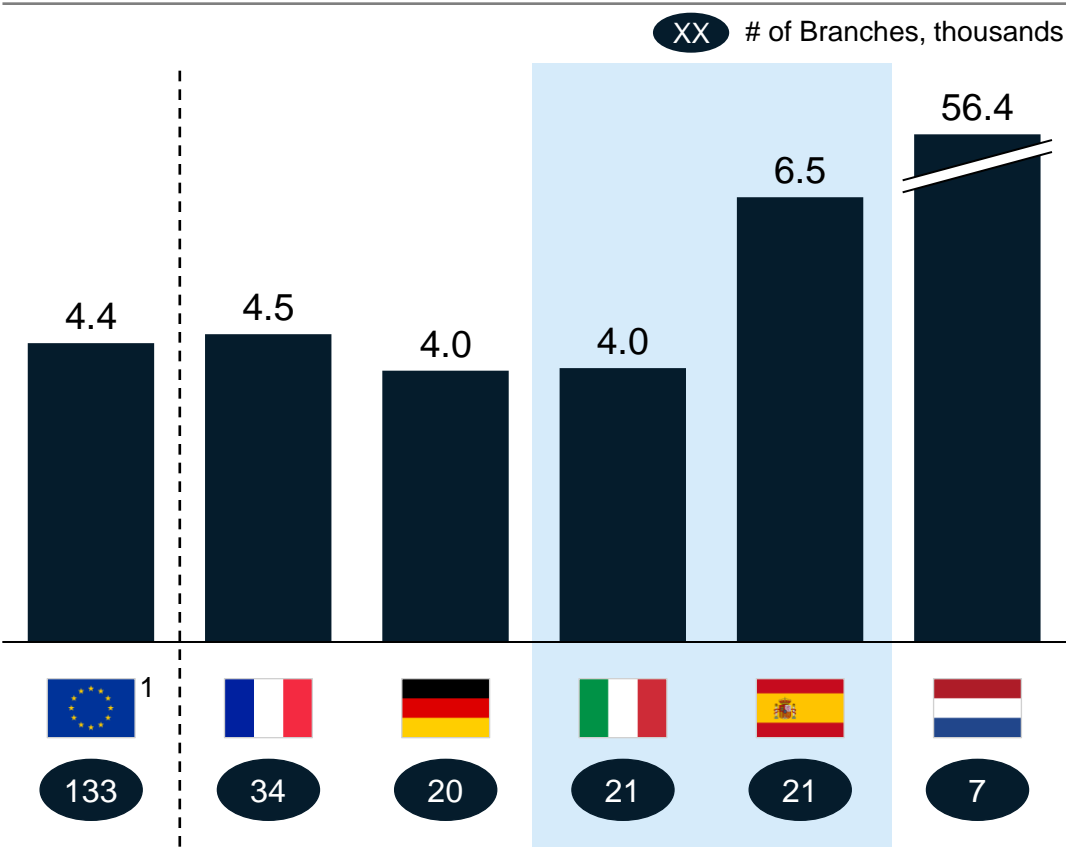
1. Referred to Euro Area countries | 2. Net Fees and Commissions

Source: For EU countries ECB data (consolidated), for Italy: Bank of Italy

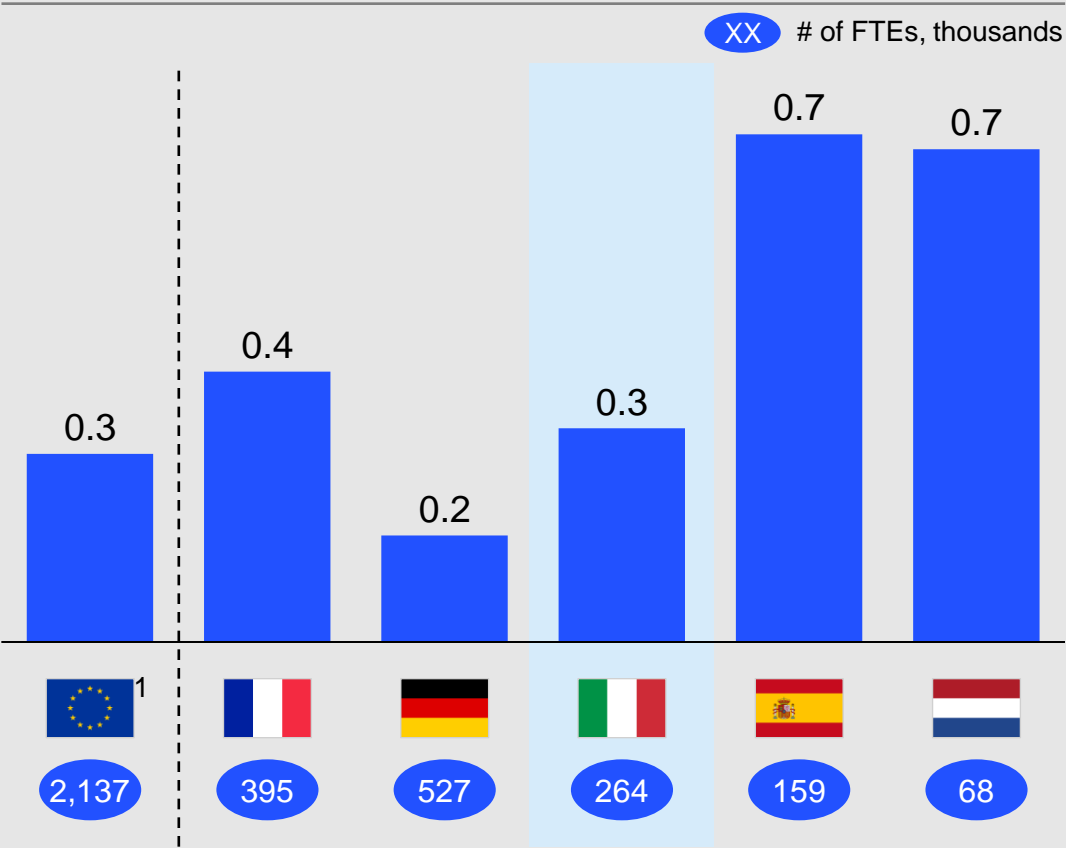
...however, maintaining a strong gap in productivity vs. other countries, where technology can play a key role

FY23

Revenue per Branch², € mln

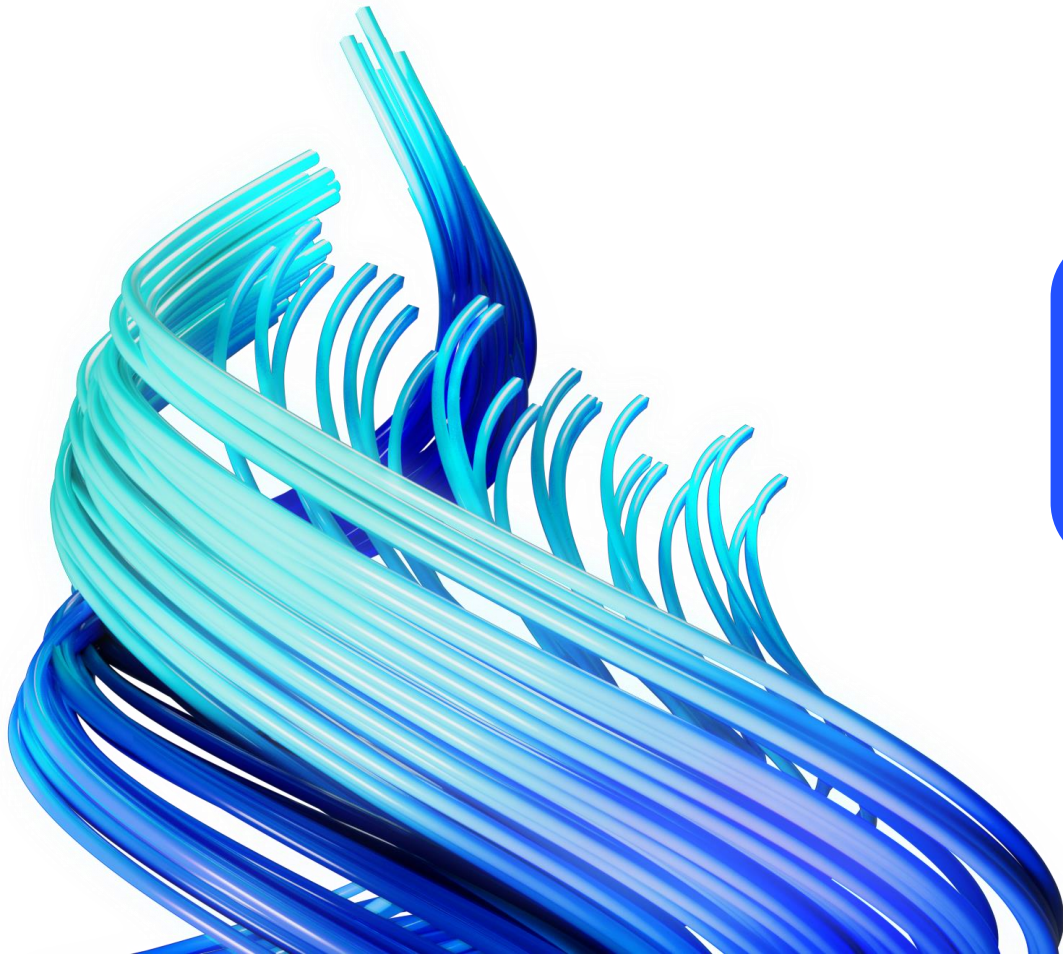


Revenue per FTE³, € mln



1. Referred to Euro Area countries | 2. Calculated as total banking revenues / total branches | 3. Calculated as total banking revenue / FTEs

Contents



01. State of the market

**02. Next wave of growth and
key trends looking forward**

Looking forward, there are 6 digital trends impacting the payments & banking industry, driven by AI

 Detailed next



A

**Payments
digitalization**

*Cross border
transactions*



B

**GenAI
empowered
workforce**

*The day of the
“empowered”
banker*



C

**Engineering
productivity
driven by AI**

*Cloud-based
core banking
system*



D

**Fraud and
cyber attack
prevention**

*Operational risk
and cyber-
security*



E

**Central Bank's
Digital
currencies**

Digital Euro



F

**Digital &
Omnichannel**

*The next wave
of banking*

A | Several key trends will shape payments digitalization's revenue growth in the next 5 years

x. Detailed next ↑ Supporting revenue growth ↓ Impacting revenue growth ● Limited relevance ● Significant relevance

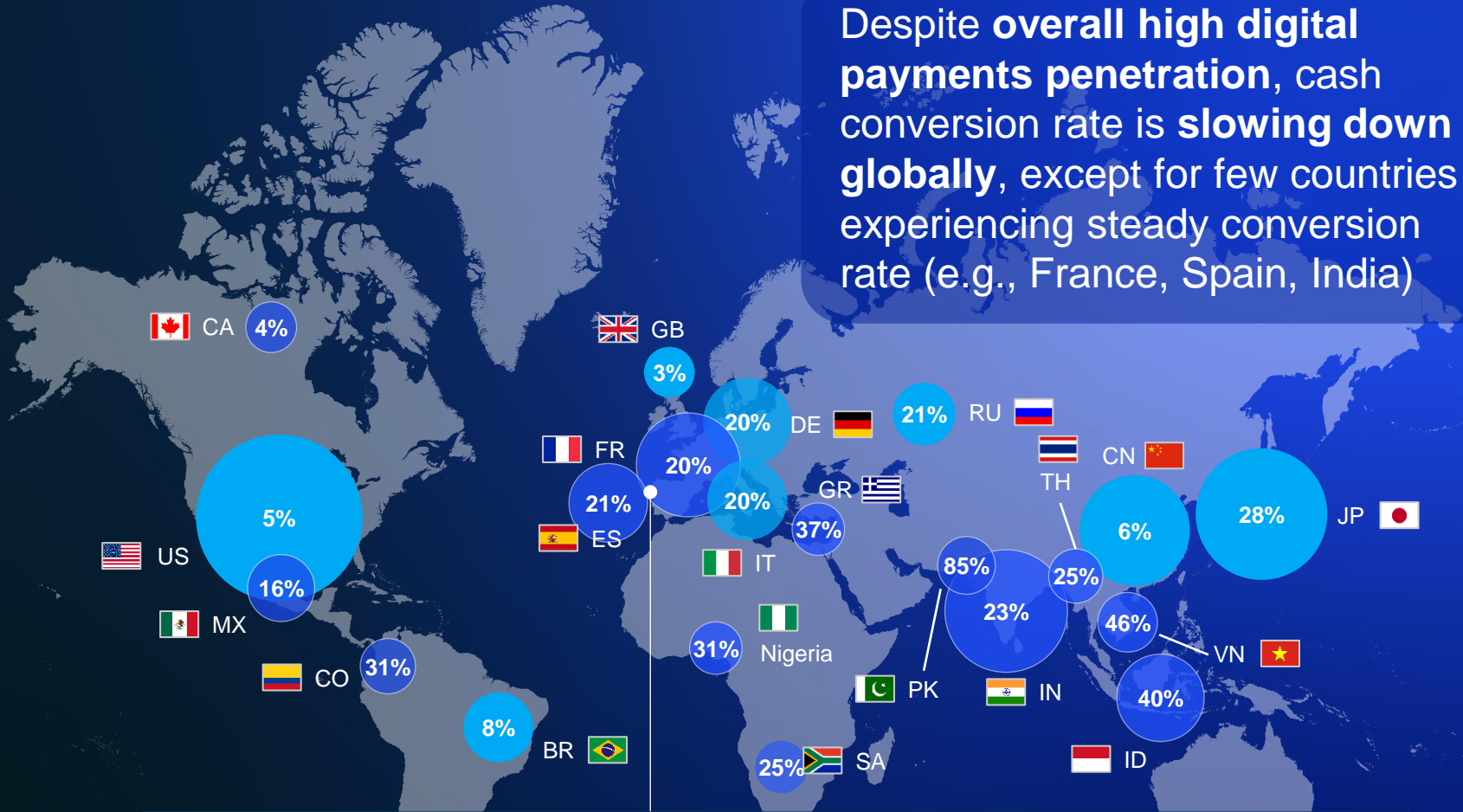
Key trends	Industry impact		Potential strategic posture ¹	Relevance in Europe
1. Decline of cash usage will slightly slow down	↓	Digital payment growth continuing at a slower pace , selected geographies hold consistent cash conversion rates	Increased focus on organic growth (e.g., increased commercial focus, VAS)/ market expansion as industry tailwinds diminish	●
2. Platforms will continue to take share from incumbents	↑	Platforms (e.g., ISVs, marketplaces) supporting digitization of the economy and increasing digital payments volumes , but potentially disintermediating traditional players	Development of dedicated platform proposition (e.g., proprietary ISV offering, enablement of platforms/ ISVs as a partner) in order to capture part of the volume growth and limit disintermediation	●
3. B2B payments will navigate towards a fully digitalized model	↑ ↑	Opportunity to increase SoW on SMEs/ large merchants spend , catering to needs which are currently not well addressed by banks	Creation of integrated B2B payments propositions (e.g., cash forecasting, fraud) to expand the TAM and accelerate large merchants' growth	●
4. A2A APMs will be catalyzed by instant payments and growing adoption of digital public infrastructures	↓	Bypassing of traditional rails, with potential impact on card-related revenues in countries with established electronic payments ecosystems	Assessment of potential instant payments solutions deployable in core markets , with a " defensive " approach (i.e., shaping the market before the arrival of attackers/new entrants)	●
5. Prioritizing the fight against financial crime	↑ ↓	Increase in cost burden to manage with additional fraud risk, with emergence of solutions with value for merchants	Consolidation of fraud/ risk management capabilities and development of solutions offered to merchants/industry players	●

Based on expected materiality of economic impact in Europe

1. For legacy traditional players (e.g., banks, PSPs)

A1 | Cash spend is declining globally, but at a decelerating pace

- 2023 C2B cash spend, \$ Tn
- xx% Cash share in C2B
- Cash spend decrease rate decelerating
- Cash spend decrease rate staying steady
- Cash spend CAGR 2018-2023
- Cash spend CAGR 2023-2028



	Delta	Avg. correlation factor with card volumes growth	Impact on acquiring transaction revenues ¹
Italy	7 pp	60 – 80%	4 – 5 pp
Germany	1 pp		1 pp
Spain	–		–

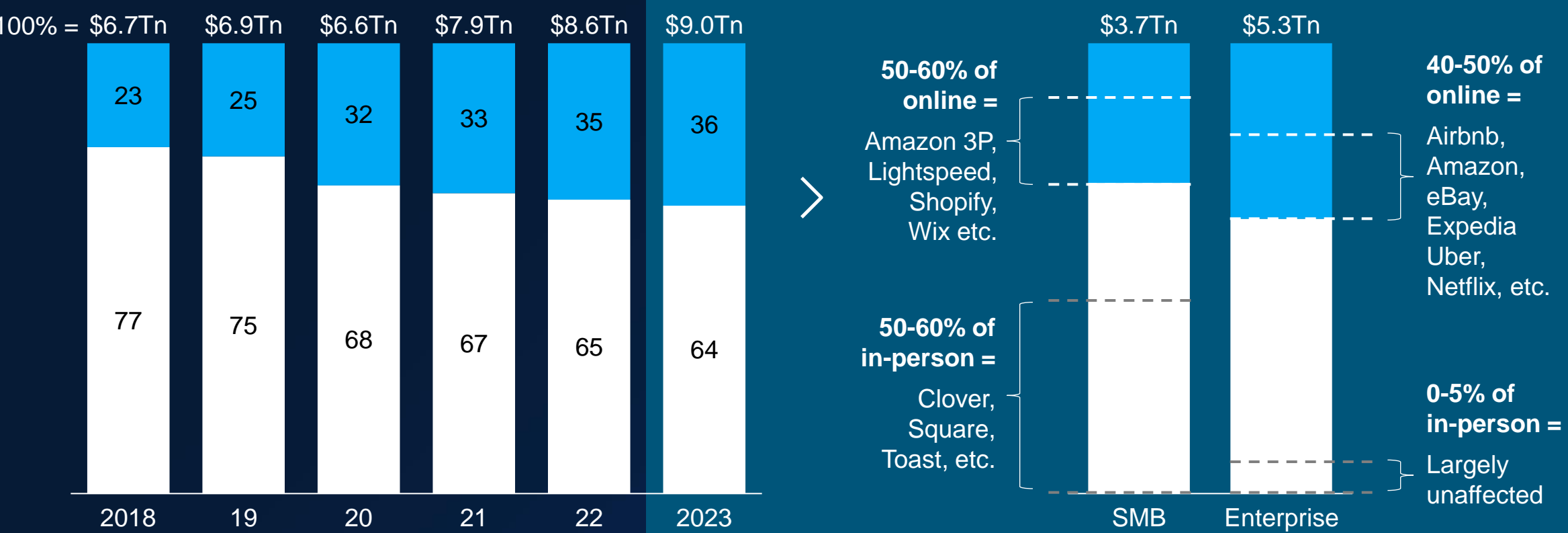
1. Potentially compensated by other macro-economics factors (e.g., real GDP growth, inflation)

A2 | Intermediaries facilitate ~55% of SMB C2B point-of-sale spend, higher than average ~40% on the total C2B spend

Online In-Person

Total C2B point-of-sale spend by segment, US, %

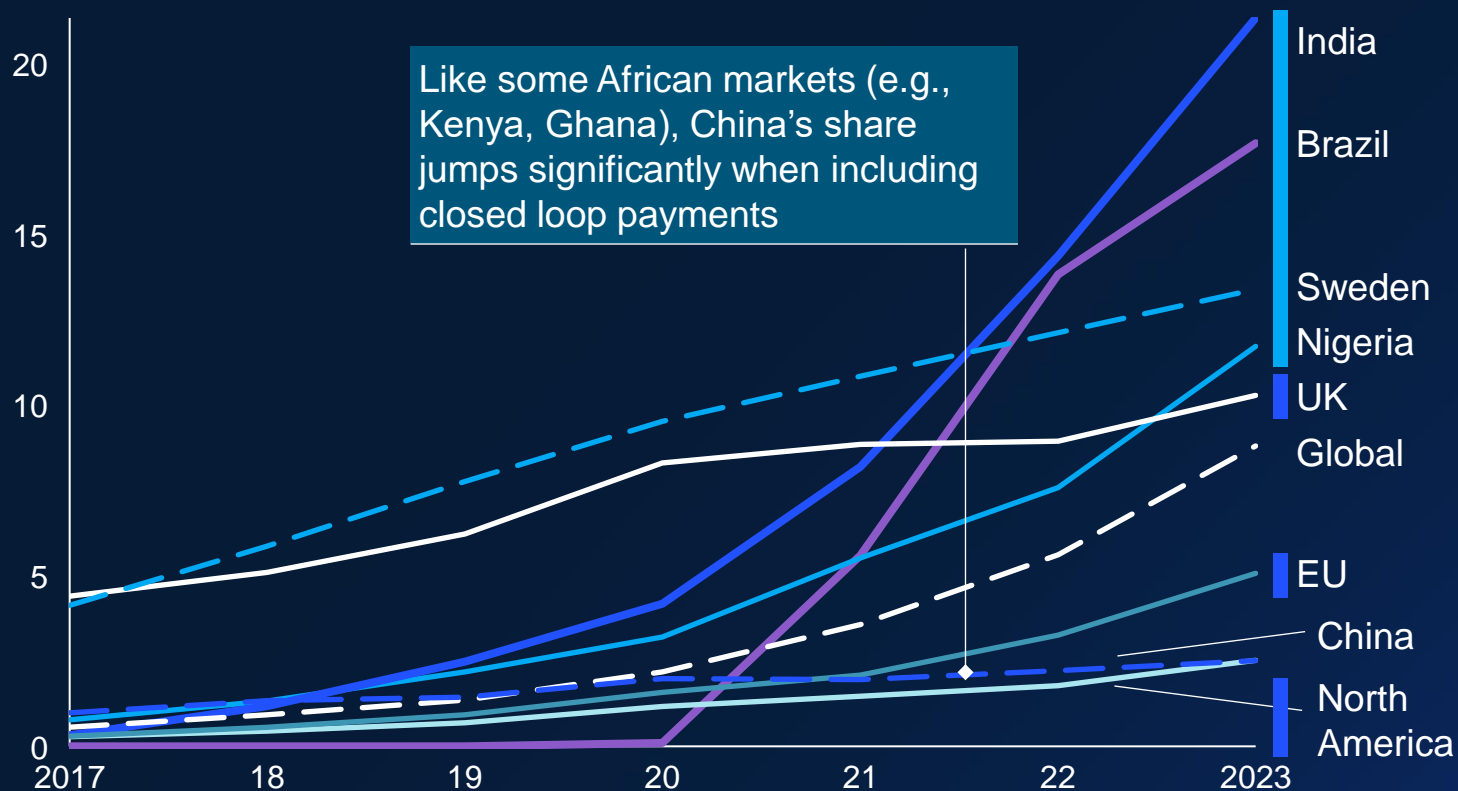
Share of platform/marketplaces by segment, US, 2023, %



A4 | Real-time payments infrastructures have been established globally, adoption surging in non-card centric markets

% of instant payments in total number of payment transactions

Success of instant adoption differs across countries...



...depending on country archetypes



Historically **cash-heavy markets**, where instant payments are capturing C2B share in POS and bill-pay, often with government support



Card-concentrated markets, where instant payments are having difficulty displacing cards for C2B
Largest displacement opportunities in bill payments

Looking forward, there are 6 digital trends impacting the payments & banking industry, driven by AI

 Detailed next



A

**Payments
digitalization**

*Cross border
transactions*



B

**GenAI
empowered
workforce**

*The day of the
“empowered”
banker*



C

**Engineering
productivity
driven by AI**

*Cloud-based
core banking
system*



D

**Fraud and
cyber attack
prevention**

*Operational risk
and cyber-
security*



E

**Central Bank's
Digital
currencies**

Digital Euro



F

**Digital &
Omnichannel**

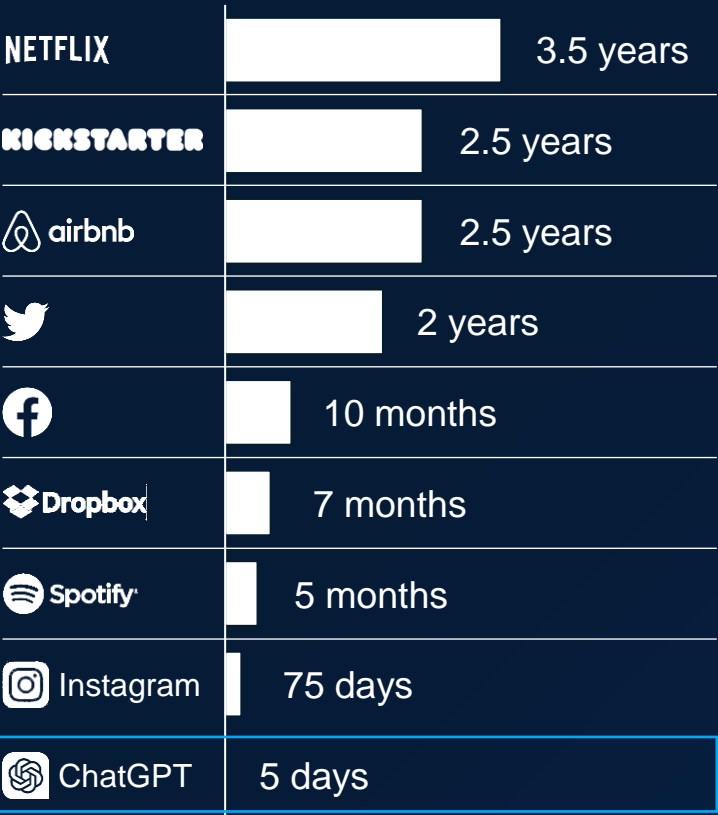
*The next wave
of banking*

B | GenAI is being adopted faster than any technology ever before, with significant impact on the future workforce

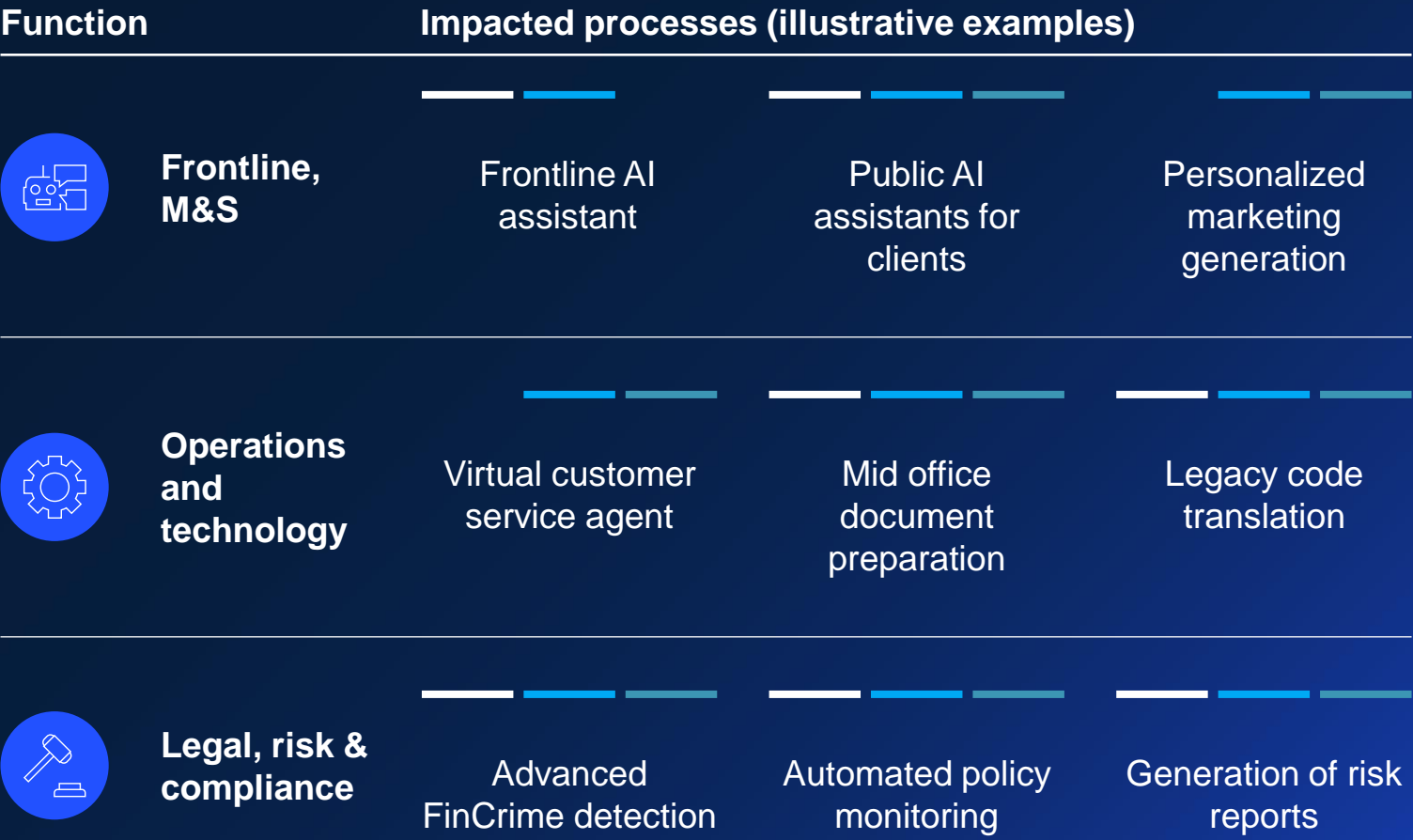
Illustrative, not exhaustive

— CIB — WAM — Retail

Fastest-growing adoption ever Time to reach 1 million users

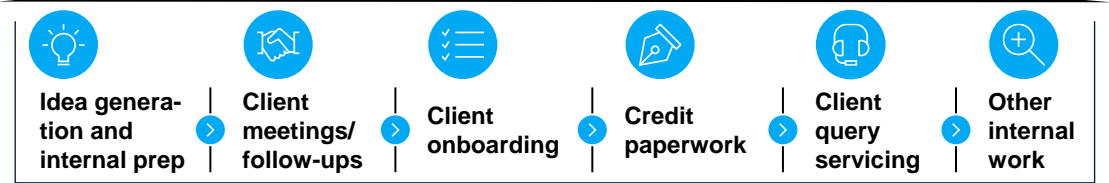


2/3 of full-time jobs exposed to some degree of automation by GenAI



B | GenAI will revolutionize the entire value chain of Banking through the implementation of several use cases

"GenAI-powered" banker value chain

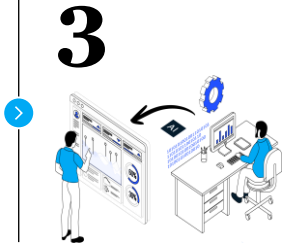


1 GenAI knowledge platform ● Detailed next

Use cases examples



2 **Semi-auto pitch preparation**
Semi-automatically **prepare** selected **proposals' building blocks**, by leveraging latest Client data and public info



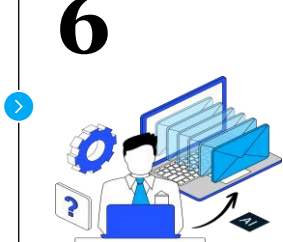
3 **Tailored commercial insights**
Suggest Client-specific actions to bankers by analyzing companies and markets' insights



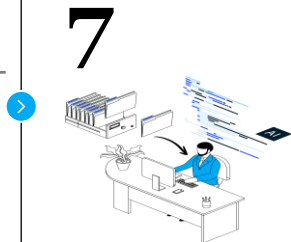
4 **In-call "live" co-piloting**
Shape **preliminary responses** to **steer live Client calls** based on product offering, previous Q&A, policies and past Client log



5 **Post-call insights generation**
Generate **Client call assessments and summarization** into actionable commercial next steps

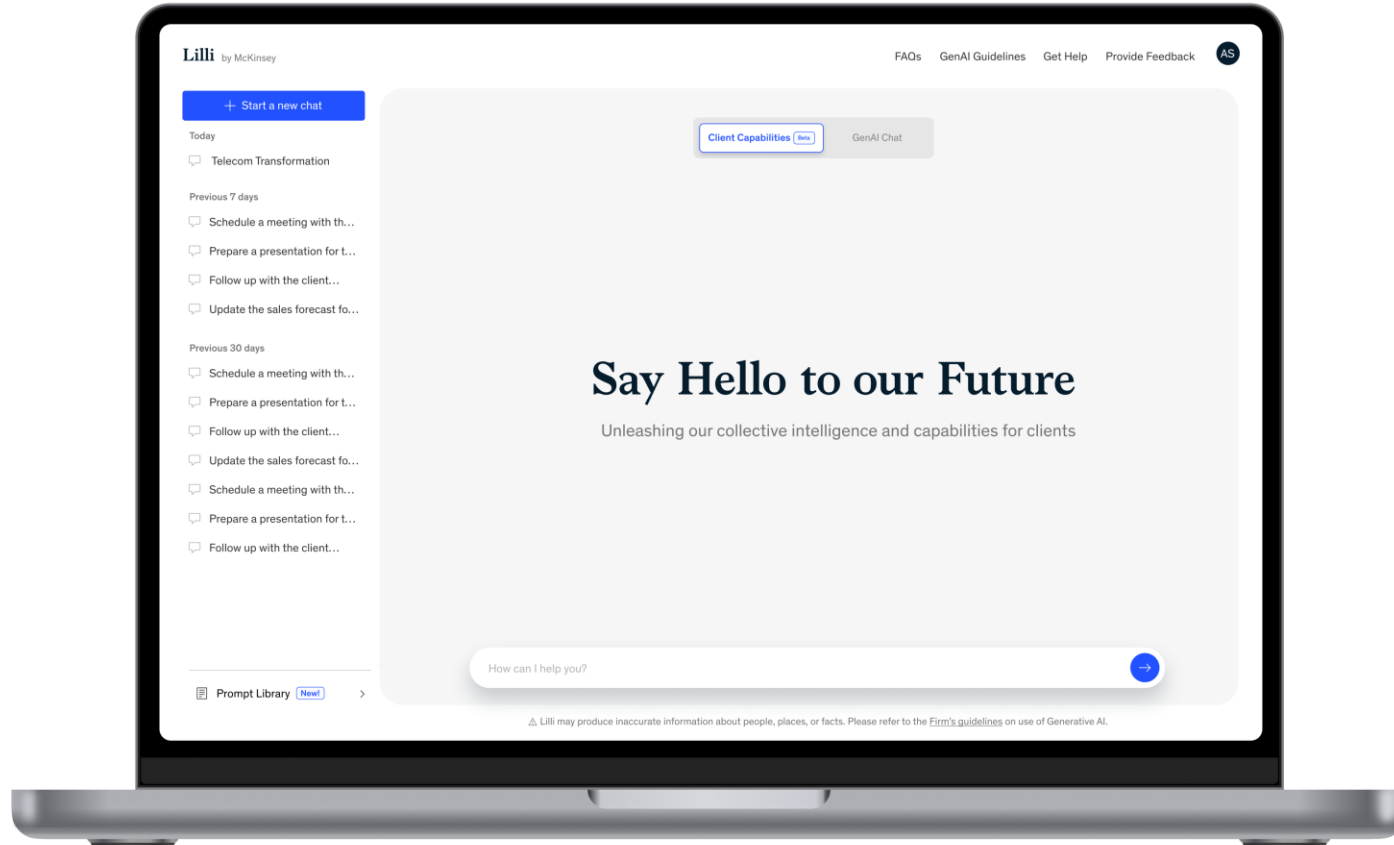


6 **Virtual on-call expertise**
Provide a **24/7 "virtual SME" bot** to **answer spot questions** (of Bankers and potentially to Clients) – trained on prop know-how, Client data, "live" news feeds and/ or latest public information



7 **Drafting of "internal docs"**
Semi-automatically **write, fill or interpret technical docs** (e.g., KYC, Credit memo, ESG memos) based on deal info/ term sheets

B1 | Case example: McKinsey's GenAI knowledge platform delivering strategic insights for effective decision-making (1/3)



100k

Internal knowledge
resources

15k

Publications from
McKinsey.com

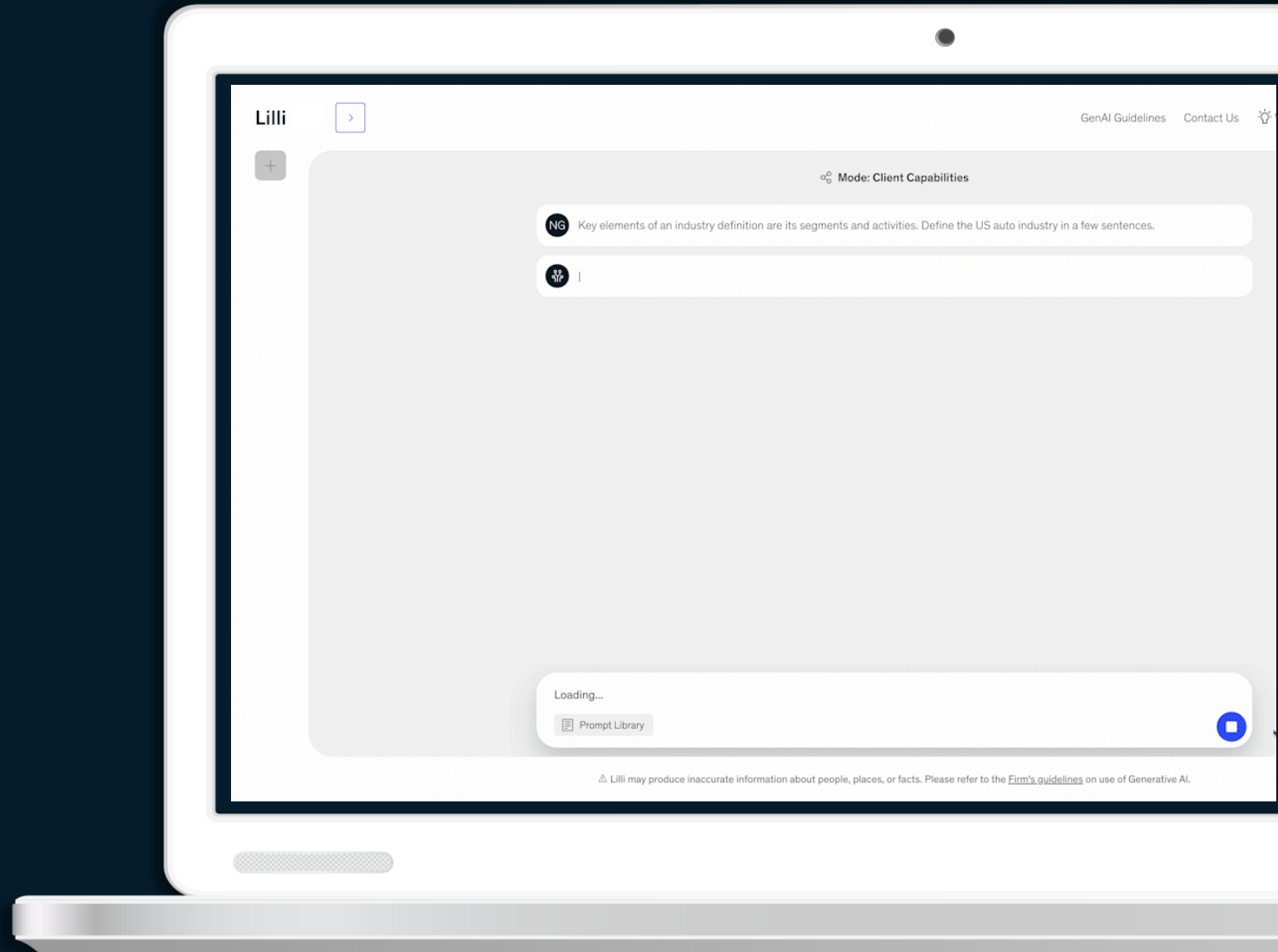
Sample Features:

- Provides Firm-specific frameworks, case studies, and past learnings, generates **insights for high-level and complex problems**
- **Synthesizes Firm documents**, articles, blogs, and other written sources
- **Empowers users to find any type of information** including products, people, webpages, and industry and function-specific resources

B1 | **Case example:** McKinsey's GenAI knowledge platform delivering strategic insights for effective decision-making (2/3)

In-app features can guide users towards...

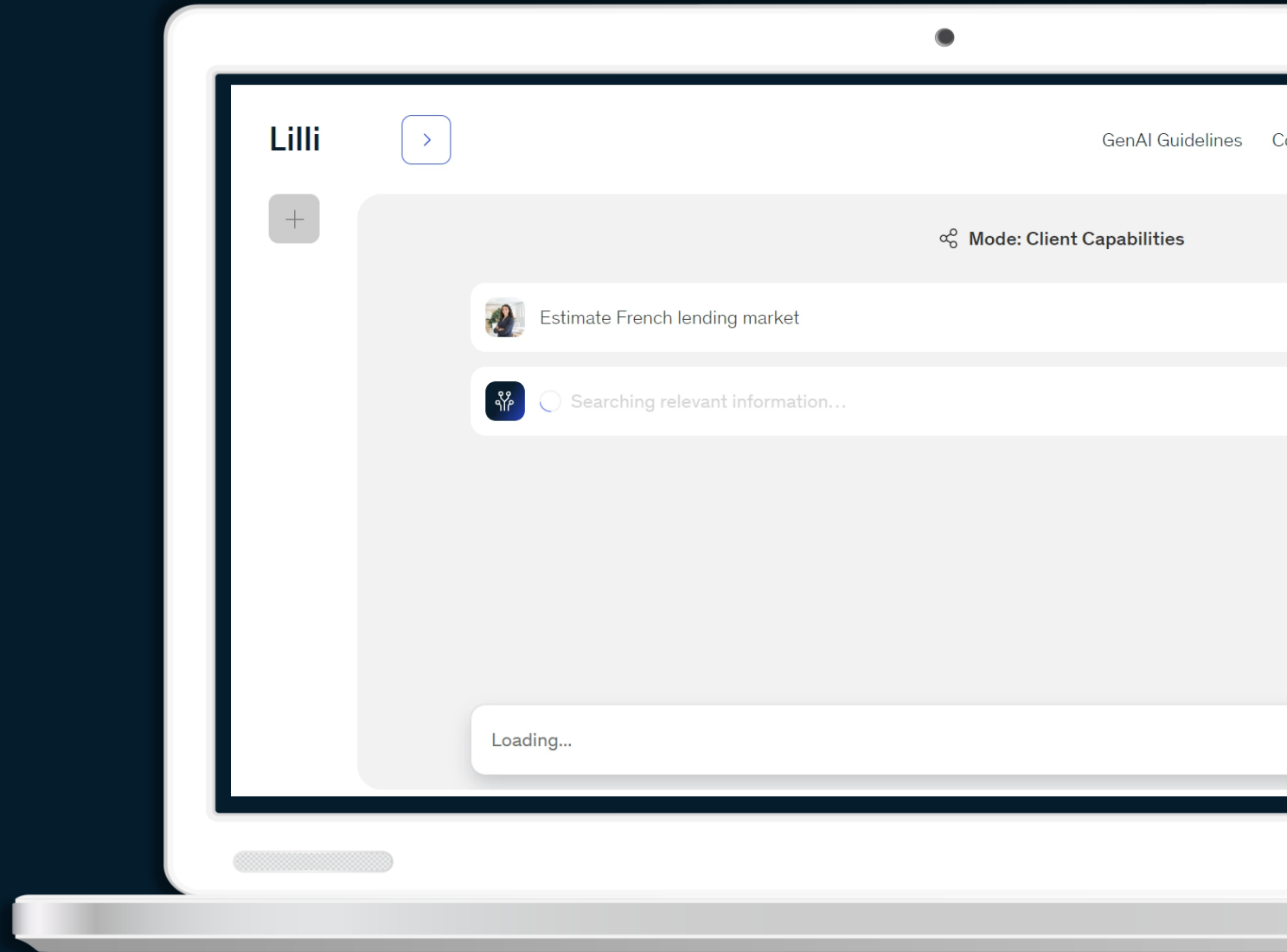
...useful and enhanced insights about **industries' and companies' profiles**



B1 | **Case example:** McKinsey's GenAI knowledge platform delivering strategic insights for effective decision-making (2/2)

In-app features can guide users towards...

...swift and refined outputs on market sizing



Looking forward, there are 6 digital trends impacting the payments & banking industry, driven by AI

 Detailed next



A

**Payments
digitalization**

*Cross border
transactions*



B

**GenAI
empowered
workforce**

*The day of the
“empowered”
banker*



C

**Engineering
productivity
driven by AI**

*Cloud-based
core banking
system*



D

**Fraud and
cyber attack
prevention**

*Operational risk
and cyber-
security*



E

**Central Bank's
Digital
currencies**

Digital Euro



F

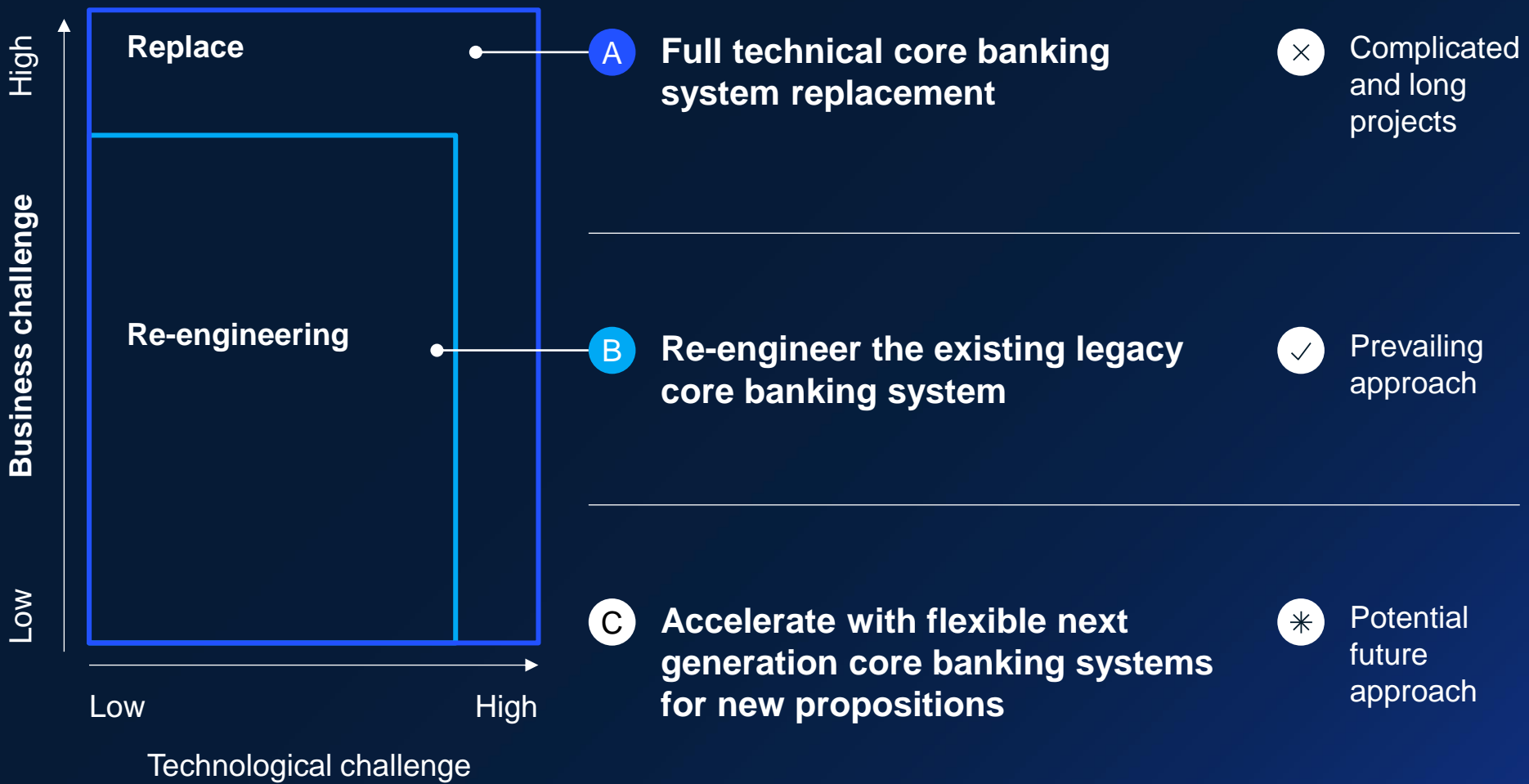
**Digital &
Omnichannel**

*The next wave
of banking*

C | The key to solving the core banking system challenge is the focus on engineering productivity

Options for modernizing core banking systems

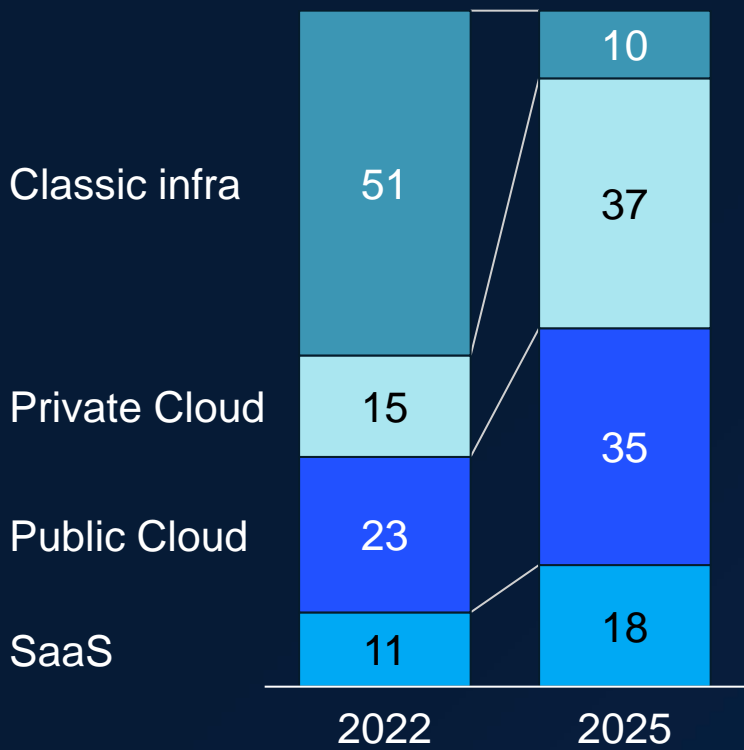
Approaches for renewal



C | For the majority of banks, cloud has increased costs, however some banks get it right

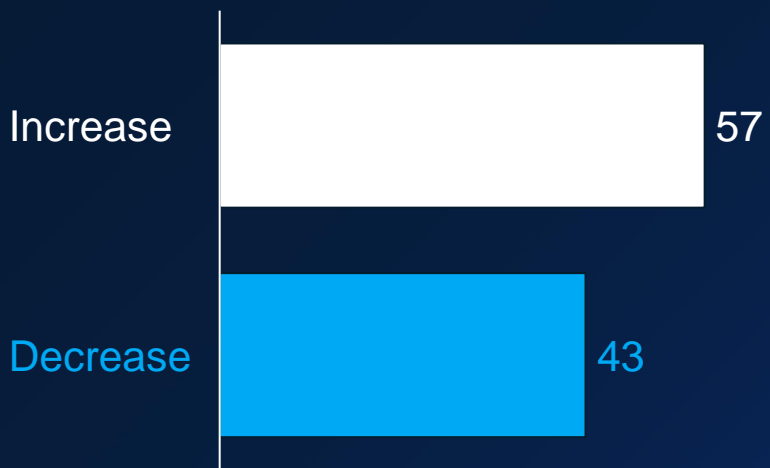
Banking IT infra spend

% of weighted IT spend



Cost implication of cloud¹

% of banks



Impact of FinOps

20-30%

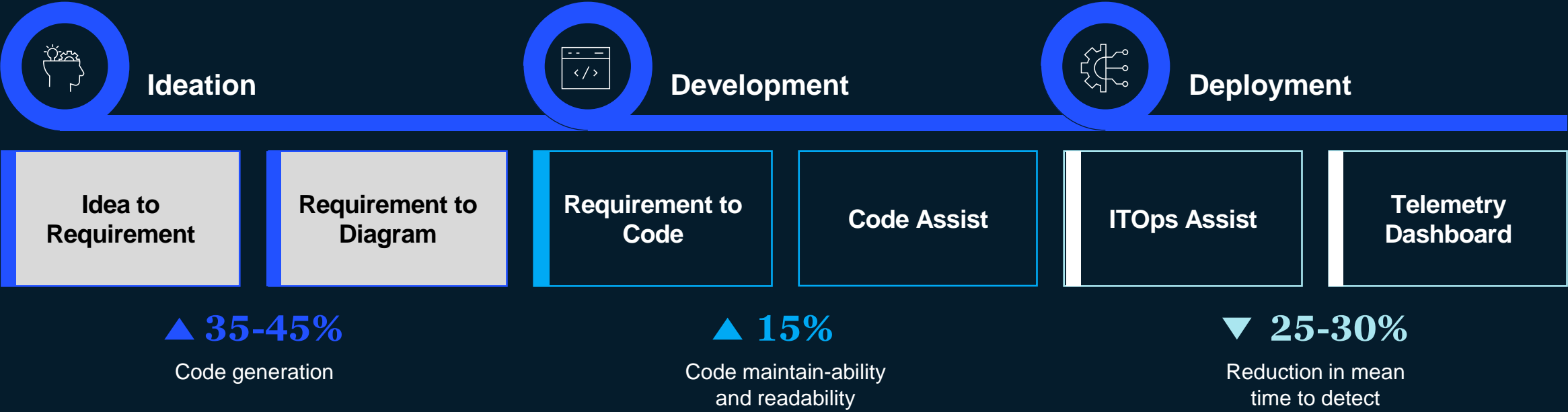
direct cloud cost savings and future cost avoidance

>10X







Payback rate from running FinOps program

1. Combined IT infrastructure and affected ADM costs, European Banking Cloud Survey 2022

C | Standardizing the engineering approach delivers a multitude of benefits throughout the entire Software Development Lifecycle



Identified benefits across the Lifecycle

-  **Consistency and quality:** improves predictability of outcomes and the quality of digital products
-  **Talent attraction and retention:** attraction of best engineers if firms enable them to build software using cutting-edge tools
-  **Security and compliance:** adherence to and control of procedures by baking security/compliance into components from the start
-  **Increased velocity:** faster onboarding on new projects, covering more ground faster and with reduced dependencies
-  **Productivity and cost savings:** increases productivity and ensures a high return on investment
-  **Lower key person risk:** pair programming, peer reviewing, mentorship from experienced team members eliminate knowledge silos

Looking forward, there are 6 digital trends impacting the payments & banking industry, driven by AI

 Detailed next



A

**Payments
digitalization**

*Cross border
transactions*



B

**GenAI
empowered
workforce**

*The day of the
“empowered”
banker*



C

**Engineering
productivity
driven by AI**

*Cloud-based
core banking
system*



D

**Fraud and
cyber attack
prevention**

*Operational risk
and cyber-
security*



E

**Central Bank's
Digital
currencies**

Digital Euro



F

**Digital &
Omnichannel**

*The next wave
of banking*

D | Operational risk still prevails despite law enforcement efforts, regulators initiatives and broader industry concerns

80-90%

World trade depends on trade finance

\$5 Bn

annual cost due to fraud in the global trade finance market

45%

rejected requests for SMEs in trade finance funding, also due to SMEs exposure to fraud-related disruptions

3 factors

contributing to this persisting issue:



Vulnerability in instant payments



Exploitation of social engineering techniques



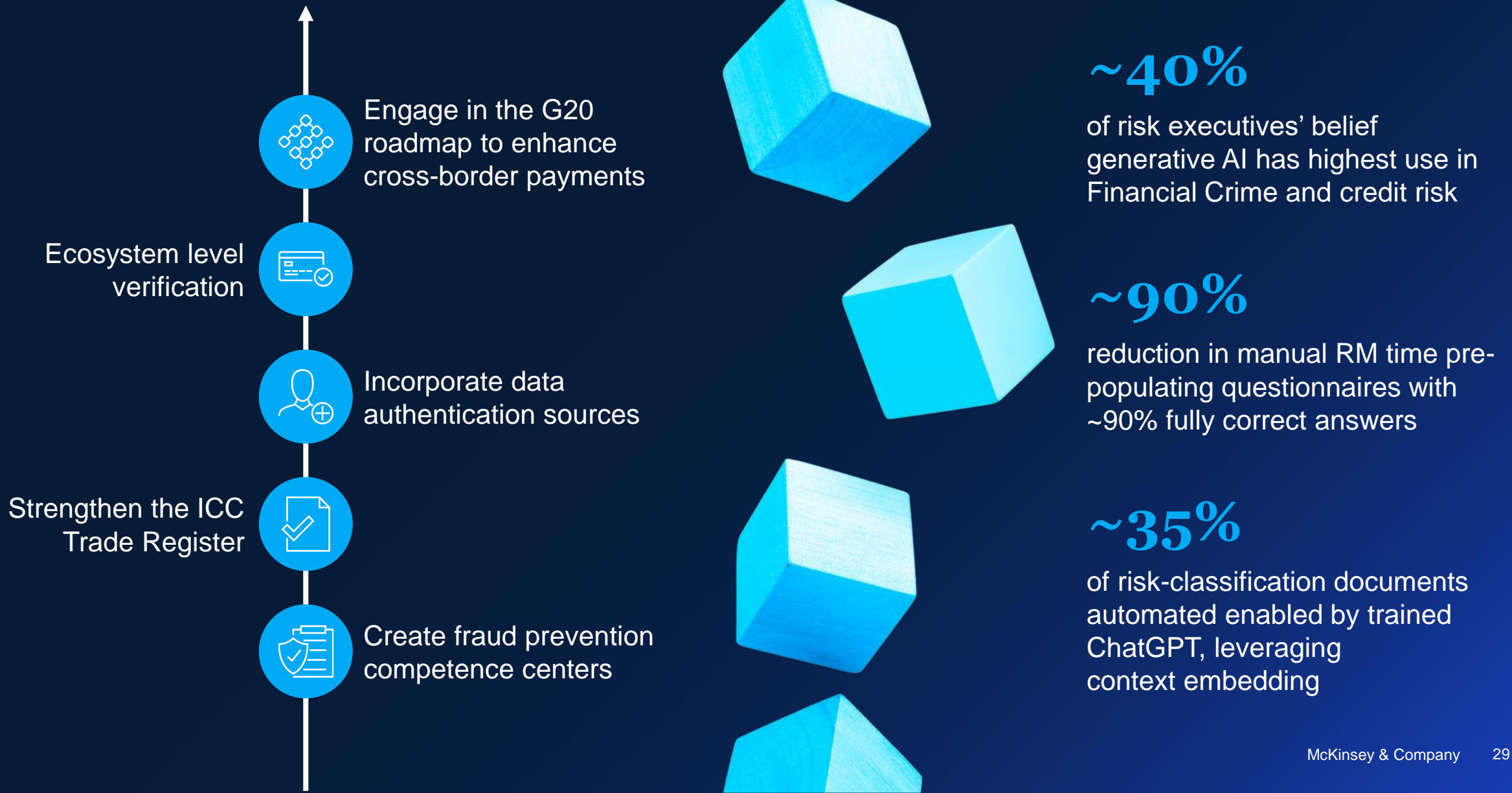
Digital integration of supply chain systems

D | High-profile international fraud scandals account for ~\$ 8.2 billion

Selected examples of trade fraud

Company	Fraud Cost	Year	Example of impacted banks	Description
 HIN LEONG	\$ 3,800 M	2020	HSBC 	Hin Leong Trading , Singapore largest independent oil trading company, forged documents including sales of inventory and receivables
	\$ 3,000 M	2014	citi	Dezheng Resources , a Chinese trading company used fake warehouse receipts to obtain financing for 10x the value of metals stored in Qingdao and Penglai
 TRAFIGURA	\$ 600 M	2022	SILVER  BANK	Trafigura , commodity trading company based in Singapore, was involved in systematic fraud with misrepresentation and presentation of a variety of false documentation on containerized nickel
	\$ 500 M	2019	 COMMERZBANK	Agritrade International , inflated figures by creating fake trades alongside its legitimate activity, leaving Banks with claims to the same assets and not existing cargoes
 Greensill	\$ 300 M	2021	CREDIT SUISSE 	Greensill Capital , a British financial firm specialised in short-term corporate loans, collapsed in 2021 and CS was heavily invested in the firm and had to close four connected funds

D | Prevention measures need to advance to next level to enhance trade security



Looking forward, there are 6 digital trends impacting the payments & banking industry, driven by AI

 Detailed next



A

**Payments
digitalization**

*Cross border
transactions*



B

**GenAI
empowered
workforce**

*The day of the
“empowered”
banker*



C

**Engineering
productivity
driven by AI**

*Cloud-based
core banking
system*



D

**Fraud and
cyber attack
prevention**

*Operational risk
and cyber-
security*



E

**Central Bank's
Digital
currencies**

Digital Euro

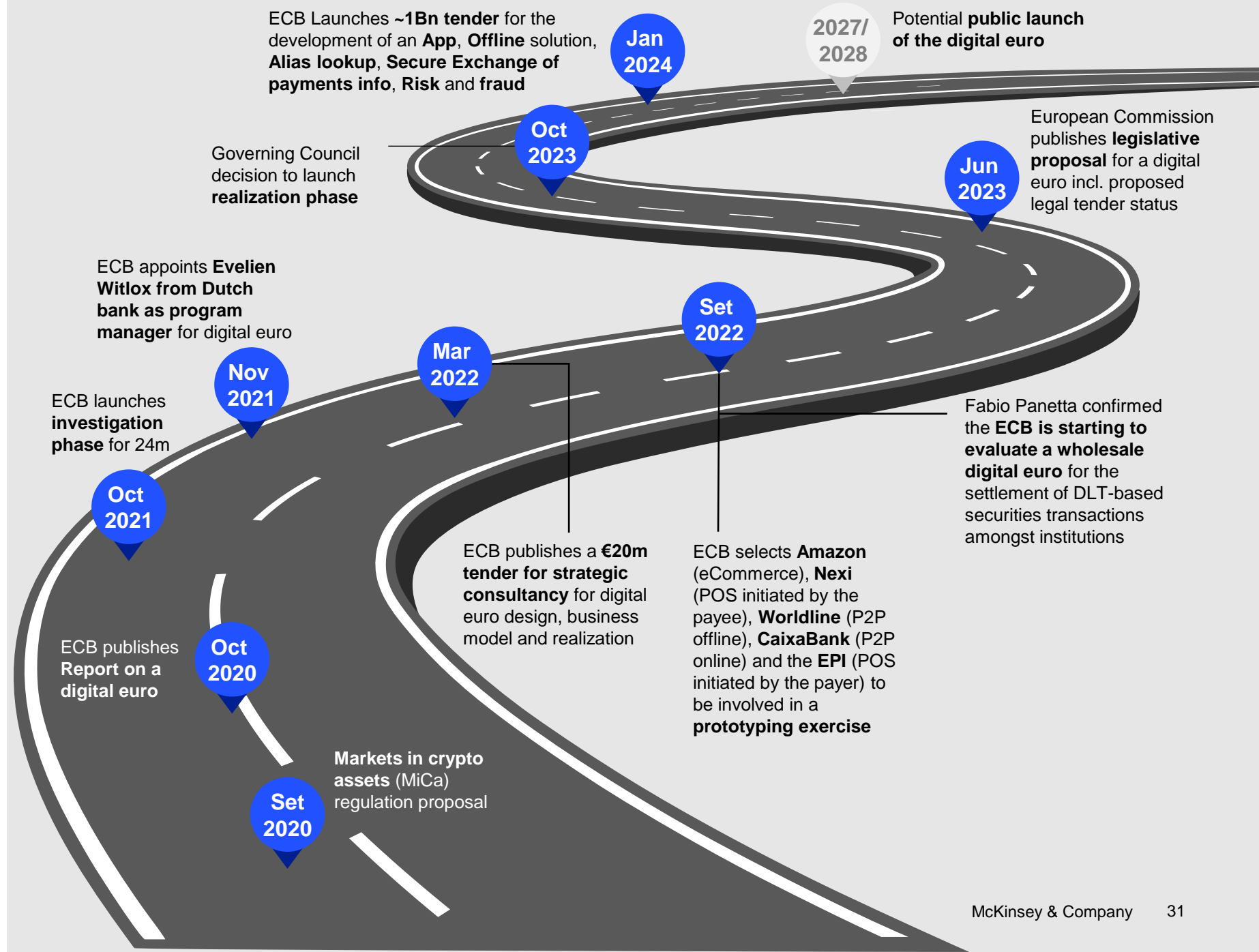


F

**Digital &
Omnichannel**

*The next wave
of banking*

E | Since 2020, ECB's digital euro roadmap has been progressing at pace



E | The digital euro will complement existing and forthcoming payment methods without displacing any, providing additional options to end-users

What is



ECB investigates the D€ to respond to decreasing cash usage and ensure availability of easy accessible fiat currency on the long term



Digital form of cash issued by the central bank

The digital euro would be digital representation of physical cash on the Eurosystem's balance sheet and therefore risk-free



Available to everyone in the euro area, for any electronic payment

Will be a public good, free of charge for basic usage for any electronic payments in shops, online or from person to person in the euro area



Merchants will be required to accept it

Mandatory acceptance by merchants with only few exceptions²



Banks will be required to offer it via home banking or Eurosystem app

Mandatory distribution by banks (while optional for PSPs³) via own bank/ payment provider or via Eurosystem app

What is not



ECB does not intend to disrupt European banks' access to commercial deposits or to replace commercial payments traffic



A crypto asset

Digital euro will be backed by the ECB with the mandate to maintain the value of money



An investment asset

The digital euro will be a means of payments and cap will be set to avoid usage as an instrument for financial investments



A substitute of cash

Digital euro will exist alongside cash in response to people's growing preference to pay digitally



A substitute of existing and forthcoming payment methods

Digital euro will be designed not to become 'too successful' to crowd out private payment solutions¹

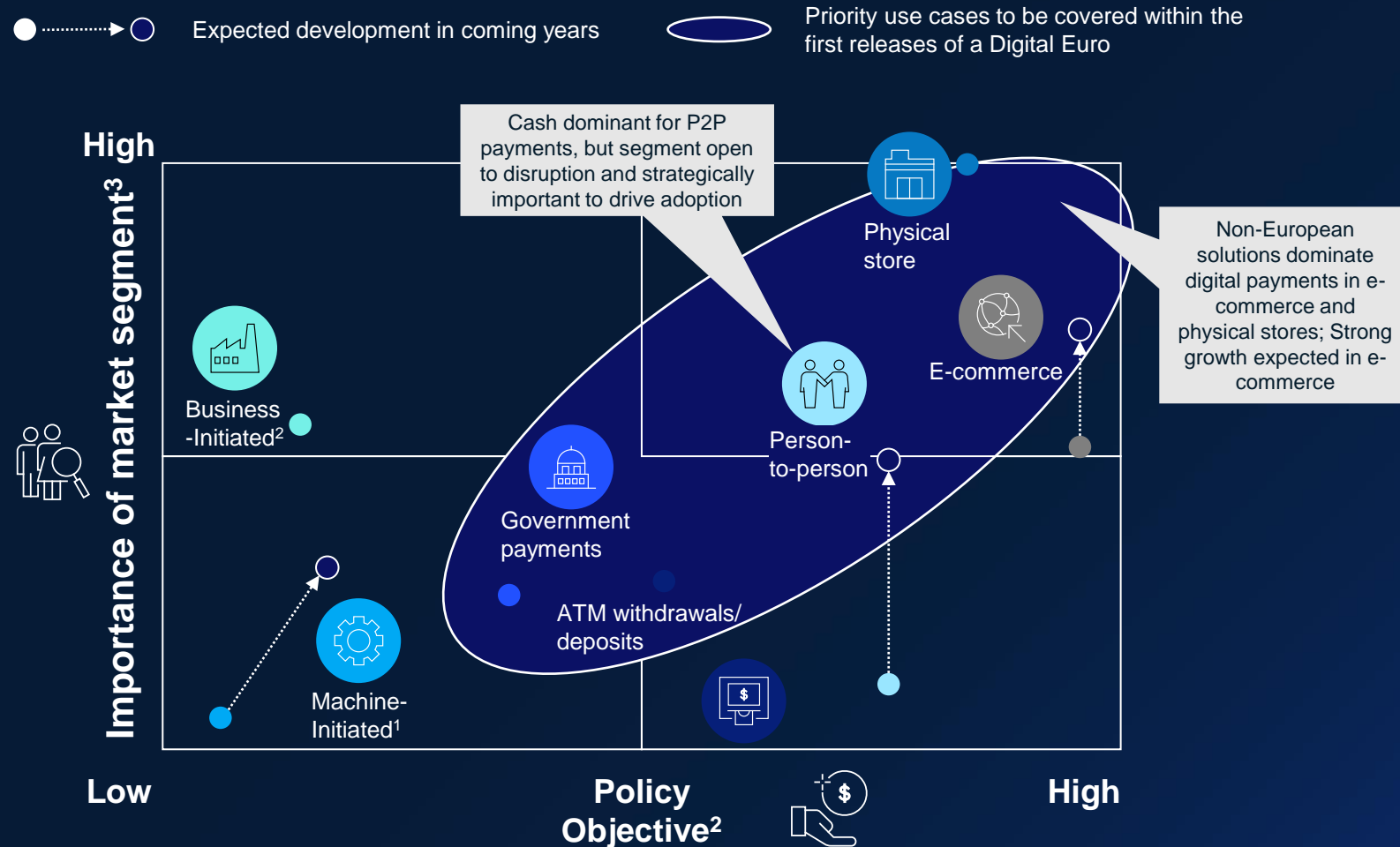


An instrument to disintermediate banks

While digital euro might divert funding flows from bank deposits, it will be designed to minimize impact on financial ecosystem (e.g., cap on holdings, direct distribution by banks)

1. Fabio Panetta, 30 March 2022 ([source](#)) Microenterprises which do not accept electronic means of payments, non-profit legal entity and individuals who do not act in the course of a commercial activity, will be exempted from the obligation; 5. PSPs as defined in the revised Payment Services Directive (PSD2) – i.e. electronic money institutions and payment institutions

E | Multiple use cases will be prioritized in the first release of the Digital Euro, creating opportunities for integrated solutions



What to expect

- ↑ **Discontinuity** introduced by the regulator creating **new business opportunities** (e.g., white-space opportunity for PSP to provide acceptance services/ gateway, aggregate cards into unified digital wallet and embedded VAS)
- ↑ Further boost towards **payments digitization** (Digital Euro will be free for end-customers reflecting the public good nature)
- ↓ **Unclear impact for payments operators** which need to manage a new compensation model (e.g., level of the "inter-PSP" fee potentially capped, current interchange fee of 20-30 bps)

1. A fully automated payment initiated by a device and/or software based on predefined conditions; 2. e.g., wages, payment to another firm | 2. Policy objective: (i) Supporting digitalization of the European economy (ii) Responding to a decline in the use of cash (iii) Tackling sovereignty concerns relating to foreign CBDC or private digital means of payment in the euro area | 3. Target relevant market segment that can support network effects

Looking forward, there are 6 digital trends impacting the payments & banking industry, driven by AI

 Detailed next



A

**Payments
digitalization**

*Cross border
transactions*



B

**GenAI
empowered
workforce**

*The day of the
“empowered”
banker*



C

**Engineering
productivity
driven by AI**

*Cloud-based
core banking
system*



D

**Fraud and
cyber attack
prevention**

*Operational risk
and cyber-
security*



E

**Central Bank's
Digital
currencies**

Digital Euro



F

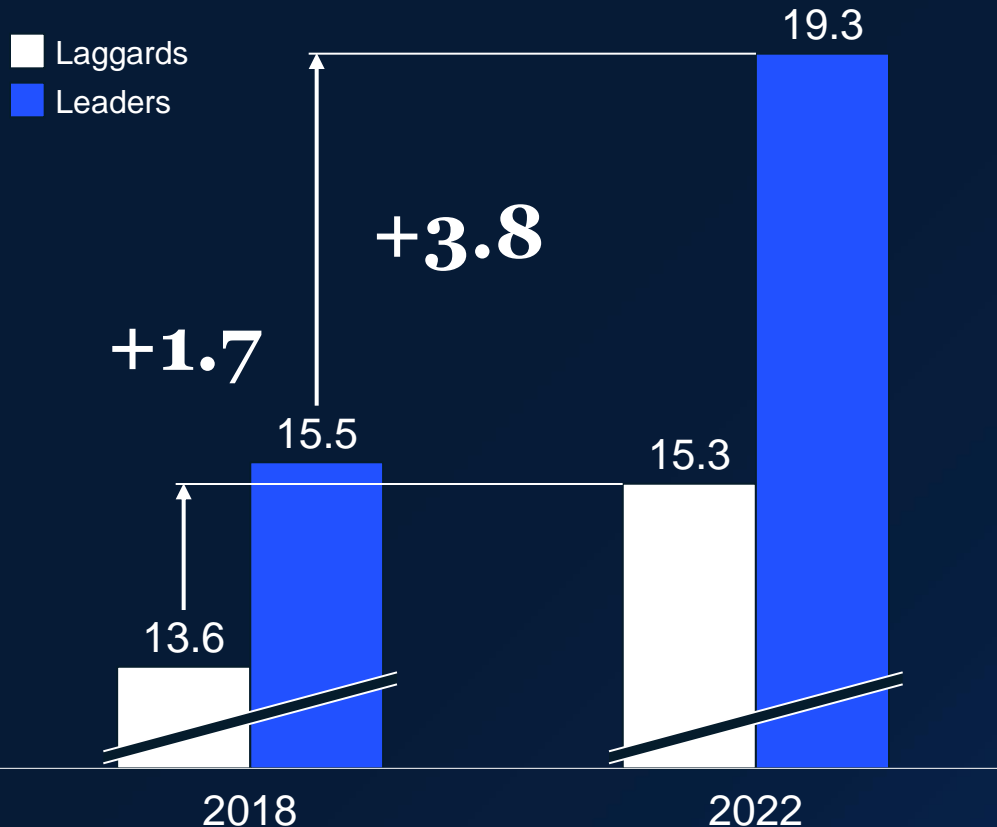
**Digital &
Omnichannel**

*The next wave
of banking*

F | Digital Leaders are monetizing their competitive advantage, while the gap between leaders and laggards is growing over time

RoTE

Adjusted pre-tax Return on Tangible Equity peer group average (%)



What explains the gap?



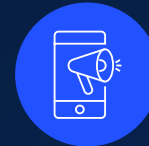
Higher adoption of **digital channels**



Higher levels of **personalization and analytics-driven engagement**



Superior **customer experience** driving higher share of wallet and primary relationship



Higher share of **sales** through **digital channels** (gap is expanding)



Lower cost-to-serve through optimized combination of physical, remote/hybrid and digital

F | There are two possible ways to accelerate innovation and have competitive advantage in the financial sector



Acquisitions

64%

drop in avg. multiples btw. Q4 21 and Q1 23



Drop in valuations and improvement in number of deals potentially pointing towards **further consolidation**



Partnerships

80%













of top global banks with Fintech partnerships



Collaborations expanding across **many areas**

- Increase customer base
- Enter new business
- Redefine CEX
- Retain customers
- Access new technologies
- Improve efficiency

F | ...however, the business model significantly evolved since the early 2000s

	Generation 1.0	Generation 2.0	Generation 3.0	
Archetype	Direct banks	New digital brands	Neobanks	Beyond Banking Platform
Key elements	First movers in digital banking, targeting underserved niche or need with attractive pricing	Build a completely new brand to offer full range of digital banking services - pioneers and incumbents' spin offs	Offer classic banking products with outstanding digital CX Primarily banking-focused, with beyond banking secondary	Often a combo between a digital tech platform and a bank Focused on both banking and beyond banking products
Product offering	Start from online brokerage then expand towards daily banking and a wide range of products	Gradual banking product roll-out to reach full scale	Daily banking products with gradual roll-out of more complex banking, often with banking license Beyond banking services typically complimenting core offering	Platform with financial services embedded, but not necessarily core focus of the offering Significant focus on synergies with products beyond core banking
Channel	Multichannel often combined with modern branches	Digital-first presence, online and mobile focus	Mobile-first or mobile-only	Mobile-first, often via platform's interface
Examples	  	  	  	  

The background of the image is a solid dark blue. On the left side, there is a large, flowing, wavy shape composed of many thin, parallel lines in various shades of blue, creating a sense of motion and depth. On the right side, there is a series of thin, curved lines that fan out from the bottom right towards the top right, also in shades of blue. The text "McKinsey & Company" is centered in the middle of the image, written in a white, serif font.

McKinsey
& Company