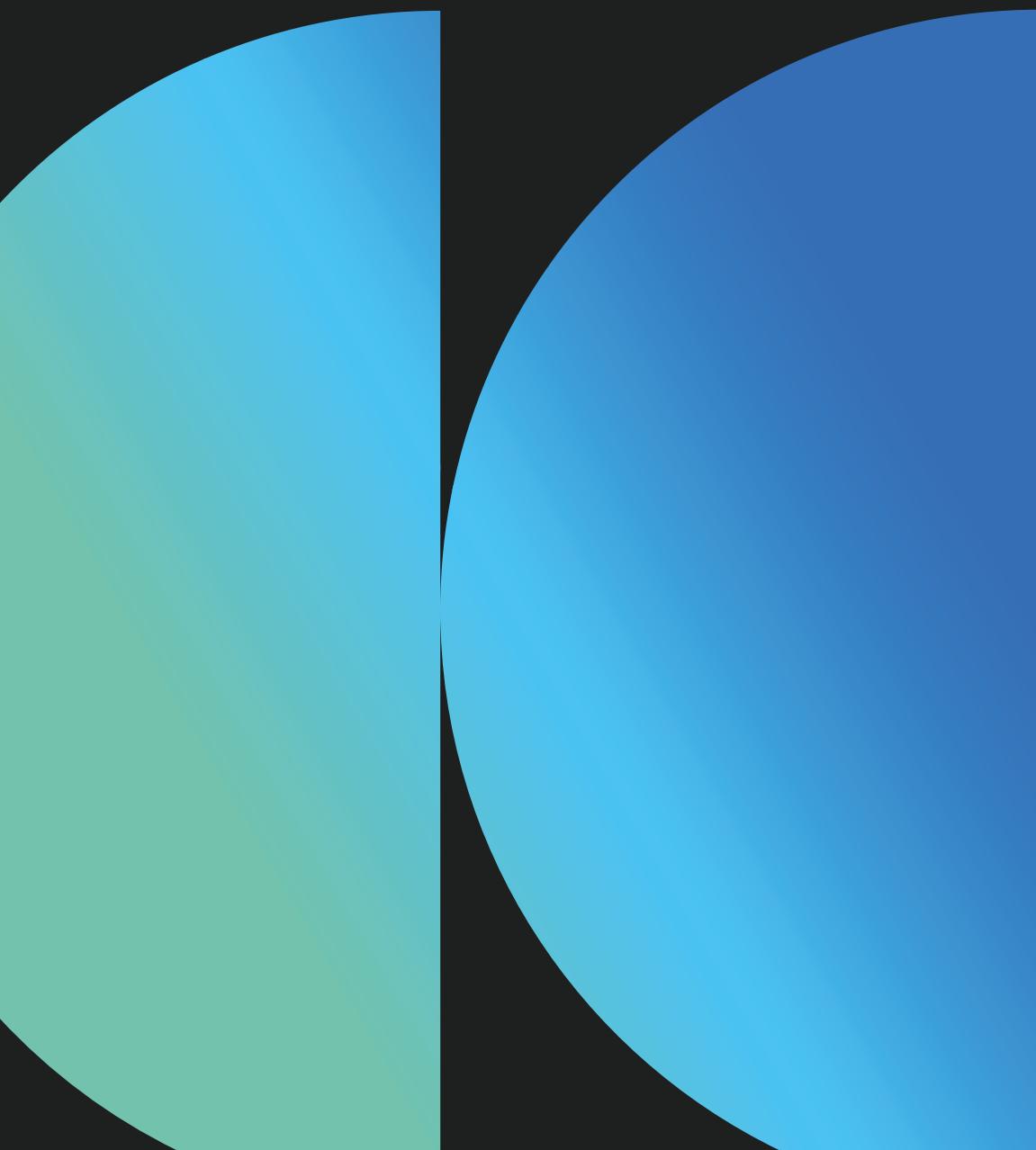


# Why banks must act now to modernise

In conversation with Giulio Romanelli,  
partner at McKinsey & Company





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## Introduction

The world's largest banks are running on technology that cannot support the level of innovation, personalisation and speed that they need to compete and thrive in the modern world. Adapting to changing customer expectations and an evolving regulatory environment demands resilience, flexibility and scalability across a bank's technology stack, capabilities that legacy technology simply fails to deliver.

Genuine, long-term solutions to the technology problems affecting the banking industry can only be addressed by moving to a modern, next-generation core system. While many of the technologists and executives at banks know that this technology can solve these problems, achieving sizable reductions in cost and significant increases in speed, there is still a reluctance to begin these transformations now.

Nick Thomas, senior partner manager, spoke to Giulio Romanelli, partner at McKinsey & Company, who is a specialist in digital banking transformations, to gauge the scale and impact of technological issues across the industry and to understand his views on why banks must act now.

## Q1

Nick Thomas:

**Cloud-based core banking modernisation is key to banks' survival. What are the key trends you see? Why are banks engaging now?**

Giulio Romanelli:

Competition in the banking industry is intensifying. Neo-banks are gaining more market share and serving customers at around one-third of the cost of traditional banks. Fintechs are targeting lucrative niches in the value chain. Big tech players, with their large customer bases, pose a real challenge, and a few incumbents are investing heavily in innovation, leaving the slower adopters in the shadows.

Examples in each of these categories are growing their businesses and attracting customers with the help of modern core technology platforms, which enables them to innovate faster and operate more efficiently.

Not surprisingly, incumbent banks are increasingly concerned about the limitations of their own banking architectures and their impact on cost complexity and time-to-market/pace of change. Within this context, top quartile Tier 1 banks are shifting greater focus on investments to maintain the ongoing transformation of their banking architecture and infrastructure.

In the last couple of years, we have witnessed a significant acceleration in the accessibility and maturity of the tools for incumbents to address these challenges. In particular:

A new generation of cloud-native core banking platforms, such as Thought Machine's Vault Core, is being adopted not only by digital attackers to build new propositions but also by incumbent banks. Banks such as Intesa Sanpaolo and Standard Chartered Bank, for example, are using the technology to accelerate their product simplification and modernisation journeys.

The increasing availability of the traditional banking proposition that is consumable 'as-a-service' and integrated into the bank's offering through APIs (e.g., payments, cards, KYC, campaigns). By design, headless core banking triggers several ripple effects. On one hand, it demands a heightened emphasis on developing interfaces with the broader internal and external ecosystem. Simultaneously, it accelerates the architecture modernisation journey towards a best-of-breed target architecture.

Those elements combined result in: (i) the ability to stand up a best-of-breed technology stack, for banks to quickly build new propositions that serve new customers or specific needs, and (ii) a new approach to the roll-out of a technology-enabled business transformation through 'progressive modernisation' vs a 'big-bang' replacement. Thanks to a strong API backbone, interconnecting

the various ecosystem providers, next-generation solutions allow banks to 'progressively modularise' a legacy core, choosing the best tool for the specific business needs vs being constrained by monolithic architectures.

Given the heightened competitive environment, institutions will want to consider how they should respond. The industry is approaching an inflection point. The risk of being left behind is significant across:

(a) technology, with tech debt rising and operational risks and costs growing exponentially and

(b) business, with challenges to match the time-to-market and the personalisation of competitors.

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# Q2

## What are the main concerns financial institutions have with embarking on their core modernisation journeys now?

Modernising a core banking system is a significant undertaking for an incumbent bank. It requires carefully tackling a number of concerns and trade-offs, such as:

Functionality coverage of “out-of-the-box” next-generation core banking solutions vs “historical” customisation of legacy systems. Legacy core banking systems are typically based on a monolithic architecture, which covers a broad spectrum of often siloed functionalities. Ranging from the user interface, payments systems, regulatory reporting, and so on, they have been heavily customised over the years to suit specific business processes. On the contrary, next-generation core banking solutions typically focus only on the foundational capabilities (such as ledger, accounts and products) but are not standalone and require an ecosystem of additional solutions, from payments to reporting. Adapting some of the historical customisations onto the modern platform can be challenging. In this sense, institutions should consider simplifying product and functionality, a key enabler of a successful core banking modernisation journey.

## Scalability and performance

Legacy solutions are often based on a synchronous architecture and a highly efficient on-prem dedicated infrastructure. Such a setup is proven to support the volume, performance and resilience requirements. On the contrary, next-generation core banking solutions are built on an asynchronous, events-based architecture and public or hybrid cloud infrastructure.

## Complexity and cost of integration and migration

Modernising core banking systems is complex due to the interconnected nature of banking operations. Integrating new technologies with existing systems and ensuring seamless data migration (without disrupting operations and maintaining data integrity) is challenging.

Therefore, while modernisation can lead to increased efficiency and reduced operational costs, the upfront investment can be substantial. Banks will want to weigh these costs against the potential benefits and allocate resources for software, hardware, infrastructure, and skilled personnel accordingly.

## Regulatory compliance, resilience and security

The banking industry is highly regulated, and changes to core systems must comply with various regulations and security standards. Ensuring compliance throughout the modernisation process is essential. Moreover, modern systems based on the public cloud might require investments to strengthen resilience, business continuity and cybersecurity measures to minimise potential disruptions and avoid vulnerability to cyberattacks.

## Software engineering capabilities

Shifting from a monolithic architecture, with heavily customised legacy systems managed by external systems integrators, to a best-of-breed event-based architecture requires a significant focus on talent, internalising software engineering competencies as a core strategic asset and leveraging partnerships with a new ecosystem of fintechs and specialised players. People, rather than technological, issues are the biggest obstacles that keep companies from achieving their transformation goals.

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# Q3

**Next-generation core banking solutions are growing significantly in the market, offering a more flexible foundation, which can be tailored to a bank's strategy and goals. What has driven this change in mindset at the world's leading banks?**

Only a few years ago, the decision-making process to support the choice and roll-out of a new core banking solution was largely a “paper exercise” – based on an in-depth analysis and comparison of how different solutions covered functional and non-functional requirements and related reference cases. More often than not, this was a technology-initiated and led process.

Today, the availability of the next generation of cloud-native core banking platforms, such as Thought Machine’s Vault Core, along with an increasing array of traditional banking services available ‘as-a-service’ and integrated into the bank’s offering through APIs, enables a different approach to such a pivotal decision.

From what we’ve seen, successful transformations are highly correlated to the decision-making process being co-owned by the business and technology, with the explicit objective to evolve and simplify products and service models while modernising the underlying technology backbone.

The process is now the opposite of a “paper exercise”. Leading organisations want to “touch” and experiment directly with the capabilities (and the limitations) of next-generation core banking solutions. To this end, we typically see a time-boxed Proof of Concept phase to stress test the potential target solutions in terms of adherence to business requirements, performance and stability requirements, integration patterns and complexity.

# Q4

## What impacts have you seen for banks undergoing core modernisation projects?

The benefits of modernising well are significant. Banks may see:

### IT cost savings

Banks could save through higher developer productivity and the removal of technical debt. They could achieve further efficiencies by leveraging cloud-based services (which enable them to deploy new products and scale infrastructure quickly) and using development tools that support automation (DevSecOps), for example. In terms of IT savings, typical impact ranges within 15-25% can be achieved, and could become higher if the technology modernisation journey is coupled with a simplification of the product portfolio and a rethinking of the business-IT operating model.

### Data-driven personalisation

Data capabilities are a critical differentiator. Modern platforms support integrated data sets and a single source of truth. These, in turn, create the ability, in real-time, to offer personalised experiences and run advanced analytics for sharper decision-making.

### The ability to scale through partnerships and innovate

New platforms enable rapid scaling and less expensive development of ecosystems and ancillary services. Integration is easier with modular architectures and communication via APIs.

## **Accelerated time-to-market and customer proposition innovation**

Banks can more easily and speedily develop new products and services, aided by hyper-flexible configuration capabilities, e.g. products exposed as code to the bank. This approach allows businesses to move away from traditional product silos to a suite of features which combine to meet customer needs better. Higher levels of standardisation make it simpler to leverage modern tools such as automated testing and, therefore, implement more frequent deployment cycles. Delivery times may also become drastically reduced, with 1-2 years from inception to go-live, compared vs 4-5 years of traditional transformations.

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## Next steps

The risks of a lengthy transformation process no longer loom over banking operations. Instead, a holistic digital transformation fosters innovation and ensures technical expertise and adaptability, all while driving cost savings and personalisation. Banks will want to act quickly or risk being left behind by more nimble peers.

Find out more about our [strategic partnership with McKinsey & Company](#), or [get in touch](#) with our team directly.

Further resources:

- [McKinsey's 2023 podcast](#) with Thought Machine CEO Paul Taylor and Brian Ledbetter, senior partner at McKinsey
- [McKinsey's 2022 paper](#), Should US banks be moving to next-generation core banking platforms?

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