Lenovo AI Readiness Index Series 2025

Unleash AI in your technology.

How to integrate AI in your data, cloud and infrastructure—so you release value today and tomorrow.

Smarter
technology
for all

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Unleash AI with integration.

Businesses struggle to integrate AI in existing infrastructure—which is critical to releasing real and scalable value.

Generative AI (Gen AI) has moved into the business mainstream. It's being tested and adopted by most organizations, often across every departmental function. But specific barriers are preventing organizations from unlocking AI's full value and innovation potential.

Leaders must engage with the new technology challenges of Gen AI—from defining strategy to integrating with existing technology. It's imperative if organizations not only want to get the best outcomes from AI today, but also want to be ready for the future of AI.

As part of Lenovo's AI Readiness Index, we surveyed 5,000 enterprises across the globe to understand where they are on their AI journeys.

The top challenge in technology is integrating AI with existing cloud and infrastructure platforms. But businesses can't resolve this without first ensuring they have a robust and future-proof AI strategy. This, interestingly, is something else that we found businesses are struggling with, even though having a consistent and comprehensive AI strategy is critical to success.

Stand-out findings.

1 Boldness in strategy, gaps in execution.

While many businesses show high confidence in having a measurable AI strategy aligned to overall goals (69%), challenges around AI integration and system compatibility were reported by most businesses. Inconsistent or inadequate AI strategies, particularly in areas such as integration and planning, increase the likelihood of AI failures.

2 Integrating AI is the top challenge.

The areas that are proving most challenging are also the most critical, placing AI transformation projects at risk. We found that one in six businesses believe that the readiness of their existing cloud and infrastructure platforms for integration with AI is low or very low.

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Click to explore how organizations can free AI innovation:

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Technology AI readiness summary

Integration is the issue.

Questions of confidence in technology AI readiness.

To enable a clear way forward, Lenovo has developed a pioneering AI Readiness Assessment tool. It spans four key pillars: technology, processes, people and security. In this first report in the Lenovo AI Readiness Index Series 2025, we focus on the first pillar, examining how ready and confident businesses are when addressing the challenges of integrating AI into their technology.

Without comprehensive integration, organizations risk limiting the value of Gen AI today and Agentic AI in future.
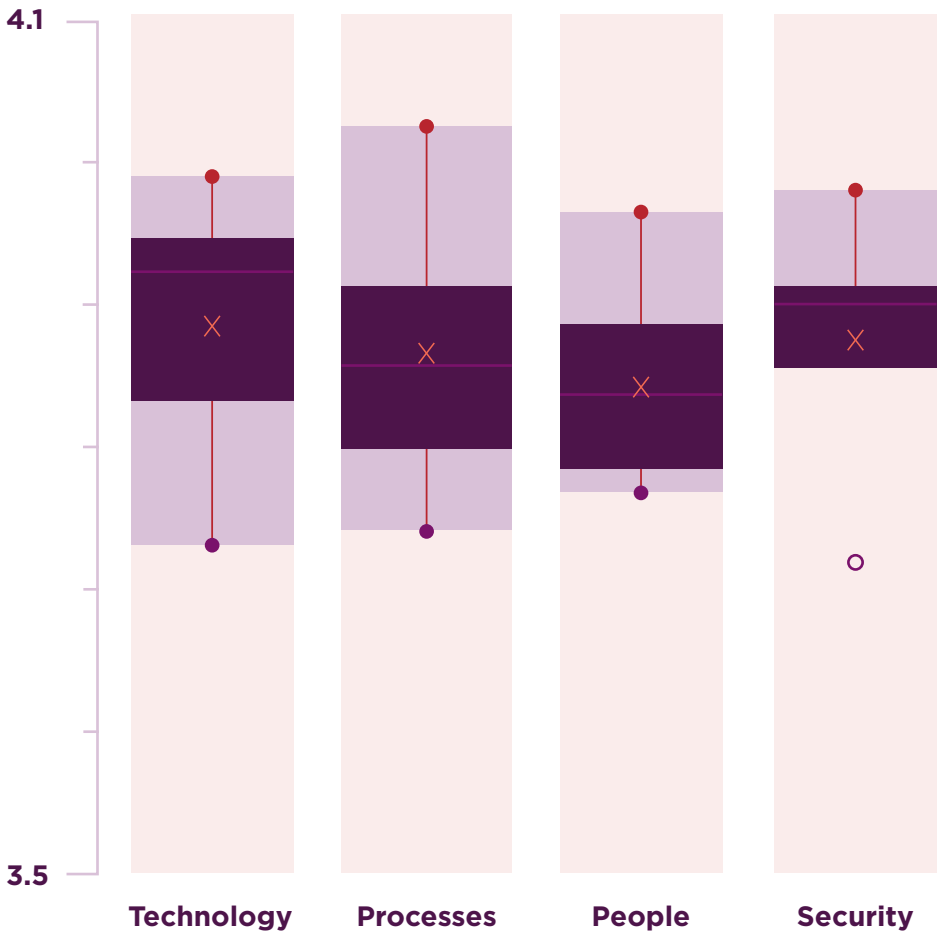
Distribution of AI readiness benchmarks across 4 pillars.

● **Max value**   ● **Min value**   — **Median**   ✕ **Mean**   ○ **Outlier**

(0= no readiness, 5= high readiness)

Perhaps unsurprisingly, given that it's the cornerstone and starting point of AI initiatives, we found that of our four pillars, technology has the second highest benchmark for confidence levels after security.

But even so, within our technology pillar, challenges and areas for improvement are clear and critical. Particularly when it comes to integrating existing cloud and infrastructure platforms with AI. According to Lenovo's 2025 CIO Playbook, the top three inhibitors that resulted in AI projects not meeting expectations were all technology-related, namely: data quality issues, IT infrastructure/network costs and problems integrating AI with existing systems and processes. This is echoed in our AI Readiness research, which revealed that one in eight businesses report low or very low confidence in integrating existing cloud and infrastructure platforms with AI. This is alarming, given that failure to build these vital foundations risks undermining the scalability and success of AI projects across the entire organization. Without comprehensive integration, AI initiatives can do more harm than good.

And without a scalable AI infrastructure, organizations also risk missing out on the opportunities of Agentic AI—the next era of AI that will bring relevant intelligence from across AI models and data sources to unleash greater human potential and make teams more productive. Agentic AI is an exciting but complex development. Safe and effective adoption requires an already robust AI strategy alongside integrated infrastructure.

Everything starts with strategy.

Establishing solid foundations for ROI.

Before tech integration can even begin, defining an AI strategy must be the first building block for every organization. This should be measurable and aligned to the business' overall goals. You need to consider both the high-level vision—how and where AI will be used, and whether it will replace or augment tasks handled by humans—as well as the practicalities of how to execute that vision. Considerations include enablement, technology integration and access to relevant data.

"

Having a strategy is important because AI is so pervasive. You can't just treat it as a bolt-on, off to the side. You'll be much more successful if you think about how big you want to go, what type of AI you want to use. And then, crucially, consider your objective. A lack of clear and documented objectives is something I often see being overlooked."

Linda Yao

VP, AI Solutions and Services

Lenovo

Agentic AI has arrived.

Preparing for proactive partnerships.

While the recent focus has mostly been on Gen AI—AI that creates new content based on patterns learned from existing data—the emergence of Agentic AI introduces new considerations. This latest class of AI operates with a high degree of autonomy, raising fresh challenges and opportunities. Agentic AI extends the scope of AI beyond responding to simple prompts, enabling it to tackle complex, multi-stage tasks with minimal human intervention.

Take the example of customer service agents. Today, a chatbot provides an answer to a customer service agent, who then verifies and relays it to the customer. This process is complex but manageable. In the future, AI agents will independently perform multiple steps autonomously, integrating knowledge from diverse data sources to generate actionable insights. These agents will proactively evaluate, refine and execute decisions, allowing humans to validate their actions and final recommendations. For the first time, AI isn't just a generative knowledge base or chat interface, it's a true partner.

"Agentic AI isn't any more or less complex than when everyone started to use cloud computing to drive more value from their data stores 20 years ago, but it does have a different shape to it. A security-first, human-centered approach to adoption is more critical than ever before."
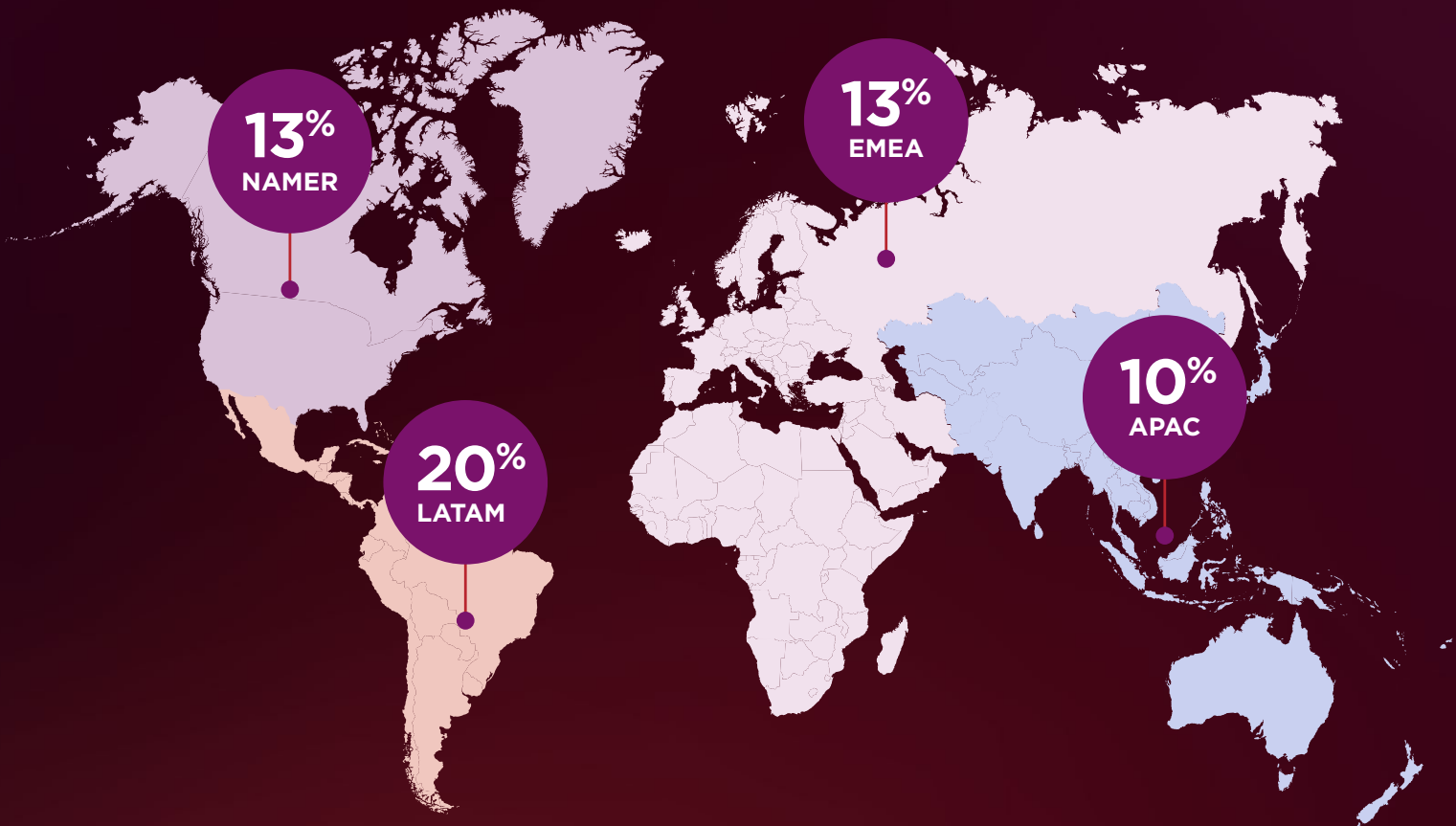
Linda Yao

VP, AI Solutions and Services

Future-proofing AI strategy

Going regional.

One in eight businesses lack confidence in their AI strategy.
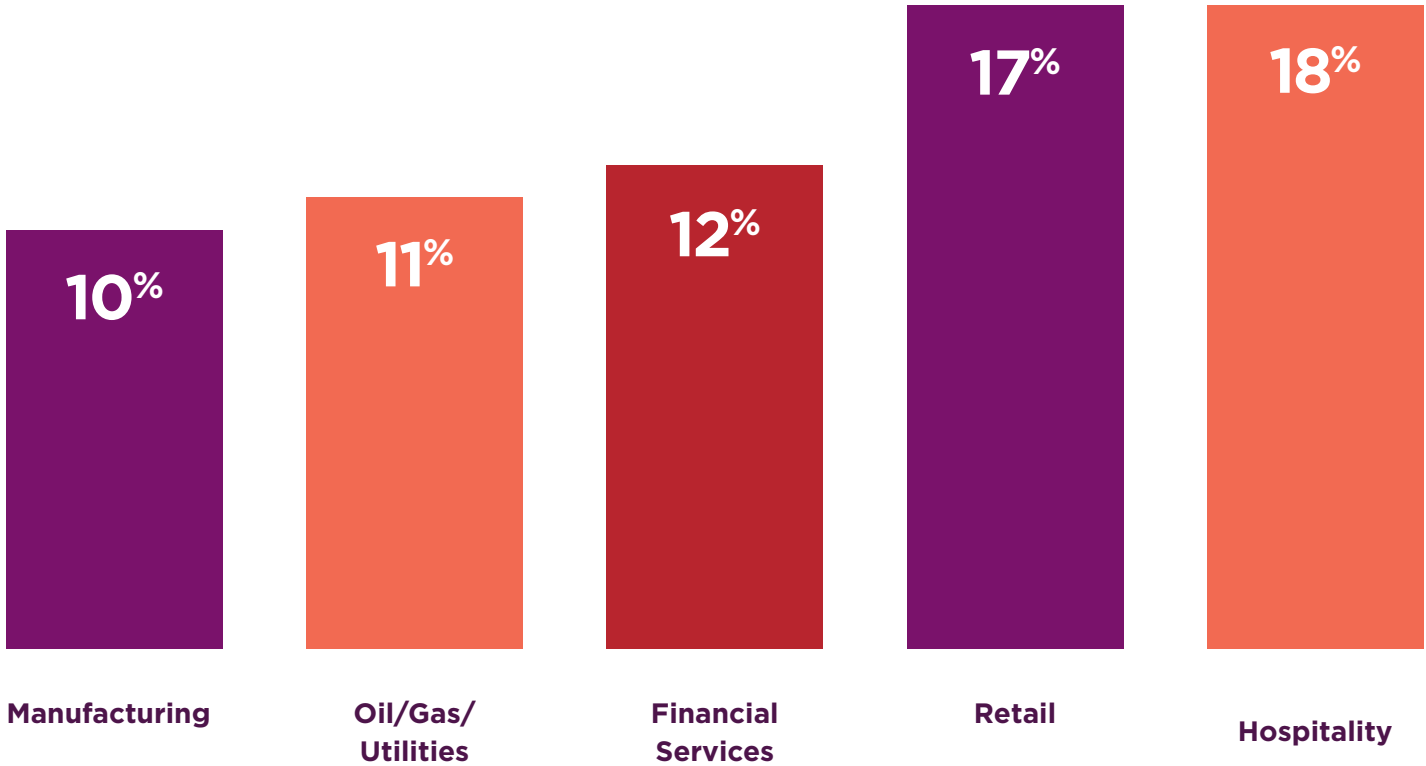

13%
NAMER

13%
EMEA

10%
APAC

20%
LATAM

Businesses with low/very low confidence at having a measurable AI strategy aligned to organizational goals, by region.

While on average, 13% of businesses admit having low or very low confidence in having a measurable AI strategy, it's noteworthy that this confidence is not equally distributed. Regionally, APAC is most confident, while LATAM is the least confident. India and Japan are the two most confident countries globally. Argentina is the least confident.

These variations highlight the need for regionally-tailored strategies and support. For example, LATAM might focus on foundational infrastructure and capacity-building initiatives, whereas APAC is more ready to benefit from scaling existing best practices.

Breaking responses down by business function reveals that leaders from the IT, HR and finance departments are the most confident in their organization's AI strategy. There were also notable variations by sector, with hospitality businesses struggling most.

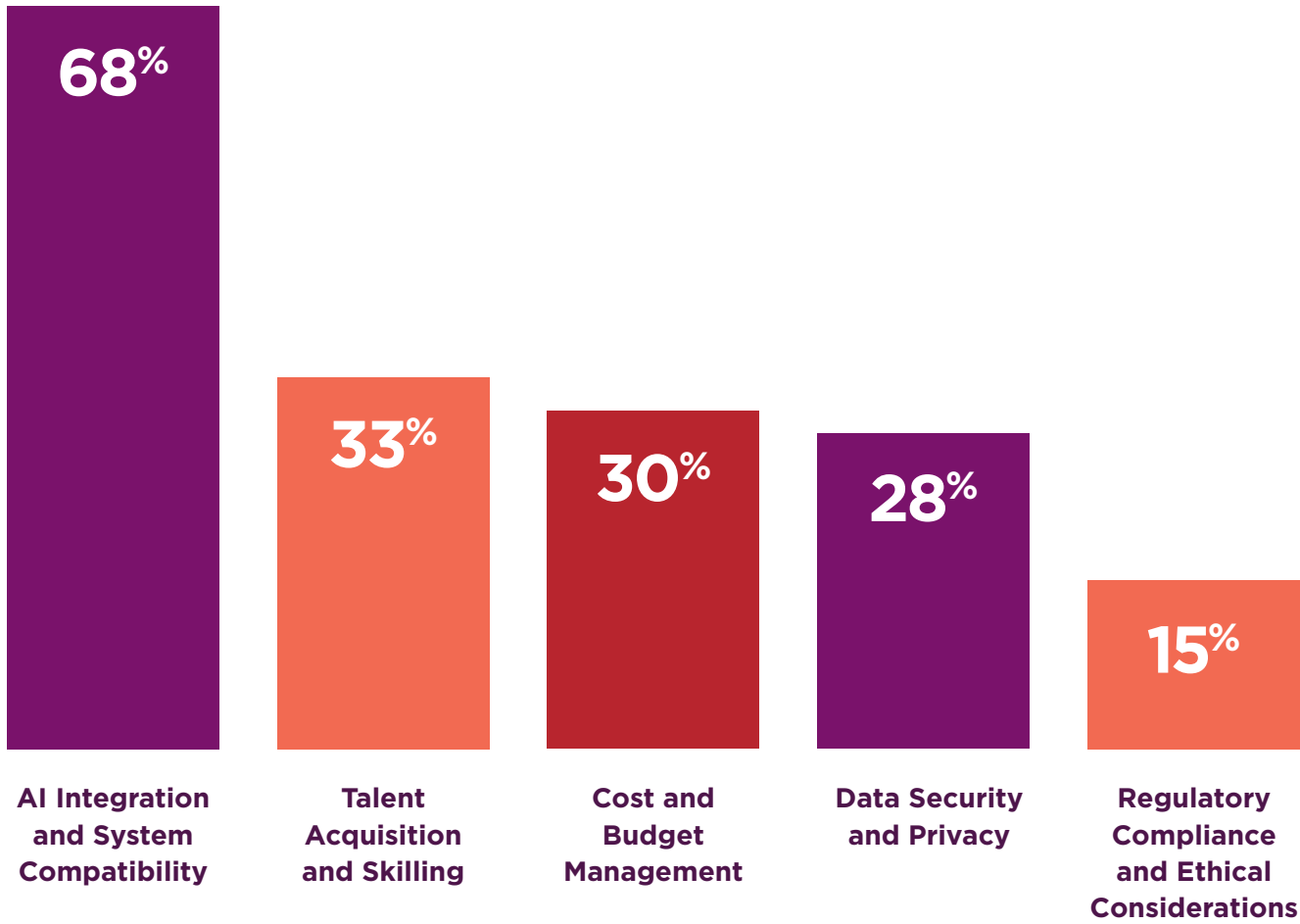| Manufacturing	Oil/Gas/Utilities	Financial Services	Retail	Hospitality
10%	11%	12%	17%	18%

Businesses with low/very low confidence at having a measurable AI strategy aligned to organizational goals, by sector.

6

What executives are saying.

Facing up to AI integration issues.

68%	33%	30%	28%	15%
AI Integration and System Compatibility	Talent Acquisition and Skilling	Cost and Budget Management	Data Security and Privacy	Regulatory Compliance and Ethical Considerations

Themes mentioned in executive interviews, by prevalence.

Our 40 interviews with business leaders also surfaced a wide range of challenges in developing their business' AI strategy. These reflect all four pillars of our AI Readiness Assessment, including talent acquisition, cost management, and security and compliance. Most notably, integration and system compatibility lead again as the top challenges referenced by interviewees.

Planning against the clock

"Making a real-time action plan was challenging for us. Since we are still an emerging hospitality group, preparing a proper action plan surrounding AI in a short timespan was challenging. Most of the management staff were new at that time, and implementing the latest AI tech took a lot of work at short notice."

Chief Operations Officer, hospitality business, Singapore

ROI pressures

"The biggest challenge was the huge ROI pressure. AI development takes a lot of resources and cost. We had been working with our legacy systems for a very long time and many of these systems are not really capable of integrating with new techs like AI. To make them compatible we had to re-architect, re-host, re-platform, and we also used retired approaches for many of our systems, which consumed a lot of funds, and getting funds was not an easy task at the initial stage."

IT Director, retail business, UK

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Recommendations for a future-proofed AI strategy.

Don't...

Endlessly experiment

If you don't avoid the trap of endless experimentation, you risk wasting huge amounts of time, money and resources while failing to deliver value—increasing your environmental footprint, and allowing competitors to get the advantage.

Get stuck in silos

Taking a siloed approach to your strategy development, focusing on one department or process at a time, may seem logical but undermines your chances of success. You risk causing confusion, conflict and negative reactions.

Assume understanding and buy-in

Without explicit and agreed direction that aligns with your business values, you risk alienating your people, losing control of your AI roll-out and damaging your brand reputation.

Take a general approach

As we pointed out in the introduction, there's no one-size-fits-all approach for success. You'll save cost, time and frustration by thinking of your employees in terms of their outputs and needs and implementing your AI accordingly.

Do...

Focus on tangible outcomes

Ensure you have a defined strategy and clear priorities, so that you can focus resources on tangible outcomes that will deliver maximum business impact and transferable lessons.

Be clear and inclusive

From the board to the C-suite to the workforce, you need to establish a clear vision and strategy that your entire organization can buy into. Everyone that will be using the AI should have their interests taken into account, even if it isn't always feasible to consult with them directly.

Provide operational guidance

Develop a solid ethics and responsibility policy that provides direction and guidance on how AI will be used operationally, in line with your business values.

Explore a persona-based approach

Begin with persona-based experimentation. For example, before deciding whether to buy a Copilot for Microsoft 365 license for the entire workforce, start with a small group of enthusiasts who can tailor the use case to their specific needs.

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Integrating AI in technology

Getting through complexity for good.

Integrating AI into existing systems.

Integrating AI into existing systems isn't only vital to a future-proof AI strategy, it's also the biggest and most critical challenge for organizations. So how do you do it? It's an issue that spans several areas, from existing data sources and cloud and infrastructure platforms, to integrating with applications, PCs and mobile devices.

How complex this challenge is, and how you approach overcoming it, depends on your technology readiness, notably across your data, cloud and security platforms. Our research shows technical debt remains an obstacle to driving business value from AI at scale.
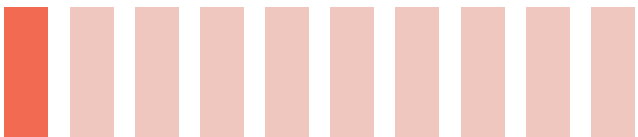
Integration weak areas exposed.

While many businesses are broadly confident, there are still gaps in critical areas.
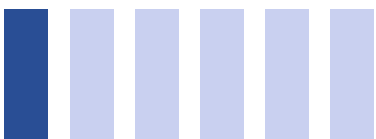
Nearly 1 in 8

(12%) report low/very low preparedness with integrating applications

1 in 10

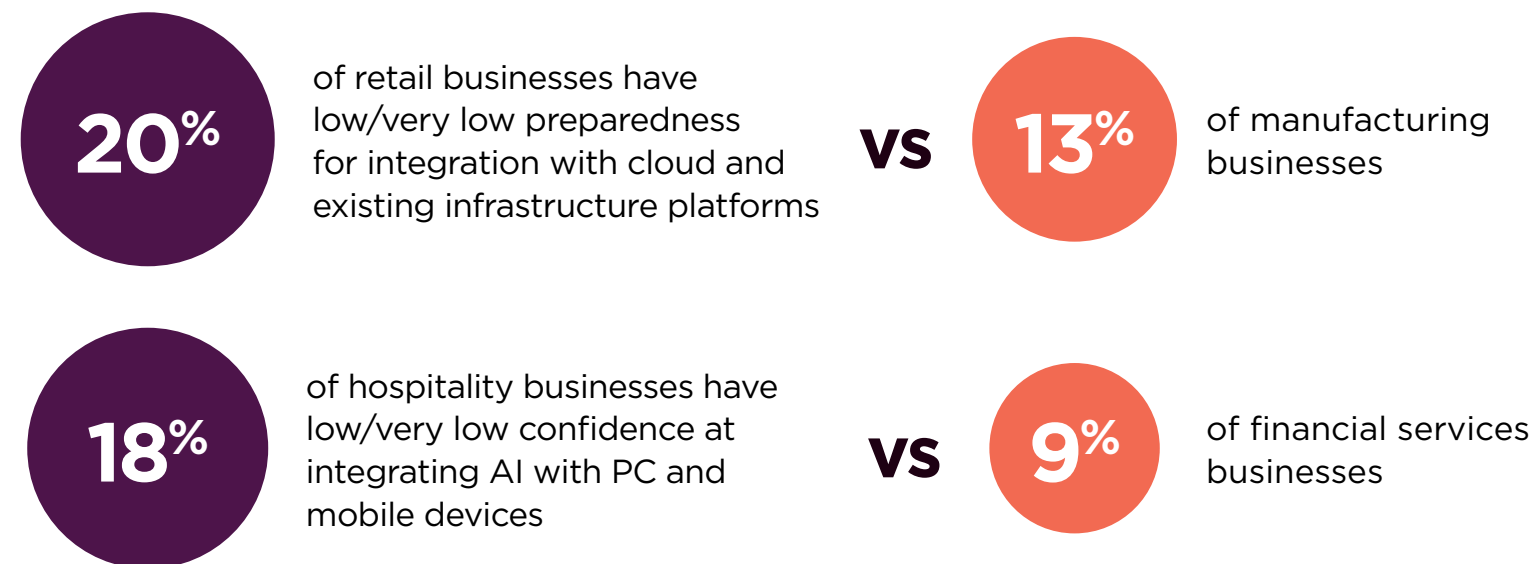**(10%) report low/very low confidence at integrating with existing data sources**

Nearly 1 in 6

(16%) report low/very low preparedness at integrating AI with cloud or infrastructure platforms

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Shining a light on sectors.

Retail and hospitality businesses struggle most.

20% of retail businesses have low/very low preparedness for integration with cloud and existing infrastructure platforms

vs **13%** of manufacturing businesses

18% of hospitality businesses have low/very low confidence at integrating AI with PC and mobile devices

vs **9%** of financial services businesses

From a sector perspective, hospitality and retail are least prepared when it comes to integration, especially with apps and mobile devices. Financial services, oil and gas, and manufacturing rate themselves higher.

It's worth noting, however, that this confidence may reflect the relatively low penetration of AI in the enterprise so far.

"
Confidence could be explained by where AI is right now. It's moving from POC mode to something more structured than that, but everything's still really contained. We're not yet seeing enterprise-wide AI implementations that integrate everything in your enterprise. It's happening at a departmental, business process, and individual level. As businesses scale out their AI use cases, that's when the real integration challenges may start to surface."

Rick Kreuser
Technical Director, Lenovo AI Center of Excellence

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Looking below the surface.

Integrating AI with cloud and infrastructure platforms.

It's clear that the areas that are proving most challenging are also the most critical, placing AI transformation projects at risk. Just look at the stats:

1 in 6

businesses believe that the readiness of their existing cloud and infrastructure platforms for integration with AI is low/very low (16%)

14%
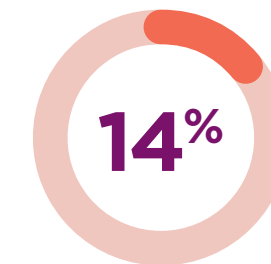
describe their effectiveness at migrating critical business processes to AI-ready systems as low/very low

If organizations overlook their underlying infrastructure, they can still secure quick wins by integrating with apps and devices. But it's vital to realize that if they fail to address their underlying infrastructure, they introduce long-term vulnerability and hamper their scalability.

Our interviews with 40 global IT and business leaders reveal a range of cloud and infrastructure platform integration challenges. Most common are compatibility with outdated infrastructure and legacy systems, data management, and privacy and security concerns arising from additional layers being added to the data supply chain.

Integrating AI in technology

What executives are saying.

Tackling data and tech integration.

When old and new collide

"We handle a large amount of sensitive financial information which is stored in both old and new systems. So, combining this data for AI tools is difficult and needs to be done strictly in accordance with security and privacy regulations. Also, financial services demand real-time processing with high accuracy, which makes it even harder for us to integrate AI with current systems and ensure that everything works well in the cloud."

VP Operations, US-based financial services firm

Connecting on-premises with cloud

"Integrating AI-powered predictive maintenance with our existing equipment monitoring systems involved overcoming compatibility issues between old sensors and new AI platforms. We needed to ensure real-time data flow from the factory floor to the cloud in order to predict equipment failure, while also maintaining the security and quality of this data across multiple systems."

C-suite IT leader, manufacturing business, Mexico

Different demands for different locations

"We lacked the in-depth expertise of AI professionals, so we had to outsource the integration process, which increased the company's operational cost. And it needed a tailored solution for every location, which was also time-consuming."

VP Marketing, retail business, India

> "Data is getting more complex. It's not just words and PDFs, but now increasingly audio and video. This takes more compute power and has implications for infrastructure on where that data is stored and accessed."

Debadipta Battacharya
Agentic AI Lead, Lenovo

To tackle the challenges of integrating AI with cloud and infrastructure platforms, Lenovo's Rick Kreuser recommends thinking creatively about where the data sits. He points out that it can be challenging to start your AI projects in the cloud if your data is on-premises, as cloud platforms like Azure or AWS struggle to integrate on-premises data effectively. The importance of assessing your data's location and composition before deciding on your AI implementation strategy should not be overlooked.

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Integrating AI in technology

Delving into devices.

Mobile integration exposes security flaws.

It's not just infrastructure where the need for AI integration is crucial. Integrating with PC and mobile devices must also be addressed. And here, confidence is low or very low for 12% of businesses. This is felt most acutely by the hospitality (18%) and retail sectors (15%), which often rely on shop floor devices and tablets integrating with central, office-based systems.

Manufacturing	Financial Services	Oil/Gas/Utilities	Retail	Hospitality
9%	9%	12%	15%	18%
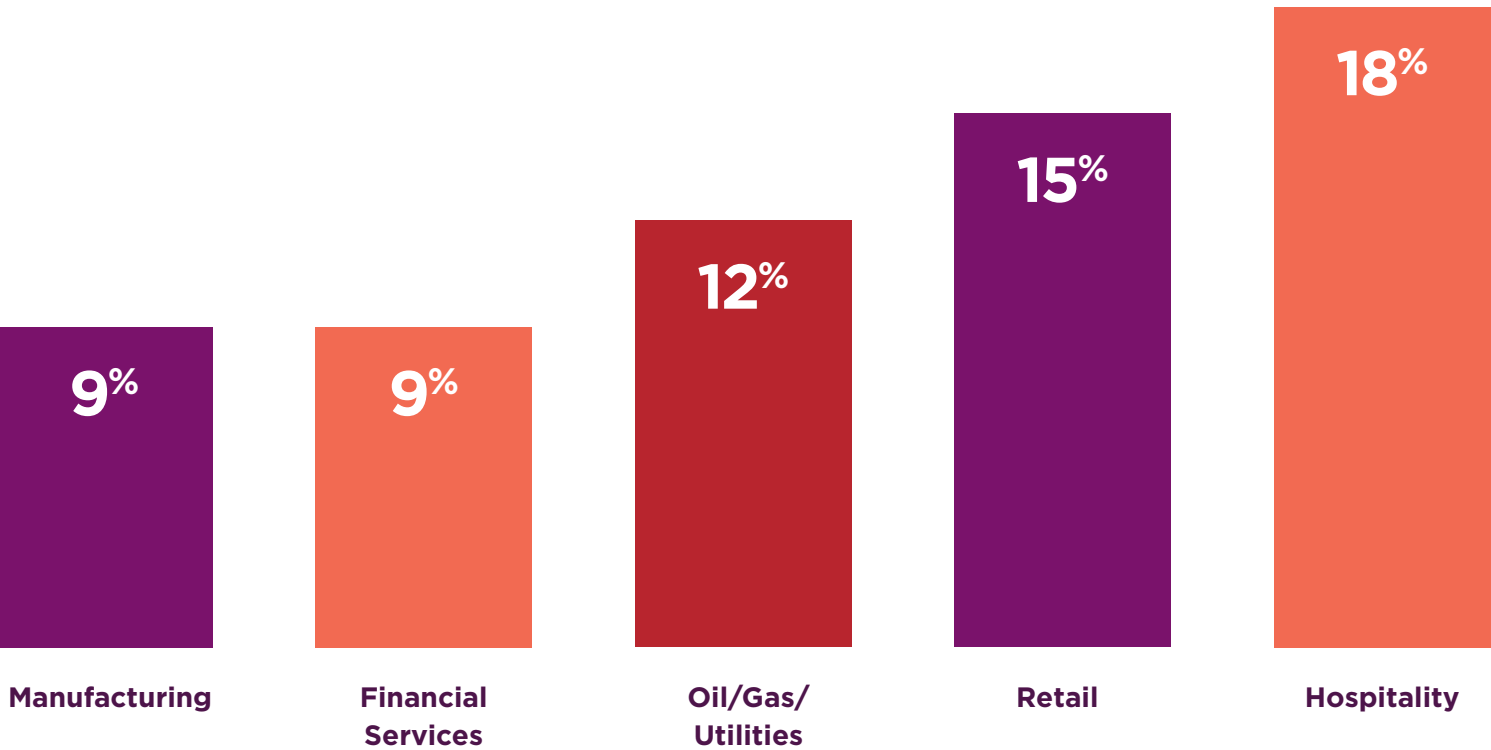
Businesses with low/very low confidence at integrating PC and mobile devices with Gen AI tools, by sector.

As well as incompatibilities with legacy technology, there are wider security and ethical threats at play. As Rick Kreuser notes:

"

On-device AI really exposes some of the flaws you've had and how you've implemented some of your enterprise private configurations. One of the things that Copilot for Microsoft 365 does on devices is take advantage of your Microsoft security estate. It leverages that to figure out what individual AI you can do and what data you can see."

Rick Kreuser
Technical Director, Lenovo AI Center of Excellence

Recommendations for integrating AI into technology.

Don't...

Assume all data should sit in the cloud

Avoid defaulting to starting AI projects in the cloud if your data is on-premises, as some cloud platforms can struggle to integrate on-premises data effectively. Don't overlook the importance of assessing your data's location across personal AI, enterprise AI and public AI environments before deciding on your implementation strategy.

Think too short-term

As AI adoption grows, the energy demand for data centers is expected to rise sharply. Failing to plan ahead may limit your capabilities for power-hungry workloads. This could lead to operational inefficiencies, higher costs and potential disruptions in service.

Fall into the 'set and forget' trap

AI initiatives require constant monitoring as part of an ethical AI strategy. Setting and forgetting could lead to poor quality results. Just because a use case showed great promise six months ago, it doesn't mean it's delivering value today. Be ruthless and let go of those that aren't.

Do...

Assess AI data locations

Consider all AI endpoints, including mobiles and laptops. When evaluating readiness, it's crucial to understand the location and composition of your data and determine whether it makes sense to implement AI within your current setup.

Plan for Agentic AI power needs

Take a proactive approach to your infrastructure and power consumption requirements, especially if planning a future move towards Agentic AI. Agentic AI relies on large language models and extensive computational resources, which significantly increase energy consumption.

Review and refine your foundations

From a quality-assurance perspective, monitor the outputs of AI so you can see when it starts to deviate in its pattern of results and when you need to intervene. At a higher level, when reviewing which AI pilots to take forward and scale more widely, evaluate which ones are delivering most value.

Go wherever your vision takes you.

Four steps to navigating the complexity of technology integration—so your technology is ready to support anything AI.

1

Develop (or review) your strategy

It's easy to get carried away about the potential benefits of AI and rush ahead expecting instant results. But if you don't think through what you want to achieve (and how to achieve it), you're unlikely to be successful. Try taking a methodical 'crawl-walk-run' approach—starting by understanding what a 'crawl' looks like.

2

Define your AI readiness

To build AI initiatives that deliver value and are future-ready, start by identifying foundational gaps. Define your AI readiness with a partner who uses proven frameworks to assess gaps and create robust execution plans for your AI strategy.

3

Know where you want to go

Define your ambitions. You might decide you need to bring in external expertise to define and execute your AI projects. But if your goal is to build AI as a core competency over time to compete differently, consider investing in developing that long-term capability yourselves.

4

Look for accelerators

In the great 'build or buy' debate, you might decide to pursue a build approach for ultimate customization opportunities. But don't overlook the role of AI accelerators that can help save your teams' time and budgets.

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Ready to unleash AI?

Get in touch <u>here</u> to learn how Lenovo can help you on your AI integration journey.

The vision is yours. Get there with Lenovo.

Methodology

5,000
senior business leaders (C-suite, VP/Directors, and Senior Managers)

40 global business
and IT leaders interviewed in November–December 2024

20 countries
in NA, LATAM, EMEA, and APAC in November 2024

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