Global GenAI Report

How organizations are mastering their GenAI destiny in 2025

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Contents

Welcome to the future

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Welcome to the future

We're living in the age of GenAI, and this compelling new technology is rightfully receiving significant attention around the world.

For this landmark report, we interviewed more than 2,300 GenAI decision-makers and influencers from organizations across 12 industries, spanning 34 markets around the world. Nearly 70% of respondents were at the C-level, with the remainder being vice presidents, directors, and senior managers or specialists, providing a diverse range of perspectives for comparison.

We explore how organizations are strategizing for GenAI as they start investing in approaches to change how they do business. We also look at the underlying technologies and security challenges, the cultural effect on the workforce, and responsibility for the ethics, safety and sustainability of GenAI.

Overall, we have found genuine excitement and positivity about GenAI.

Organizations are maturing in their understanding of how GenAI is revolutionizing many aspects of business operations as well as the lives of individuals. This explains why **more than 60% of those surveyed believe GenAI will be a game changer within two years and almost 70% are optimistic about the technology.**

And, with **nearly two-thirds of respondents planning to invest significantly in GenAI in the next two years** and **83% having already established robust or expert GenAI teams**, there is clearly no slowdown in the growth of the technology.

The current GenAI landscape

64%

of the C-suite expect significant transformation in their industry in 2025 thanks to major investments in GenAI, while 34% anticipate moderate changes with more selective adoption.

43%

strongly agree their existing solutions are meeting expectations.

Nearly half

strongly feel GenAI is an opportunity to differentiate, and improve both their efficiency and their profitability.

Overarching sentiment toward GenAI is positive

A major contributing factor to the positive sentiment toward GenAI is the democratization of the technology.

GenAI is accessible to and being taken up by nontechnical users, who can interact with these tools using natural language and without the need for deep technical knowledge.

This level of accessibility has broadened GenAI's appeal greatly, as it offers a significant advantage over traditional AI when it comes to creativity. Anyone can generate text, images, code, music and more, opening up vast possibilities for artistic expression, innovative design and exceptional problem-solving.

Furthermore, there is now a vast amount of online content that can be used to fuel the engine by acting as training data for GenAI models. And, crucially, cloud computing is providing the powerful, scalable and cost-effective infrastructure – readily available to both technical and nontechnical users – for these models to function.

It's no surprise, then, that 97% of CEOs expect a material impact from GenAI and 99% of respondents are planning more GenAI investment, with 90% saying legacy infrastructure is hindering their use of GenAI.

> "I cannot find any other technology more transformational than GenAI. It can be applied to all industries, to all value chains, to all the specific tasks we do. Give me any kind of task and I will find some part of it where GenAI will add value.
>
> **Carlos Galve,** Co-Head of Global Generative AI Office, NTT DATA

Nearly 70%

of respondents globally exhibit **optimism** about GenAI.

50%

of **CIOs and CTOs** feel **excited** about GenAI and 21% feel **amazed**, while **57% of COOs** are **positive.**

Nearly 2 in 3

in **compliance** are amazed; this is also the top sentiment of **Chief Software Engineers.**

These developments have created the perfect environment for GenAI to flourish. While it delights as a consumer-facing technology, it is also emerging as a process-focused and creative business tool within organizations, where it aids in and accelerates decision-making, innovation and change.

Now, GenAI is on track to reduce the need for certain tasks and categories of human labor in diverse areas, which will change business models across every industry. Organizations will increasingly use it to automate significant parts of the value chain, remove drudgery from human roles and rapidly improve processes, igniting the vision of tomorrow, today.

In short, GenAI will transform the DNA of core organizational strategies and force most enterprises to fundamentally reevaluate their technological opportunities.

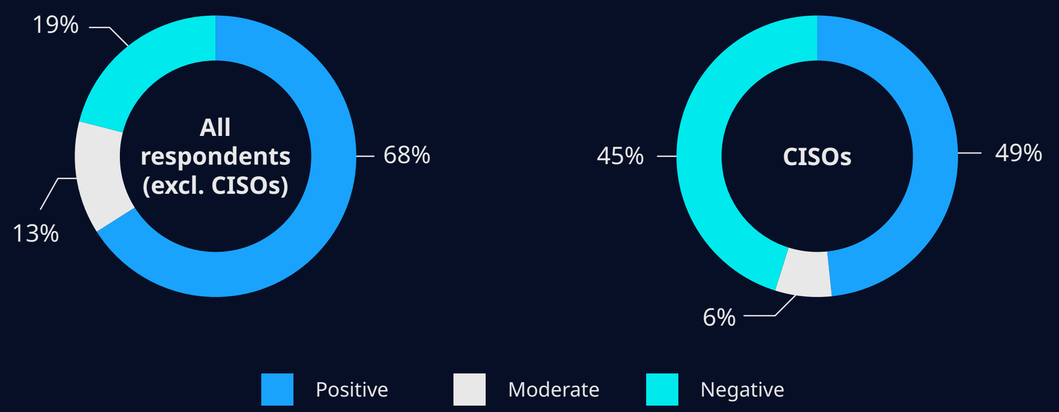
> There should be no GenAI strategy separate from a business strategy. The goal shouldn't be just to have these strategies in place but also to understand how they combine within the organization and to have the right culture to solve your business challenges in the best way possible.

David Pereira, Chief GenAI Officer, Europe and Latin America, NTT DATA

CISOs stand out as expressing concern about GenAI

45% hold negative sentiments, feeling **pressured, threatened and overwhelmed**; only 19% of total respondents share the same sentiments.

Sentiment summary



What is your strongest sentiment when it comes to GenAI?

Base: All respondents, excluding "Don't know" responses (n=2,304)

There is also a compelling need for responsible GenAI-enabled innovation that delivers measurable results while prioritizing ethics, safety, environmental, social and governance principles.

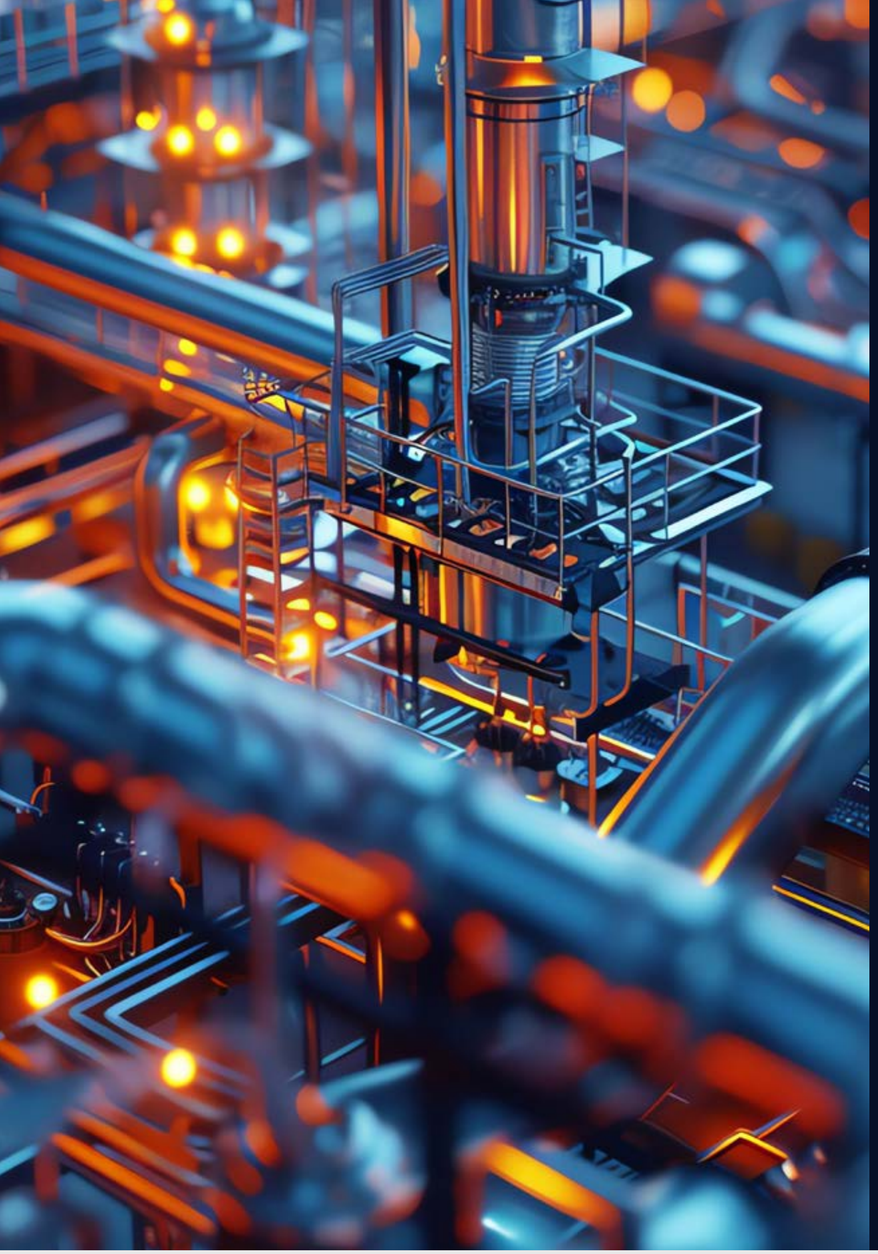
This creates some tension, as **nearly 8 in 10 respondents remain unsure of the actual benefits of GenAI to their operations, and – for now – only 43% strongly agree that their existing GenAI solutions meet their expectations.** Compounding that, **74% say that their GenAI ambitions are in direct conflict with their sustainability goals.**

There is also the key challenge of security. **Almost half of CISOs report feeling pressured and overwhelmed by GenAI, while only 19% of other executives feel the same.** CISOs are uniquely positioned to anticipate risk – and it is clear that they see it.

That said, **44% of the C-suite strongly agree that the promise (and ROI) of GenAI outweighs the potential security and legal risks**.

Our report analyzes the experiences of thousands of respondents.

It considers how to overcome challenges and provides guidance on use cases, lessons learned and best practices. We also emphasize the top factors that will strengthen your organization's performance.



Back to the basics: how GenAI differs from AI

Traditional AI is designed to perform specific tasks by following predefined rules or algorithms to implement automation, robotics and machine learning, supported by structured data and clear goals.

GenAI is a subset of AI, with the difference being that it can also generate new content or outputs. This makes it a potent tool for creative and content-driven applications.

GenAI's unique abilities also come with associated risks. GenAI introduces new concerns such as data privacy and hallucinations (presenting incorrect information as factual), as well as its potential misuse for illegal activities by cyberattackers.

Understanding these differences will help organizations implement all-important safety and governance frameworks to mitigate the risks.

Our research has identified the traits of top performers to see how they differ from those in the middle of the pack and low performers.

Our analysis reveals that **9 in 10 of these top-performing organizations –** those with revenue growth of 10% or more and a stronger operating profit as a percentage of revenue (more than 15%) in the last fiscal year – are **increasing their spending on both IT and GenAI**. There is no good GenAI result without ongoing parallel investment in IT.

These top performers are also putting **expert GenAI teams** in place and focusing on ways to **measure the success of their GenAI implementations**.

The view of top performers*

72%

expect significant transformation thanks to major investment in GenAI in 2025. Just 2% forecast zero or minimal impact.

94%

have increased their overall IT spending, 31% significantly. Just 2% of low performers did the same.

92%

have increased their GenAI spending (as a percentage of revenue) and over half have significantly increased spending, compared with just 15% of low-performing organizations.

53%

more likely than low performers to have an expert GenAI team in place.

60%

more likely than low performers to use improved productivity and cost savings as a way to measure successful GenAI implementation.

Over 2x

more likely than the global average to have already implemented GenAI in 50% of their business processes.

* Top-performing organizations are those with more than 10% year-on-year revenue growth and an operating profit margin of more than 15% in the last financial year.

Welcome to the future

Playtime is over

Our findings confirm there is now less experimentation or ideation in progress and more focus on identifying tangible GenAI successes that can be taken into production. **Nearly 9 in 10 of those surveyed say they are experiencing pilot fatigue and shifting their focus to where GenAI has had a proven impact on business performance.**

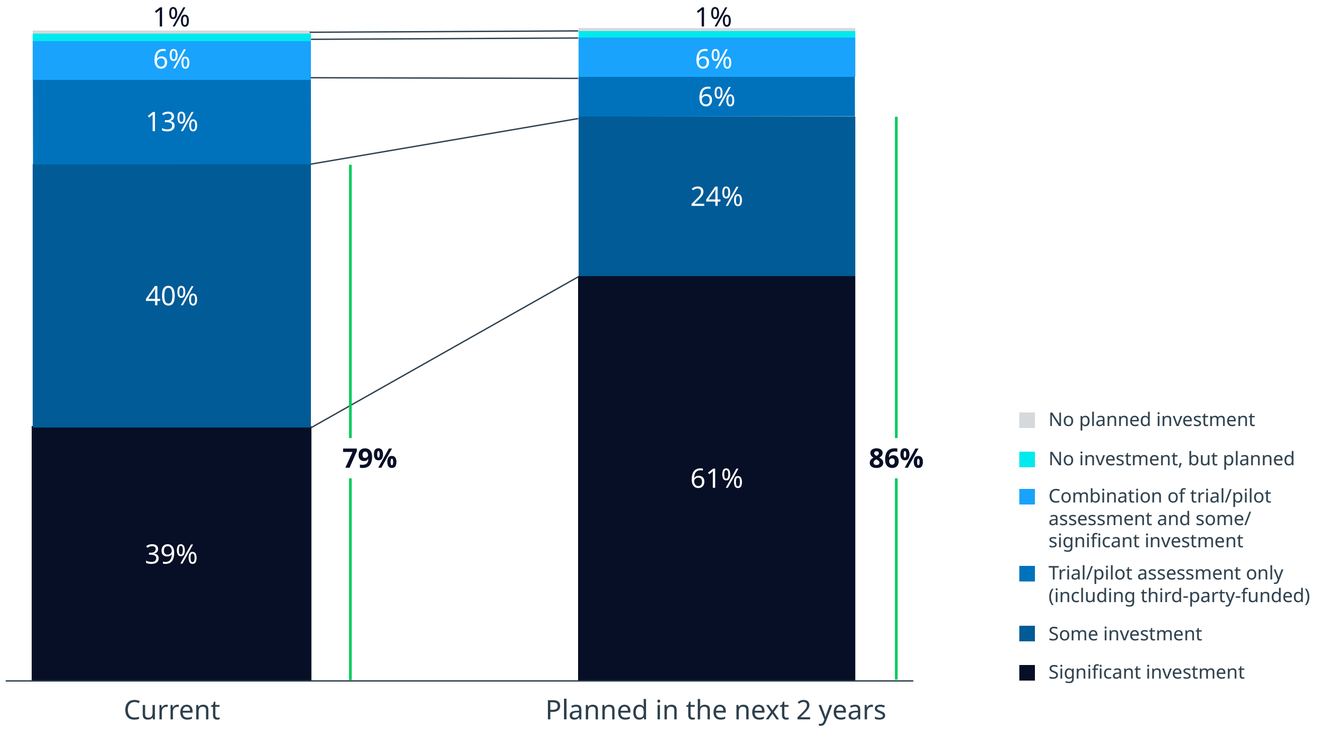
While they assemble a GenAI-capable architecture that will support their long-term GenAI goals, organizations are determining what they can do today that will materially improve operational efficiency or transform a portion of the business – areas where they expect to create value in the next two years. **Almost all respondents (91%), across industries, are planning investment increases in GenAI (with 61% planning significant increases).** However, where these investments are made is key.

> Everyone has been experimenting with GenAI … the ideation process is the baseline at this point. Most organizations have been exploring GenAI over the past six months and gained experience working with vendors and their partners to figure out the best plan of attack.

Nitin Bajaj, Vice President: Generative AI, NTT DATA

Growing investment in GenAI

Globally, almost every organization in our survey is investing in GenAI. Nearly 2 in 3 plan to make a significant investment in the next two years.



What best describes your organization's investment in GenAI? (Current and planned in next 2 years)

Base: All respondents (n=2,307)

98%

of respondents are investing in GenAI, almost two-thirds at a significant level, and 84% have increased their overall IT spend (37% significantly).

56%

is the increase in significant investment in GenAI expected in the next two years – rising from 39% now to a planned 61%.

<1%

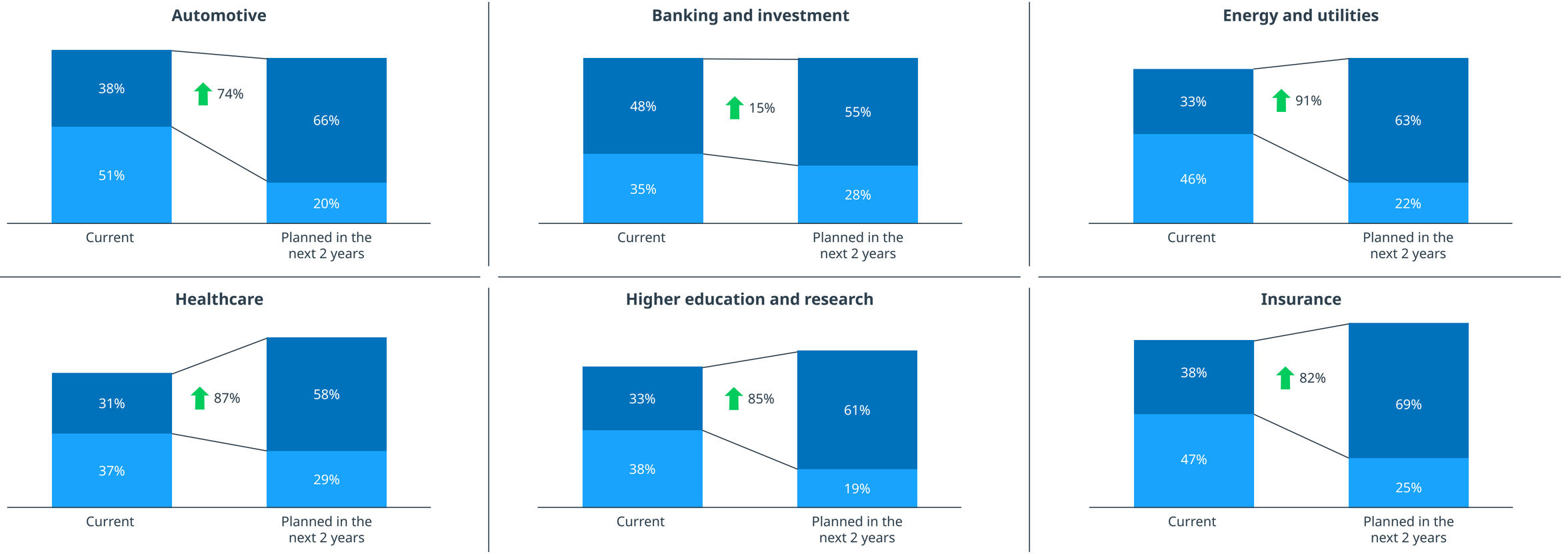
say they have no plans to invest in GenAI.

Our research shows several industry-specific trends in GenAI investment.

The findings reveal very high anticipated increases in GenAI investment in logistics, travel and transportation; energy and utilities; healthcare; insurance; higher education and research; and manufacturing, but less so in banking and investment (although this sector already has a relatively high level of GenAI investment).

The only anticipated drop in significant spending is in the public sector and government, although total investment is still set to grow, and spending in this sector has, until now, outpaced most others. In effect, spending in the public sector and government will now be more in line with other industries.

Playtime is over: investment in GenAI is rising in every industry, and mostly at a significant level

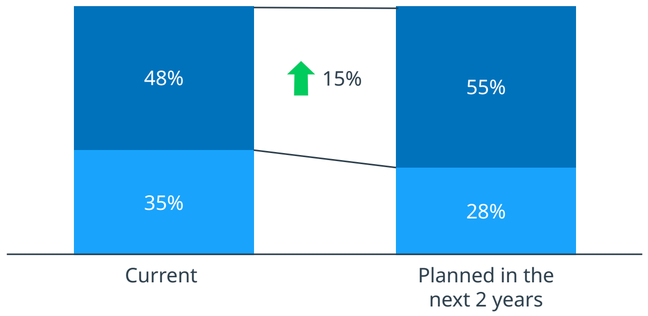


What best describes your organization's investment in GenAI? (Current and planned in next 2 years)

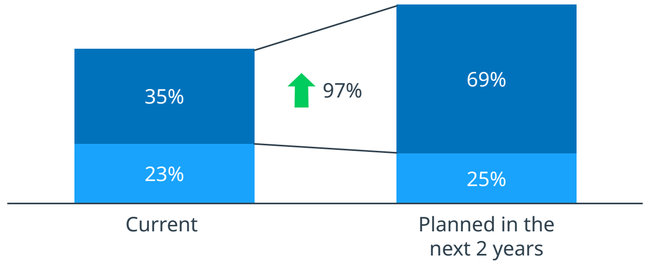
Base: All respondents (n=2,307)

Some investment | Significant investment | Uplifts in significant investment in next 2 years

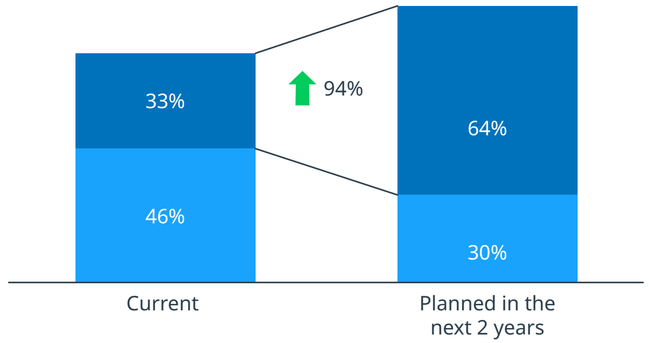
Life sciences and pharmaceutical



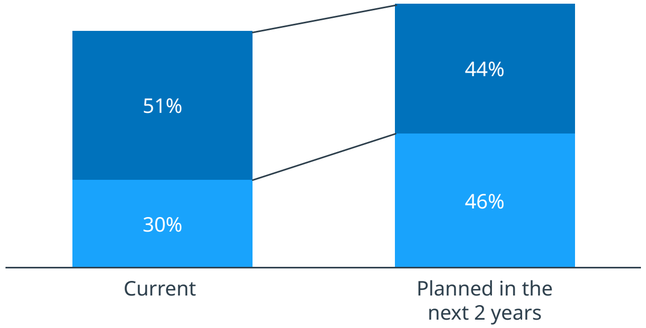
Logistics, travel and transportation



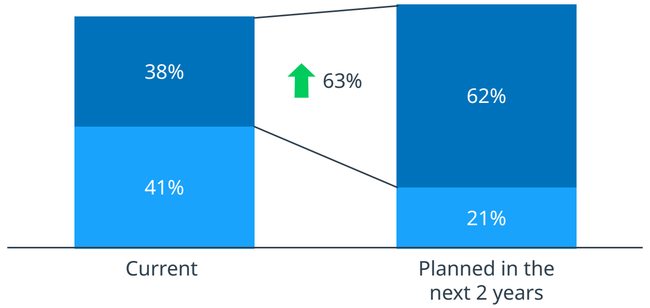
Manufacturing



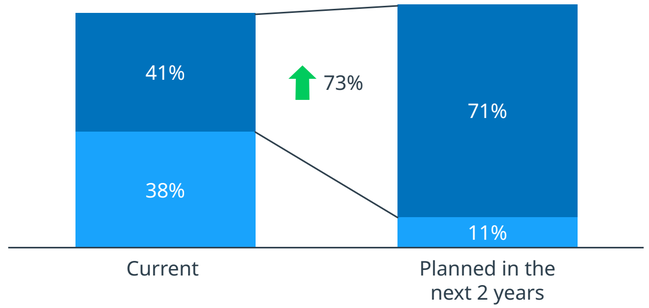
Public sector and government



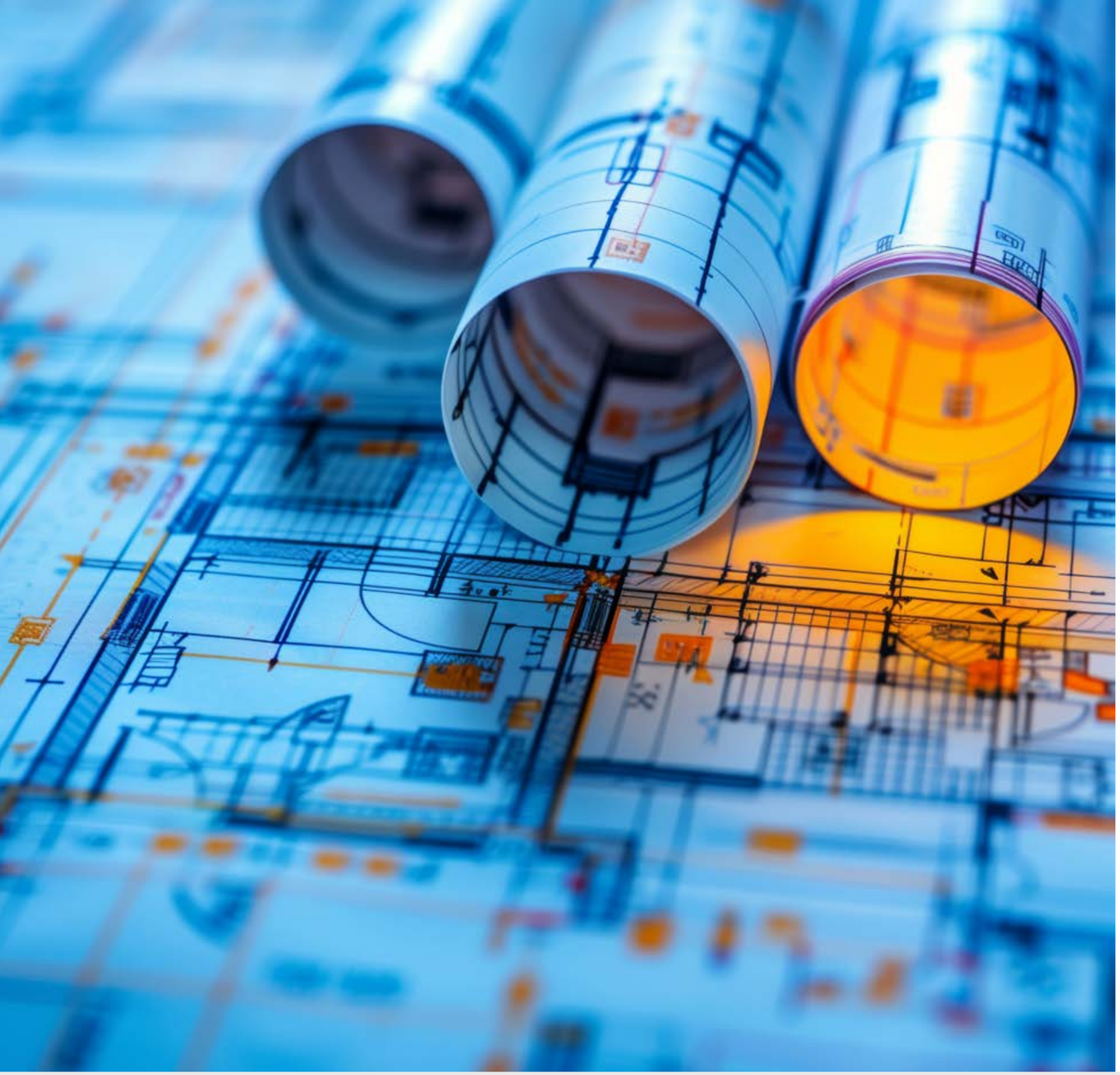
Retail and consumer packaged goods (CPG)



Telco, media and technology



Some investment | Significant investment | Uplifts in significant investment in next 2 years



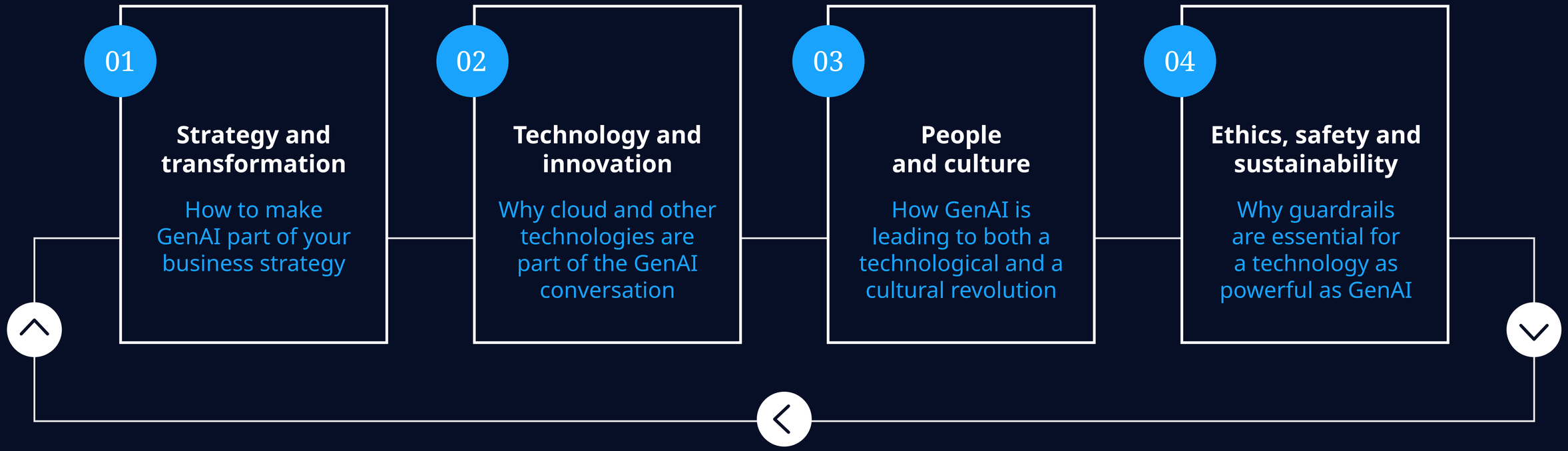
GenAI spending trends show we're at the start of a technology consolidation and integration cycle across industries.

These trends are, for now, mostly playing out on a smaller scale in noncore business areas. Focused spending plans will become more common as organizations see the tangible benefits of GenAI solutions in full production, although experimentation will continue, particularly as the technology evolves.

We explore in-depth how organizations are strategizing for GenAI and what steps they are taking to transform their operations with it.

Then, we look at how this affects the organization's technology ecosystem and how organizational culture is shifting as employees get to grips with GenAI. We also discuss the ethics of GenAI and aspects of compliance, safety and sustainability.

Mastering your GenAI destiny requires a focus on four key areas:



Compelling **data-driven** insights to help you formulate your **GenAI strategy**

Strategy and transformation

Ignite tomorrow today.

Key findings on strategy and transformation

GenAI strategy should not be separate from business strategy. Focused spending plans will replace scattered experimentation in a relatively short time.

83%

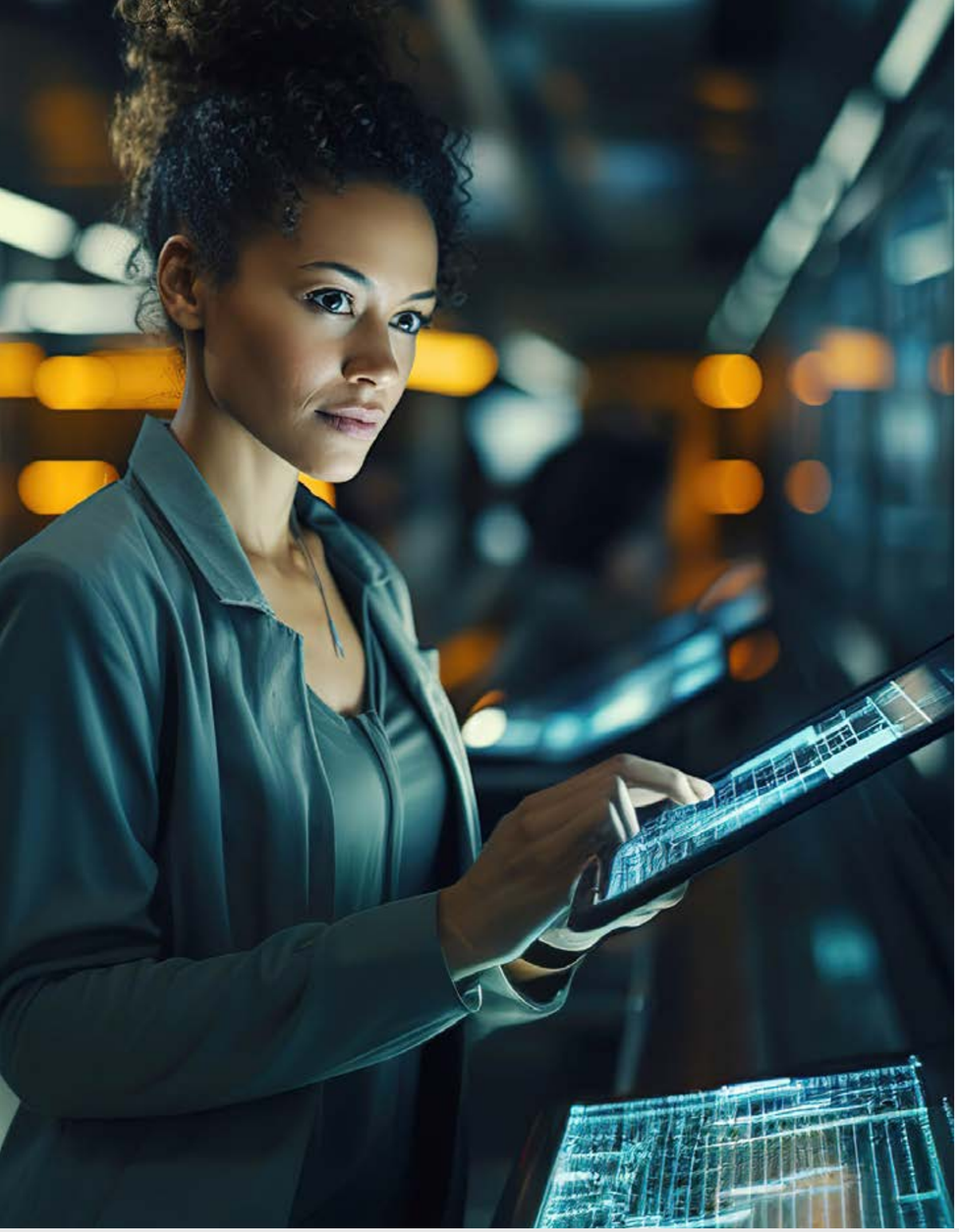
of respondents say they have a well-defined strategy in place, but 51% have not yet aligned this strategy with their business plans.

>90%

are assessing enterprise-wide opportunity areas where GenAI can be applied.

99%

are investing in GenAI, almost two-thirds at a significant level.



Strategy and transformation

GenAI-driven organizations are those that already use this fast-developing technology to improve or streamline business processes – from back-office systems and the production line to customer touchpoints.

They do this by embedding GenAI in the DNA of their technology and operations to find more innovative ways of doing business. In this way, they are fundamentally transforming how they operate.

However, this transformation will not succeed in a vacuum. Without broader strategic alignment within the organization, deploying GenAI technology will not meet ROI projections or create lasting competitive advantages or productivity increases.

For now, **51% say this strategic alignment has not been fully achieved**.

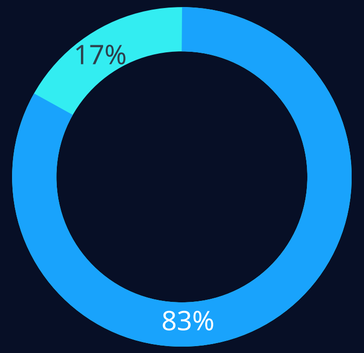
While **83% of organizations say they have a GenAI strategy in place**, it's evident that current strategies are falling short. More is required to avoid a siloed approach to GenAI: it must be seen as a core element of the business strategy itself. If not, this will affect ROI and outcomes.

> "Most CEOs view GenAI as transformational. The good ones are using GenAI to create competitive differentiation.
>
> **Andrew Wells,** Chief Data and AI Officer, NTT DATA

While GenAI strategies exist, aligning them with business strategies lags

Most strategies are in their infancy. Most organizations are still assessing their priorities and how to deploy solutions that meet key business needs.

Most have a well-defined strategy for GenAI.



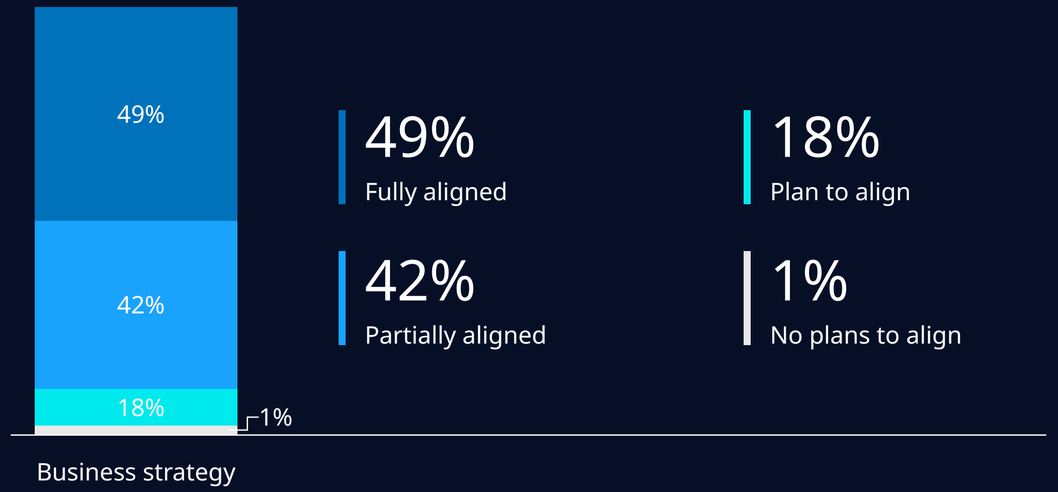
83%
GenAI strategy exists

17%
No GenAI strategy

Does your organization have a well-defined strategy in place for AI and GenAI?

Base: All respondents (n=2,307)

However, 51% say it's not fully aligned with business strategy.



49%
Fully aligned

42%
Partially aligned

18%
Plan to align

1%
No plans to align

How aligned is your organization's GenAI strategy with your business strategy?

Base: All respondents saying a GenAI strategy exists (n=1,908)

GenAI strategy should not be separate from business strategy.

Strategy and transformation

Crafting a winning GenAI strategy

From a strategic perspective, investing in GenAI must directly support an organization's business goals by creating operational efficiencies, transforming business processes and fostering innovation.

A well-aligned strategy aids in managing risk, building trust among employees and customers, and integrating GenAI solutions into existing business processes responsibly. If it's not approached strategically and cohesively, cracks will appear and affect use. **More than one-third of those surveyed say that concerns about privacy (including user consent) affect their adoption of GenAI.**

The ability to scale the strategy as the business grows is another important consideration. Strategic scaling is rated as being very important by more than 80% of respondents. It's also a top consideration when they are assessing GenAI technology partners.

Having a long-term vision for GenAI in an organization will also help avoid technical debt while supporting an ongoing and cohesive cultural adaptation to the new technology.

A GenAI strategy that takes all these factors into account will help create unique **competitive advantages, which 1 in 3 organizations name as a crucial outcome they want from their GenAI strategy.**

> "The strategy of the organization needs to be modified and transformed by applying GenAI. It cannot be the same as before the GenAI era.
>
> **Carlos Galve,** Co-Head of Global Generative AI Office, NTT DATA

Key aspects of GenAI strategy

1 in 3

surveyed organizations agree that solutions which offer a **unique competitive advantage** are a crucial factor in their GenAI strategy.

82%

say it's very important for their GenAI strategy that a solution can **scale and accommodate growth.**.

99%

say a solution with an **ROI that's been proven by real-world use cases** is important for their GenAI strategy; 1 in 3 say this is crucial.

When technology and business strategies are misaligned, there will be no clear ROI – only missed opportunities for optimization, transformation and innovation, and, in turn, disillusionment.

An **aligned GenAI strategy** will see appropriately qualified resources being allocated to GenAI initiatives that support business goals, which prevents wasted investment and effort.

97%

of those surveyed have already **assessed the skills and capabilities needed** to plan and execute their GenAI strategy or will do so within the next year.

Strategy and transformation

Looking past the GenAI hype

GenAI: a revolution, not hype

Executives view GenAI as a game changer, with most exploring its potential.

Only 1%

of the C-suite see GenAI as being overhyped; most acknowledge that GenAI may be a long game and that it will take time to optimize.

96%

are placing a growing emphasis on GenAI's long-term potential.

Two-thirds

view GenAI as a revolutionary game changer.

Nonexecutive leaders express a bit more skepticism, however. Most say that, for now, it is mostly complementary and nonessential, or that it falls short on ROI.

The rapid growth of GenAI in the past two years has seen exciting successes but also failed experiments.

Quick but unstructured innovation can lead to disillusionment, unmet expectations and debates about whether the hype around the technology is justified. But, while it might seem overhyped by a few in the short term, its long-term effects cannot be underestimated: like the internet, GenAI is a megatrend that will keep evolving in successive innovation cycles to become an omnipresent – and often invisible – part of all that we do digitally.

While our research shows that **two-thirds of the C-suite see GenAI as a "complete revolution" and a "game changer"**, nonexecutive leaders take a more conservative view. They recognize its potential but ask more questions about just how to translate the executive vision into reality through effective deployment that achieves the desired impact and ROI.

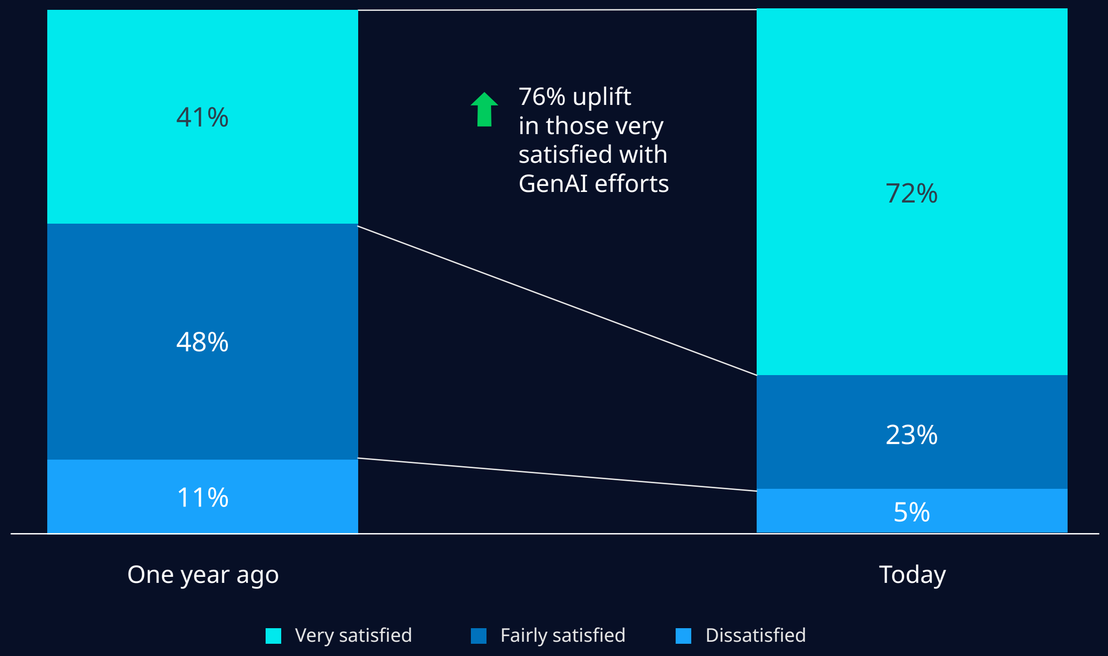
Our data also reinforces that attention is being paid to improved employee training and managing the cultural aspects of a technology that many may still view as a threat.

Overall, there has been a **sharp increase (76%) in the number of respondents feeling very satisfied with their GenAI efforts** compared with a year ago, which is an encouraging sign of progress. Specifically, **72% say they are now very satisfied with their current GenAI efforts, compared with just 41% a year ago – and the number of dissatisfied organizations has fallen by half.**

> "GenAI is not perfect. It won't solve every problem you have right now, but it's evolving quickly and it's going to change lots of things that we deal with in our organizations.

David Pereira, Chief GenAI Officer, Europe and Latin America, NTT DATA

At a corporate level, satisfaction with initial GenAI efforts is growing and optimization is rising



How would you describe your organization's satisfaction with its GenAI efforts?

Base: All respondents (n=2,307)

While the optimism is important, it is clear from the data that satisfaction with GenAI efforts relates more to preparatory efforts – making inroads into evaluating GenAI, establishing a team and readying the organization for the opportunity – and less to execution and whether GenAI efforts have been optimized.

At a leadership level, **just 57% of executives rate their organization's GenAI capabilities highly, and only 48% of their customers say the same**. Our research shows there is strong evidence of a solution to close this gap: facilitating employee training and creating specialist GenAI teams that span various business areas.

The rating of current GenAI capability by users falls short, indicating a disconnect.

#1 NTT DATA's 2023 Global Customer Experience Report found that AI was voted as the number-one enabler of future CX strategies.

Today,

57%

of board-level executives rate their current GenAI capabilities as excellent.

But just

48%

of these executives' customers are saying the same.

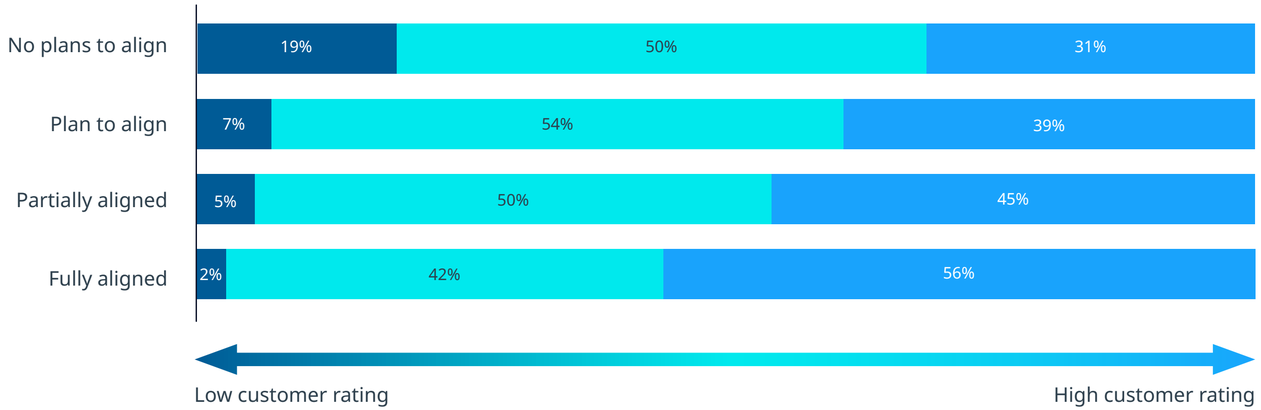
Spotlight on customer experience

Our research shows that **organizations with aligned business and GenAI strategies have customer satisfaction ratings on GenAI that are almost twice as high as those that do not.**

GenAI is also enhancing customer experience (CX) to the point where **95% of organizations agree that the CX offered by their customer-facing GenAI support systems may not yet be "excellent" but is the same as – or better than – human-led interactions**. GenAI-enabled tools such as predictive analytics and customer sentiment analysis, among others, have made this possible.

Aligned strategies lead to increased customer ratings of GenAI solutions

Customer ratings of current GenAI capability based on alignment with business strategy



On a scale of 1 to 10, where 1 is "very poor" and 10 is "excellent", how would your customers rate your GenAI solutions?

Base: All respondents with GenAI strategy in place, excluding "Don't know" responses (n=1,879)

Top 4 factors negatively affecting customer adoption of GenAI solutions

1. Users perceive the GenAI solutions to be of low value
2. Limited or no awareness of the GenAI solutions
3. User attitude toward or resistance to the GenAI solutions
4. GenAI safety and security fears

Only

47%

of those surveyed strongly agree that they regularly review GenAI processes and the impact of these processes on user experience.

GenAI's role in reshaping CX

95%

of respondents agree, 45% strongly, that their customer-facing GenAI support systems offer the same CX as, or better CX than, human-led interactions.

Over 9 in 10

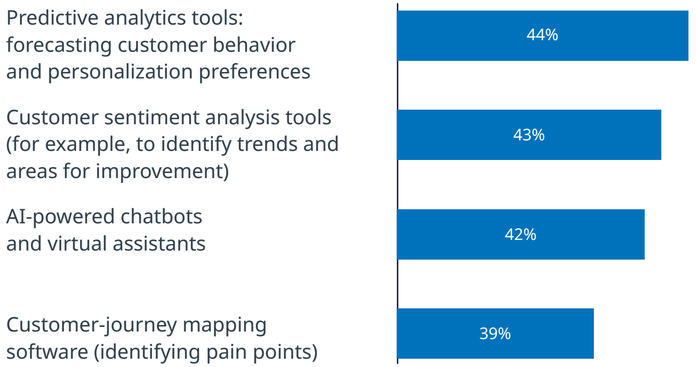
are using GenAI extensively to collect and interpret customer data.

94%

agree, 46% strongly, that GenAI is a crucial differentiator in enabling predictive analytics and proactive CX.

Importantly, an **expert-level internal focus on GenAI**, along with **alignment between an organization's business and GenAI strategies**, translates to higher CX ratings. Top performers have recognized the opportunity and are looking to distance themselves from the chasing pack.

GenAI solutions planned to improve CX



Which, if any, GenAI solutions does your organization plan to adopt to improve customer experiences and/or enable employees?

Base: All respondents, excluding "None of the above/don't know/not applicable" responses (n=2,305)

The view of top performers on CX

64%

of top performers' customers rate their current GenAI capabilities at a promoter level, compared with 25% for low performers.

44%

of top performers are more likely than low performers to have already implemented GenAI to support front-office customer interactions.

63%

are more likely than low performers to use predictive analytics tools for forecasting customer behavior and personalization preferences.

Strategy and transformation

Why are organizations investing in GenAI?

For C-suite executives, increasing productivity, making their organizations more sustainable and improving adherence to processes are among the top business outcomes motivating their investments in GenAI. As one would expect, the top-ranked investment drivers differ by role: CEOs see value in how GenAI can improve EX, while CFOs and CTOs are banking on its ability to improve productivity.

Although there is a broadening democratization of GenAI among different groups of users, **the pressure within organizations to adopt GenAI still comes mainly from IT teams**, followed by **operations, research and development**, and then the **C-suite**. Notably, **legal and compliance** have more influence when it comes to using GenAI responsibly.

Top 3 motivators for investing in GenAI, by role

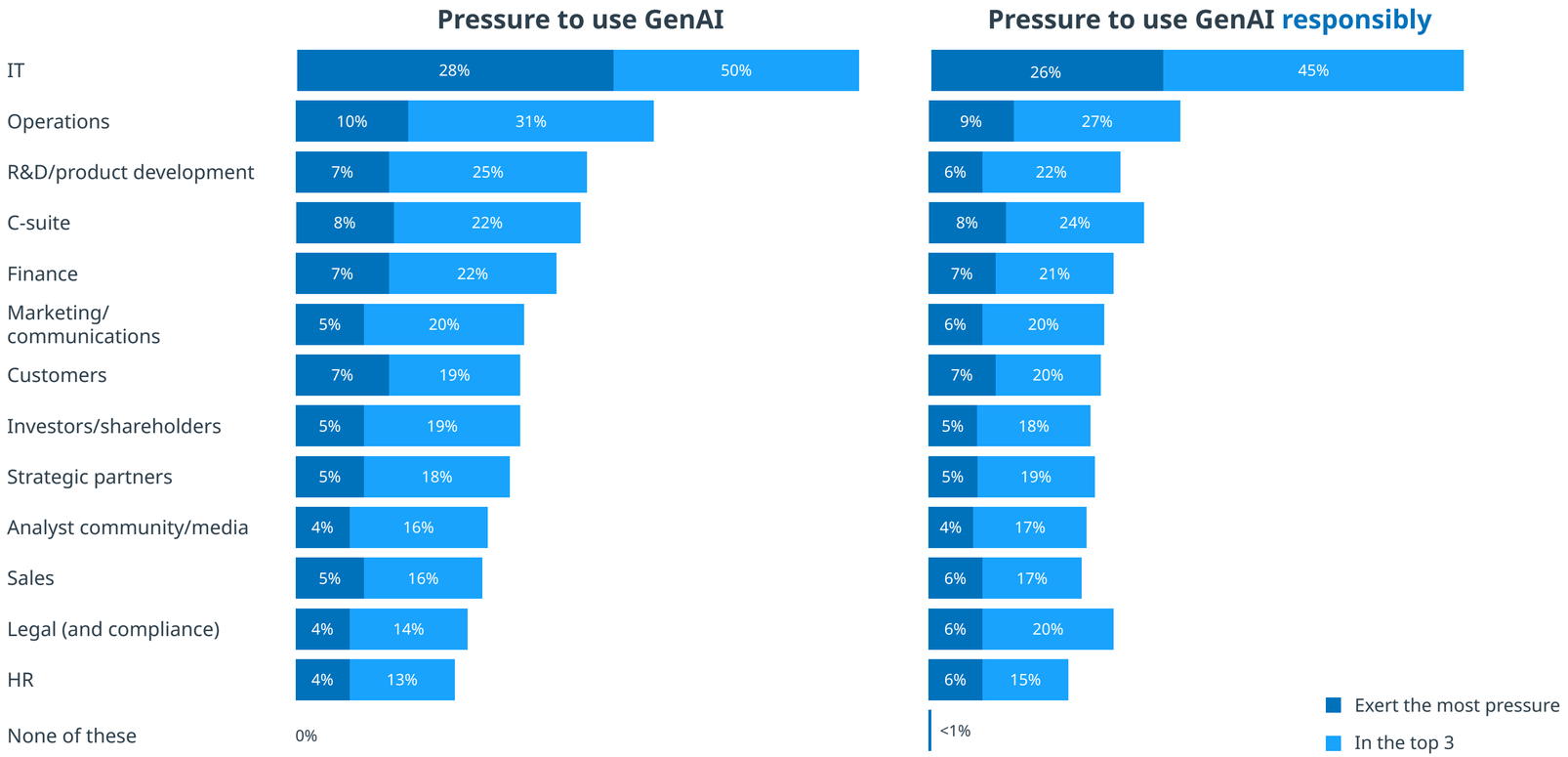
	Improve productivity/ efficiency	Improve sustainability and ESG	Improve compliance and process adherence	Improve security	Improve EX	Maintain competitiveness	Grow revenue	Improve CX	Accelerate innovation	Improve business intelligence	Reduce costs
CEO	2	3			1						
CTO/CIO	1	3		2							
CSE (Chief Software Engineer)		1				2			3		
CISO		1	2	3							
CDO (Chief Digital Officer)		3			1			2			
COO	2=	1	2=								
CCO/CExO		2=	2=				1				
CFO	1	2	3=	3=							
CHRO			1		3	2					
Head of Contact Center	1		3				2				

Which of the following business outcomes are the main motivators for your organization's investment in GenAI?
Base: All respondents, excluding "None of above" responses (n=2,304)

Pressure to use/responsibly use GenAI comes predominantly from IT

Dominant stakeholders in driving the use and responsible use of GenAI are IT, operations and R&D, alongside members of the C-suite.

Main sources of pressure to use GenAI



In your organization, where does the most pressure to use or responsibly use GenAI originate?

Base: All respondents (n=2,307)

52%

of top performers agree strongly that IT and operational teams should collaborate to define opportunities and design an organization's GenAI initiatives.

Only

24%

of the pressure in all organizations to use GenAI responsibly comes from the C-suite.

Organizations are prioritizing business opportunities ahead of viewing GenAI as a cost-cutting tool.

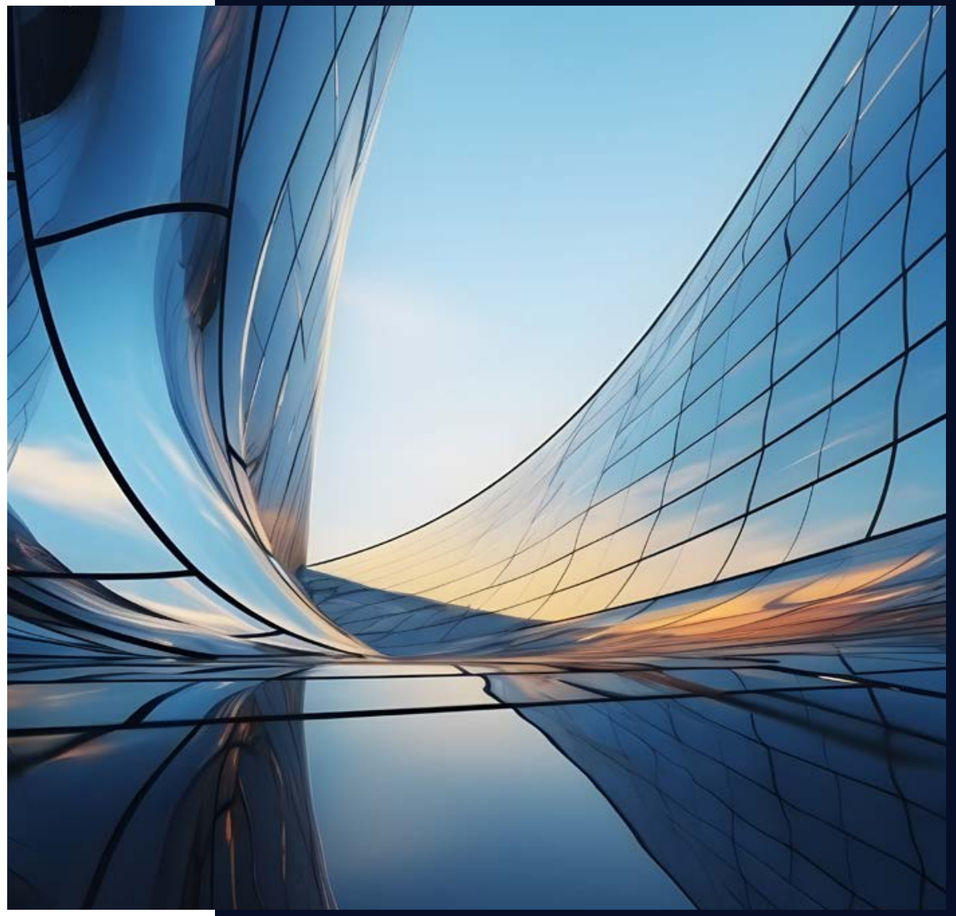
The exact motivators for investing in GenAI will, of course, vary by industry. For example, retail and automotive enterprises are focusing on streamlining operations, while those in healthcare and the energy sector are prioritizing a great patient or customer experience.

Broadly speaking, however, the **need to improve productivity and efficiency** is – as one may expect – at the top of the list. **Cost reduction** is not a major driving factor at present (it is not even in the top five), as organizations are viewing GenAI business opportunities through a long-term lens. **More than 90% are placing a growing emphasis on GenAI's long-term potential while exploring the short-term gains.**

The lesser emphasis on cost is also in part because many of the GenAI tools deployed by organizations so far are helping employees with tasks that are hard to link directly to cost-saving metrics – for example, searching for information, writing content or brainstorming ideas.

And, even where the use of GenAI is leading to cost savings, the full impact also extends to other business benefits such as a faster time to market, more effective problem-solving and better employee experience (EX).

Attention is centered mainly on complementary improvements to noncore business areas, with **just 1 in 5 respondents citing the need to reduce costs as a motivator.**



Top motivators for investing in GenAI: the C-suite perspective

While priorities vary by industry, the need to improve productivity and efficiency is a common motivator for most. Organizations are also focused on creating value and improving business outcomes, as opposed to viewing GenAI mostly as a means to reduce costs.

1. Improve productivity and efficiency
2. Improve sustainability and ESG metrics
3. Improve compliance and process adherence
4. Improve employee experience
5. Maintain competitiveness

Which of the following business outcomes are the main motivators for your organization's investment in GenAI?

Base: C-suite respondents, excluding “None of the above” responses (n=1,563)

Top 3 motivators for investing in GenAI, by industry

Prioritizing business opportunity before viewing GenAI as a cost-reduction tool

	Improve productivity/ efficiency	Improve sustainability and ESG	Improve compliance and process adherence	Improve security	Improve EX	Maintain competitiveness	Grow revenue	Improve CX	Accelerate innovation	Improve business intelligence	Reduce costs
Automotive	1		2			3					Last
Banking and investment	1			2					3		Last
Energy and utilities		2			1=			1=			Last
Healthcare	1=				1=			1=			Last
Higher education and research	1	3				2					Last
Insurance		2					1	3			Last
Life sciences and pharmaceuticals	3	1	2								Last
Logistics, travel and transportation	2=				2=				1		Last
Manufacturing	3		2				1				Last
Public sector and government	1	3	2								Last
Retail and CPG	1			2=		2=					Last
Telco, media and technology	1	2	3=				3=				Last

Which of the following business outcomes are the main motivators for your organization's investment in GenAI?

Base: All respondents, excluding “None of the above” responses (n=2,304)

Strategy and transformation

On the road to GenAI-driven transformation

The field of GenAI is evolving constantly – and fast. To keep up with the competition and avoid missing out on opportunities to gain a competitive advantage, organizations must focus on building at least a foundational understanding of GenAI and make a start on using it.

According to our research, **6 in 10 of respondents expect GenAI to transform their industry significantly in 2025**, with top performers being even more optimistic.

> “There are so many ways GenAI can transform a business. It’s a hammer with a thousand nails.
>
> **Andrew Wells,** Chief Data and AI Officer, NTT DATA

Many organizations are already developing and experimenting with their own GenAI assets and models, often customized with the help of a partner. Owning a GenAI solution makes it easier to tailor it to the needs of an organization while laying the foundation for scaling the technology in the long term.

Organizations must evaluate the opportunities for GenAI based on the specific outcomes they want to achieve in the context of their operations and industry. This involves identifying the main business challenges to address, then pinpointing where to apply GenAI most effectively.

When GenAI adoption is seen as a business-wide strategy, the technology becomes a foundational and enabling element of an organization's IT infrastructure – a new "DNA layer" spread across their operations – rather than a potential pitfall.

Our research shows that **more than 9 in 10 respondents have already assessed, or are assessing, enterprise-wide opportunities to use GenAI.** However, **only 45% strongly agree that they have the capabilities and expertise** they need to integrate GenAI into their systems.

> "You need to get in the game. If you're not doing it, you can be sure your competitors are.
>
> **Andrew Wells,** Chief Data and AI Officer, NTT DATA

Effectively integrating and assessing GenAI-related business opportunities: a boom in evaluative GenAI processes

Assessing the GenAI opportunity:	Already done	Within the next year
To streamline employee workflows/support processes	48%	96%
To streamline customer journeys/user experiences	53%	95%
For back-office and middle-office functions	49%	95%
Data-readiness as a foundation for scalable, secure, trusted and responsible GenAI (including data platforms and management)	53%	95%

Which of the following has your organization considered when assessing GenAI-related business opportunities?

Base: All respondents, excluding “Don’t know” responses (n=2,294)

Strategy and transformation

Planning, pilots and proofs of concept

Planning must also extend to identifying and prioritizing valuable use cases, evaluating the appropriate security and data governance requirements, and establishing the right data and technology infrastructure capabilities to serve changing needs.

Data-readiness is a requirement that has already been addressed by more than half of organizations, and it is cited as the top lesson learned from previous GenAI deployments. This shows an awareness of the need to manage data and data requirements to succeed in GenAI.

Organizations also need to implement global **governance** for structured and unstructured data, at scale, and a robust **security** framework, taking into account industry-specific needs as well as regulatory and regional compliance requirements.

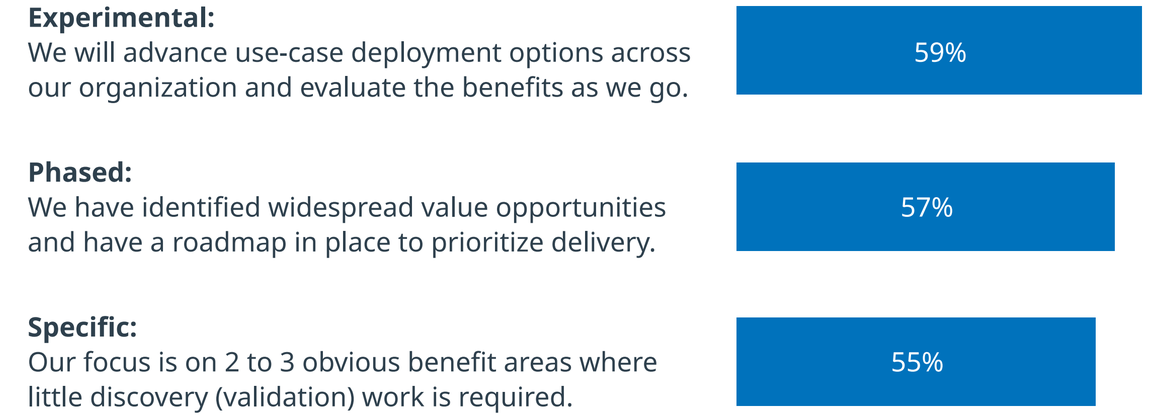
Most organizations have started with **pilot projects and proofs of concept** (often with the help of an expert partner) to gauge the impact of GenAI and are now considering large-scale implementation and integration into core business processes. A **mixed or hybrid approach** – involving both experimentation and a phasing-in of GenAI – is common.

The speed of execution is essential: organizations that don't move fast enough risk missing out on the value that GenAI is creating.

Organizations are likely to adopt a mixed approach to GenAI deployments

The experimental approach is the most popular, followed by phased and specific approaches.

Organizations' approach to GenAI deployments in the next two years



58% of those surveyed plan to adopt a combination of approaches.

Which of the following statements best describes your organization's approach to GenAI deployments in the next 2 years?

Base: All respondents (n=2,307)

Strategy and transformation

The importance of an expert team

The vast majority of organizations have already taken the initial step of building a steering committee for their GenAI strategy, and the remainder have plans in place to do so.

Establishing an expert team to lead GenAI efforts in a coordinated and strategic way is a key step, as our research shows a **direct correlation between the effectiveness of GenAI solutions and the maturity of such a team.**

However, it should be noted that respondents appear to be judging the maturity of their GenAI teams based on the structure of the team and the skill set of the contributing resources, not (for now) on optimized performance and the resulting delivery of GenAI excellence.

Viewed by industry, the government, insurance, and life sciences and pharmaceutical sectors have made the most progress toward establishing robust GenAI teams, while education and retail lag.

Establishing an expert GenAI team is key to success

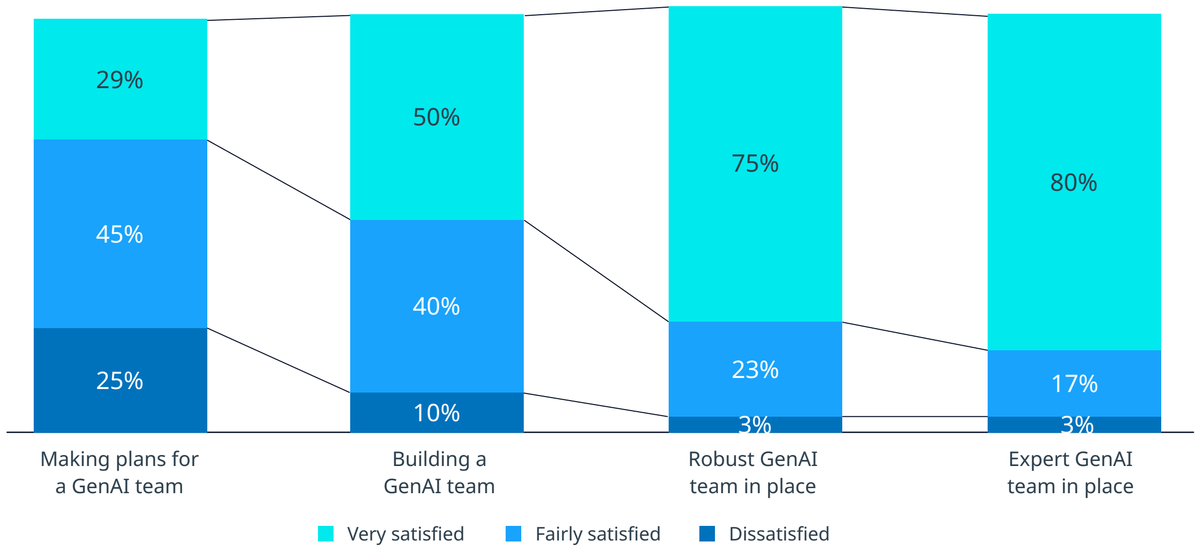
4 in 5

respondents indicate that their organizations have already established an **expert** or **robust** internal GenAI team, with 1 in 5 building or making plans for a GenAI team.

3x

Those that have a **dedicated GenAI team** in place are nearly three times more likely to be very satisfied with their GenAI efforts than those still in the planning phases.

Government, insurance, and life sciences and pharmaceutical organizations lead the way in establishing expert GenAI teams. Education and retail are still catching up.



How would you describe your organization's satisfaction with its GenAI efforts?

Base: All respondents (n=2,307)

Expert GenAI teams typically comprise a range of skills and experience to cover the technology itself as well as its business implications.

Striking a balance is crucial, and the team should at the very least include employees with technical proficiency in AI and machine learning; experience with data analysis and management; risk, ethics, regulatory and compliance knowledge; and a strong understanding of industry-specific needs and challenges.

Business-area leads from IT and operations, compliance, legal, sustainability, HR and other relevant areas will help to direct the team's efforts and see to it that the organization's GenAI solutions deliver operationally as expected. The team must also communicate clearly with the C-suite to explain what they're doing, including the potential risks and rewards.

Having such an expert team in place makes organizations **three times more likely to be very satisfied with their GenAI efforts** than their peers who are still planning to build a team.

Strategy and transformation

Putting GenAI to work

While many organizations are already investing in GenAI (or at least planning to do so), budgets and future opportunities are just one part of the conversation. Actual use cases – the current business areas where GenAI solutions have been deployed – show where the technology is proving beneficial or can be improved on.

As organizations have sharpened their focus on GenAI, they are likely to have deployed GenAI across front-office customer and employee interactions. Among the proven use cases so far are personalized service recommendations for customers and knowledge management for staff.

Other use cases where GenAI is adding value include product and service design and development (which includes employees using tools like Copilot for Microsoft 365 to help with tasks like composing emails and generating sales reports).

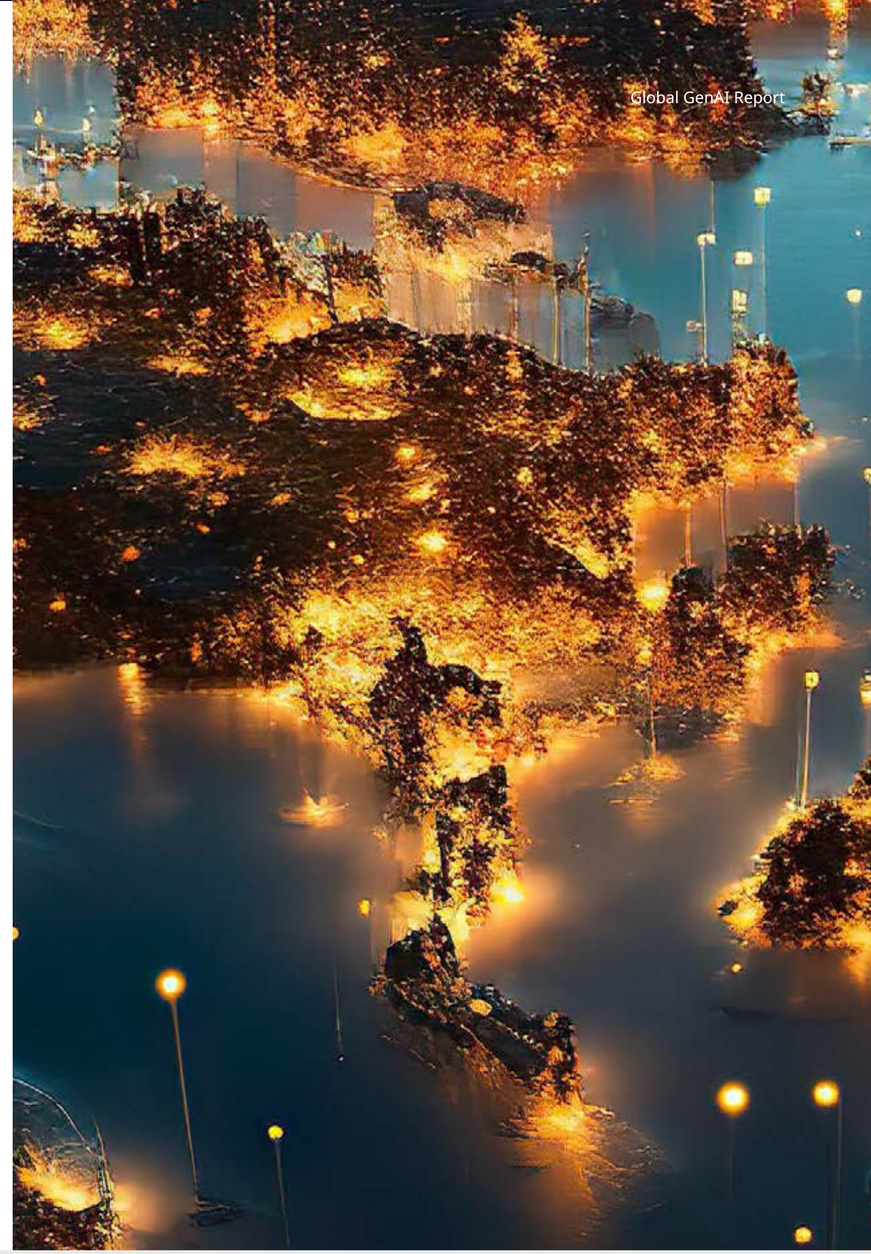
Top use cases so far for GenAI

It's all about complementary activity that supports workflows.

1. Personalized service recommendations and knowledge management
2. Product and service design, research and development (R&D)
3. Quality control
4. Risk assessment and fraud detection
5. Process automation

Considering the needs of your industry, what are the top use cases for GenAI?

Base: All respondents, excluding "Don't know" responses (n=2,305)



Strategy and transformation

Use cases: the industry view

GenAI is already in common use across industries in a range of creative, but mostly noncore, operations.

In software development and application modernization, for example, it yields excellent results when applied to coding, design and testing. It is also used in document specification and data extraction. Autonomous (smart) agents are an emerging use case with great potential for use in contact centers.

The many ways in which GenAI can be applied means the most effective use cases in full production vary greatly by industry.

Among the industries benefiting the most from GenAI so far are technology (as expected and noted earlier), healthcare, and banking, financial services and insurance.

In healthcare and insurance, for example, GenAI is improving CX and streamlining processes like claims processing and appeals by reducing the need for manual intervention.

In the automotive, manufacturing, and telecommunications and media sectors, GenAI is seen as a disruptor. Disruptions are also expected in financial services, where GenAI can streamline or automate credit decisioning and other middle-office functions.

In industries like manufacturing, there are additional complexities to address first, such as factory environments with legacy IT/OT and an insufficient volume of IoT and sensor data.

> “The use cases on the table across industries are in noncore areas of business processes. Can GenAI really change the face of the core business of an organization, the way the business is being operated? That’s not yet proven.
>
> **Sai Sekar,** Senior Vice President, Head of Global Industries, NTT DATA

Organizations' view of the top 3 current use cases for GenAI in their industry

	Personalized service recommendations and knowledge management	Product and service design and development (R&D)	Quality control	Risk assessment and fraud detection	Process automation	Supply chain and inventory management	Infrastructure maintenance	Demand forecasting
Automotive	2	3				1		
Banking and investment	3		1	2				
Energy and utilities	1=	1=	1=					
Healthcare	1	3=			2		3=	
Higher education and research	1		3=		2	3=		
Insurance	1	2		3				
Life sciences and pharmaceuticals	1			2			3	
Logistics, travel and transportation		3	1			2		
Manufacturing	3=	2	1	3=	3=			
Public sector and government	1	2		3				
Retail and CPG		1	3			2		
Telco, media and technology	2	3	1					

Considering the needs of your industry, what are the top use cases for GenAI?

Base: All respondents excluding "Don't know" (n=2,305)

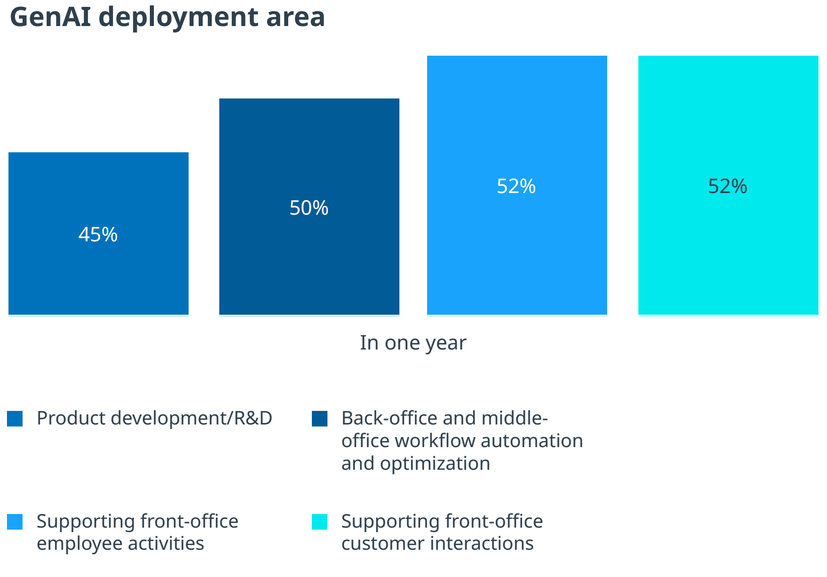
How business processes are affected

Our research shows that organizations have, until now, spread their GenAI deployments relatively evenly across their businesses. Looking ahead 12 months, the focus shifts more prominently to agentics (smart, AI-driven agents) and applying GenAI to back-office and middle-office workflow optimization.

In terms of applications being targeted for back-office and middle-office processes, **GenAI-powered chatbots are already the most popular application** for both top performers and other enterprises, followed by workflow-optimization tools and task-management platforms.

The relative importance of these applications differs by industry. But, in the main, organizations have identified a balanced range of opportunities. While customer-facing industries like banking and retail understandably rank GenAI-powered chatbots highly, sophisticated predictive analytics can benefit insurance providers greatly and workflow optimization has real value in manufacturing.

Proportion of business processes assisted by GenAI, by business area



Of the processes assisted by GenAI solutions, where will most be deployed in one year?

Base: All whose business processes have been assisted by GenAI solutions, excluding “Don't know/none of the above” responses (n=2,211)

Top 3 GenAI solutions organizations are targeting to enhance back-office and middle-office processes, by industry

	GenAI-powered chatbots	Workflow-optimization tools	Task-management platforms	Document process automation	Business-process mining and management suites	Decision-management systems	Predictive analytics tools	Process-mining tools
Automotive	3=	1	3=	2				
Banking and investment	1	2				3		
Energy and utilities	3	2	1					
Healthcare	1		3=	2	3=			
Higher education and research	1	2		3				
Insurance		2			3		1	
Life sciences and pharmaceuticals				2	1	3		
Logistics, travel and transportation	1	3=	2	3=				
Manufacturing	1	2	3=			3=		
Public sector and government		1	3		2			
Retail and CPG	1	2					3	
Telco, media and technology	1	3					2	

What, if any, GenAI solutions will your organization use to enhance back-/mid office processes?

Base: All responses, excluding "Don't know/none of the above/not applicable" (n=2,301)

More broadly, organizations around the world intend to increase their GenAI implementations in the next year. **Top performers are taking an ambitious approach: by 2025, 54% plan to have implemented GenAI in half of their business processes**, compared with just 30% of all other organizations.

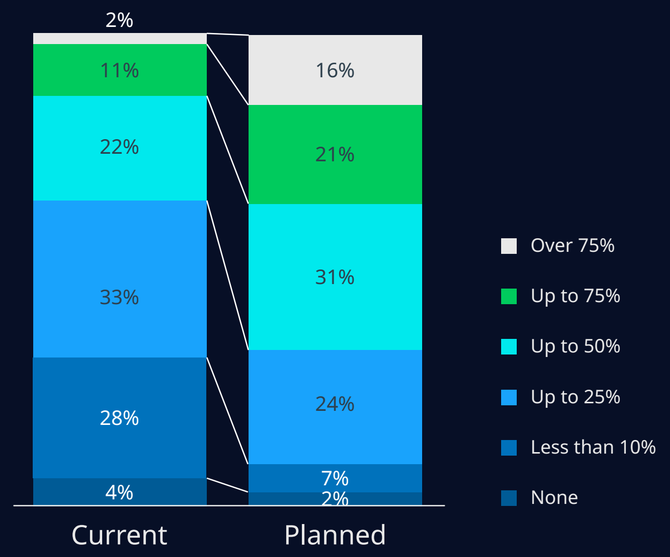
Key here is the cross-functional nature of GenAI – and it is not a rip-and-replace scenario. GenAI needs an all-hands-on-deck approach with a continual strategic and tactical alignment between technology and business needs.

> GenAI presents a unique opportunity for us to help our clients fully transform their middle-office workflows into AI-native workflows. Not AI-driven, but AI-native.

Nitin Bajaj, Vice President: Generative AI, NTT DATA

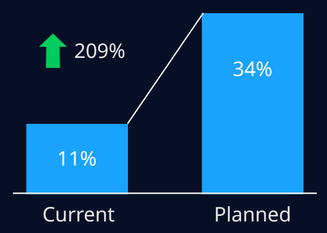
The overall proportion of processes assisted by GenAI will rise significantly over the next 12 months.

Proportion of overall business processes assisted by GenAI solutions

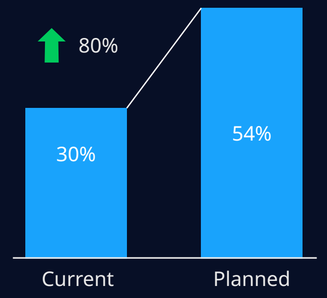


Organizations where more than 50% of processes are assisted by GenAI or will be in the next year

All others



Top performers



What proportion of your organization's overall business processes has been assisted by GenAI solutions? And what proportion do you expect in one year?

Base: All respondents, excluding "Don't know" responses (n=2,305)

Evaluating the outcomes

Just as the most popular use cases differ by industry, organizations rank their GenAI outcomes differently, although improvements in EX and CX are consistently flagged as important.

Top 3 outcomes evidenced as a direct result of GenAI deployments, by industry

	Improved EX	Improved CX	Improved security/ reduced fraud	Improved compliance/ process adherence	Improved business intelligence	Workforce optimization	Facilitated new business operating model	Business/ sales growth	Cost reduction/ improved productivity	Accelerated product development and R&D
Automotive	1		2		3					
Banking and investment			2		1			3		
Energy and utilities	2	3=				3=				1
Healthcare	1=			2		1=				
Higher education and research	1=	2			1=					
Insurance	2	3=	1			3=				
Life sciences and pharmaceuticals			3	1			2			
Logistics, travel and transportation				2	1			3		
Manufacturing	2	1			3					
Public sector and government	1		3				2			
Retail and CPG	2=		2=		1					
Telco, media and technology		2	3		1					

Which, if any, of the following outcomes can your organization evidence as a direct result of your GenAI deployments in the past 12 months?

Base: All respondents, excluding “Don’t know” responses (n=2,263)

Lessons learned from GenAI deployments

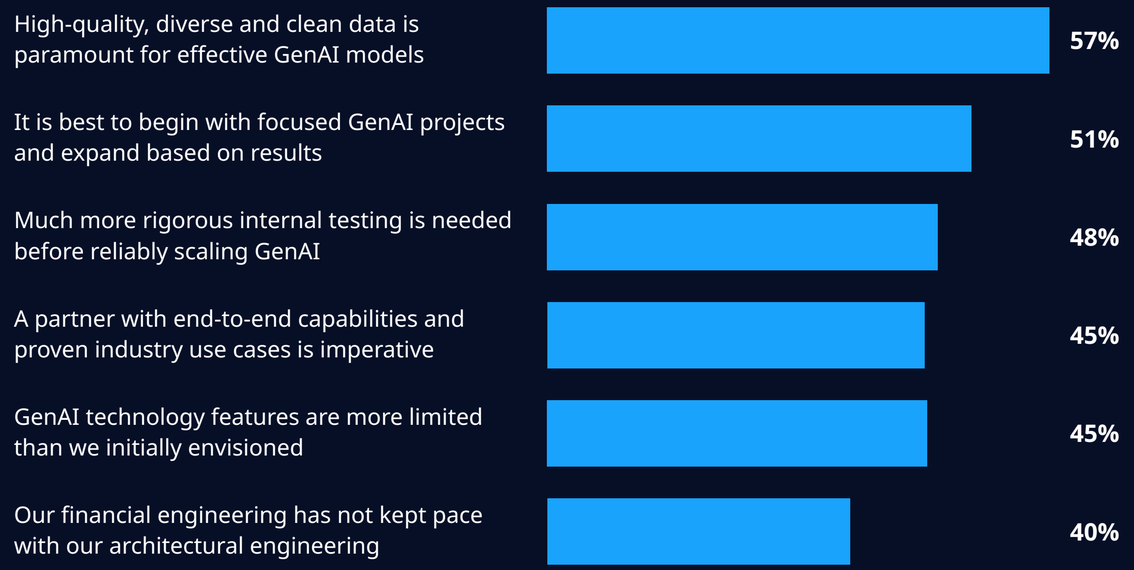
Most organizations agree that the biggest lesson they've learned from experimenting with and deploying GenAI solutions is that having high-quality and clean data sources is paramount. They also recommend that deployment should start with focused projects before expanding based on the outcomes only, while keeping in mind that GenAI projects will involve multiple business functions.

To circumvent siloed GenAI projects, it is also essential to share what's been learned across business units in a common forum.

> When one part of an organization does something with GenAI, all the others need to know what they're doing and learn from that. This builds tribes of expertise rather than individual experts or small groups of experts. When you build a tribe, the learning becomes more powerful.

Nitin Bajaj, Vice President: Generative AI, NTT DATA

Top lessons learned from GenAI deployments



What are the key lessons you have learned from your GenAI deployments?

Base: All currently investing in AI, excluding "None of the above/don't know" responses (n=2,265)

Most top performers say that having a partner with end-to-end capabilities and proven industry use cases is imperative.

Strategy and transformation

Measuring the value of GenAI

Once organizations' GenAI implementations are up and running, many seem to struggle with measuring their success. **Our research highlights a mismatch between the desired outcomes of GenAI solutions and the measurements being applied to determine their performance – in other words, organizations are often measuring the wrong things.**

While allowing for the need to place benefits relating to user value ahead of cost impacts, financial metrics must always be a consideration in validating GenAI use cases. Employees might love their new GenAI toys, but are they boosting the bottom line by creating new value or saving money? Our data shows that improved CX and customer retention are top of mind for organizations when it comes to the measurement of GenAI, followed by the development of GenAI products and features, and then cost savings.

The exact nature of these metrics will vary across industries: GenAI can save time and money by creating and translating unique content for a news publisher, while in banking, success is measured by the number of customers served, customer satisfaction or cost reductions. In IT service management, incident response and resolution times, the number of active tickets and the level of SLA adherence can determine success.

There are also productivity gains to consider, although these will only materialize only once employees use the technology to its fullest potential to transform middle-office workflows into AI-native processes and develop GenAI-powered engagement models.

Organizations also need to continually assess the effectiveness of their data-governance initiatives. **Data management is not a finite exercise; it's an ongoing imperative.**

It's clear that organizations need to revisit the metrics being applied and move away from the traditional approach. What has worked in the past will not work in a new environment increasingly fueled by GenAI. They are taking a varied approach thus far, and there's an obvious need for new measurement models.

Working with a specialist, particularly one with industry experience, to add value here leaves organizations well-placed for GenAI success. A service provider can benchmark an organization's achievements in GenAI against wider progress, lessons learned and best practices of organizations in their own and other industries.

Approaches to measuring GenAI success

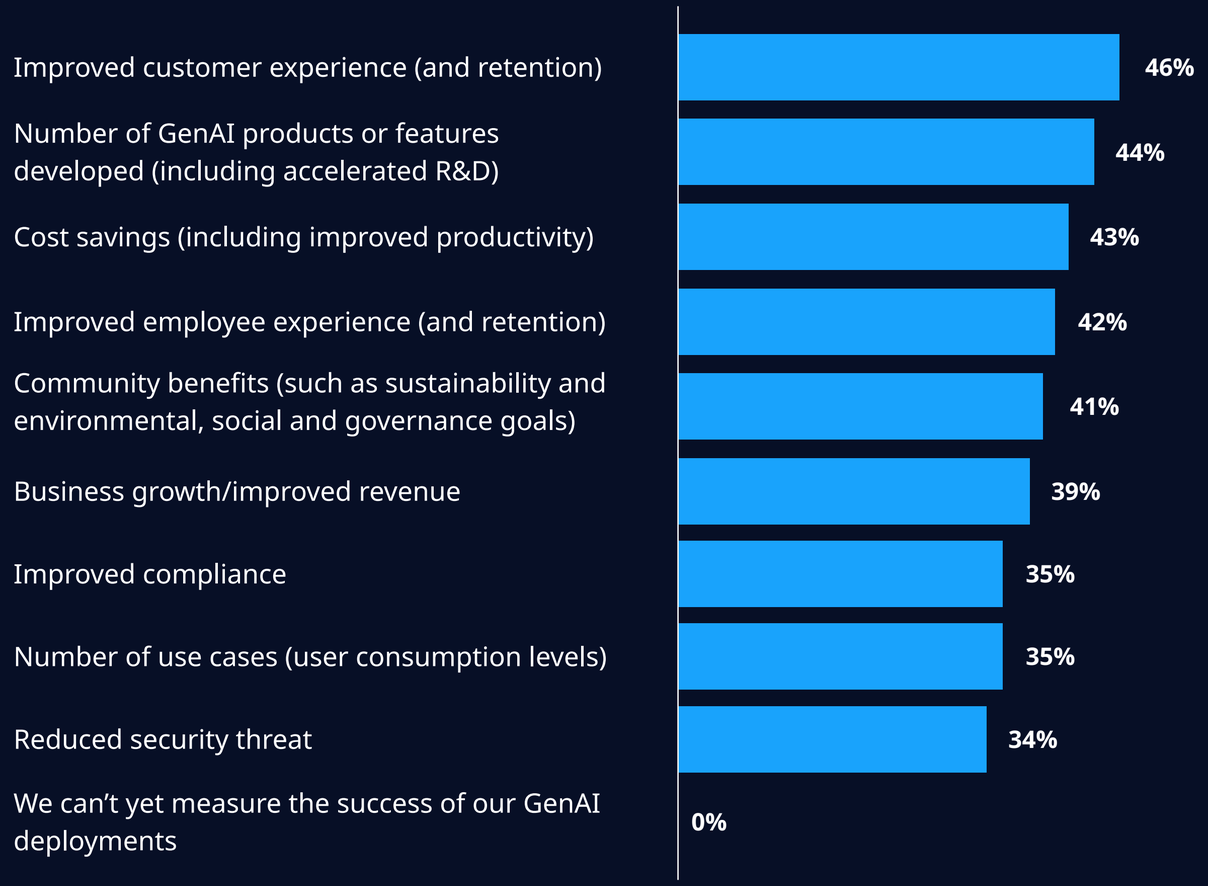
Surprisingly, just one-third of respondents are tracking use cases and GenAI consumption levels.

Measurement mismatch

Cost is the lowest-ranking motivator of GenAI deployments, but it is one of the top three most common measurements used to gauge the success of GenAI projects.

> In GenAI, the proof of the pudding is not in the IT outcome but in the business outcome. That's how you should calculate the ROI. And the long-term view for GenAI is a totally different calculation that companies aren't even thinking about today.

Sai Sekar, Senior Vice President, Head of Global Industries, NTT DATA



How is the success of a GenAI implementation typically measured in your organization?

Base: All respondents currently investing in AI, excluding "Don't know" responses (n=2,270)

Top challenges to organizations' adoption of GenAI

Moving on from the initial challenges of establishing GenAI in an organization and proving its worth, our research also shows a range of evolving challenges to the adoption of GenAI – challenges that depend on organizations' level of investment in the technology.

Until now, organizations have focused on architecture and delivery models, such as cloud and platform as a service, as well as the complexity of the architecture needed to support GenAI. In the next two years, however, the focus will shift to incorporating complementary technologies like IoT, 5G, edge and GPUs more efficiently.

These challenges must be addressed as organizations plan their journey to GenAI success.

Challenges to GenAI adoption	Past/current challenge	Need help in the next 2 years	Change
Assessing complementary architectures (cloud, platform as a service, infrastructure as a service, etc.)	1	3	↓
Multiple vendors/service providers (identifying preferred strategic/expert partners)	2	5	↓
Infrastructure complexity (including performance/integration, lifecycle management)	3	2	↑
Building in-house skills in GenAI development (solution design)	4	6	↓
Establishing clear ethical and AI safety frameworks and ownership	5	4	↑
Assessing complementary technologies (IoT, 5G, edge computing, GPUs, etc.)	6	1	↑
Ensuring robust cybersecurity	7	7	=
Legacy IT and business applications	8	9	↓
Data sources (managing validity and integrity)	9	10	↓
Funding/establishing a clear business case (including ROI)	10	8	↑
Sustainability impact	11	11	=

Which, if any, of the following did/do you consider to be the biggest challenges to your organization's adoption of GenAI?

Base: All respondents, excluding "None of the above" responses (n=2,275 for current challenges; n=2,269 for next 2 years)

Evolving challenges to GenAI adoption as investment grows

No planned investment

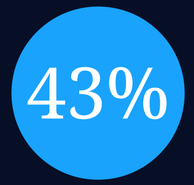
- Building in-house skills in GenAI development
- Funding/establishing a clear business case
- Data sources
- Establishing clear ethical and AI safety frameworks and ownership

No investment, but planned

- Legacy IT and business applications
- Building in-house skills in GenAI development
- Infrastructure complexity

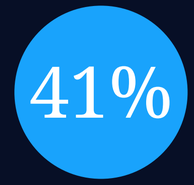
Trial/pilot assessment only

- Multiple vendors/service providers
- Assessing complementary architectures
- Establishing clear ethical and AI safety frameworks and ownership



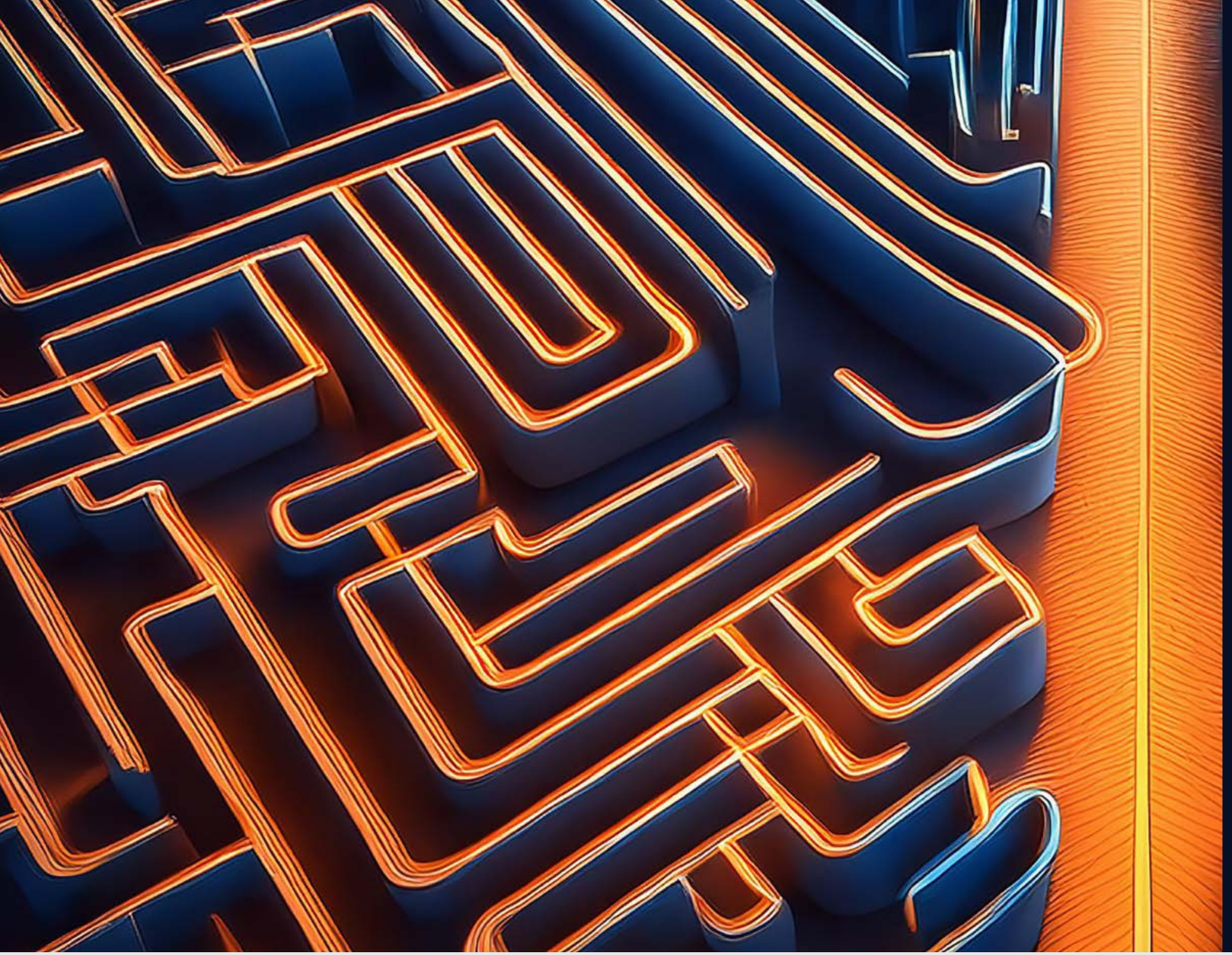
Some investment

- Infrastructure complexity
- Assessing complementary technologies
- Funding/establishing a clear business case



Significant investment

- Assessing complementary technologies
- Assessing complementary architectures
- Infrastructure complexity



Strategy and transformation

You can’t do this on your own

The need for expertise and strong GenAI partnerships is clear.

While the technology is advancing exponentially, our data shows that **74% of respondents who manage their GenAI solutions in-house do not have the required skill sets to work with GenAI.**

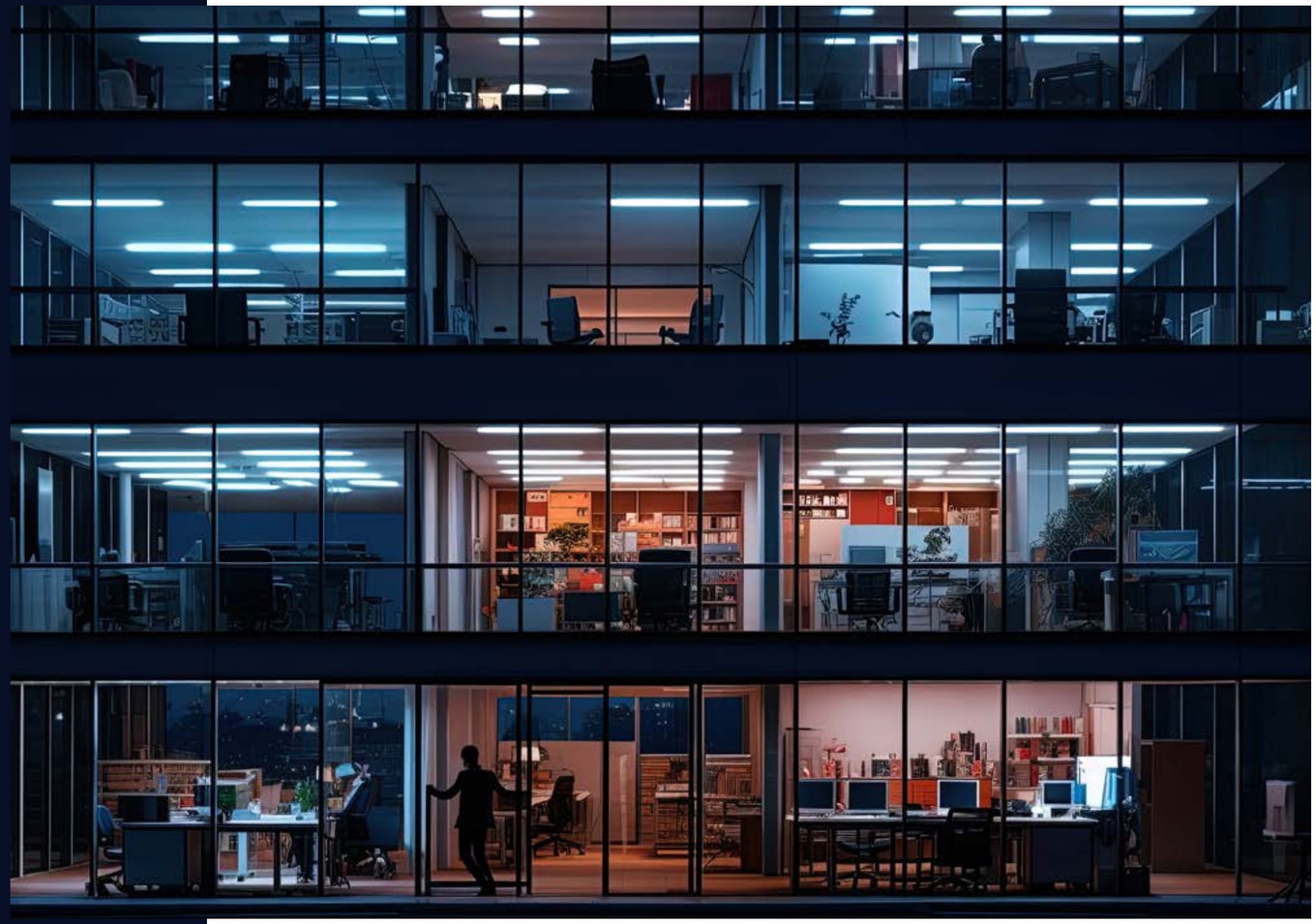
The solution lies in partnerships: across industries, specialist GenAI service providers are giving organizations access to valuable insights and resources that support continuous improvement and innovation, thereby filling the gaps in their internal skill sets.

Already, **65% of those surveyed prefer to enter into such a partnership when implementing GenAI**, rather than opting for customized or off-the-shelf solutions, among other options.

The ideal GenAI partner will understand both the technological and cultural aspects of GenAI implementation in an organization, including:

- GenAI safety, security and ethics as part of a comprehensive approach that also includes training, risk management and a focus on regulatory considerations. Expertise in these areas is **rated the top factor in selecting a GenAI partner.**
- An end-to-end, full-stack service offering, with experience in integrating GenAI with existing business processes, and strategies for implementing scalable and secure solutions.
- A proven track record in deploying GenAI effectively in various industries, with a deep understanding of business processes in those industries.
- The right technology, data and industry-specific partnerships that provide access to secure and reliable platforms for AI implementations, specialist skills and best-in-class solutions for specific business challenges.
- Offering both platform-as-a-service subscriptions and model-as-a-service solutions.

Organizations should also consider the financial model of the partnership, which can involve a success fee or gain-sharing – two main considerations observed in our research.



Key partnership considerations in the GenAI lifecycle

Partner selection

Top 5 factors in selecting a GenAI partner

1. **GenAI safety capability**
   (including security and ethics)
2. **End-to-end GenAI service offerings**
   (full-stack capability)
3. **Software engineering and advisory capability**
4. **Market and media visibility**
   (reputation and track record as a GenAI specialist)
5. **Platform-as-a-service subscription and model-as-a-service solution availability**

How would your organization rank its preferred financial model for GenAI solutions?

Base: All respondents (n=2,307)

Implementation

Preferred approaches to GenAI implementation

1. **GenAI partnership**
   (high-level goal and fixed price and time)
2. **Customized solution**
   (for a closed project or specific need)
3. **Dedicated team**
   (for the time that you need it)
4. **Flat monthly fee**
   (for continuous access to specialist resources or platform)
5. **Off-the-shelf solution**

How would your organization rank its preferred approach to implementing GenAI?

Base: All respondents (n=2,307)

Financial model

Preferred financial models for GenAI solutions

1. **Success fee**
   (aligned with improving business or technology KPIs)
2. **Gain-sharing**
   (shared risks and gains in business transformation)
3. **Subscription/pay-as-you-go model**
   (such as for a prebuilt GenAI solution)
4. **Coinvestment, coinnovation and copromotion**

Which, if any, of the following are your organization's top 3 criteria when assessing GenAI technology partners?

Base: All respondents (n=2,307)

Platforms versus models: what's the difference?

A managed GenAI service provider can typically offer **platform as a service (PaaS)** and/or **model as a service (MaaS)**.

PaaS provides a comprehensive environment for developing, testing and deploying GenAI applications. It includes tools, libraries and infrastructure that allow developers to focus on building custom solutions without worrying about the underlying hardware or software management.

MaaS refers to pretrained AI models that can be easily integrated into applications. This allows organizations to use advanced GenAI capabilities without the need for extensive in-house expertise or resources.

In short: 5 steps to building a strategy for GenAI success

1

Prioritize

Identify key areas or domains where GenAI can be applied, and assess the ROI. Focus on developing specific capabilities and assets, such as digital workplace solutions and data management, to avoid playing catchup on GenAI.

2

Find a platform, create a team

Develop a secure and scalable platform to implement GenAI use cases in compliance with regulations and ethical standards. Put together a diverse and expert GenAI team to coordinate your GenAI efforts.

3

Manage data

Data governance is essential. All your data must be clean, consolidated and governed by clear data policies.

4

Experiment and scale

Conduct proofs of concept and scale successful initiatives to integrate GenAI into your systems and processes. Here, change management is crucial to streamline adoption.

5

Don’t stop

Focus on growing awareness of GenAI at all levels. Continue training employees and addressing regulatory and ethical concerns while improving your business processes and keeping your change-management disciplines on track.

Innovation and technology

Ignite tomorrow today.

Key findings on innovation and technology

Given the rapid adoption and advancement of GenAI technology, organizations will have to constantly reevaluate, evolve and fully align their strategies and operating models.

81%

say it's very important that their leadership teams provide guidance on balancing innovation with responsibility.

90%

say legacy infrastructure is hindering their effective use of GenAI, and just 45% agree strongly that they have the necessary capabilities to integrate GenAI.

96%

say cloud-based solutions are the most practical and cost-effective means to support GenAI applications.

Innovation and technology

GenAI's ability to generate creative content and facilitate collaborative innovation sets it apart from other technologies, while its potential for deep integration into business operations and its role in enabling industry-specific solutions make it a critical component of digital transformation. **It has quickly been recognized as a game changer by more than 60% of those surveyed**, especially when looking ahead at the next two years, and it's seen as a primary enabler of innovation across industries.

In our research, nearly all organizations express confidence in GenAI's ability to spark creativity and improve their research and development efforts.

Industry-specific GenAI solutions are particularly valuable because, unlike general GenAI models, they are fine-tuned to focus on particular use cases or domains. They use specialized terminology and understand industry nuances, leaving organizations better aligned with the needs of their industry.

Impact of GenAI on innovation and R&D

GenAI speeds up innovation, enhances idea generation, improves efficiency, enables data-driven decisions and promotes customer-centric innovation, driving business growth and a competitive advantage.

95%

of those surveyed agree, 48% strongly, that GenAI is driving a new level of creativity and innovation in the organization.

Over 9 in 10

agree that GenAI will have a material impact on improving the organization's R&D efforts.

#1

Organizations planning significant investment in GenAI list R&D (product/service development) as their number-one use case for GenAI.

The GenAI innovation cycle is much shorter than what we've seen before.

The internet's initial dotcom innovation cycles delivered breakthroughs and fresh hype roughly every 18 months. With GenAI, it's about six months. We've moved swiftly from the first wave of large language models (LLMs) in September 2022 to the current buzz around agentics (AI-driven agents that can solve more challenging problems). This means organizations will have to keep reevaluating and evolving their business models.

Keeping up with these advances starts with integrating a GenAI technology platform into an organization's existing IT infrastructure to support specific use cases. The goal is not just to improve business processes but to transform them from end to end, or "idea to metal", in alignment with the organization's overall business and technology strategies.

However, the effective execution of this goal is proving a challenge: **only 45% of respondents strongly agree that they have the necessary capability and expertise to integrate GenAI into existing systems**, while **nearly 90% say their legacy infrastructure is holding back their ability to use GenAI**. This shows that GenAI service providers have a key role to play in advising organizations on the technical integration of these tools and models.

GenAI integration is stifled by outdated infrastructure

94%

of respondents agree that the integration of GenAI (and digital twins) will require significant investment in data infrastructure and computing power.

90%

agree that legacy infrastructure is greatly affecting business agility and their ability to use GenAI.

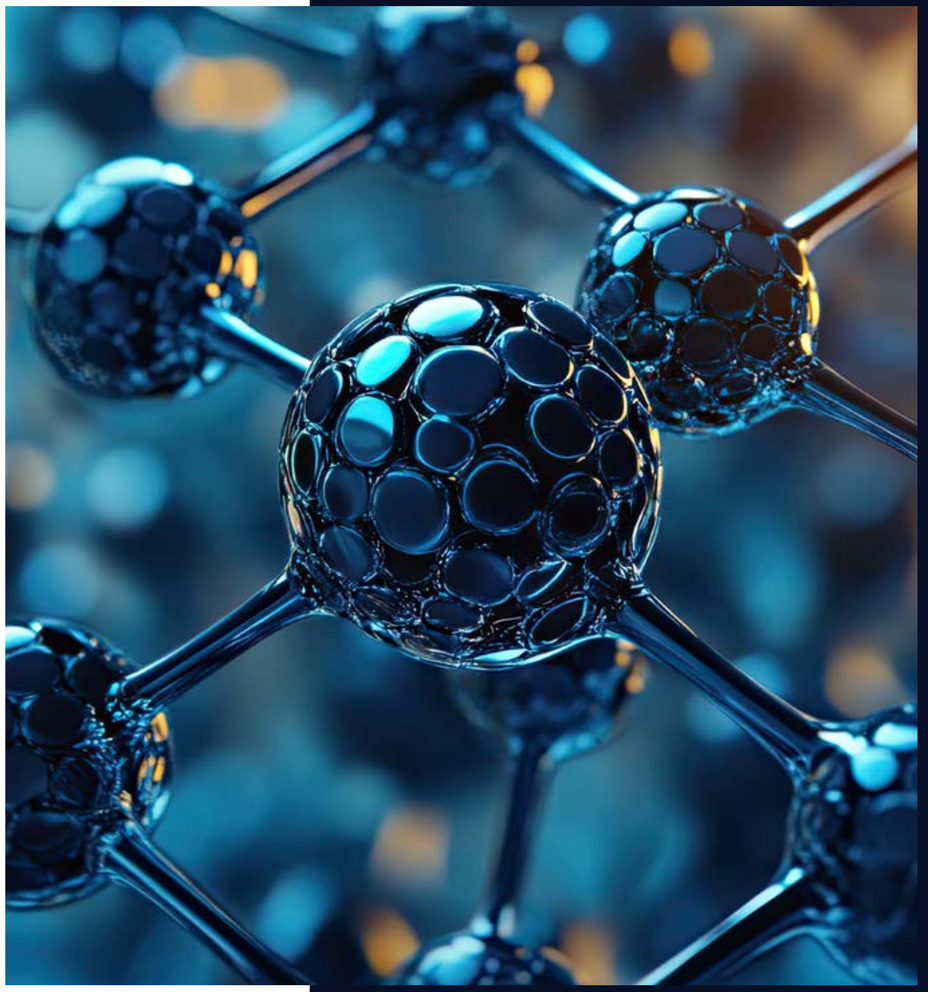
But only

45%

strongly agree that they have conducted a detailed analysis or assessment of their future infrastructure needs for GenAI.

Innovation and technology

Getting the right technology in place



More than 90% of CIOs and CTOs are reviewing their network architecture (including edge) because of the demand for GenAI.

While deploying GenAI solutions across an organization involves managing a range of infrastructures, applications and networks, a key consideration is the importance of cloud computing. **Among CIOs and CTOs, 96% agree that cloud-based solutions offer the most practical and cost-effective means to support GenAI applications.**

Cloud is a crucial enabler of GenAI because it provides the computing power and infrastructure to train large models.

The vast amount of data available on the web can be processed only with the scalable computing resources offered by cloud platforms.

When organizations are developing the technological infrastructure they need for GenAI, cloud is therefore the most natural place to start. The cost of entry of building a GenAI solution in a public-cloud environment is so low that any other model of experimentation will yield suboptimal results.

Once the cloud-native foundation has been laid for GenAI, the architecture can be built out: from the basics, such as computing power, the network and storage, to operational GenAI tools and then primarily GenAI-driven applications.

The 4 layers of GenAI end-to-end solutions

Apps

Software applications that primarily use GenAI models to perform a task. These include industry- and function-focused applications.

Engineering tools

Tools that enable organizations to operationalize GenAI models, including model- and data-centric tools.

Models

Includes both GenAI foundation models (like LLMs) and domain-specific models tailored to an industry or use case.

Infrastructure

Infrastructure components that can be used to build out GenAI applications, such as computing, network and storage.

What is private GenAI?

This refers to GenAI models designed to operate in secure, controlled environments that maintain data privacy and confidentiality. These models process and generate content entirely within predefined boundaries, such as on-premises servers or private cloud infrastructure, without exposing sensitive information to external entities.

An experienced service provider’s guidance, their expertise in cloud platforms and different IT architectures, and their relationships with hyperscalers are invaluable in weighing up the financial and security aspects of a cloud-only ecosystem and evaluating when private GenAI solutions should come into play – particularly in strictly regulated industries like financial services.

Building the IT infrastructure for GenAI: the CIO/CTO view

Over 9 in 10

CIOs/CTOs are reviewing their network architecture (including edge) as a result of the demand for GenAI.

Almost all (96%)

agree, around half very strongly, that GenAI solutions are driving a review of their cloud strategy.

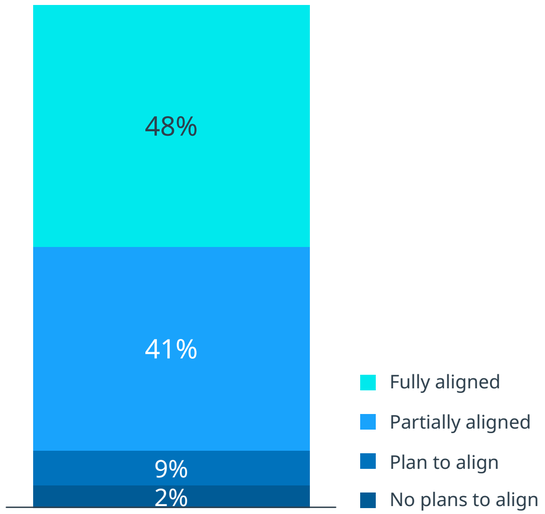
But only

44%

agree that they have established the optimal infrastructure to efficiently and cost-effectively scale GenAI in a cloud environment.

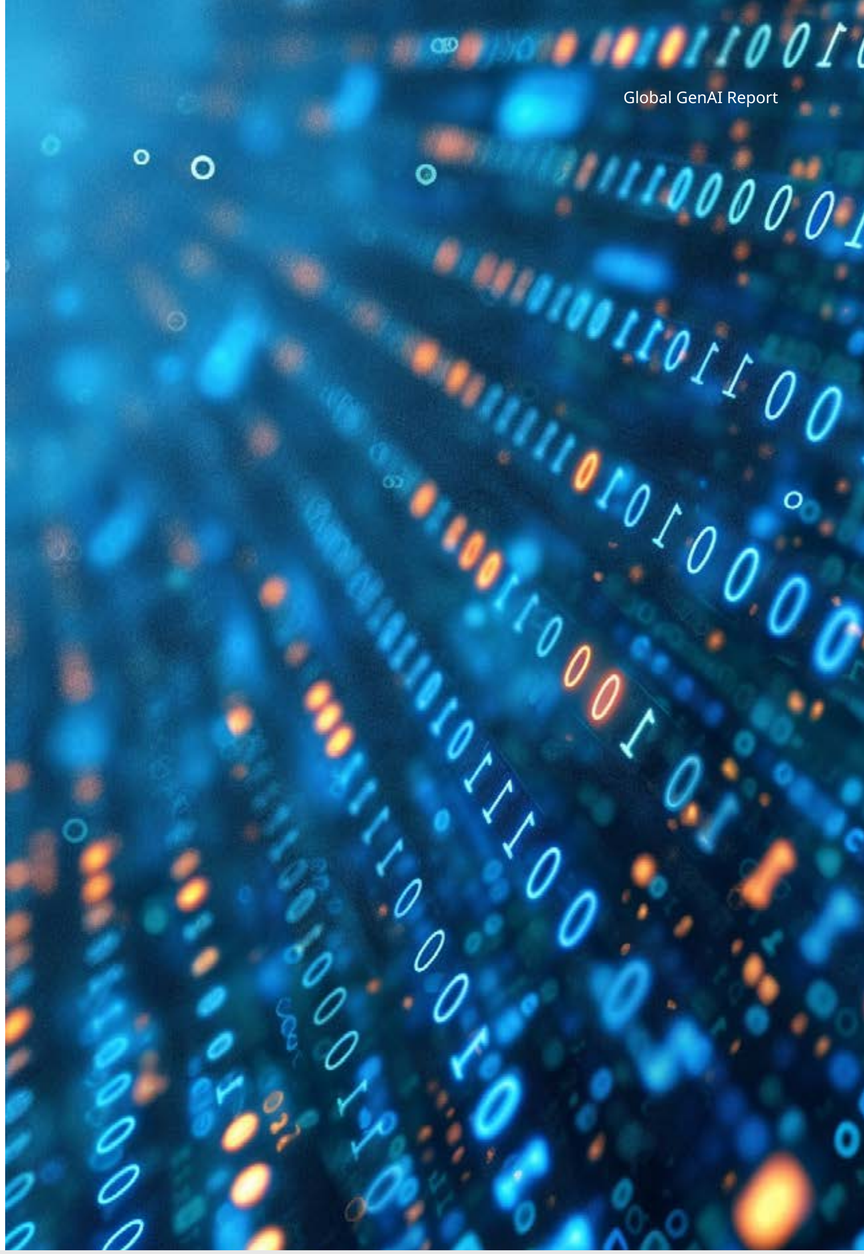
The coin toss: 50/50 whether GenAI and IT infrastructure strategies are fully aligned

Alignment of GenAI and IT infrastructure strategies



How aligned is your organization's GenAI strategy with your IT infrastructure strategy?

Base: All respondents saying a GenAI strategy exists, excluding "Don't know" responses (n=1,908)



The value proposition of a cloud-only GenAI ecosystem becomes less attractive, both financially and from a risk and trust perspective, as an organization starts scaling up its GenAI efforts. A service provider should step in to build a private GenAI solution that's tailored to the organization's needs and offers heightened security and data privacy.

The need for scalability

The widespread adoption and integration of GenAI make the ability to scale another key technical consideration. Organizations need to make GenAI accessible and beneficial to a larger audience.

Scaling GenAI: short term versus long term

Organizations need to find the balance between banking near-term gains and developing the long-term foundations needed to scale.

96%

are placing a growing emphasis on GenAI's long-term potential while exploring short-term gains.

Majority

of Chief Software Engineers say that much more rigorous internal testing is needed before reliably scaling GenAI.

Top 3

Senior managers and specialists consider scalable and cost-effective offerings as one of the top three criteria when assessing GenAI technology partners.

GenAI introduces complexity because it can affect such a big part of an organization's operations and infrastructure. It can be seen as a comprehensive technology "operating system" with a suite of tools and services that can be integrated with legacy systems or used to create new ones. Such a deep level of integration and change management is likely to require external help.

Expert advice is therefore indispensable – ideally from a partner with end-to-end capabilities, so that **even if they are supporting only some of an organization's GenAI needs, they will understand the bigger picture and know how to make it all come together as part of a cohesive strategy.**

This level of guidance also makes it simpler to integrate complementary technologies such as edge computing (including edge AI), IoT, digital twins, private 5G and data centers, as needed.

The challenge of incorporating complementary technologies

95%

of respondents agree that the integration of IoT data into GenAI models will significantly enhance the accuracy and relevance of AI-generated outputs.

96%

agree that a combination of GenAI and digital twins can optimize physical asset performance and supply chain resilience.

But the

#1 challenge

they foresee in adopting GenAI in the next two years is assessing complementary technologies, including IoT, 5G, edge computing and GPUs.

Innovation and technology

Security

Managing the security risks that come with GenAI

89%

of the C-suite are very concerned about the potential security risks associated with GenAI deployments; however, most say that the promise and ROI of GenAI outweigh the risk.

83%

of respondents say it is important to have confidence in the security of GenAI technology; just 36% say this is crucial.

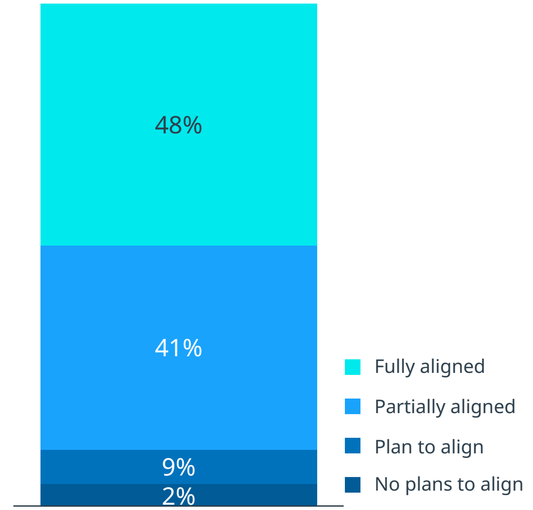
Just

1 in 4

in the C-suite strongly agree that the security risks associated with GenAI are adequately understood and being managed.

Most organizations say their GenAI and cybersecurity strategies are not fully aligned.

Alignment of GenAI and cybersecurity strategies



How aligned is your organization's GenAI strategy with your cybersecurity strategy?

Base: All respondents saying a GenAI strategy exists, excluding "Don't know" responses (n=1,906)

Our research shows a widespread lack of understanding of GenAI-related security risks among executives, and a lack of alignment between GenAI and security strategies.

GenAI security and safety considerations include hallucinations (producing incorrect or misleading information) and potentially illegal activities arising from the use of GenAI. Many of these concerns stem from GenAI's ability to generate content.

Organizations also need to consider the security risks associated with data storage, especially when using public-cloud services. A good data-governance strategy and additional safety measures will go a long way toward addressing these risks and ensuring the responsible use of GenAI.

Building AI solutions on secure infrastructure is another key consideration: developing the right layers of security protects both an organization's data and their GenAI capabilities from vulnerabilities. Owning a GenAI platform, for example, will give an organization far better control over their data security.

Of course, GenAI itself can also be used to improve an organization's network security – for example, by continuously analyzing logs and identifying potential security problems at speed.

To address these security needs comprehensively and continuously, organizations should leverage guidance from a specialist with proven experience both in cybersecurity, more broadly, and in implementing and managing GenAI solutions.

A checklist of strategic GenAI components

- Cloud computing platforms such as Microsoft Azure, Amazon Web Services and Google Cloud Platform, which provide scalability and flexibility
- Cybersecurity measures to protect data and comply with regulations
- Data management and integration tools to handle large volumes of data
- Industry-specific models and frameworks to meet unique business needs and regulatory requirements
- LLM lifecycle management (including memory, regulation and compliance requirements, as well as content filtering)
- GenAI expertise, either in-house or through collaboration with technology, data and industry-specific partners

Innovation and technology

GenAI platform ownership

Early adopters of GenAI have learned that, while the technology can produce amazing results, it requires significant effort and adaptation – and **more than 80% of CIOs and CTOs agree that the cost of building and maintaining GenAI infrastructure is a significant barrier to entry.**

However, organizations that invest in research, intellectual property and the development of proprietary GenAI platforms and models have an advantage. Their GenAI setup will be more scalable and manageable because they have a comprehensive view of how it interacts and integrates with their existing infrastructure and with every part of the organization – and how it's used by employees.

Tailoring GenAI tools to the needs of the organization makes it easier to deal with cybersecurity and regulatory challenges consistently, and to stay ahead of the market. Creating GenAI technology, LLMs and applications from scratch also gives employees a deeper understanding of the technology, which aids in deploying and maintaining it as efficiently as possible.

Already, **84% of respondents manage GenAI through their own platforms, either in-house (45%) or through a specialist provider (39%). Just 9% report a combination of in-house and external management.**

While C-suite executives prefer to manage GenAI in-house, vice presidents, directors, senior managers and specialists prefer a specialist provider model. A partnership approach can cater for both perspectives.

Organizations can access the skills they need by teaming up with an expert service provider. This also ensures constant access to the latest technology as they scale up their GenAI output and mitigates the risk of an upfront investment in an architecture that may be outdated within two years.

Two-thirds of CFOs say that paying a flat monthly fee for continuous access to specialist resources or platforms is their preferred approach for implementing GenAI.

What is a GenAI accelerator?

Expert service providers can share a range of GenAI assets, including GenAI accelerators, with organizations. These specialized hardware components speed up the complex computations involved in training and deploying large-scale GenAI models. This leads to faster processing, less latency and better overall performance.

> “I encourage our clients to take advantage of their partner’s experience in transforming their own organizations and delivery.

María Lucini, Head of Transformation Global Delivery Network, NTT DATA

People and culture

Ignite tomorrow today.

Key findings on people and culture

2 in 3 respondents acknowledge that their employees don't have the skills to work with GenAI. About half are planning employee education and training to increase GenAI adoption.

>90%

of respondents are considering how GenAI can streamline employee workflows and support processes.

96%

agree, 48% very strongly, that GenAI will have a material impact on improving productivity.

72%

do not have a GenAI usage policy in place for employees (for example, to protect intellectual property).

People and culture

Succeeding with GenAI is not just about deploying the technology but also about understanding how it can be incorporated into the daily lives of employees. The workforce must be ready and willing to embrace the technology. Organizations must commit to equipping their human resources with GenAI skills (this will increasingly become an imperative).

GenAI is democratizing access to advanced technology, making it easier for people with limited technological expertise to access information and use a wide range of tools. This shift is significant, as it alters how knowledge is acquired and applied in various industries.

The impact of GenAI on employees

95%

of respondents agree, 48% very strongly, that GenAI will have a material impact on improving productivity.

93%

agree strongly that they are using GenAI extensively to collect and interpret employee data.

42%

say that they improved EX (including employee retention) as a direct result of their GenAI deployments in the last year.

To promote and accommodate the use of GenAI – by itself and combined with other technologies – GenAI-driven organizations must change their corporate culture. They need to focus on how the technology will change the way they do business, with an emphasis on continuous learning and data-driven decision-making and innovation.

For example, GenAI is transforming EX by helping employees work more productively with tools like Copilot for Microsoft 365 and through process automation. New hires are now likely to expect to use GenAI in their work.

Meanwhile, top performers are making faster progress than other organizations in exploring how to improve CX with GenAI.

> “Changing minds is necessary to expand GenAI properly in an organization and to make people GenAI-literate.”
>
> **Kenji Motohashi,** Co-Head of Global Generative AI Office, NTT DATA

More conservative organizations may hesitate when it comes to experimenting with GenAI because of concerns about the impact on their employees. At the opposite extreme are enterprises where every employee is open to testing and adopting the technology.

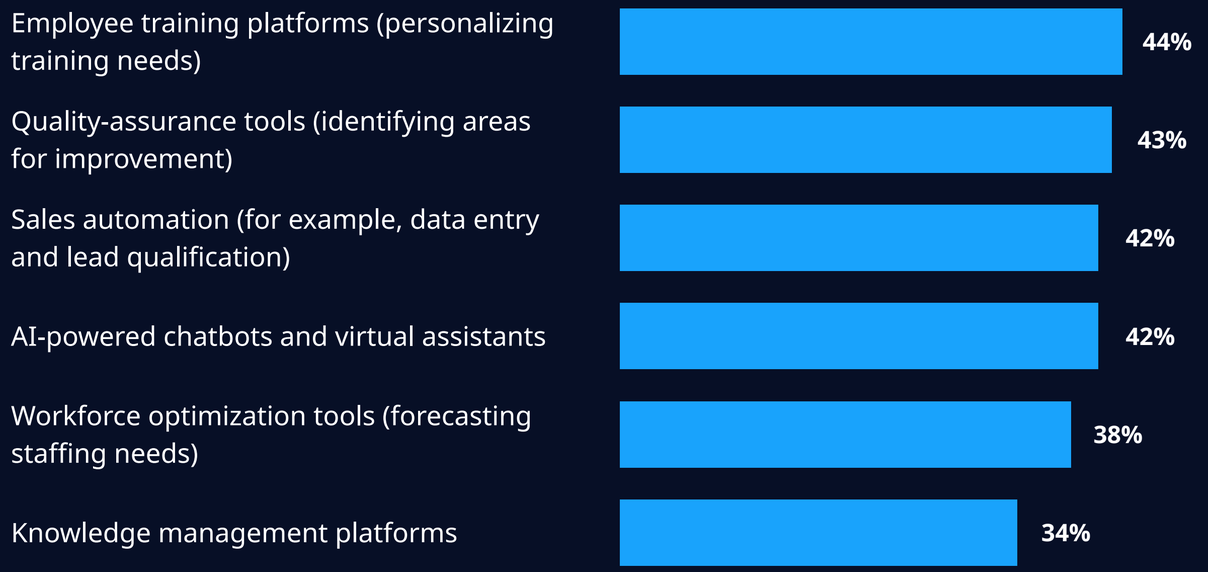
Early adopters will enjoy a competitive advantage – a crucial consideration when GenAI is changing how digital businesses evolve. New competitors can now enter the market without much knowledge of software development, for example.

Building in-house development capabilities, training those that manage GenAI on its ethical use, and educating employees about its value will increase both the adoption and effectiveness of GenAI.

Democratizing GenAI through employee enablement

The application of GenAI to any internal process makes it easier for nontechnical employees to scale and accelerate the adoption of GenAI.

GenAI solutions planned to improve EX



What, if any, GenAI solutions does your organization plan to adopt to improve customer experiences and/or enable employees?

Base: All respondents, excluding "None of the above/don't know/not applicable" responses (n=2,305)

People and culture

Building the right GenAI skills

Organizations in a range of industries are held back by a lack of GenAI expertise and difficulty in reskilling and upskilling their workforce: **most already know that their employees lack GenAI skills.**

Sizing up the skills gap

96%

of respondents are assessing the opportunity created by GenAI to streamline employee workflows and support processes over the next year.

But

2 in 3

acknowledge that their employees don't have the skills to work with GenAI.

So,

9 in 10

enterprises are addressing the impact of GenAI on employee roles.

Building in-house development skills is noted as a key challenge to the adoption of GenAI.

On-the-job training, formal education programs and encouraging a culture of learning are helpful – either independently or with the help of an experienced service provider. **From the CEO and the board to the most junior employee, everyone must understand what the technology can do and how it will affect what they do every day.**

Organizations can start by identifying technically skilled employees who have the potential to learn how to use GenAI technologies. Training plans can progress from basic to advanced, to cater for all levels of GenAI experience across an organization.

Then, change management is crucial in helping all employees understand and use GenAI tools, rather than letting the technology sit unused.

Top 4 factors negatively affecting employee adoption of GenAI solutions

1. Employees perceive the GenAI solution to be of low value (solutions fall short of needs)
2. Need for employee training
3. GenAI safety and security fears
4. Limited or no awareness of the GenAI solution

What, if any, factors are negatively affecting employee adoption of GenAI solutions in your organization?

Base: All respondents currently investing in AI, excluding “None of the above/ don't know” responses (n=2,199)

Just

56%

of employees rate current GenAI capabilities at a promoter level.

But half

of respondents are planning education and training for their employees to increase the adoption of GenAI.

Top-performing organizations are seeing the benefits of a proactive approach to training employees on GenAI.

Their employees are far more likely than those of other organizations to rate their GenAI capabilities highly, and they are further along the road of GenAI implementation than low performers.

Top performers' view of EX

75%

more likely than low performers to have promoter-level employee ratings of GenAI capabilities.

85%

more likely to use predictive analytics tools to enhance back-office and middle-office processes.

67%

more likely to use decision-management systems to enhance back-office and middle-office processes.

Ethics, safety and sustainability

Ignite tomorrow today.

Key findings on ethics, safety and sustainability

As GenAI is infused into daily life, balancing responsibility and innovation will be a moral imperative as well as a strategic necessity for leaders, organizations and society as a whole.

3 in 4

respondents say that their GenAI ambitions stand in conflict with or are negatively affecting their sustainability goals.

89%

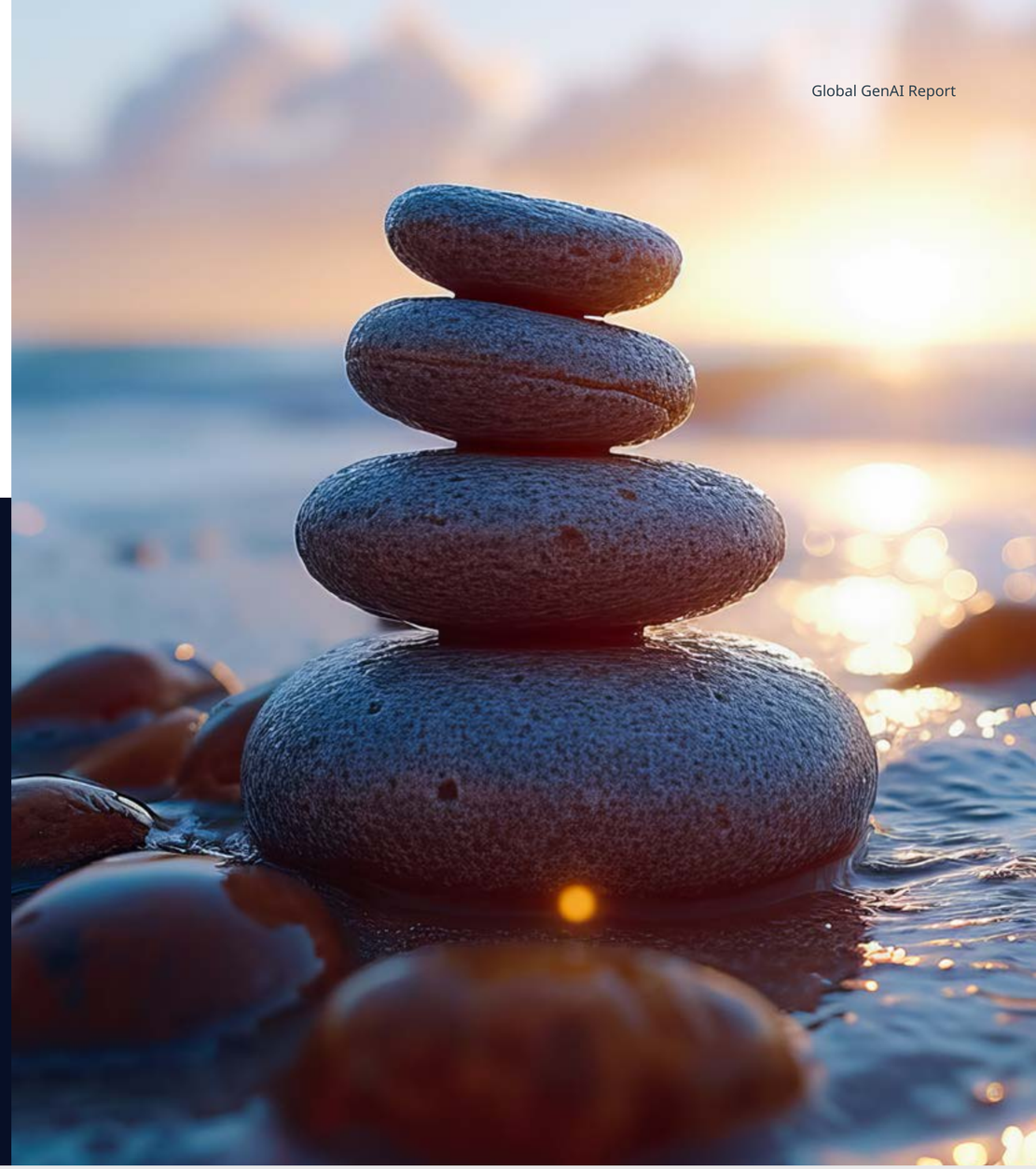
of the C-suite are very concerned about the potential security risks associated with GenAI deployments (but most say the promise and ROI of GenAI outweigh the risk).

>8 in 10

respondents say government regulations on AI are unclear, which stifles innovation and hinders investment in GenAI. Most expect spending on GenAI-related regulatory compliance to rise.

Ethics, safety and sustainability

Striking a balance between risk management and value creation in GenAI can be tricky. Executives have to understand the risks but also experiment with GenAI to stay competitive.



Balancing responsibility and innovation is not just a moral imperative; it's a strategic necessity.

Business leaders who strike this balance are better positioned to harness the full potential of GenAI while safeguarding their organization's future – but strong, focused leadership is required.

81%

of respondents say it's very important for **leadership teams to provide guidance on balancing innovation with responsibility.**

82%

believe it's very important (32% say it's crucial) to have a **named C-suite executive responsible for GenAI.**

#1

Maintaining human oversight is the **number-one responsibility for business leaders in developing GenAI.**

Key responsibilities for business leaders in developing GenAI

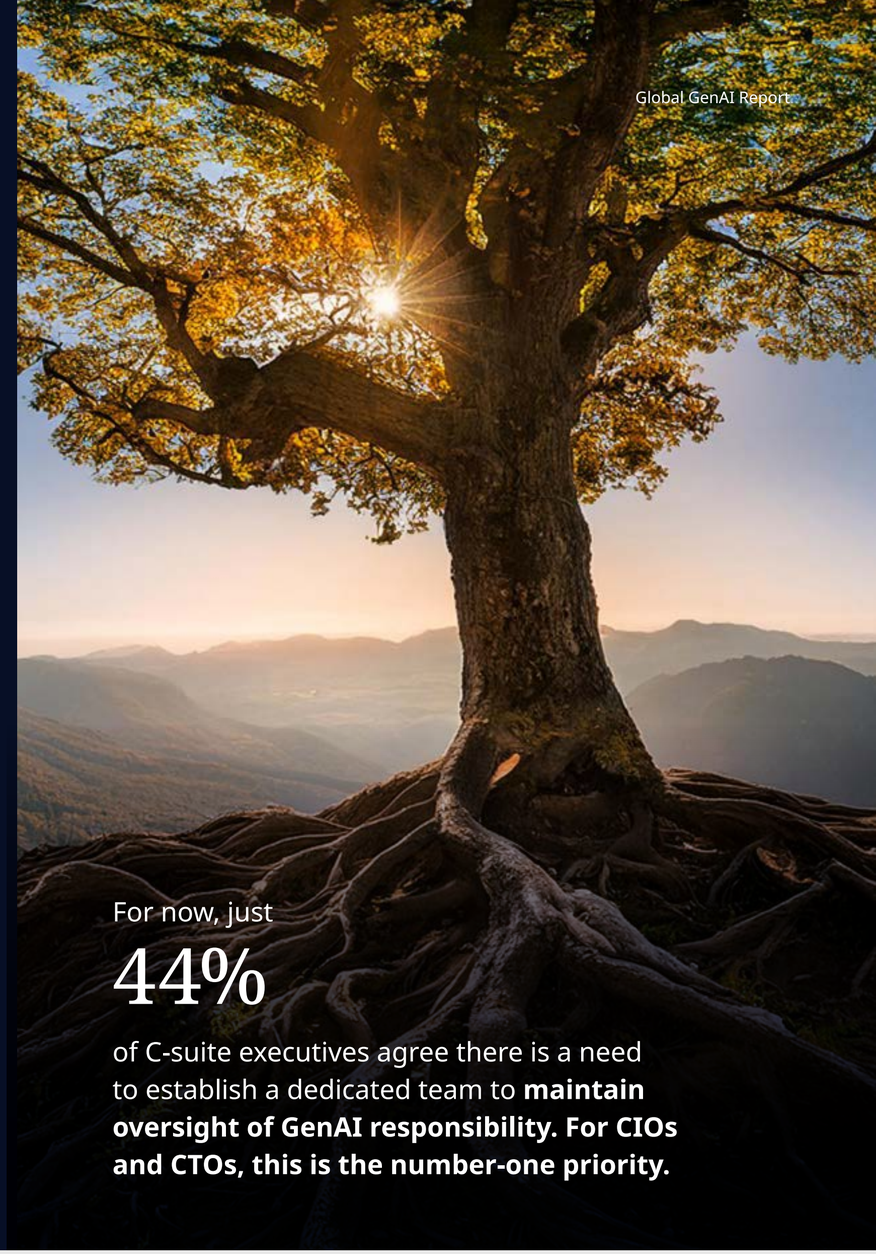
The C-suite is prioritizing employee education and training on ethical GenAI use, helping to strike a balance between innovation and responsibility. Nearly half of respondents are establishing a dedicated team to oversee responsibility for GenAI.

Key responsibilities in developing GenAI: the C-suite's priorities

1. Employee education and training on ethical GenAI use
2. Rigorous impact assessments, risk management and audits
3. Establishing a dedicated team or committee for GenAI responsibility
4. Maintaining human oversight and regularly reviewing GenAI policies (all others outside of the C-suite consider maintaining human oversight to be the number-one priority)
5. Integrating responsible considerations into strategic decision-making

Which of the following should be key responsibilities for business leaders in developing GenAI?

Base: C-suite respondents, excluding “Don’t know” responses (n=1,565)



For now, just

44%

of C-suite executives agree there is a need to establish a dedicated team to **maintain oversight of GenAI responsibility. For CIOs and CTOs, this is the number-one priority.**

Top 3 responsibilities for business leaders in developing GenAI, by industry

	Maintaining human oversight and regularly reviewing GenAI policies	Employee education and training on ethical GenAI use	Establishing a dedicated team or committee for GenAI responsibility	Integrating responsible considerations into strategic decision-making	Rigorous impact assessments, risk management and audits (legal, financial, security)	Collaboration between organizations, GenAI experts and governments	Public transparency about GenAI-related decisions	Culture of ethical behavior and accountability
Automotive	2=	2=		1				
Banking and investment	2		1		3			
Energy and utilities		3			2		1	
Healthcare	1				2	3		
Higher education and research		2=		2=	2=		1	
Insurance	1	3					2	
Life sciences and pharmaceuticals			3	2		1		
Logistics, travel and transportation	2=	1	2=					
Manufacturing	2	1		3				
Public sector and government	1			3		2		
Retail and CPG	1	3	2					
Telco, media and technology		2	1				3	

Which of the following should be key responsibilities for business leaders in developing GenAI?

Base: All respondents, excluding “Don’t know” responses (n=2,307)

There is still some uncertainty about using GenAI. This is because of the complexity, explainability and transparency of GenAI models.

Over

1 in 3

CISOs are uncomfortable with the “black box” nature of some GenAI models and unclear decision-making algorithms.

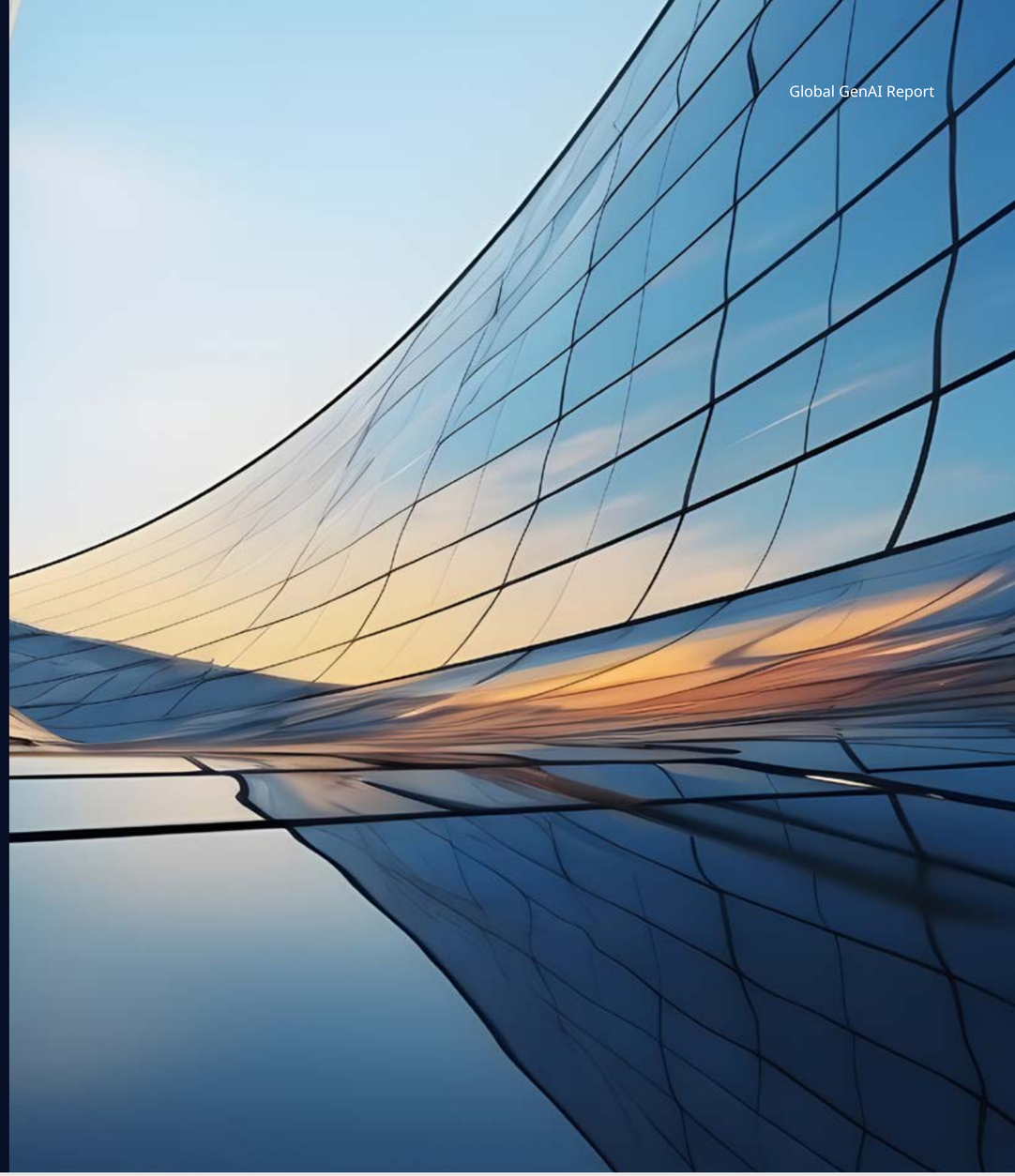
100%

of respondents in compliance roles agree that the lack of transparency and potential for manipulation will limit GenAI use.

Nearly

half

of Chief Data Officers view a lack of transparency and the difficulty in explaining the reasoning behind complex GenAI models as issues affecting GenAI adoption.



> It’s critically important to connect data and to have a robust integration strategy for bringing in new data sources to power GenAI solutions.
>
> **Nitin Bajaj,** Vice President: Generative AI, NTT DATA

Not using the technology can also pose risks, such as losing ground to competitors. However, no organization should launch a GenAI initiative without first getting the basics right.

These include a GenAI strategy that provides clear guidelines for deployment and use. Equally important is a data-governance framework to protect data privacy and integrity, along with security measures (encryption, access controls, regular security audits and more) to prevent data breaches.

A GenAI model cannot be sufficiently trained on dated, siloed, incorrect or otherwise problematic data. To perform at its best, it needs current, unified and well-organized datasets that span as much of the organization as possible.

And, once a GenAI initiative is live, organizations need to closely monitor the uptake of the technology by their employees to prevent unintentional misuse or illegal activities. This includes setting up systems to detect and mitigate issues such as hallucinations or biased GenAI output.

According to our research, 72% of those surveyed lack a GenAI usage policy (including guidance on protecting intellectual property) for employees. Having a policy and monitoring systems in place will make it simpler to identify gaps that training can address. Ongoing training and awareness programs can then be used to educate employees about the potential risks and ethical considerations associated with GenAI.

This level of detailed preparation can be hard to manage, so organizations could work with an expert partner for guidance on responsible GenAI use and data-governance frameworks.

Top 3 trust issues affecting GenAI adoption, by industry

	Maintaining cybersecurity standards (threats, deepfakes, misinformation)	Legal considerations (such as intellectual property rights or a lack of regulatory frameworks)	Lack of transparency (including difficulty in explaining the reasoning behind complex GenAI models)	Impact on sustainability (such as data center energy usage)	Dependence on third party (lack of control and ability to tailor solution)	Respect of privacy (including user consent)	Ethics and discrimination (such as algorithm bias)	Lack of accuracy (poor source data)	Lack of clear ownership or accountability
Automotive	1	2				3			
Banking and investment	1	2			3				
Energy and utilities	1		2		3				
Healthcare	2	1	3						
Higher education and research	1=	1=				2			
Insurance	2=		1	2=					
Life sciences and pharmaceuticals	1		3	2					
Logistics, travel and transportation	3	2	1						
Manufacturing	1		3	2					
Public sector and government	2		3		1				
Retail and CPG	1		3			2			
Telco, media and technology	1			2		3			

What, if any, trust issues affect your organization's adoption of GenAI?

Base: All respondents, excluding “None of the above/don't know” responses. (n=2,254)

Ethics, safety and sustainability

Compliance

As the world adapts to the revolutionary nature of GenAI, diverse new regulations are emerging around the world.

This forces organizations to invest more in compliance to adhere to local and international laws and follow ethical standards in their GenAI implementations.

Effective compliance means staying ahead of regulatory changes, regularly updating GenAI and data policies, continuously training employees and engaging with regulators.

However, more than 8 in 10 respondents agree that government regulations on AI remain unclear, which leads to a lack of clarity in their GenAI strategies. Most organizations therefore expect a rise in spending on GenAI-related regulatory compliance – a trend that spans markets. At a country level, our data also shows that a lack of regulatory certainty, locally or universally, is a common concern among organizations, even as efforts to regulate GenAI regularly make headlines.

Emerging regulations require focused efforts

82%

of those surveyed say that government regulation on AI is still unclear, which stifles innovation and hinders investment in GenAI.

Top 2

Maintaining cybersecurity standards and legal considerations are identified as the two key trust issues affecting the adoption of GenAI.

Therefore,

94%

say GenAI has caused or will cause them to invest more in regulatory compliance, and 95% state the same for security.

Ethics, safety and sustainability

Data governance and ethics

GenAI amplifies preexisting AI challenges like bias, explainability and transparency. Organizations need to incorporate these considerations into their risk management approach.

Navigating bias

Most organizations are aware of the problem of algorithmic bias, yet not all organizations have robust systems in place to track bias and address privacy risks.

86%

agree that algorithm bias remains pervasive (96% of Chief Data Officers agree).

Only

43%

strongly agree that they have systems in place to track bias and privacy risks.

Using representative, equally distributed and factual data to train GenAI models will mitigate biased outputs.

Ethical considerations include data privacy, particularly with LLMs that process extensive text-based data, and awareness of the origin and ownership of data sources used to train a GenAI model.

Poor data quality and inadequate risk control are significant barriers to successful GenAI implementation. Robust data governance involves creating a data lake on top of an organization's existing data sources. This simplifies the process of connecting datasets, maintaining digital trust in the data, and establishing governance protocols for data updates and management.

The need for data governance also ties into security, as well-managed data is less vulnerable to breaches and misuse. The location of the data – on-premises or in the public or private cloud – is important, as confidential corporate data requires tight security.

The emphasis is therefore on getting an organization's data house in order so that data is consolidated, well-governed and clean, and this requires ethical data-management practices.

> "One of the unique aims of NTT DATA is taking care of the balance between the promotion of GenAI and its governance.
>
> **Kenji Motohashi,** Co-Head of Global Generative AI Office, NTT DATA

Data governance as a foundation to scale securely and facilitate responsible GenAI

#1

The top lesson from past deployments is that high-quality data and clean data sources are paramount.

Yet only

45%

of organizations strongly agree that they have invested sufficiently in data storage and processing capabilities.

And

94%

agree that more research is required to establish regulations that will ensure ethical practices and the necessary governance.

Ethics, safety and sustainability

Sustainability

The sustainability aspect of GenAI will be a prominent area of focus in the next five years.

GenAI technology comes with high resource demands, such as the power and water consumed by the data centers that fuel the technology. However, because the potential value generated by these technologies is so high, organizations will need to rethink the efficient use of resources and their investment in sustainability in this area.

If an organization already has a sustainability team, that team needs to be directly involved in any GenAI initiatives – just like the legal team would assist in matters of ethics and data privacy, for instance.

Immediate sustainability solutions for GenAI may not be available, so the emphasis must be on establishing a foundation for future sustainable practices.

This includes a **close alignment between GenAI and sustainability strategies, which is observed in only 47% of respondent organizations.**

Organizations also need to align their GenAI strategies with global standards and industry-specific models to ensure that sustainability is integrated into their long-term plans.

Service providers like NTT DATA, backed by NTT Group's annual $3.6 billion investment in research and development and $4.3 billion dedicated to AI and robotics, are constantly working to optimize GenAI tools so they consume less computing power, which in turn reduces energy demand.

Looking beyond energy and water use in data centers (and with a growing focus on nuclear-powered data centers), GenAI can contribute to more sustainable business practices by improving productivity and reducing costs, while the efficient use of resources and streamlined processes can reduce waste.

Impact of GenAI on sustainability: misaligned strategies

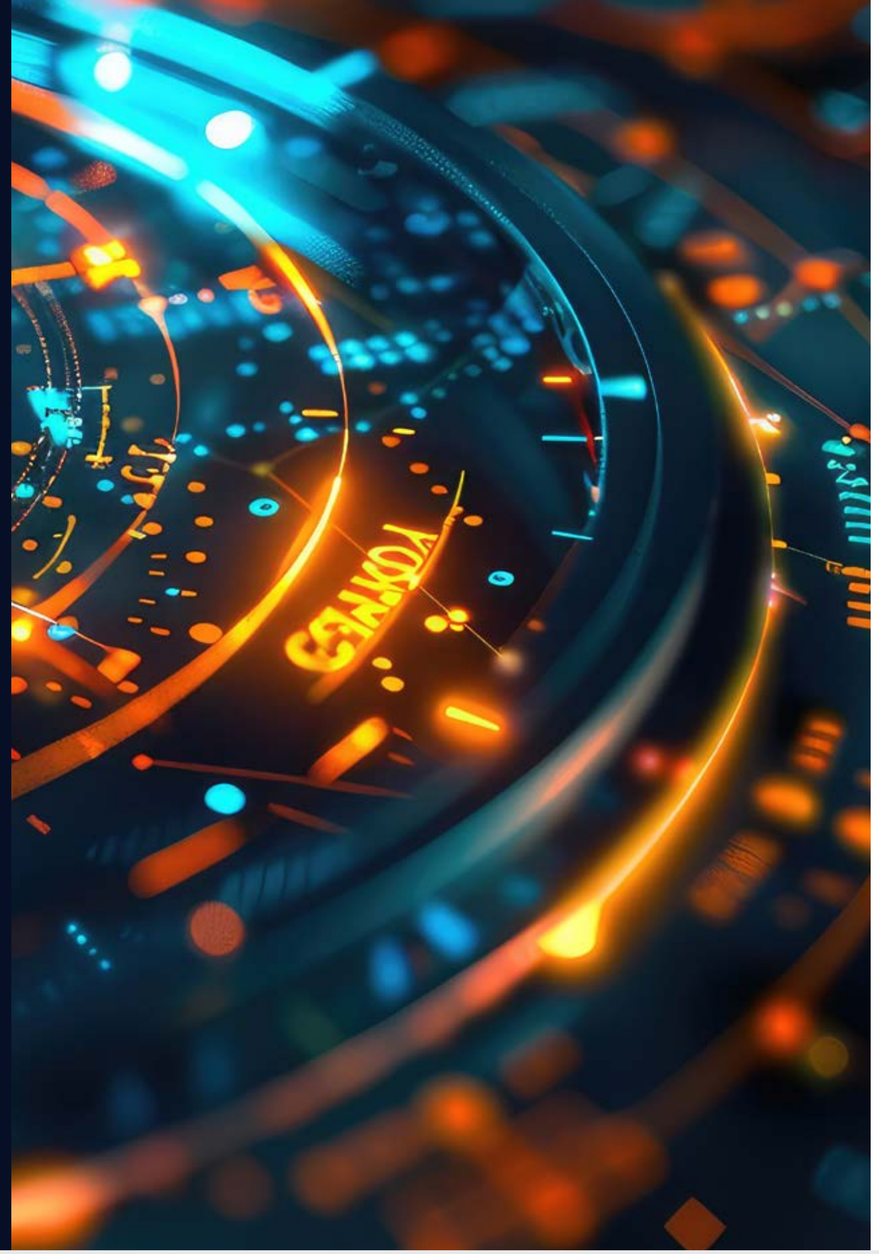
75%

of respondents say that GenAI ambitions conflict with and/or are negatively affecting sustainability goals.

But only

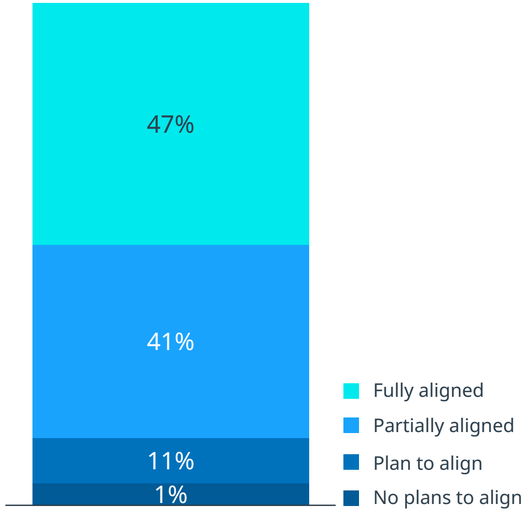
47%

strongly agree that they have clear and measurable goals regarding the sustainability impact and ESG footprint of their GenAI solutions.



The majority say that their GenAI strategies and sustainability strategies are not fully aligned.

Alignment of GenAI and sustainability strategies



How aligned is your organization's GenAI strategy with your sustainability strategy?

Base: All respondents saying a GenAI strategy exists, excluding "Don't know" responses (n=1,899)

What organizations are doing to combat the environmental impact of GenAI

94%

agree, 43% strongly, that using renewable energy to power GenAI infrastructure is a targeted business objective.

9 in 10

are implementing energy-efficient data-management practices to reduce storage and processing for GenAI.

91%

require new GenAI vendors to have a prescribed level of sustainability credentials.

What comes next for GenAI?

Ignite tomorrow today.

What comes next for GenAI?

GenAI in 2025

Our research shows that 6 in 10 leaders expect a significant transformation from major investment in GenAI in 2025, but 83% accept that ROI will be unclear for the foreseeable future.

In this period, focused spending plans will replace scattered experimentation, as organizations look to improve internal operations through **more precise and structured experiments**. These will aim to transforming back-office and middle-office workflows and create new digital products and services with the potential to scale.

The success of these experiments will reinvigorate organizational investment in GenAI when CEOs **see clearer proof of how the technology can increase revenue and productivity.**

However, organizations expect the assessment of complementary technologies, including IoT, to be the number-one challenge in adopting GenAI in the next two years.

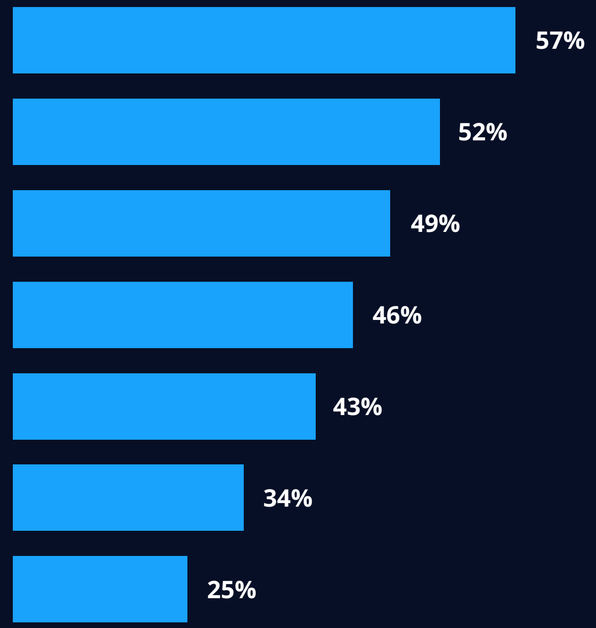
From a CX and EX perspective, the organizational GenAI spotlight in 2025 will be on training, analytics and improved quality.

Organizations will identify opportunities to improve efficiency and productivity in a range of areas, from GenAI-powered chatbots to document process automation, decision-management systems and predictive analytics.

Most organizations will adopt diverse approaches to meet their GenAI needs, combining plug-and-play options with partnerships for bespoke coinnovation solutions.

Preferred deployment models for GenAI

In the next two years



Which approach is your organization most likely to follow for deploying GenAI solutions over the next two years?

Base: All respondents, excluding "Don't know/none of above" responses (n=2,305)

The next wave of GenAI innovation is expected to center on agentics, small language models (SLMs) to improve the precision and efficacy of analytics and actions, and multimodal solutions that can handle many data formats.

What are SLMs?

SLMs are compact, lightweight versions of large language models. They are designed to perform specific tasks with precision. They have fewer parameters, can run on devices with limited processing power, such as smartphones or edge devices, and are often specialized for particular applications.

What is agentics?

Agentics (more commonly referred to as agentic AI) is a concept within AI that describes systems capable of autonomous action and decision-making. These AI agents can complete complex workflows with minimal human supervision. They can understand context, set goals, reason through subtasks and adapt their actions based on changing conditions.

Also expected are ongoing advances in **GenAI's reasoning abilities** and a more extensive integration of business systems (such as finance and HR) with **specialized GenAI tools.**

What comes next for GenAI?

The three-to-five-year view

Major proof points of what GenAI technology can achieve will emerge in the next three to five years – likely with some unforeseen advances along the way.

The long-term vision includes ubiquitous GenAI interactions, multimodal solutions and industry-specific solutions.

GenAI technology will become **more pervasive**, much like the network is today. A user won't need to navigate to a GenAI tool, as it will already be part of all other applications. For example, think of consulting a GenAI "nurse" becoming the first step in seeking healthcare.

In this way, GenAI will become ubiquitous, **extending to external touchpoints** and transforming **customer interactions** extensively, including through the widespread use of **smart agents**. In the creative industries, the advent of GenAI-created films and music is a given.

By 2027, more GenAI solutions are expected to be fully **multimodal**, which will benefit sectors like healthcare, finance and manufacturing in particular.

We also expect most of the AI models used by organizations to be industry-specific. The development of **private LLMs tailored to specific industries** is crucial to improving the relevance and effectiveness of GenAI solutions, while efforts to make the technology more **sustainable** will start paying off.

Early adopters, particularly in consumer industries like financial services, are likely to lead the way, while traditional industries such as manufacturing will follow later.

What is multimodal GenAI?

Multimodal GenAI refers to GenAI systems that can understand, generate and blend multiple types of data, such as text, images, audio and video, to create new and contextually relevant content. These advanced models learn patterns and relationships across different modalities, and they produce coherent and creative outputs that span various forms of media. For instance, a multimodal GenAI will generate a detailed image based on a textual description or create a video with synchronized audio and visual elements.

Conclusion and next steps

Ignite tomorrow today.

Conclusion and next steps

Key takeaways and recommendations

Strategy and transformation

A GenAI strategy must align with an organization's business strategy to produce valuable outcomes.

Growth will follow as GenAI is extended to more business processes across the organization.

Understand how GenAI creates opportunities in your industry and how these will benefit your organization

Invest in a blended GenAI effort, including both experimentation and high-performance scaling.

Innovation and technology

GenAI demands a review of IT infrastructure plans, including network and cloud strategies.

Cloud can be a practical and cost-effective way of supporting and scaling GenAI applications.

An expert partner can help you to design your architecture and integrate GenAI solutions.

Go cloud-native to access the technological resources you need for GenAI success.

People and culture

Human–GenAI collaboration will have an effect on the workforce as well as on roles and responsibilities.

Upskilling employees and building in-house capabilities will boost GenAI adoption and effectiveness.

Implement ongoing training and awareness programs across all parts of your organization.

Make sure that your GenAI team represents the best in both technical and business skills.

Ethics, safety and sustainability

The conversation about the transparency and safety of GenAI solutions continues.

Leadership guidance on innovation and responsibility will raise confidence.

Carefully balance risk management and value creation in GenAI to protect your organization, even while innovating.

Educate all your employees, including the C-suite, about the responsible, ethical and safe use of GenAI.

Conclusion and next steps

Building the strategic partnerships needed for GenAI

Organizations are choosing to work with expert service providers to address their GenAI priorities efficiently.

Managing the complexities of this new technology with the help of a partner leads to improved productivity and business agility.

Designing a solution with the right partner

Coinnovation

#1

Hybrid deployment – combining plug-and-play solutions with coinnovation – is the top approach for deploying GenAI solutions over the next two years.

50%

of respondents plan to take a bespoke coinnovation approach with a strategic IT partner.

68%

of Chief Data Officers and 62% of CEOs prefer a coinvestment, coinnovation and copromotion financial model for GenAI solutions.

End-to-end solutions

The **majority** of top performers say that having a partner with end-to-end capabilities and proven industry use cases is imperative.

#1

CEOs and CISOs say that end-to-end capabilities are the top factor in assessing GenAI technology partners.

Innovators are also building their own GenAI tools – often with the help of a partner.

They are not implementing ready-made, off-the-shelf solutions.

GenAI affects nearly every aspect of an organization's technology and operations, and a holistic approach is needed to make all the moving parts come together harmoniously.

Owning a GenAI platform makes this possible.

5 crucial qualities of a GenAI partner

1. Credibility (full-stack capabilities and awareness of interdependencies)
2. Depth of perspective (including industry strategy experience)
3. Change-management capabilities (from skills development to resource allocation)
4. Experience in data ecosystems (including generation, integration and use)
5. Innovation-led (significant investment in R&D)

Conclusion and next steps

Why organizations work with NTT DATA

NTT DATA is a unique service provider, offering clients a unified journey from idea to metal.

We help our clients explore how best to use GenAI, we build and manage the data centers and network infrastructure that make GenAI possible, and then we build, train and deploy the models – all as one service.

Our end-to-end, full-stack transformation portfolio is crucial in GenAI implementation because it means we can integrate the technology seamlessly across all business operations, not just as an add-on feature.

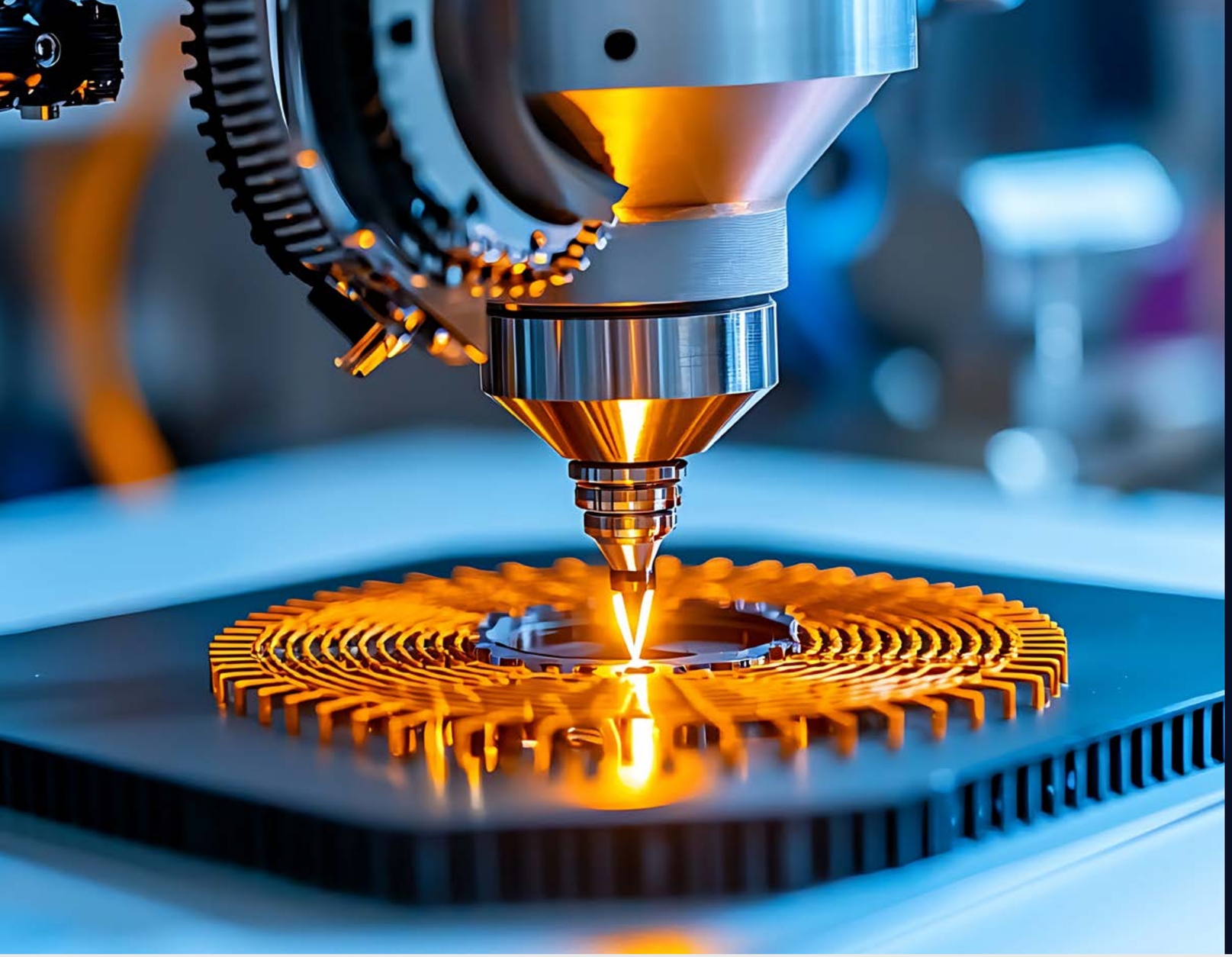
And our global scale means we can assist any organization, no matter how large, while our industry expertise helps our clients keep pace with technological progress and maintain their competitive edge.

We walk the talk, so we understand our clients' needs more deeply.

We're already using a range of GenAI tools internally to create frameworks for transforming our clients' value offers, business models and delivery models by embedding GenAI deeply into their operations. This capability is supported by our close relationships with hyperscalers like Microsoft Azure, Amazon Web Services and Google Cloud Platform.

We use GenAI to streamline processes and support coinnovation in product development and transforming business models, thereby creating lasting value. This includes using our considerable experience in AI and GenAI to build powerful, industry-specific adoption accelerators.

We're backed by NTT Group's $3.6 billion annual investment in research and development, which keeps us at the forefront of new technologies and enables us to advance our clients' digital transformation and business growth.



Meet the mandate head-on

Visit our website to see how NTT DATA can help you chart a path forward with GenAI.

This is our first report based on our global GenAI research. Look out for more in the near future.

About the research

Ignite tomorrow today.

About the research

Our primary research spans 34 markets in 5 regions

Balanced sample of 2,307 GenAI decision-makers and influencers mainly from large enterprises and C-suite roles

North America
421

Canada = 50
USA = 371

Middle East and Africa
175

Kenya = 50
Saudi Arabia = 50
South Africa = 75

Asia Pacific
784

Australia = 100
China = 50
Hong Kong = 50
India = 100
Indonesia = 50
Japan = 103
Malaysia = 50
New Zealand = 30
Philippines = 51
Singapore = 50
Taiwan = 50
Thailand = 50
Vietnam = 50

Europe
576

Belgium = 51
France = 68
Germany = 112
Italy = 50
Luxembourg = 30
Netherlands = 50
Portugal = 52
Spain = 56
UK and Ireland = 107

Latin America
351

Argentina = 50
Brazil = 51
Chile = 50
Columbia = 50
Mexico = 50
Peru = 50
Uruguay = 50

Business functions

IT | **35%**
(5% software engineers)

IT security | **7%**

Digital | **6%**

Operations | **32%**

Other | **20%**
(CEO, legal/compliance, finance, HR, etc.)

About the research

The research in numbers

Role levels

C-suite: **68%**
VP/Head of/Director: **27%**
Senior Manager: **5%**

Includes:
CEO: **8%**
CIO/CTO: **18%**
COO: **14%**
CCO/CXO: **9%**
CHRO: **5%**
CFO: **4%**

Expertise

IT: **35%**
IT security: **7%**
Operations: **36%**
Support: **20%**

Includes:
Principal decision-maker/part of decision team: **95%**
Decision/budget influencer: **5%**

Organization size

2,501 to 5,000: **10%**
5,001 to 10,000: **16%**
10,001 to 15,000: **25%**
15,001 to 50,000: **26%**
50,001+: **23%**

12 industries

Automotive: **8%**
Banking and investment: **11%**
Energy and utilities: **7%**
Healthcare: **9%**
Higher education and research: **6%**
Insurance: **9%**
Life sciences and pharmaceuticals: **9%**
Logistics, travel and transportation: **5%**
Manufacturing: **14%**
Public sector and government: **8%**
Retail and consumer packaged goods: **5%**
Telco, media and technology: **9%**

About the research

Research methodology

The Global GenAI Report is based on independently sourced research data. Participants were selected via random sampling on the basis that they had a direct or indirect influence on their organization's GenAI requirements, or decision-making authority in that regard.

The research data was gathered via an online questionnaire that ran in September and October 2024. Research was conducted for NTT DATA by Jigsaw Research, an international strategic-insight agency with an exclusively senior team.

Data integrity, validation and analysis were performed by NTT DATA's specialist in-house Primary Research and Benchmarking Team in conjunction with Jigsaw Research. Data and outliers were validated in accordance with standard research-industry rules, disciplines and best-practice approaches. The data is presented at a 99% confidence level with a 3% margin of error.

Top performers versus the rest

From the organizations whose responses were included in this report:

Top performers have been categorized as having:

- High revenue growth (increased by 10% or more in the last fiscal year)
- A strong operating profit as a percentage of revenue (more than 15% in the last fiscal year)

Low performers have been categorized as having:

- Poor revenue growth (0% or less in the last fiscal year)
- A weak operating profit as a percentage of revenue (less than 5% in the last fiscal year)

The middle of the pack is categorized as having:

- Revenue growth of up to 10% in the last fiscal year
- Operating profit as a percentage of revenue of between 5% and 14.9% in the last fiscal year

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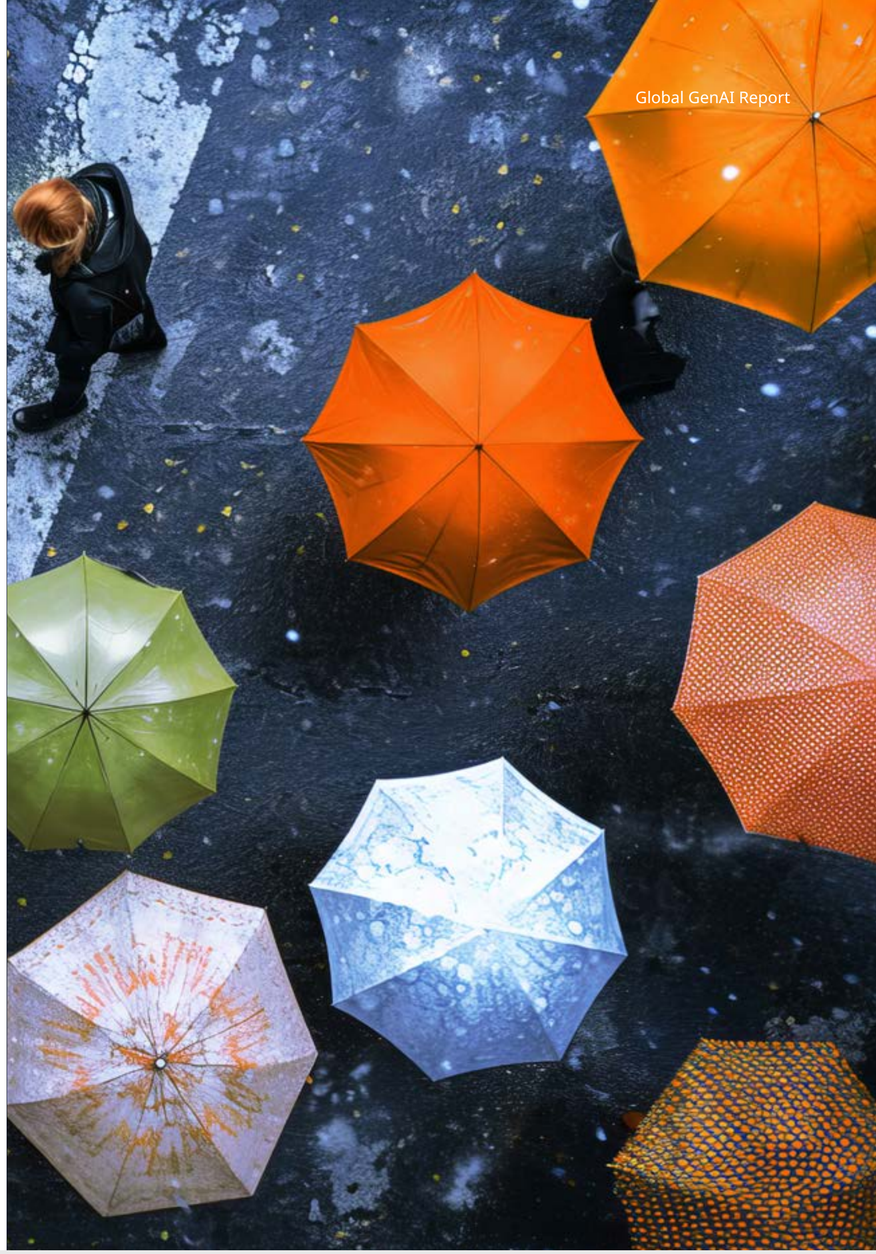
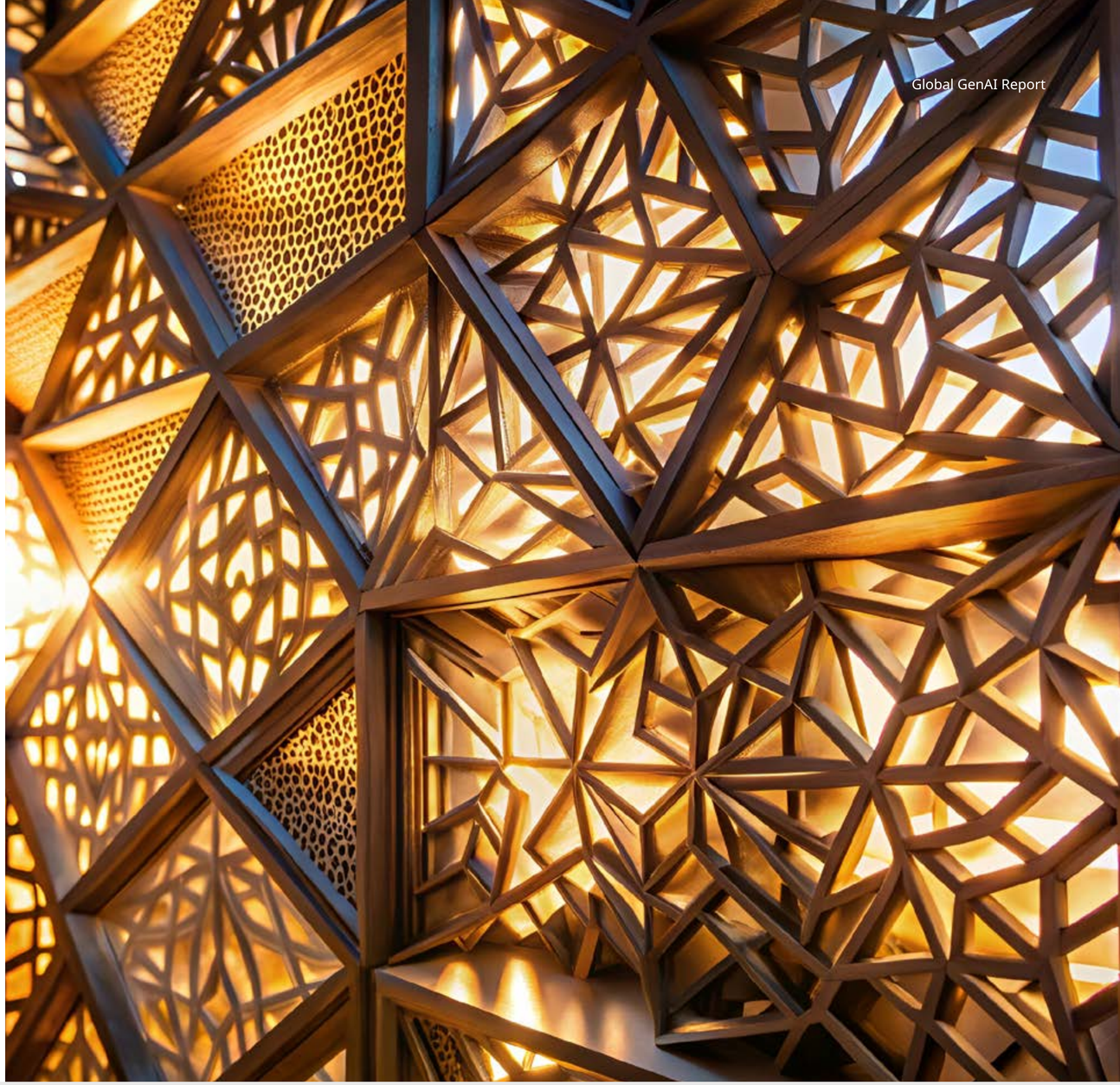


About NTT DATA

NTT DATA is a $30+ billion trusted global innovator of business and technology services. We serve 75% of the Fortune Global 100 and are committed to helping clients innovate, optimize and transform for long-term success. As a Global Top Employer, we have diverse experts in more than 50 countries and a robust partner ecosystem of established and startup companies. Our services include business and technology consulting, data and artificial intelligence, industry solutions, as well as the development, implementation and management of applications, infrastructure and connectivity. We are also one of the leading providers of digital and AI infrastructure in the world. NTT DATA is part of NTT Group, which invests over $3.6 billion each year in R&D to help organizations and society move confidently and sustainably into the digital future.

List of abbreviations

AI	artificial intelligence
CCO	Chief Compliance Officer
CDO	Chief Digital Officer
CEO	Chief Executive Officer
CExO	Chief Experience Officer
CFO	Chief Financial Officer
CHRO	Chief Human Resources Officer
CIO	Chief Information Officer
CISO	Chief Information Security Officer
COO	Chief Operating Officer
CSE	Chief Security Engineer
CTO	Chief Technology Officer
CX	customer experience
ESG	environmental, social and governance
EX	employee experience
GenAI	generative AI
GPUs	graphics processing units
HR	human resources
IT	information technology
IoT	internet of things
KPI	key performance indicator
LLM	large language model
OT	operational technology
R&D	research and development
ROI	return on investment
SLA	service level agreement
SLM	small language model

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