



# Reinventing with a Digital Core

Chapter 1: How to accelerate growth through change

  
accenture

# Contents



Page 04-07

## Executive summary



Page 08-16

## What does it take to become reinvention ready?

**Tenet 1:** Build an industry-leading digital core tailored for your industry and company

**Tenet 2:** Boost investments in innovation, including re-engineering systems for machine (AI) operations

**Tenet 3:** Balance technical debt liabilities with investments for the future



Page 17-21

## The path towards reinvention-readiness

New ways of working

Assessing, architecting and activating a digital core for reinvention



## Authors



**Karthik Narain**

Group Chief Executive -  
Technology



**Paul Daugherty**

Chief Technology &  
Innovation Officer



**Koenraad Schelfaut**

Lead - Technology  
Strategy & Advisory



**David Wood**

Lead - Global Technology  
Consulting



**H. James Wilson**

Global Managing Director  
of Thought Leadership &  
Technology Research –  
Accenture Research



**Prashant P. Shukla, PhD**

Principal Director -  
Accenture Research



# 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% are speeding up their reinvention efforts<sup>3</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.

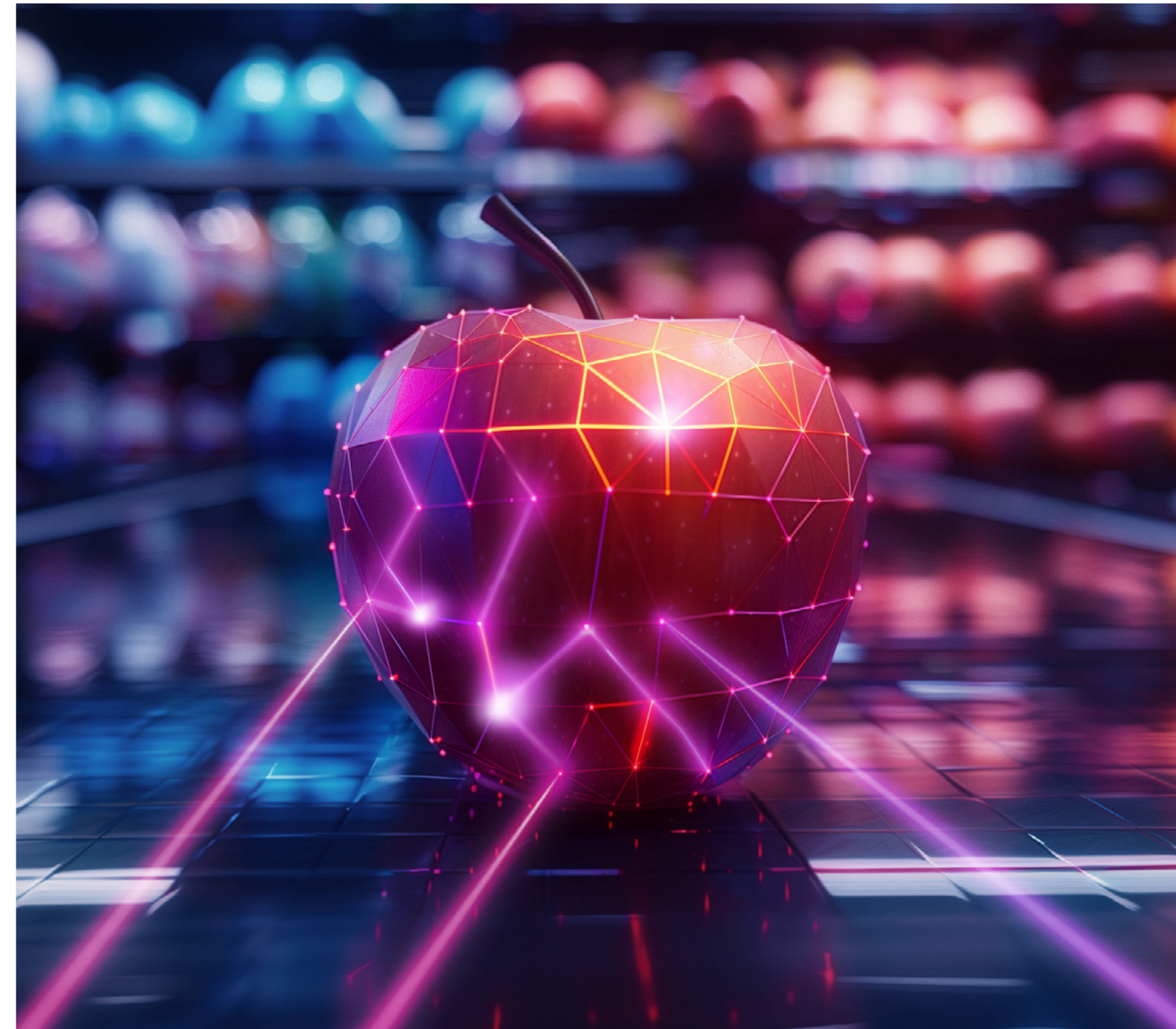
Accenture coined the term “digital core” in 2022 when we discovered and tested the set of critical technologies needed to drive a reinvention strategy. This discovery was based on our global surveys and experience with thousands of clients as they strove to break away from the pack and set new performance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

This digital core must be rebuilt for "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.

In fact, our research found that companies with industry-leading digital cores (top quartile of our Index) will reinvent twice as many functions with gen AI and expect to create twice as much value.

But the benefits are not limited to generative AI readiness. A reinvention-ready digital core 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.



# What is a digital core?

## Digital core

**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/4HANA Cloud 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.



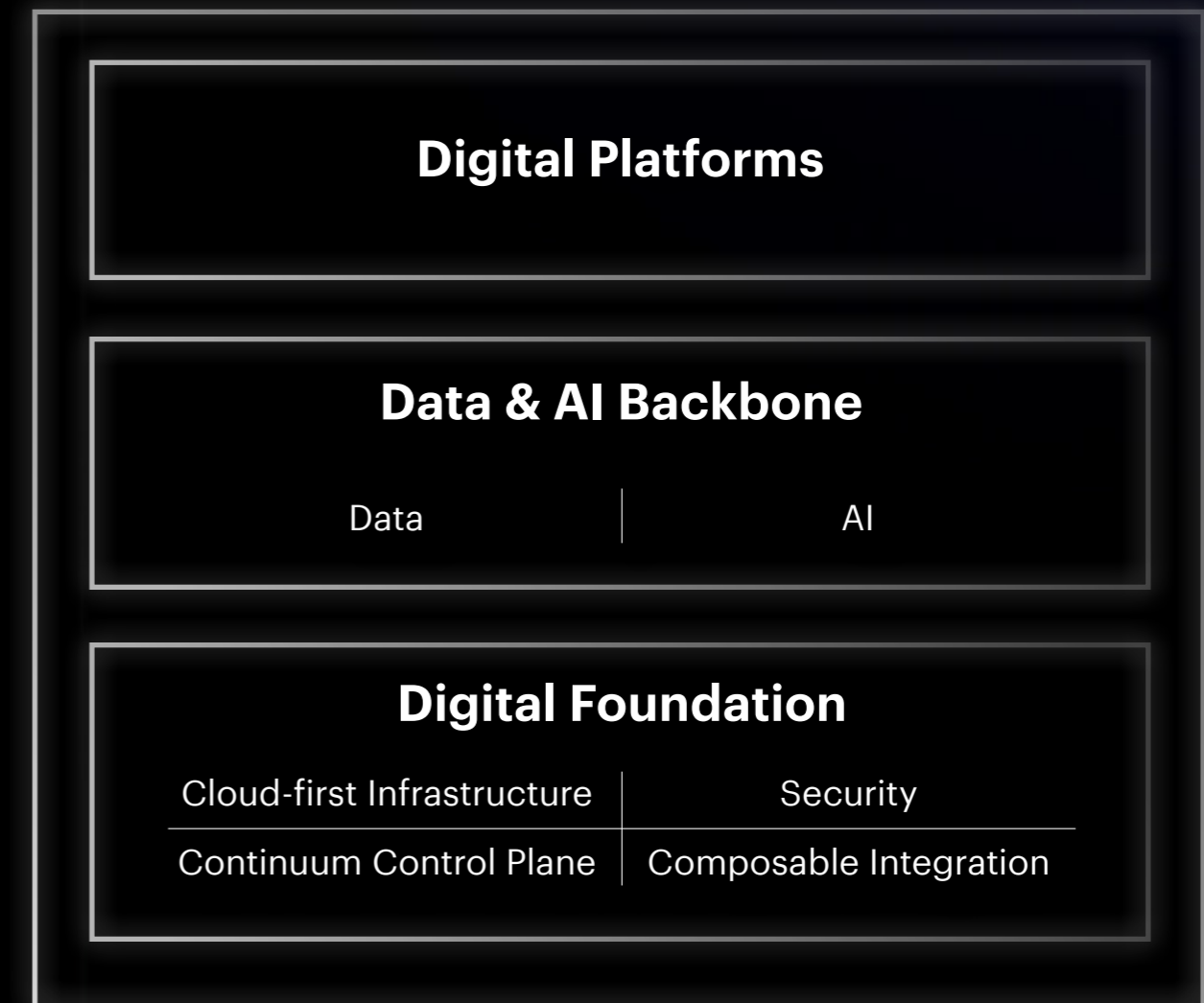
C-Suite executives must understand the significance of their digital cores to their businesses. A brittle legacy technology foundation that remains siloed will hold a company back. A seamless digital core positions companies to rapidly seize new opportunities to unlock greater value. It enables transformative technologies like gen AI to reach their full potential.

Our analysis of 1,500 companies across 10 countries and 19 industries shows that a digital core that addresses these needs must have certain capabilities. Each component

must be 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 (Figure 1). The digital core differs for every company and must be customized to meet unique business objectives and industry needs.

### 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.





# What does it take to become reinvention ready?

Because reinvention is continuous, the digital core needs to be in a state of reinvention readiness.



Our research shows that businesses can achieve reinvention readiness with three distinct tenets. Compared to the sample baseline, companies who did all three experienced what we call the “60:40 effect”:

**60%**

higher revenue growth rate (from 7.1% to 11.1% on average)

**40%**

higher profitability (from 14.2 to 19.4 percentage points on average)



## Tenet 01

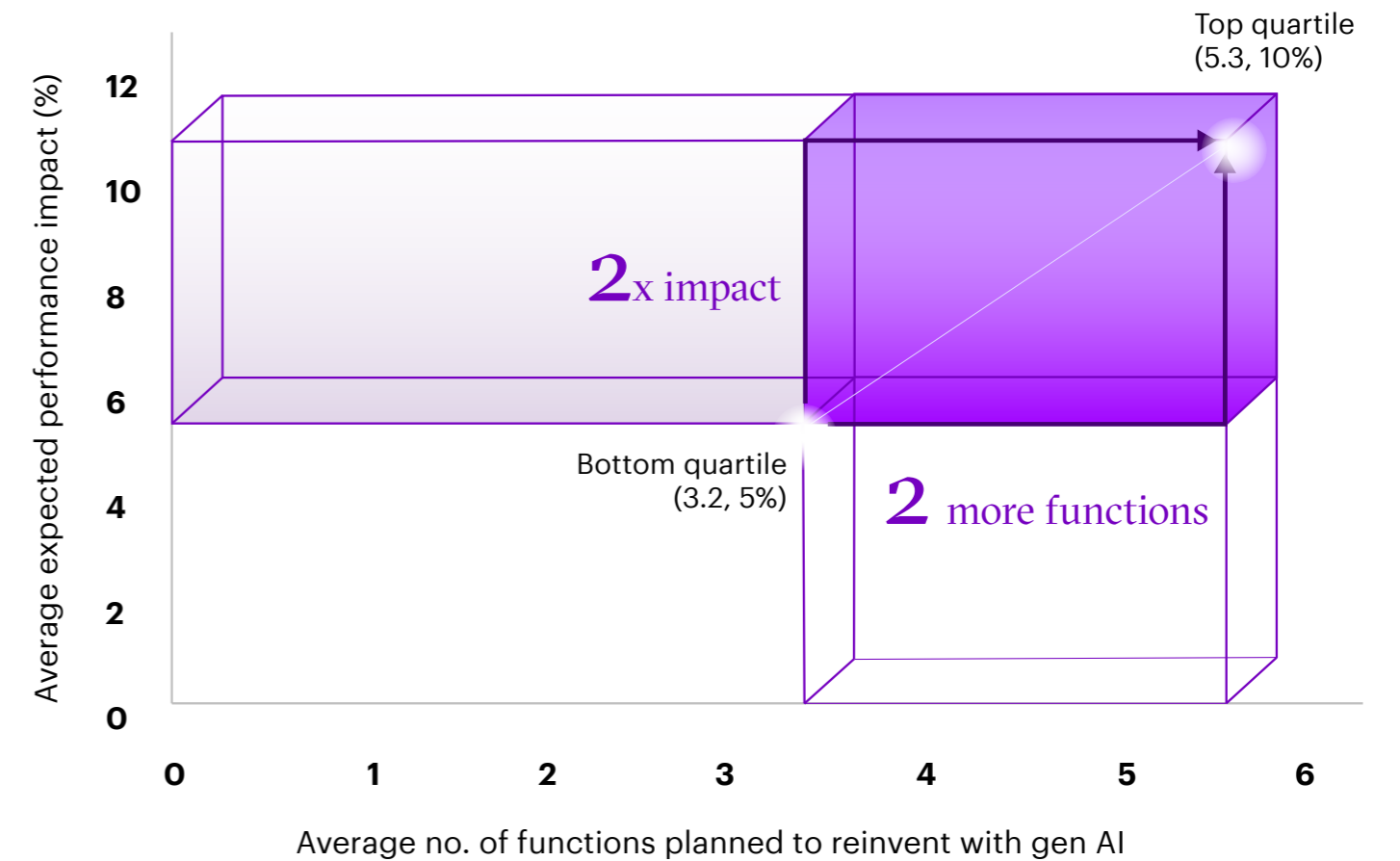
# Build an industry-leading digital core tailored specifically to your industry and company

Your tech capability determines 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) is a non-negotiable step. This involves building new and advanced capabilities that are composable and fully integrated. Companies with industry-leading digital core capabilities, for example, will reinvent twice and many functions with gen

AI over the next three years, and expect to create twice as much value (Figure 2).

Your digital core is also specific to your company ambitions. For example, 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.

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

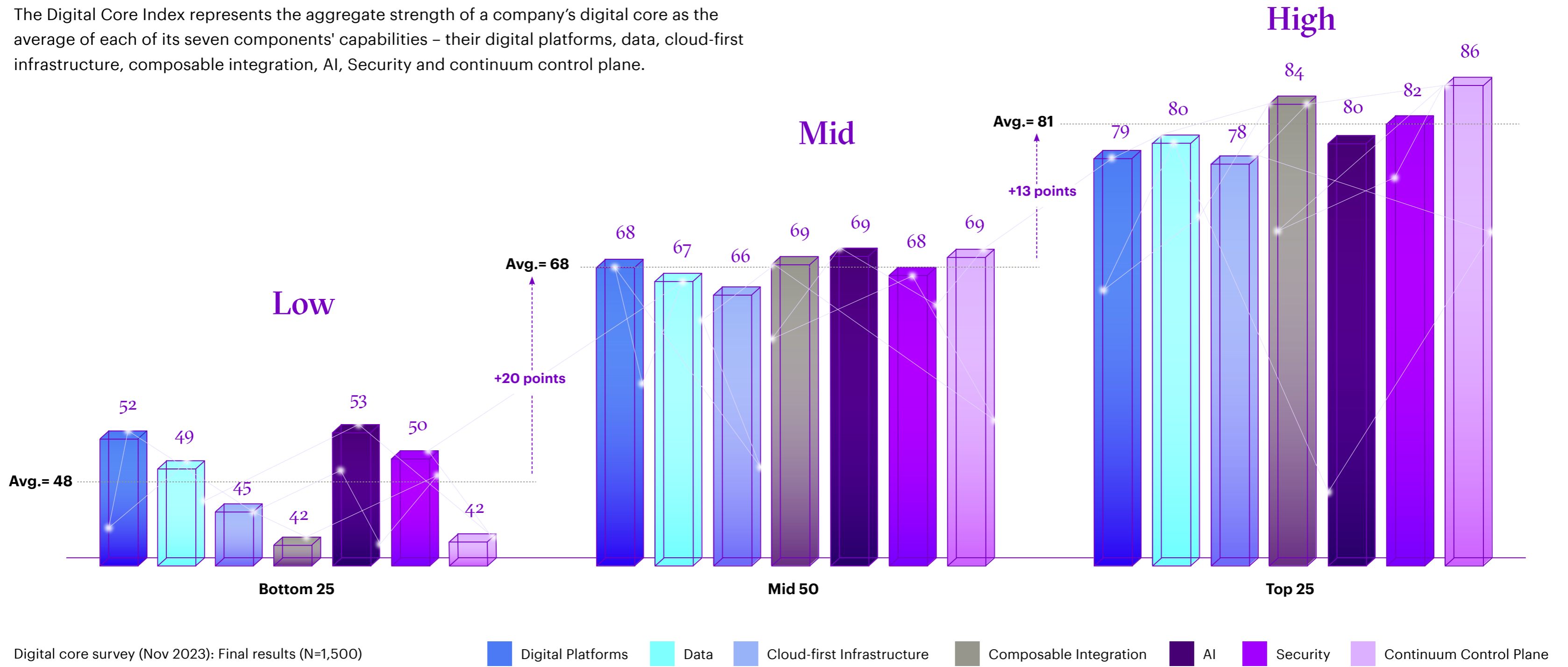


Digital core survey (Nov 2023): Final results (N= 1,500)



**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.



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





Companies in the top quartile of our index who achieved an “industry-leading” condition experienced a 20% higher revenue growth rate and a 30% increase in their profitability. They also reap other benefits.

**54%**

of them strongly agreed that their enterprise systems helped them diversify into other geographies and industries.

The data also highlights that integration and end-to-end engineering and operations visibility (i.e., Control Plane) are critical to developing an advanced capability. They’re where the highest gaps can be seen. Those in the top quartile are scoring 2X more in these areas than those in the bottom quartile. What’s promising is there are strong correlations between components of the digital core that create halo effect: If you improve one, you see a positive impact across others.

## Tenet 02

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

Companies expect information technology (IT) to drive value, and 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. Our analysis finds that they should increase the proportion of their IT budgets dedicated to strategic innovation by at least 6% year-over-year.

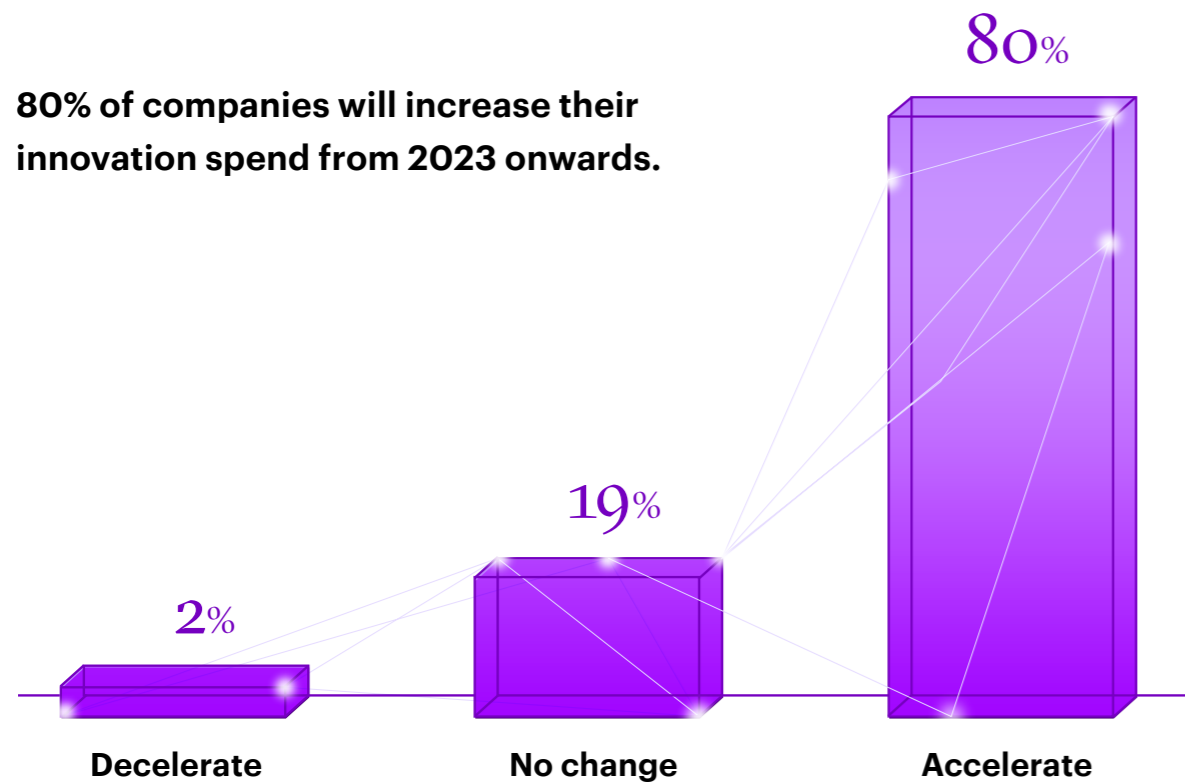
How? We see many companies rationalizing vendors, optimizing cloud costs and operationalizing wholesale automation to accelerate this shift. Companies can use these resulting savings to redesign business processes, launch new products and services and enter new markets.



### Figure 4: An Innovation-Oriented IT Budget

Companies are moving into higher performance brackets by shifting their IT budgets from operations to innovation.

**80% of companies will increase their innovation spend from 2023 onwards.**



**6%**  
Companies with a reinvention-ready digital core are increasing the proportion of their IT budgets dedicated to strategic innovation, such as gen AI, by at least 6% year-over-year.

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)

Their focus should be squarely on innovation KPIs (key performance indicators) that tie to business outcomes, such as shorter drug discovery periods. This as opposed to IT KPIs like the mean time to detect or repair systems. According to our research, 80% of companies are likely to grow their innovation budgets beyond 2023 at twice the intensity than they have before (Figure 4).

To keep shifting budget towards innovation, companies need a digital core that is designed for both humans and machines: Meaning both can interact seamlessly and create value through intention-driven (not instruction-driven) workflows. While today's design methodologies have the human part down, the more immediate focus should be to re-engineer systems for machine (AI) operations.



## 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>4</sup> that created significant tech debt—worsening a long-standing problem. Current conditions demand a more balanced approach to innovation.

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. Traditional debt sources include legacy and buggy code, outdated programming languages, a lack of documentation and outdated technologies

and infrastructure. All of this can compromise system performance and require remediation to reduce compounding effects.

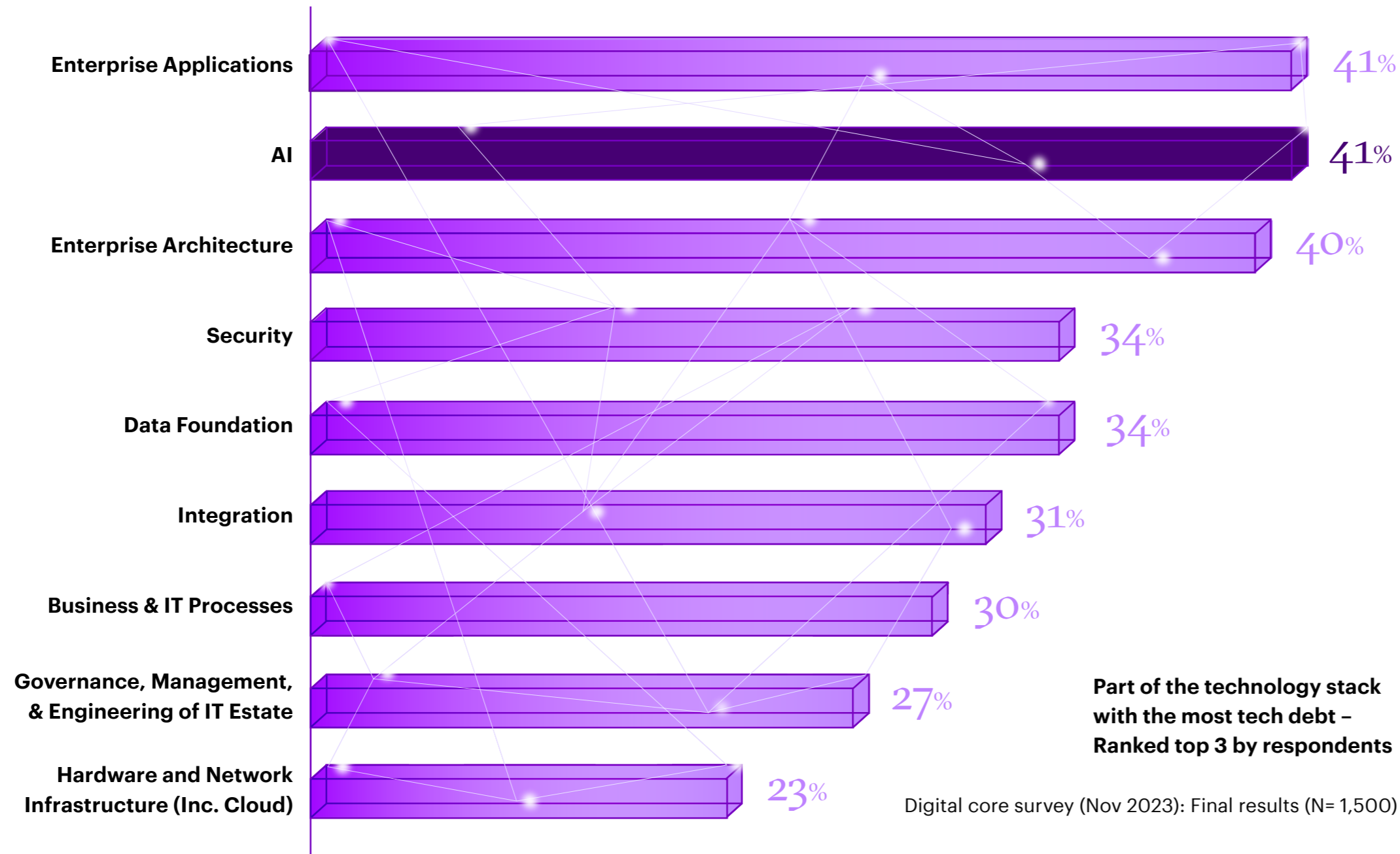
While legacy technical debt has been building for decades, our research finds that AI is now a top contributor to technical debt (Figure 5). Because new debt created from AI can grow rapidly, companies must proactively manage technical debt to maintain evergreen IT capabilities. The good news is that AI is not just a source of debt but a solution. Gen AI can be used to manage tech debt and keep the IT stack up-to-date.





### Figure 5: Contributing to tech debt

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



Based on our data, companies must allocate about

# 15%

of their IT budgets to remediate technical debt, especially for new IT projects.

It's the sweet spot that balances "paying down debt" with strategic investments in the future. Leading companies follow a disciplined approach to technical debt, never letting it get to a point where it impedes innovation.



# The path towards reinvention-readiness

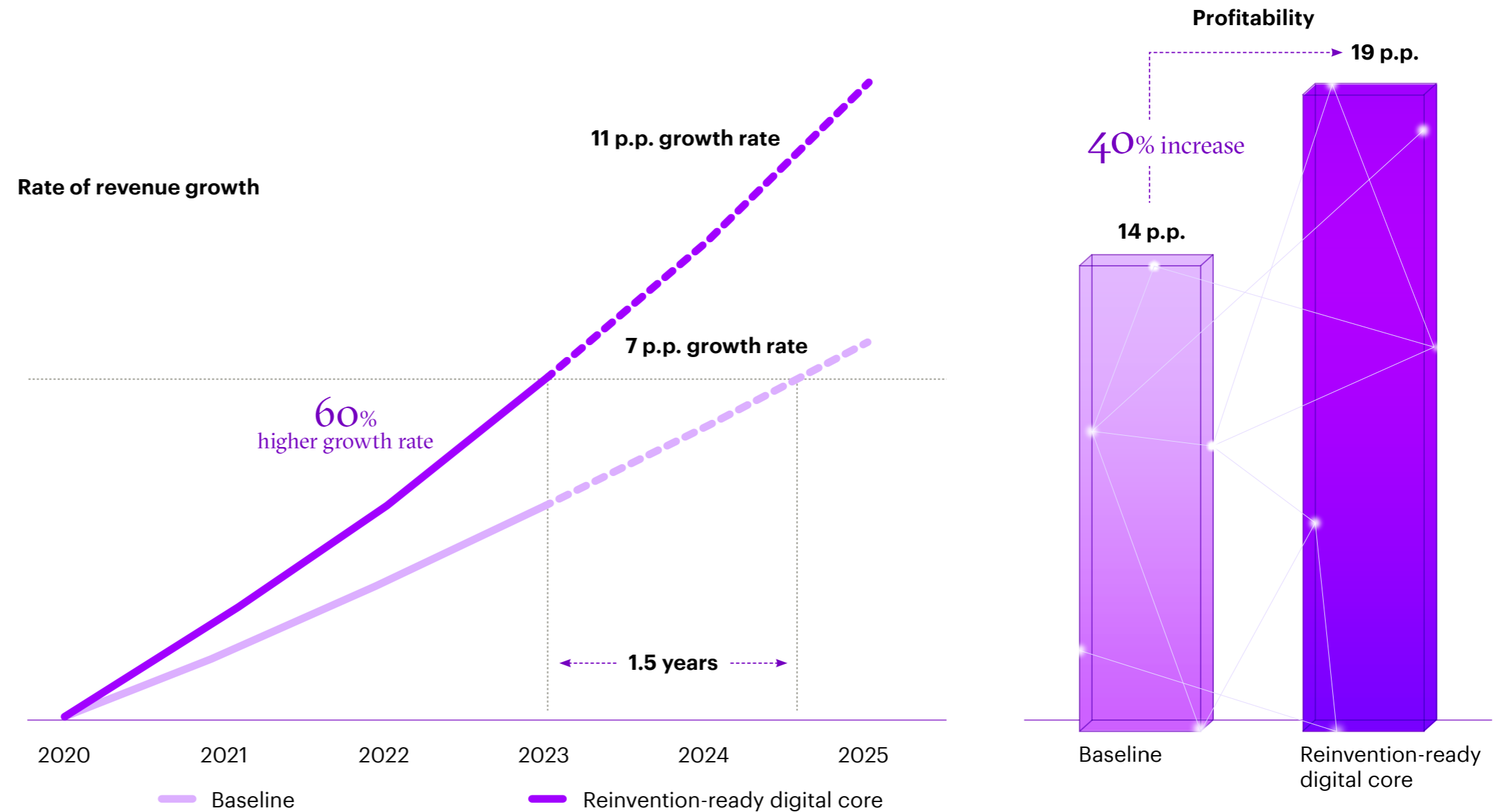
**While only a small proportion of companies (3%) have managed to achieve all three tenets, all organizations can significantly improve performance by building out advanced capabilities in their digital core.**



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 (Figure 6).

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

**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.



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.

Companies already are adopting this at the team level. 68% of companies report building strong capabilities around dynamic teams, where team members can rotate on and off based on project needs, while 67% report building strong multi-disciplinary teams that are cross-functional and integrate technology and other skills.

For 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.

## 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

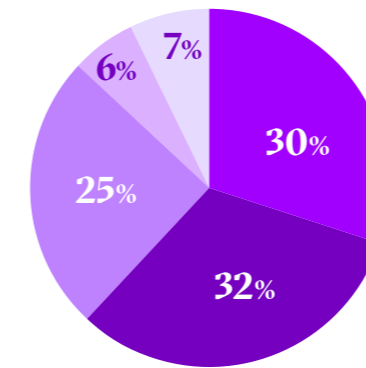
52% completed tech transformation

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

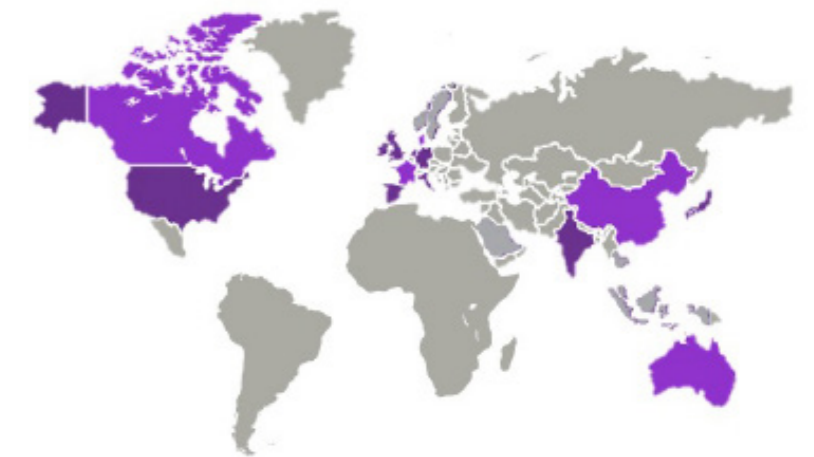
- Utilities (83)
- Energy (Oil & Gas included) (83)
- Chemicals (84)
- Natural Resources (81)

##### 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.

## Acknowledgements

### Project lead

Shachi Jain

### Research team

Surya Mukherjee, Gargi Chakrabarty, Emily Thornton, Katarzyna Furdzik, Krish Jhaveri, Juan Pablo Romero, Ajay Garg, Devraj Patil, Jakub Wiatrak, Amal Sebastian, Toms Bernhards Callahan, Megan Bernardi, Chiara Addis, Avimany Basu, Balu Mahendran, Abhishek Mishra

### Marketing team

Mark Klinge  
Laurence Mackin  
Janine Stankus  
Micaela Soto Acebal

The authors would like to extend a special thanks to Andrew Long, Emily Miller and Madhav Shenvi for the insights and contributions to this research.

## References

1. [2022 Investor and Analyst Conference - Transcript | Accenture](#)
2. [Total Enterprise Reinvention: Setting a New Performance Frontier | Accenture](#)
3. [Reinvention in the age of generative AI | Accenture](#)
4. [Scaling Enterprise Digital Transformation | Accenture](#)



## 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.

**Visit us at [www.accenture.com](http://www.accenture.com)**

## About Accenture Research

Accenture Research creates thought leadership about the most pressing business issues organizations face. Combining innovative research techniques, such as data-science-led analysis, with a deep understanding of industry and technology, our team of 300 researchers in 20 countries publish hundreds of reports, articles and points of view every year. Our thought-provoking research developed with world leading organizations helps our clients embrace change, create value and deliver on the power of technology and human ingenuity. For more information, visit Accenture Research on [www.accenture.com/research](http://www.accenture.com/research).

Disclaimer: The material in this document reflects information available at the point in time at which this document was prepared as indicated by the date in the document properties, however the global situation is rapidly evolving and the position may change. This content is provided for general information purposes only, does not take into account the reader's specific circumstances, and is not intended to be used in place of consultation with our professional advisors. Accenture disclaims, to the fullest extent permitted by applicable law, any and all liability for the accuracy and completeness of the information in this document and for any acts or omissions made based on such information. Accenture does not provide legal, regulatory, audit, or tax advice. Readers are responsible for obtaining such advice from their own legal counsel or other licensed professionals. This document refers to marks owned by third parties. All such third-party marks are the property of their respective owners. No sponsorship, endorsement or approval of this content by the owners of such marks is intended, expressed or implied.