



# Reinventing with a Digital Core

Chapter 1: How to accelerate growth through change

accenture





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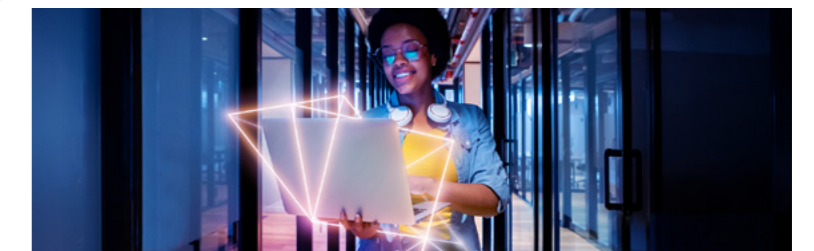
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## Path toward reinvention readiness

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Assessing, architecting and activating a digital core for reinvention



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# Executive summary

**We have entered an era of radical disruption, where generative AI presents businesses with an unparalleled opportunity to accelerate their reinvention efforts and set new performance frontiers, enabling them to deliver products, services and value that surpass what has been achieved in the past.**





In 2022, we predicted leading organizations must transform to drive a step change in performance with technology, data, artificial intelligence and new ways of working<sup>1</sup>.

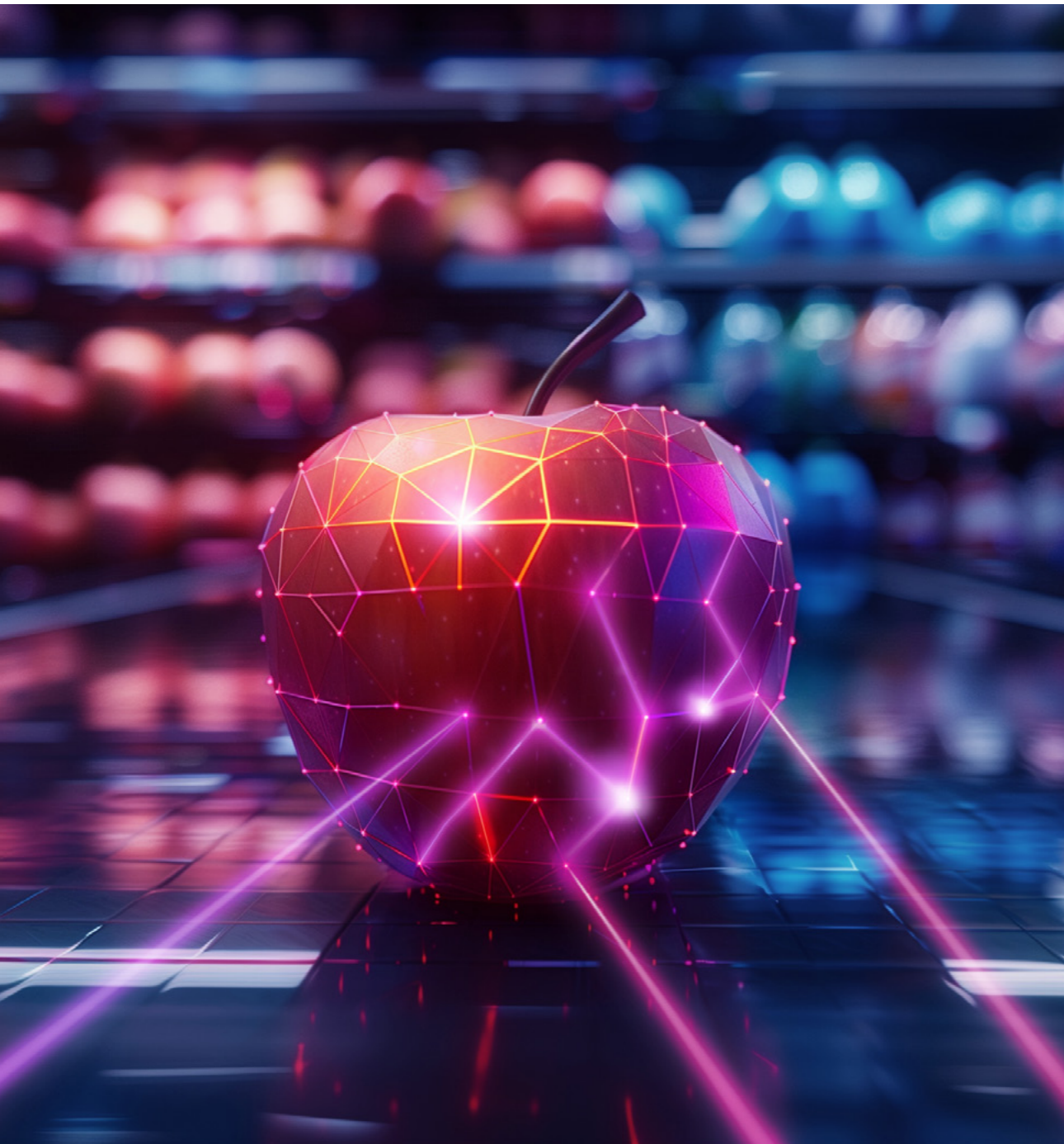
Later that year, generative AI—specifically ChatGPT—burst onto the scene. In 2023, our research found that 8% of companies, the Reinventors, were transforming every part of their business by increasing investments in technology capabilities, which we called their digital core<sup>2</sup>. The enormous power of generative AI to reinvent every facet of business is not lost on companies. Today, our research shows that 83% of them are speeding up their reinvention efforts.

But expectations for generative AI are exceeding their digital core capabilities. Our latest research shows 50% of executives believe they can scale generative AI enterprise-wide in six to 12 months. Yet only 13% are “extremely confident” that they have the right data strategies and the core digital capabilities in place to effectively leverage generative AI<sup>4</sup>.

This strategic shift toward continuous reinvention, underpinned by the generative AI juggernaut, is fueling an urgent need for a digital core that amplifies machines, humans and the interaction of the two in significant new ways. Simply put, companies are trying to figure out how generative AI changes their business, and consequently, how to embed this transformative technology deep within their digital core to accelerate real change—igniting, creating and nurturing reinvention.

The term “digital core” was coined by Accenture in 2022 when we discovered and tested the set of critical technologies needed to drive a reinvention strategy. This discovery was based on our global surveys and experience with thousands of clients as they strove to break away from the pack and set new performance frontiers.





We found three groups of distinct but constantly interacting technologies comprise the digital core: digital platforms, data and AI and the digital foundation, which includes composable integration, cloud-first infrastructure, a continuum control plane and security.

Today, without a digital core developed for both machines and humans, companies will struggle to realize the value that generative AI at scale promises to unlock across an organization<sup>5</sup>. Generative AI requires new capabilities from the digital core. Everything needs to be centrally accessible, classified by purpose and secured. AI agents are already working with each other, creating new workflows and processes<sup>6</sup>. But companies will need to go beyond and ensure that all systems—not just AI agents—are interlinked, and data maintenance automated. Think of new data environments that can automatically leverage unstructured and synthetic data, or cloud that can power generative AI-led, self-servicing functions and operations. Generative AI also changes how the digital core must be built, leveraging the technology itself: from systems working in silos

to ones that are interoperable and constantly interacting with each other, in a programmatic fashion with minimal human involvement.

We call this state of development "reinvention readiness"—a continuous state of supporting the current business drive toward efficiency and effectiveness, while also being flexible to respond to the new needs of the organization as well as quickly adopting the latest technology innovations. This is not limited to generative AI readiness—it adapts to new technologies coming down the pipe. Such a digital core is a prerequisite for a high-growth organization, just like a healthy heart is necessary for an agile human body.

Does rebuilding such a digital core mean companies should abandon everything else and start from scratch to achieve this continuous state? The answer is no. Our research of 1,500 companies globally shows that businesses can achieve reinvention readiness with three distinct tenets to build a digital core that enables the benefits of continuous reinvention.

Compared to the sample baseline, our research found leading companies who followed all three tenets experienced a 60% higher revenue growth rate and 40% higher profitability. We call this the 60:40 effect.

## 01

### **Build an industry-leading digital core tailored specifically to your industry and company.**

Your tech capability determines the limit of attainable business value. The more brittle your tech base, the lower your ability to leverage new waves of technologies and support reinvention. Not surprisingly, advancing to an "industry-leading" digital core (defined as the top quartile of our Digital Core Index) by building new and advanced capabilities that are composable and fully integrated is a non-negotiable step. Your digital core is also specific to your company

ambitions. For example, cloud isn't simply about migrating to the public cloud but rather embracing cloud-first principles such as automation, self-service and policies regardless of where the tech "lives." Being consistent with these practices—in a hybrid context—is a crucial step to improve the brittle tech foundations. Similarly, a small regional bank hoping to increase customers digitally will have different requirements of their digital core compared to an insurance company aiming to better understand their customers.

## 02

### **Boost strategic investments in innovation by 6% or more each year, including to re-engineering systems for machine (AI) operations.**

Companies expect information technology (IT) to drive value, yet most of IT spend is on existing operations and maintenance. Today, the rapid pace at which generative AI is enabling business outcomes mandates that companies keep pace. Specifically, our analysis finds that they should increase the proportion of their IT budgets dedicated to strategic innovation such as generative AI, by at least 6% year-over-year by reducing run costs and applying those savings to innovation. We see many companies consolidating vendors, optimizing cloud costs and operationalizing wholesale automation to accelerate this shift. To stay

ahead, companies can use these resulting savings to redesign business processes, launch new products and services and enter new markets. Their focus should be squarely on innovation KPIs (key performance indicators) that tie to business outcomes, such as shorter drug discovery periods, as opposed to IT KPIs like mean time to detect or repair systems. To do so, companies need a digital core that is designed for both humans and machines. Both can interact seamlessly with each other and create value through intention—not instruction—driven workflows for business processes such as drug discovery. Current design methodologies have sufficiently advanced the design for humans, with continual improvements being made daily, but the more immediate focus should be to re-engineer systems for machine (AI) operations.





### 03

#### **Balance technical debt liabilities with investments for the future, targeting 15% of budgets to remediation using programmatic and autonomous methods.**

While legacy technical debt in IT systems has been building for decades, our research finds that AI is now a top contributor to technical debt. Because new debt created from AI can grow rapidly, companies must proactively manage technical debt—the cost in terms of money and effort required for a company to keep its IT systems up to date and capable of meeting business needs—to maintain evergreen IT capabilities. Based on our data, companies must allocate the “just right”

amount of about 15% of their IT budgets to remediate technical debt, especially for new IT projects. This is a balancing act because funds used to manage technical debt take away discretionary investments in strategic innovation. In fact, we observe that leading companies not only follow a disciplined approach to technical debt, never letting it get to a point where it impedes innovation, but also a programmatic approach to building a digital core. For example, programmatic version control systems can be used to update configuration settings for infrastructure following changes to the code, reducing future technical debt.

In this report series, we explain why and how companies can fulfill these tenets to empower reinvention and turn continual change into a competitive advantage.

This chapter focuses on CEO imperatives. Our second chapter delves into CIO imperatives, illustrating how to best build, design and operate a digital core that is not only capable of leveraging generative AI, but also attuned to absorb and scale new technologies as they arrive.





# The technology bedrock your business needs

Can companies grow through continual change? This question is on the minds of chief executives as they face radical disruption in their business environment.





"We don't talk any more about the relationship between the technology department and the business. It's one. Technology is a part of the business. There's no technology group that would consider themselves not part of the business." – A multinational chemical company

The annual Accenture Pulse of Change Index found that 88% of business leaders anticipate an even faster rate of change in 2024 on top of the 183% jump in rate seen between 2019 and 2023<sup>7</sup>. Technology ranks as the most disruptive force for companies in 2023, up from the No. 6 position a few years ago, largely due to the rapid spread of generative AI (gen AI) applications<sup>8</sup>. Even as gen AI is heating up competition for productivity and

business value, macroeconomic headwinds such as inflation and geopolitical unrest continue unabated.

To get ahead of these relentless shifts and challenges, companies need a different kind of change model for their technology, one that breaks away from the three-phase model—unfreeze, move and freeze<sup>9</sup>—introduced by Kurt Lewin decades ago and

largely followed in an era of low-velocity IT environments. Today, speed, agility and security are the primary characteristics of a tech stack that can better enable the execution of a continuous reinvention strategy. A digital core with these critical traits will empower organizations to pursue new corporate ambitions and set new performance frontiers.



88%

of business leaders anticipate an even faster rate of change in 2024 on top of the 183% jump in rate seen between 2019 and 2023<sup>7</sup>.





## What is a digital core?

Accenture defines a digital core as the critical technology capability that can create and empower reinvention. The digital core varies across industries and companies. It enables organizations to think about and work with technology in new ways (see inset).

### Digital core definition

A digital core is a new way to think about and work with technology.

Accenture defines a digital core as the critical technological capability that can create and empower an organization's unique reinvention ambitions. Building this tailored digital core requires integrating advanced digital platforms, a seamless data and AI backbone and a secure foundation using radical new engineering principles.

This fit-for-purpose digital core enables an organization to accelerate ahead of competition and achieve their ambitions in the most efficient fashion using the right mix of cloud practices for agility and innovation; data and AI for differentiation; applications and platforms to accelerate growth, next-generation experiences and optimized operations—with security by design at every level.

Many large companies utilize technologies like cloud services, data management, AI, security or SAP S/4 HANA so they have the “building blocks” of a digital core. But without proper integration and activation of these components for reinvention, they do not have a digital core. The acid test? They lack the digital threads necessary to integrate the building blocks to accelerate holistic reinvention. In fact, sometimes, their IT stack is a deterrent to reinvention.



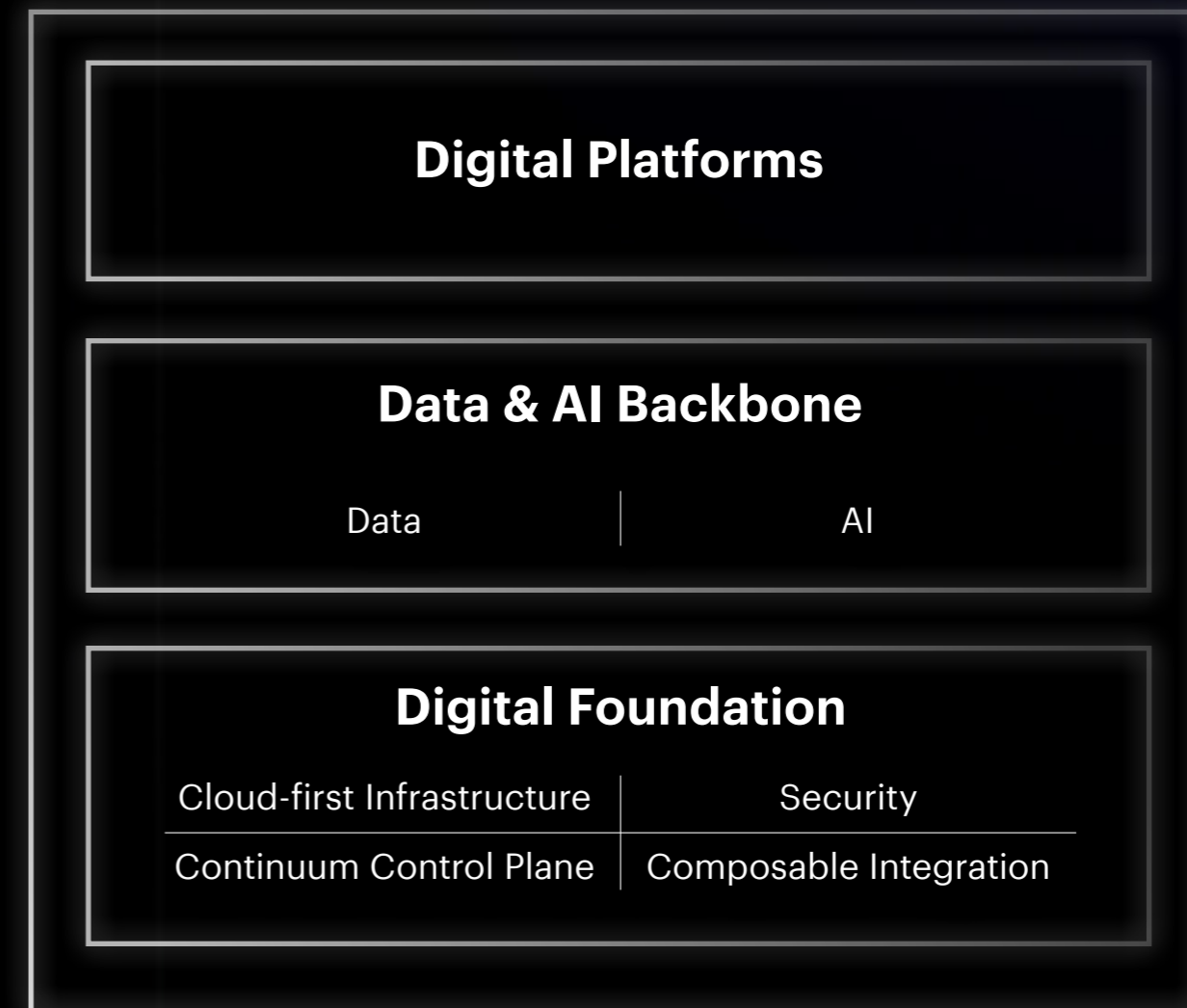
C-Suite executives must understand the digital core of their company because of its significant impact on business results. A brittle legacy technology foundation that remains siloed will hold a company back, impairing its business performance. By contrast, a seamless digital core positions an organization to rapidly seize new opportunities to unlock greater value.

Gen AI's advent has imposed new requirements such as new types of data, model selection and increased compute costs on the digital core. Simultaneously, gen AI is also changing how each component of the digital core must be built, leveraging the technology itself.

Our analysis of 1,500 companies across 10 countries and 19 industries shows that a digital core that addresses these needs must have specific capabilities, with each component built in a certain way to keep it in a continuous state of change. Based on our extensive surveys, interactions with clients and executive interviews, we established three groups of distinct but constantly interacting technologies which comprise the digital core: digital platforms, data and AI, and the digital foundation, which includes composable integration, cloud-first infrastructure, a continuum control plane and security (see Figure 1).

### Figure 1: Demystifying the digital core

A digital core fit for continuous reinvention includes three distinct groups of technologies that constantly interact with each other.







“We're in technology, we understand it's constantly shifting. Why set an end-goal when we can continuously innovate to drive more efficiency, drive costs down or increase revenue? That's why we call it a continuous evolution.”  
- A data infrastructure company

But it doesn't stop at technology. A strong digital core goes hand-in-hand with new “ways of working” across engineering and operations to reinvent products and services. This means a company must adopt new operating models, methods, processes and skills to operationalize and

scale new opportunities and grow. It also requires a shift in thinking from legacy IT systems being static, standalone parts to a mindset where composability, agility and interoperability across the entire technology landscape (and externally with partners) are foundational principles.

A digital core enables the deployment of transformative technologies such as gen AI to deliver their full potential. However, the digital core must be customized to achieve business objectives, which can vary for industries and companies. Selecting the “right” digital core depends on a company's industry needs and corporate goals. Differing ambitions require companies to follow different journeys in developing their digital core.



## Capturing the gen AI opportunity

Gen AI has become an extraordinary force in enabling continuous reinvention and accelerating organizations' progress toward new performance frontiers. With 98% of companies reporting technology as the top lever for reinvention, gen AI is now seen as one of the main drivers for 82% of those companies<sup>10</sup>. Gen AI is changing the game for how organizations operate and compete. Those that can harness gen AI's potential at speed are poised to supercharge their reinvention outcomes, leaving their competitors far behind.

Take the travel industry. With new and rapid advancements in human-centric technologies, it is more important than ever for this industry to innovate in this changing landscape. That is why Amadeus is reinventing the corporate travel experience.

Partnering with Microsoft and Accenture, it is developing new gen AI-powered integrations for its Cytric Easy platform within Microsoft 365 to streamline and enhance every aspect of business travel. A gen AI travel assistant that integrates with the platform will align traveler preferences with corporate policies. Utilizing Microsoft technologies, including GPT models, Microsoft Copilot 365 and Teams, the assistant will support corporate travelers through all stages of their journey—from planning and booking to the trip itself and post-trip activities.

The gen AI solution will move beyond traditional booking interfaces to offer a dynamic, conversational interaction focus on collaboration. Further, this shift promises to simplify the booking process significantly, saving time for business travelers. The partnership is poised to deliver highly personalized and efficient travel experiences, reflecting a broader vision to transform business travel and ensure the responsible scaling of generative AI solutions globally.





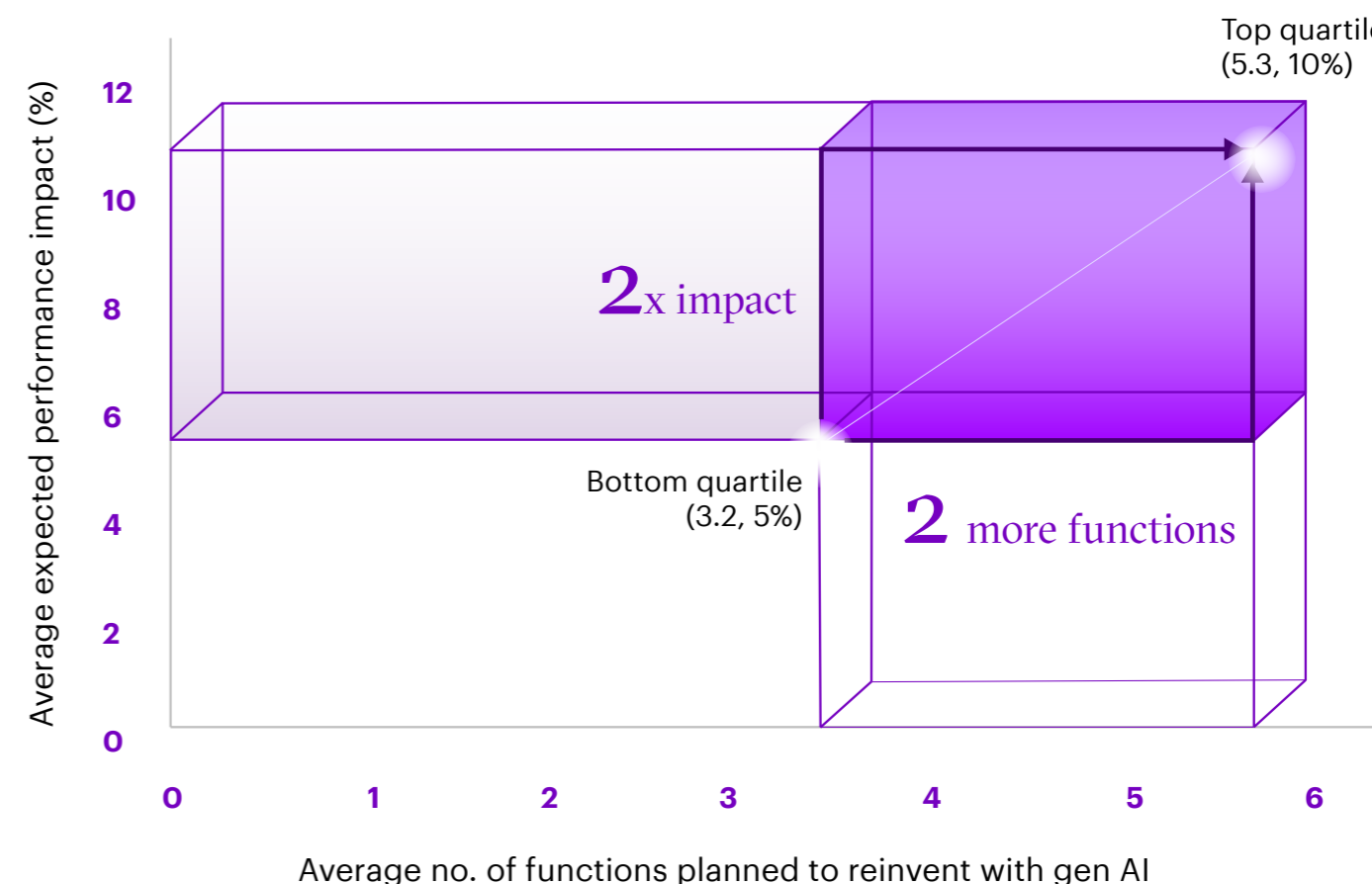
Companies that want to capture gen AI opportunities must embrace cloud-native paradigms, establish a modern data foundation capable of processing structured, unstructured and synthetic data that leverage the most appropriate large language model (LLM) for their objective. Building industry-leading capabilities in the digital core is a critical step to realizing value. "Our analyses show that over the next three years, companies with industry-leading digital cores will reinvent twice as many functions with gen AI compared to others and are expecting to create twice as much value (see Figure 2).

Furthermore, experimentation with gen AI seems to have benefits for all, both in terms of scope and scale. I.e., early adopters of gen AI are planning on reinventing more functions with gen AI and expect more functions to scale in terms of performance improvement.

Gen AI is today's disruptive technology. What will the next one be? Humanoid robotics, large-action models, hybrid models that combine symbolic AI with deep learning or innovative and sustainable chip designs? How will companies be able to quickly adopt new technologies to tap first-mover advantages? Whether it is gen AI or the next new technology, the answer is the same—a digital core that enables a company to become reinvention ready.

**Figure 2: Industry-leading digital core means more experimentation and more value from gen AI**

Companies with industry-leading digital cores (top quartile) will reinvent twice as many functions with gen AI compared to others and are expected to create twice as much value.



Digital core survey (Nov 2023): Final results (N= 1,500)



# What does it take to become reinvention ready?

Our research has identified three tenets that companies must follow to achieve a digital core with reinvention readiness.





01

**Build an industry-leading digital core tailored specifically to your industry and company.**

The first step to reinvention readiness is to achieve an “industry-leading” level of digital core capability—defined as the top quartile in our Digital Core Index (see Figure 3).

02

**Boost investments in innovation by 6% or more each year, including re-engineering systems for machine (AI) operations.**

Companies must also increase the proportion of their IT budgets dedicated to strategic innovation, as opposed to operations and maintenance, by at least 6% year-over-year. The aim is to dedicate as much budget toward innovation as they can, without starving important maintenance projects.

03

**Balance technical debt liabilities with investments for the future, targeting 15% of IT budgets using programmatic and autonomous methods.**

Finally, companies need to proactively manage technical debt to maintain evergreen IT capabilities by setting aside 15% of their IT budgets to remediate technical debt.

Taken together, these steps will enable a company to rapidly adopt new technologies and benefit from first-mover and fast-follower advantages. Today, only a small number of leading companies (3%) have cracked this code.

Our research found that compared to the sample baseline, leading companies who did all three experienced a **60% higher revenue growth rate** (from 7.1% to 11.1% on average) and **40% higher profitability** (from 14.2 to 19.4 percentage points on average). We call this the 60:40 effect.

Furthermore, these companies are well-prepared to adopt the next new wave of technology quickly and effectively, maintaining or growing their competitive advantage. Many companies are accelerating initiatives to follow the three tenets.



## Tenet 01

# Build an industry-leading digital core tailored for your industry and company

Building a digital core capable of supporting continuous reinvention is an urgent imperative. Our research shows that companies need to achieve an "industry-leading" level of digital core capability—defined as the top quartile in our Digital Core Index—to empower continuous reinvention.

We reached this conclusion after assessing companies' enterprise technology stacks across each of the seven components of the digital core, using 39 subcomponents to develop our Digital Core Index (normalized to a scale of 100). Companies can have the seven components of the digital core, but without proper integration and activation of these components for reinvention they do not have what we call a digital core. The acid test? They lack the digital threads necessary to integrate the building blocks to accelerate holistic reinvention. Data from our survey supports this thesis. When we look at the capabilities at the pillar level, integration and control plane are the two components with the highest differentials between the bottom and top quartiles (see Figure 3).

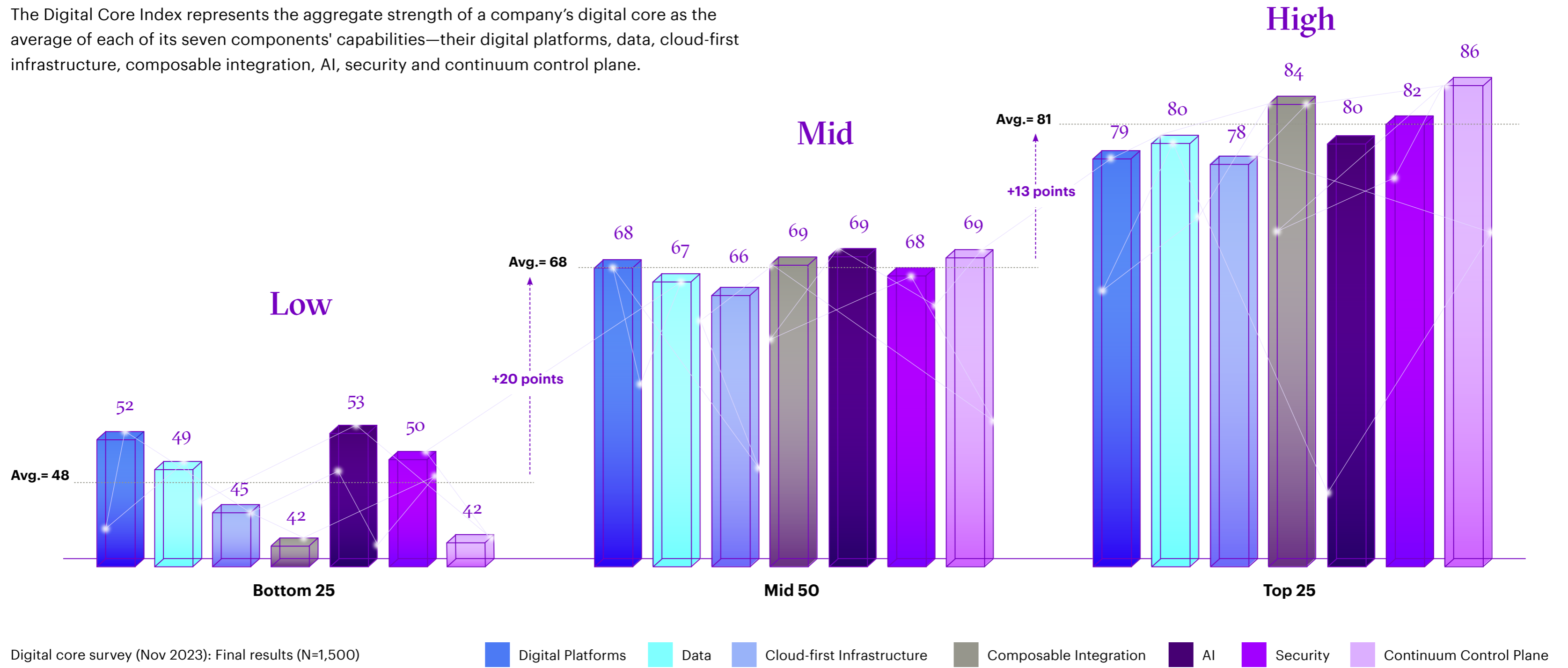
The index represents the aggregate strength of their digital core as the average of each component's capability. Capability points represent the relative sophistication of a given technology. Gaps represent technology modernization activities needed to achieve the next level of capability. The greater the gap, the more time and investment required to achieve a target level of capability and unlock the associated value.





**Figure 3: The Digital Core Index**

The Digital Core Index represents the aggregate strength of a company’s digital core as the average of each of its seven components’ capabilities—their digital platforms, data, cloud-first infrastructure, composable integration, AI, security and continuum control plane.



**Compared to the sample baseline, companies in the top quartile of our index who achieved an “industry-leading” condition experienced 20% higher revenue growth rate and a 30% increase in their profitability.**

They reap other benefits as well. For example, 54% of them strongly agreed that their enterprise systems helped them diversify into other geographies and industries.

The data highlights that superior integration and end-to-end engineering and operations visibility contribute considerably to digital core capability and are critical to developing an advanced level of capability. Those in the top quartile are scoring 2X more in these areas than companies in the bottom quartile.

Consider banking multinational Standard Chartered, which set itself the goal of becoming “fit for growth”. The bank wants to enhance shareholder return and revitalize the stock<sup>11</sup>. This corporate strategy is underpinned substantially by the transformation of their technology. This begins with a value-led approach to technology adoption. The bank is focused on carefully maintaining their legacy systems while making incremental changes. To that end, not only the bulk of applications are cloud-based but it has also reduced the total number of applications<sup>12</sup>. It expects savings of \$1.5 billion over the next five years under the fit for growth program<sup>13</sup>.

Furthermore, even as modernization of parts of its tech stack continues, Standard Chartered is venturing out with new

innovative digital offerings and business models such as BaaS (Banking as a Service) through Audax<sup>14</sup>.

It built MOX and Trust Bank, which are new cloud banks with a core tech stack enabling composable API integration. Using AI and machine learning, it has automated processes to improve efficiency, enhance customer experience, reduce biases and ensure self-healing IT automation in its systems. Additionally, it has made significant investments in cybersecurity to protect its systems and customer data.

**54%**

**of the companies in the top quartile of the Digital Core Index strongly agreed that their enterprise systems helped them diversify into other geographies and industries.**





**Table 1: Sample no-regret moves in the digital core**

The journey to an industry-leading digital core is made by committing to the no-regret moves (to be explored in greater depth in Chapter 2) that build capabilities and deliver efficiencies that can then be reinvested into the next step of the journey. These can address any part of the digital core and include actions as shown in Table 1.

What’s promising is there are strong correlations between components of the digital core that create halo effects in other parts of the core. This also applies to the digital core holistically and gen AI. Higher digital core capability enables greater AI assimilation, which reciprocally can be used to fortify and accelerate further development of the digital core, creating a virtuous circle of progress.

Digital Core Pillar	Sample no-regret moves
<b>Digital Platforms</b>	<ul style="list-style-type: none"> <li>• Include modern modular microservices apps, like S/4 HANA from SAP ECC.</li> <li>• Experiment with gen AI apps in AI-optimized development platforms.</li> </ul>
<b>Integration</b>	<ul style="list-style-type: none"> <li>• Invest to ensure that data residing in systems built in legacy technologies are easily accessible through APIs to feed AI models.</li> <li>• Standardize, document and catalog APIs to ensure consistent and seamless integration of AI applications with enterprise systems.</li> </ul>
<b>AI</b>	<ul style="list-style-type: none"> <li>• Set up AI architecture to access prebuilt gen AI models.</li> <li>• Turn on "built-in" gen AI products in enterprise software.</li> <li>• Put AI governance in place.</li> <li>• Operationalize multiple types of AI (classical and gen AI).</li> </ul>
<b>Data Foundation</b>	<ul style="list-style-type: none"> <li>• Establish governance for ensuring efficient, safe and secure data for use.</li> <li>• Extend data pipelines from structured to also cover unstructured, streaming and synthetic data.</li> </ul>
<b>Cloud-first Infrastructure</b>	<ul style="list-style-type: none"> <li>• Get to multi-cloud and incorporate cloud native practices at scale.</li> <li>• Integrate HPC, like GPU clouds.</li> </ul>
<b>Continuum Control Plane (CCP)</b>	<ul style="list-style-type: none"> <li>• Add observability extensively across domains—the ability to track outcomes and tie them to systems/models.</li> </ul>
<b>Security</b>	<ul style="list-style-type: none"> <li>• Modernize GRC solutions to add LLM risks, explainability.</li> <li>• Modernize the security posture to allow intelligence-led cyber assessment and attack simulations.</li> </ul>



## Tenet 02

# Boost investments in innovation, including re-engineering systems for machine (AI) operations

While higher capabilities in the digital core are necessary for becoming reinvention ready, they are insufficient. Leading companies continuously increase the proportion of their IT budgets dedicated toward strategic innovation, such as gen AI, as opposed to operations and maintenance. We found that they must shift these investments by at least 6% year-over-year by reducing run costs and reinvesting the savings into innovation.

Typically, companies allocate 70% of their IT budgets for operations and maintenance and 30% for innovation and discretionary spending. Since 2017, we've tracked and used the indicator called Flip Size—the rate at which companies increase the proportion of IT spend on innovation as opposed to operations—to capture the shift in the remit of enterprise technology. During the pandemic, a high Flip Size was a key indicator of performance. This prescription still holds.







How are they doing this? We see many companies cutting inefficiencies by rationalizing vendors, optimizing cloud costs and operationalizing wholesale automation to accelerate this shift. Companies can use these freed-up funds to redesign business processes, launch new products and services and enter new markets. Their focus should be squarely on innovation key performance indicators (KPIs) that tie to business outcomes such as shorter drug discovery periods, as opposed to IT KPIs like mean time to detect or repair systems. Our research shows that 80% of companies are likely to grow their innovation budgets beyond 2023 at twice the intensity than they have before (see Figure 4).

For example, let's think of the future supply chain management process built with frictionless machine-to-machine interactions in mind. Such a system ensures that all the core sub-processes such as data collection, trend analysis, pre-ordering and even optimization of the overall system, can be accomplished end-to-end by machines—with the option for humans to supervise and intervene at any step. Humans are still in the loop but we have a system that costs less and increases overall efficiency.

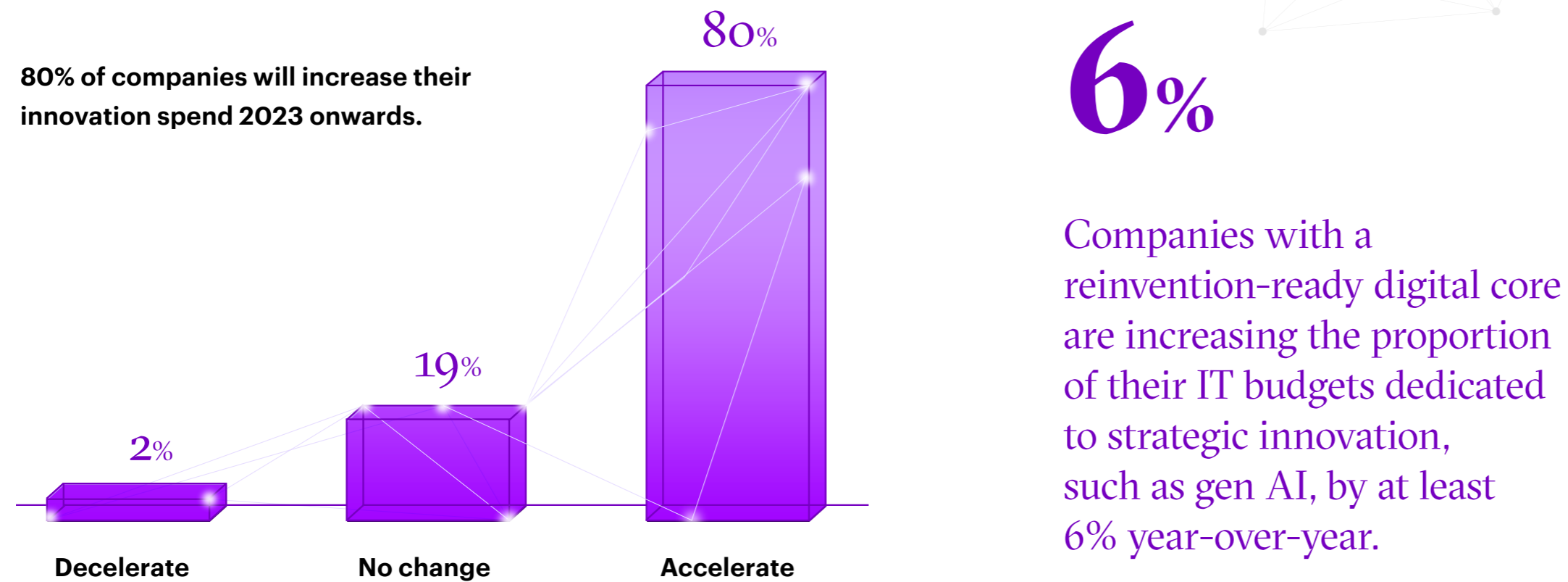
In some cases, a shift to strategic investments in areas of potential growth can occur organically when organizations migrate their IT estate to the cloud and free up capital to invest in innovation activities, such as automating software development cycles

and building capabilities to deploy new technologies. However, IT decision-makers are taking notice of the potential of gen AI and often moving funds toward strategic investments in gen AI, even if it means cutting the budget elsewhere<sup>15</sup>.

Unilever, a global consumer goods company with over 400 brands used by 3.4 billion people daily, has undergone a remarkable digital transformation, becoming a digital-first and cloud-only enterprise. This shift in focus from operations to innovation has been achieved through a collaborative effort with Accenture, Microsoft and Avanade. In just 18 months, Unilever successfully migrated 100% of its workloads into the cloud, revolutionizing its functions and setting a new standard for technology transformation in the consumer goods industry.

### Figure 4: An Innovation-oriented IT budget

Companies are moving into higher performance brackets by shifting their IT budgets from operations to innovation. Those with reinvention ready digital cores are shifting 6% or more from maintenance to strategic innovation.



Note: Accelerate here refers to a further increase in innovation spend growth 2023 onwards, with respect to the innovation spend change that the company reported for 2020-2022. Digital core survey (Nov 2023): Final results (N= 1,500)

Innovation is deeply ingrained in Unilever's DNA. The company's Research and Development (R&D) division comprises a team of over 5,000 professionals worldwide, dedicated to building brands through groundbreaking innovations. Examples include the development of plastic-free packaging for Persil and the introduction of new flavor variants for Hellmann's.

Unilever's commitment to innovation is reflected in its substantial investment of approximately \$1.08 billion in R&D each year. This investment has resulted in a vast portfolio of over 20,000 patents and patent applications worldwide. In 2023, Unilever attributed its impressive sales growth of 10.5% in the first quarter to its focus on innovation and brand investment. During this period, the company achieved a group turnover of \$16.05 billion, marking a 7% increase compared to the first quarter of 2022.





## Tenet 03

# Balance technical debt liabilities with investments for the future

Companies relied on a “move-as-fast-as-you-can” strategy during the pandemic<sup>16</sup> that created significant tech debt—worsening a long-standing problem. Current conditions demand a more balanced approach, where companies must try to have an “evergreen IT” by using gen AI and other technologies to help manage technical debt and keep the enterprise tech stack up to date.

This requires a commitment to continuous updates, upgrades and management of end-user software, hardware and associated services to mitigate the technical debt that resides in these systems.

As recently reported, the tech debt burden on U.S. enterprises alone is estimated to exceed \$1.5 trillion<sup>17</sup>. Companies must

actively control this debt to manageable levels. Our analysis reveals that leading companies allocate an average of 15% of the IT budget toward tech debt remediation. This “sweet spot” balances debt reduction with investments for the future.

What is technical debt? Simply put, it is the cost in terms of money and effort, required for a company to keep its IT systems up to date and capable of meeting business needs. Debt can be accumulated through a variety of sources and traditionally includes legacy and buggy code, outdated programming languages, a lack of documentation and outdated technologies and infrastructure. Individually and together, these compromise system performance and require remediation to reduce its compounding effects.

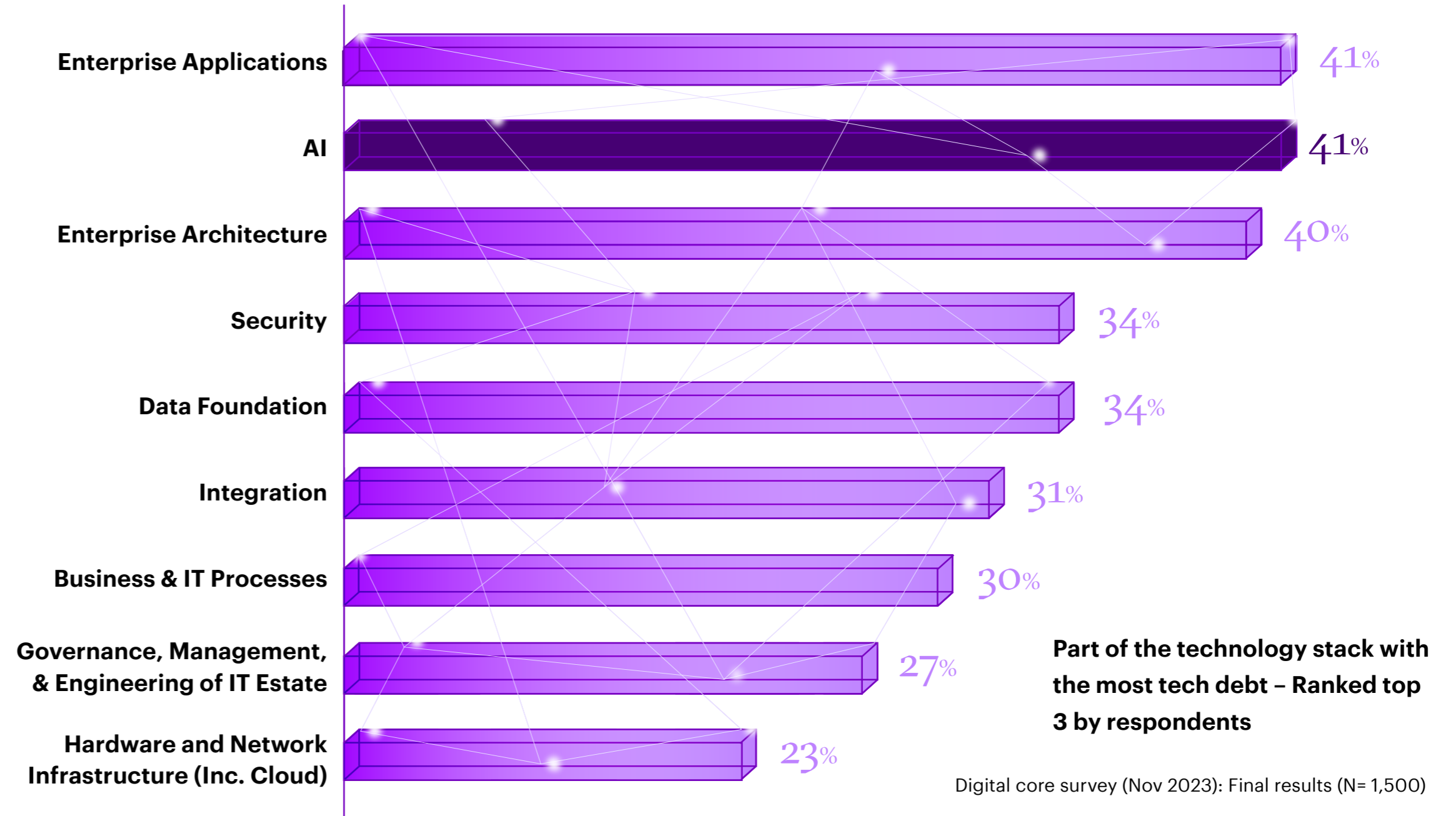


In addition to these 'classical' types of technical debt, other debt is incurred through the adoption of new technologies.

For example, companies have been incurring AI-specific technical debt since the rise of machine learning methods in early 2010, and it shows. Our research discovered that AI is a top contributor to tech debt, tying with applications (see Figure 5). As such, any initiatives looking to rapidly scale gen AI capabilities must invest in tech debt remediation activities to counter the potentially debilitating aspects of inadequately blueprinted scaling efforts. Failure to address these issues now may result in short-term benefits, followed by a collapse of performance resulting from a weak foundation.

**Figure 5: Contributing to tech debt**

AI ties as the highest contributor to tech debt along with applications.







## In the era of gen AI, the cost of technical debt may be compounded if not managed intentionally. Why?

Accelerated innovation enabled by AI and gen AI empowers citizen developers with coding copilots to create apps quickly, but without proper oversight they may ignore comprehensive testing or interoperability concerns<sup>18</sup>. For instance, an AI-driven customer service chatbot deployed quickly might later reveal issues in understanding complex user queries, potentially offering inaccurate responses that erode customer satisfaction. This may then require significant updates or redesign—leading to a negative return on investment in the longer term. Clearly AI can be a double-edged sword. On the one hand, it promises productivity and helps us manage technical debt; on the other hand, it is itself a cause of technical debt.

Maintaining evergreen IT isn't easy. Financial and time constraints, the break-neck pace of change in the tech landscape and, consequently, rapidly evolving product requirements and talent shortages can all cause technical debt to balloon. If this challenge is not addressed at the beginning of every project, companies can end up with more technical debt in the system than when they started their "innovative" project—accumulating debilitating drag on the system.

Based on our research, we recommend companies allocate about 15% of their IT budget for technical debt remediation, balancing "paying down debt" with strategic investments. Failing this, a company's IT posture will never shift to innovation.

Consider our work with one of the world's largest media conglomerates. As the largest media company in Latin America, Globo had captive audiences across its TV channels and digital properties. Its digital streaming service was growing but lacked the investment and agility to compete at scale. The company was working with a labor-intensive legacy tech stack. It had an outmoded operating model with fragmented processes and tools, a lack of ecosystem partnerships and few metrics to monitor its engineering and business performance across its various units. And its siloed operations kept functions such as IT, human resources and ad sales from effectively collaborating.

Globo teamed up with Accenture to implement its transformation journey, UmaSóGlobo ("Only One Globo"). Globo pursued a new direct-to-consumer (D2C) strategy with an integrated suite of products that broke down silos and consolidated its technology systems. The team reinvented Globo's operating model, setting it up as a mediatech company with an innovation hub that aims to be the "factory" from which all digital products originate. To support the new model, the company crafted an environment to "test and learn" from new products in the marketplace.

Today, Globo is a D2C organization offering innovative digital products. It can reach audiences and markets in a more targeted way with its advertising business. Thanks to streamlined costs and top-line growth initiatives, Globo is accelerating advertising revenues and deploying digital capabilities through its 1,500-person innovation hub. And with its mindset of "learning to learn," the mediatech giant has a legacy it will never lose.

Another example is the banking industry that's increasing technology budgets to enhance customer experience through cloud, automation and new platforms. Banks consistently allocate an innovation budget for transformative technologies, with a focus on efficiency. On the other hand, Standard Chartered has a decision-making process for IT budget allocation, with the innovation team proposing solutions aligned with business requirements. Budget allocation involves collaboration between teams and stakeholders, including the CTO, CFO, CEO and CISO, ensuring tech debt is appropriately evaluated before embarking on projects.

We see more programmatic approaches being used to contain technical debt at code, infrastructure and other parts of the system. In the future, we will see more companies adopting programmatic approaches not only to automate code refactoring, testing and documentation but also for infrastructure.





# Path toward reinvention readiness

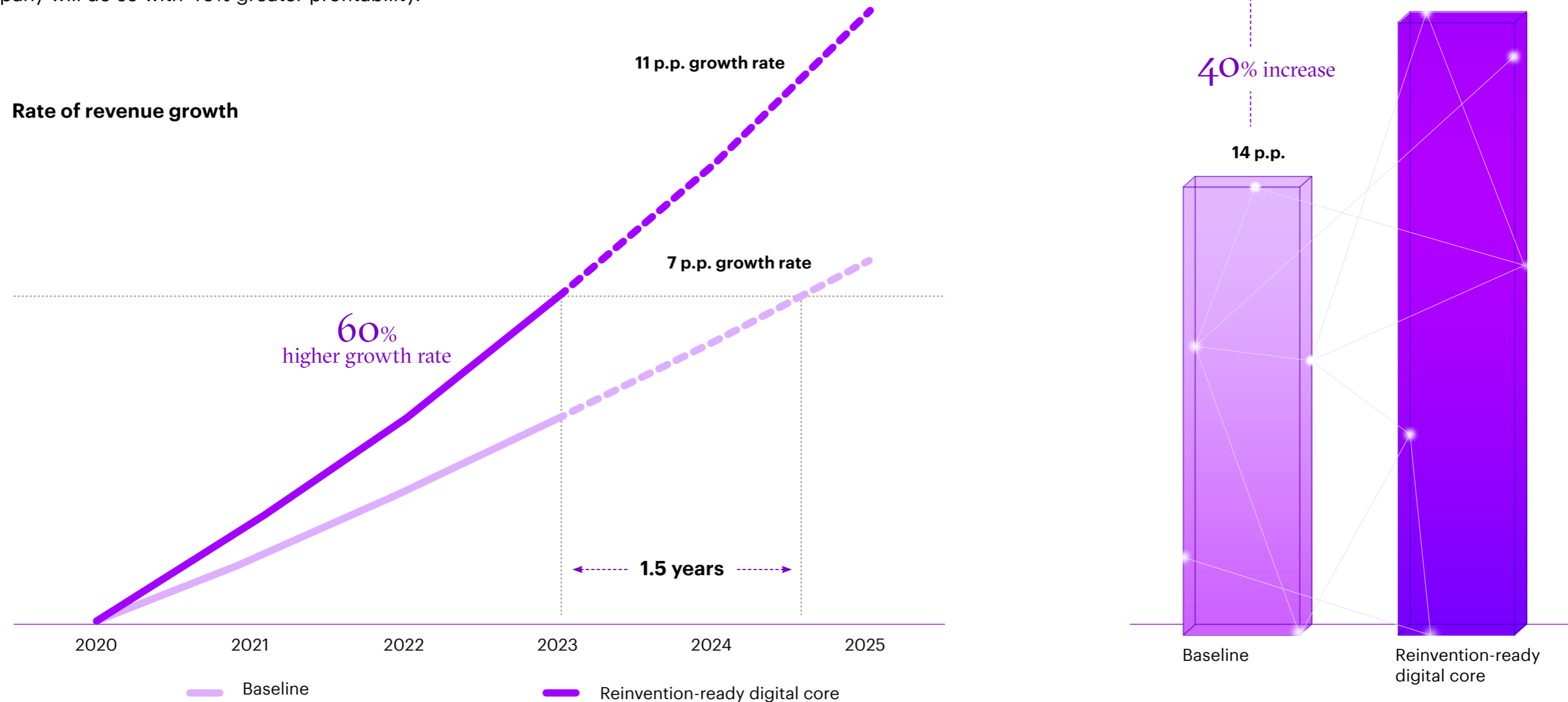
**While only a small proportion of companies today are practicing the three tenets, all organizations can significantly improve performance by building out advanced capabilities in their digital core (see Figure 6).**





### Figure 6: Illustrating the 60:40 effect

Consider two companies with \$1B in revenue. The company with a reinvention-ready digital core will grow 60% faster (to \$1.38B) one-and-a-half years earlier than the company without it. In addition, this company will do so with 40% greater profitability.



Note: 7p.p. (percentage point) is the Revenue Growth (2020-2023 CAGR) for the baseline group in our digital core survey, whereas 11p.p. is the Revenue Growth (2020-2023 CAGR) for the group that meets all three conditions for having a reinvention-ready digital core. And EBITDA margin is calculated as an estimated average over three years (2020-2023). 14p.p. is for the baseline group and 19p.p. is for the group that meets all three conditions for having a reinvention-ready digital core.





The benefits grow when companies not only address their present digital core but also simultaneously keep an eye on the future with strategic investments while proactively remediating tech debt to relieve burdens of the past.

Creating such a digital core simplifies the assimilation of new technologies such as gen AI to drive their reinvention ambitions. Our research shows companies that follow these tenets also break other performance barriers compared to peers that don't. When asked about their digital core, companies adhering to all three tenets are:

**1.3x**

more likely to say that their digital core enabled them to identify and mitigate risks (cyber, regulatory, Responsible AI) across multiple technologies, applications and ecosystem partners than those not adhering to any of the three tenets.

**1.4x**

more likely to say that their digital core enabled their non-IT employees to create their own customized solutions using low code/no code tools than those not adhering to any of the three tenets.





## New ways of working

To achieve reinvention readiness, a company must also continuously adopt new ways of working, including new operating models, methods and processes for their workforce. This starts at the team structure level. 68% of business executives report building strong capabilities around dynamic teams, where team members can rotate on and off based on project needs, while 67% are developing strong multi-disciplinary teams that are cross-functional and integrate technology and other skills. Furthermore, at companies in the top quartile of our Digital Core Index, some of these practices are even more pronounced. For example:

**60%**

design talent capabilities and technology solutions to enable continuous change, compared to 49% of others.





## Assessing, architecting and activating a digital core for reinvention

In this chapter, we establish that a digital core is critical for a company to carry out continuous reinvention. To do so, companies should focus on three tenets: advancing their digital core to an industry-leading capability, accelerating IT investments in strategic innovation and proactively managing technical debt.

But where should companies start?

Our next chapter strives to answer this question. We will share how to build your digital core strength, illustrate the new engineering principles you should leverage on your journey and provide a roadmap to reinventing with a digital core. Together, these approaches will position you to tap the potential of new technologies and seize opportunities to create value and grow.



## How Accenture can help

We help companies transform and reinvent every aspect of their enterprise with digital core services that span strategy and roadmapping, building and modernizing, managing and optimizing.

Our integrated technology solutions target every facet of the digital core: from cloud migration to data modernization to generative AI implementation to building platform businesses and more—with security embedded at every step. Accenture’s Continuum Control Plane offers a holistic approach to instilling transparency, orchestrating change and driving innovation that is critical to cultivating reinvention-readiness across technology and business.

But where do you start? Taking our robust Digital Core Diagnostic will provide you with a complete picture of the current state of your business and your technology.

We can then work with you to create a blueprint and define how to prioritize and build a reinvention-ready digital core. By understanding the gaps in your digital core capabilities, we can work together to bring your capabilities to an industry-leading level.

Based on your assessment, we can recommend the set of “no-regret moves” you can make across priority pillars, which target your company’s specific business needs and vision for the future. Across each pillar, we offer dedicated assets, solutions and ecosystem partnerships to accelerate and sustain your progress.





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## About the research

### Quantitative Executives Survey

The survey of 1,500 global C-Level IT executives was completed in November 2023. The aim was to collect data on:

1. State of their tech stack and maturity of key components of the digital core: digital platforms, data and AI backbone, and digital foundation (cloud-first infrastructure, continuum control plane, security, and composable integration).
2. Business landscape, including business structure and transformation; reinvention strategy; and business functions transformation.
3. Financial and operational performance via multiple measures.

The graphics below summarize the survey firmographics:

1,500 executives global

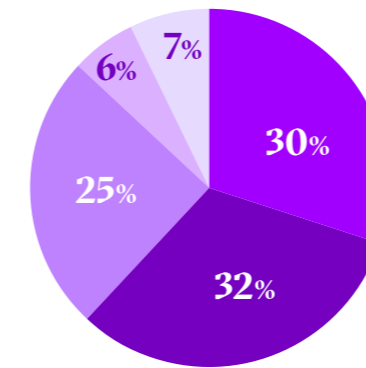
52% completed tech transformation

19 industries

C-Level only

#### Company Size

- Less than \$5Bn
- \$5Bn – \$9.9Bn
- \$10Bn – \$29.9Bn
- \$30Bn – \$49.9Bn
- More than \$50Bn



#### 19 Industries

##### Financial Services

Banking (83)  
Capital Markets (45)  
Insurance (86)

##### Communications, Media & Technology

Media & Communications (80)  
High Tech (82)  
Software & Platforms (86)

##### Resources

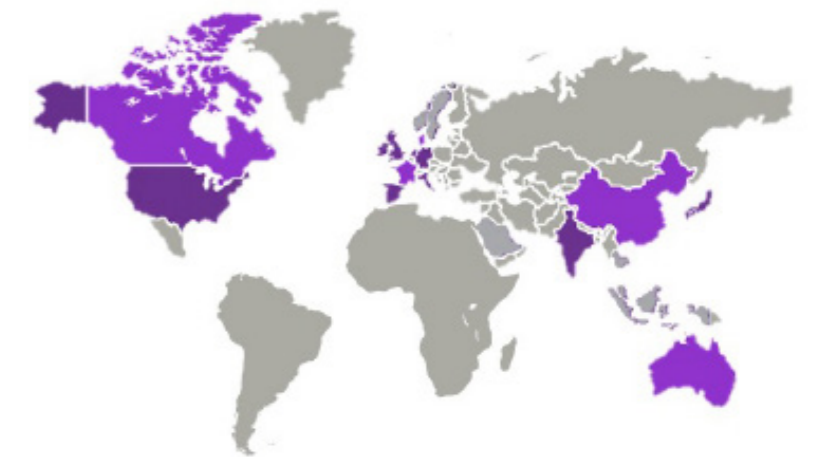
Utilities (83)  
Energy (Oil & Gas included) (83)  
Chemicals (84)  
Natural Resources (81)

##### Health & Public Service

Healthcare (78)  
Public Services (40)

##### Products

Retail (115)  
Consumer goods & services (113)  
Airline, Travel, Transport (80)  
Aerospace & Defense (41)  
Industrial Equipment (80)  
Life Sciences & Pharmaceuticals (79)  
Automotive (81)



#### 10 Countries

Australia (50)	India (80)
Canada (70)	Italy (50)
China (80)	Japan (100)
Germany (130)	United Kingdom (130)
France (90)	United States (720)





## Digital Core Index

We built a composite indicator (an index) to measure the strength of a company's digital core capability based on 39 assessment questions. We applied a two-step aggregation process corresponding to the digital core component definitions and normalized the overall score on a 0-100 scale, where 0 means lack of digital core strength across the components and 100 means maximal strength across all components.

As a next step, we created three groups of companies based on overall Digital Core Index score distribution. The top group corresponds to the top quartile of the Digital Core Index, the bottom group to the bottom quartile of the index. The mid group is the rest of the index. Next, we analyzed characteristics of the groups.

## The 60:40 effect estimation

We estimated the 60:40 effect by combining the survey data (including Digital Core Index) input and financial performance metrics of companies in our survey sample. Leveraging econometric modelling, we estimated the relation between:

1. Companies' revenue growth (CAGR 2020-2023; 3 year-end readings)
2. Companies EBITDA margin (Average 2021-2023; 3 year-end readings)
3. The three tenets needed to achieve a reinvention-ready digital core:
  - Build industry leading digital core
  - Boost investments in strategic innovation
  - Balance growing technical debt.

As the top-rated companies constitute only a small percent of analyzed sample (-3%), we tested the relation with the use of continuous variable (with scoring across the sample). The model controls for companies' size, HQ country, industry and selected operational characteristics.

Our research showed that companies that apply the three tenets of a reinvention-ready digital core experience a 60-40 effect.

During the period of 2020-2023, the estimated CAGR revenue growth rate (3 year-end growth reading: 2020-21, 2021-22, 2022-23) of companies with reinvention-ready digital core (i.e., that adhered to all three tenets) was 11.1%. For the companies that did not satisfy any of the three tenets, it was 7.1%. The outperformance in revenue growth rate =  $(11.1\% - 7.1\%) / 7.1\% \times 100\% = 56.34\%$  rounded to 60%.

Similarly, during that same period (2021-2023; again 3 year-end readings), the estimated average profitability (measured with EBITDA margin) of companies with a reinvention-ready digital core was 19.4%. For companies that did not follow any of the three tenets, it was 14.2%. The outperformance in profitability =  $(19.4\% - 14.2\%) / 14.2\% \times 100\% = 36.62\%$  rounded to 40%.



## Logistic regressions

We also analyzed the relation between satisfying the three tenets needed for a reinvention-ready digital core with probability that:

- Company’s enterprise systems enable them to identify and mitigate risks (cyber, regulatory, Responsible AI, etc.) across multiple technologies, applications, and ecosystem partners
- Company’s existing IT estate helped diversification into other geographies and industries
- Company’s existing IT estate enabled their non-IT employees to create their own customized solutions using low code/no code tools

For these analyses we leveraged logistic regression approach controlling for companies’ size, HQ country and industry.

## Interviews and Case Studies

We triangulated our findings from the large-scale primary data from the survey with qualitative research, specifically 20 in-depth interviews (10 Business executives and 10 IT) and 26 case studies. Overall, we collected 46 case studies through secondary research and interviews, focusing on issues organizations are facing with respect to the rapidly evolving business environment as well as technology landscape. To analyze the qualitative data, we used Accenture research gen AI tools to identify significant patterns in maturity of various components of the digital core.

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## About Accenture

Accenture is a leading global professional services company that helps the world's leading businesses, governments and other organizations build their digital core, optimize their operations, accelerate revenue growth and enhance citizen services—creating tangible value at speed and scale. We are a talent and innovation led company with 738,000 people serving clients in more than 120 countries. Technology is at the core of change today, and we are one of the world's leaders in helping drive that change, with strong ecosystem relationships. We combine our strength in technology with unmatched industry experience, functional expertise and global delivery capability. We are uniquely able to deliver tangible outcomes because of our broad range of services, solutions and assets across Strategy & Consulting, Technology, Operations, Industry X and Accenture Song. These capabilities, together with our culture of shared success and commitment to creating 360° value, enable us to help our clients succeed and build trusted, lasting relationships. We measure our success by the 360° value we create for our clients, each other, our shareholders, partners and communities.

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