

State of Modernization Report 2026

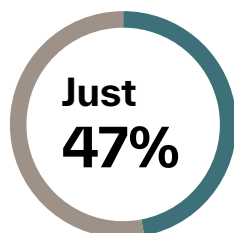
From consolidation to orchestration in the age of AI

For years, modernization was synonymous with simplification: retiring legacy systems, consolidating platforms and moving to the cloud. But findings from Kyndryl's 2026 State of Modernization Report, based on insights from 2,000 business and technology leaders across 12 sectors and five continents, point to a different reality.

As AI increases demand on nearly every element of IT, and as sovereignty considerations become more acute, leaders want their complex technology estates — a mix of old and new decisions — to work better. This means organizations are managing technology estates that are more distributed and larger than ever before.

The ambition has shifted from escaping the past to actively enabling the future — agility, innovation, scalability and AI readiness now define success.

Nearly 1 in 5 organizations (18%) have seen unclear or no value from past modernization efforts



of organizations say modernization resulted in faster delivery of new capabilities, products or features

Organizations are thinking about modernization not as a one-time upgrade but as the flywheel that determines how fast and how well they can put AI to work.

AI has put modernization at the center of enterprise strategy rather than at the edge of IT budgets. Organizations agree with this premise in principle: top reasons to modernize are greater agility, performance, security and AI readiness across their increasingly complex estates — priorities that now all rank ahead of legacy-systems escape or cost reduction. Still, a split remains in how firms can act on this imperative. A full 18% are unclear on what value past modernization has delivered to their firms, and fewer than half are seeing better innovation outcomes.

AI is not just a workload running on top of enterprise infrastructure. It is actively reshaping how that infrastructure gets built and how organizations will use and finance it.

AI is now the top driver of modernization of network, edge, mainframes, and applications, and the number-two driver for private cloud and software-as-a-service. Every organization with a mainframe plans to deploy AI on the platform, and 23% have put AI into production. Yet many doubt their firms can operate AI cost-effectively once they add new capabilities: 3 in 10 are concerned modernization will result

in unpredictable AI costs, and nearly half say managing AI costs in the cloud is very or extremely challenging.

Geopolitics is forcing technology and operational decisions beyond cost and performance.

As the footprint of enterprise technology estates expands, organizations also need to consider how much freedom they will retain if regulations or geopolitical conditions change. Nearly two-thirds expect sovereign cloud usage to grow in the next year, but the data shows most taking a workload-by-workload approach, not comprehensive planning. Increasingly, modernization is not only about building for speed and scale, but also preserving freedom of action in an uncertain environment.

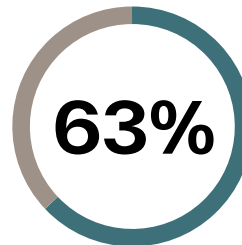
Most organizations begin modernization at a significant disadvantage, both technically and organizationally. Nearly half are behind schedule, with measurable costs.

Creating modern applications with both new features and better security is a major motivator for modernization, but fewer than 1 in 10 organizations are fully confident they know those dependencies today, a significant technical blind spot. And since real agility depends on people, process, and technology moving together, decision-making on modernization is now split across multiple stakeholders, making this as much an organizational imperative as a technical one. Those who have delayed modernization report measurable negative impacts as a result, from security vulnerabilities to the loss of top talent.

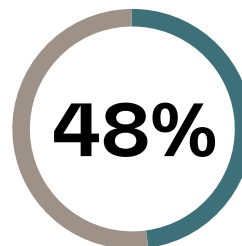
Agentic AI is showing early promise to address longstanding challenges in modernization and speed progress.

Agentic AI is being used to map hidden dependencies, generate code, and create documentation — all traditionally time-consuming, error-prone processes. Organizations not using agentic AI for modernization are much more likely to be behind schedule than early adopters.

3 in 10 are concerned modernization will result in unpredictable AI costs



expect sovereign cloud usage to increase over the next year



of organizations say they are behind schedule on modernization goals, with measurable costs

Consequences of delayed modernization:

- Inability to adopt new capabilities quickly
- Higher long-term costs
- Security or compliance vulnerabilities
- Talent retention or attraction challenges

Fewer than 1 in 10 organizations (9%) are fully confident they mapped application dependency graph

