Hitachi Vantara
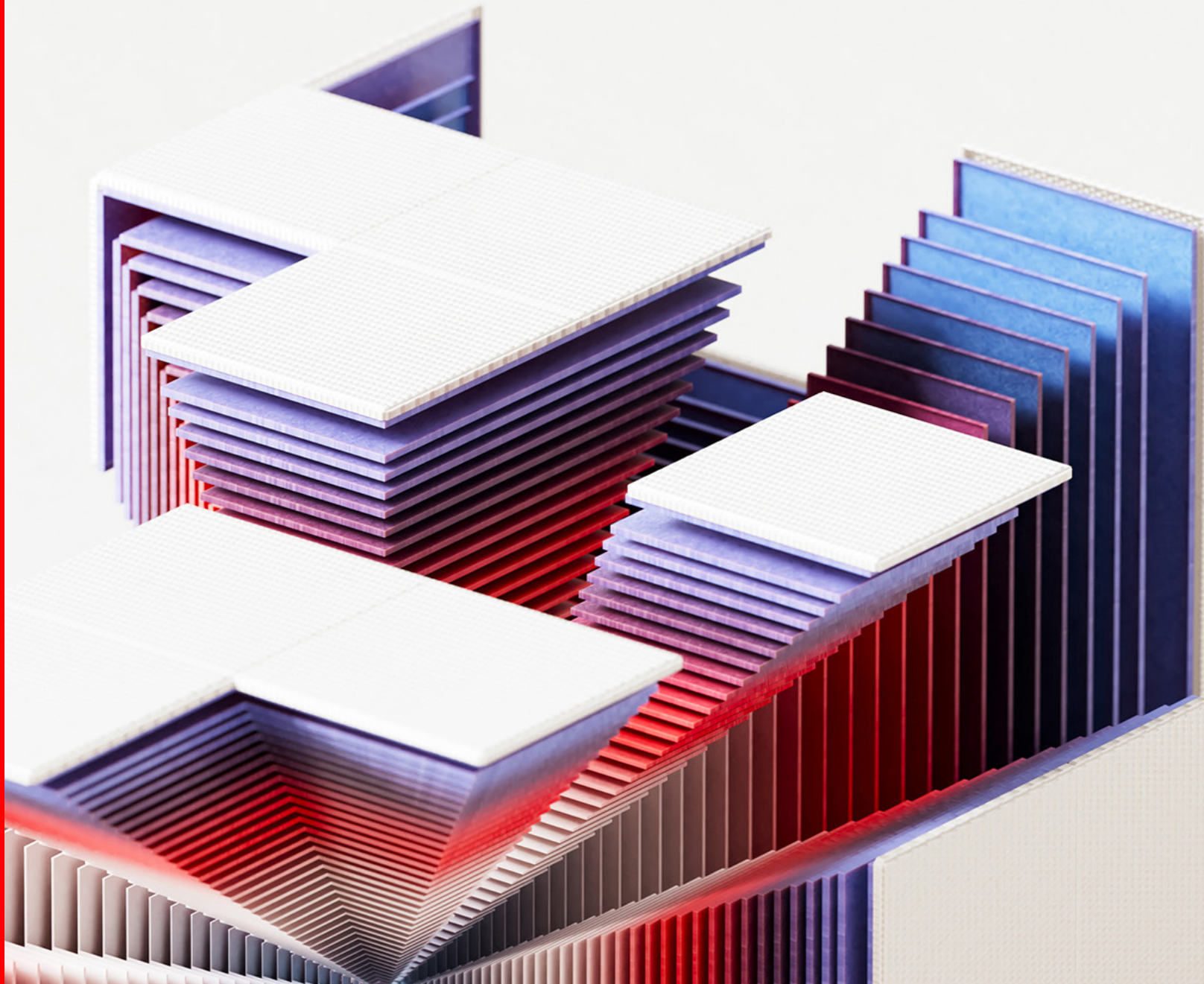
State of Data Infrastructure Global Report 2024
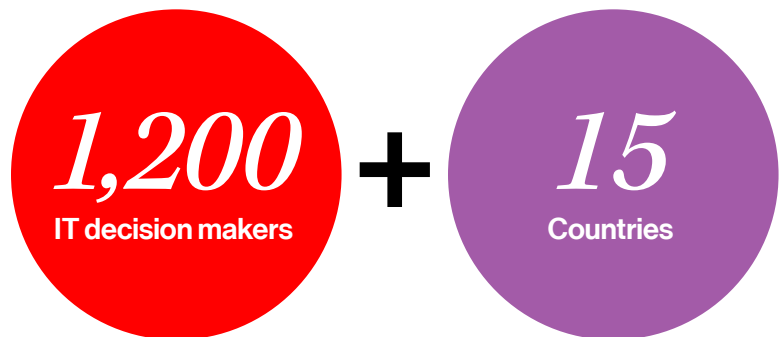
How AI is Shifting Data's Foundation

Introduction

As AI advances at breakneck speed, pushing traditional data infrastructure to its limits, businesses and their customers demand more from technology. How are IT leaders keeping up with this relentless pace?

To understand the pressures and opportunities businesses now face, Hitachi Vantara interviewed 1,200 IT decision makers in large organizations from 15 countries. Their observations, warnings and examples illustrate how important data infrastructure is for business and IT leaders who want to take full advantage of the wealth of information stored within their company.

Last year, IT leaders expected data storage to double within two years[1]. Already, their needs have almost tripled as the average large organization now holds 150 petabytes (Pb) of data. By the end of 2026, they expect to be storing over 300Pb – equivalent to storing every film made worldwide since 1950[2] nearly 200 times over, in 4k.
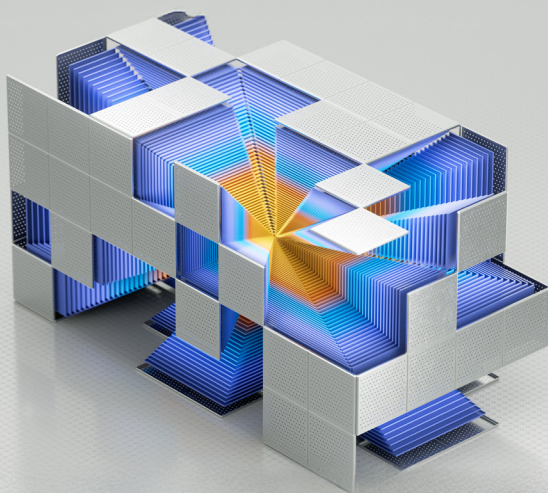
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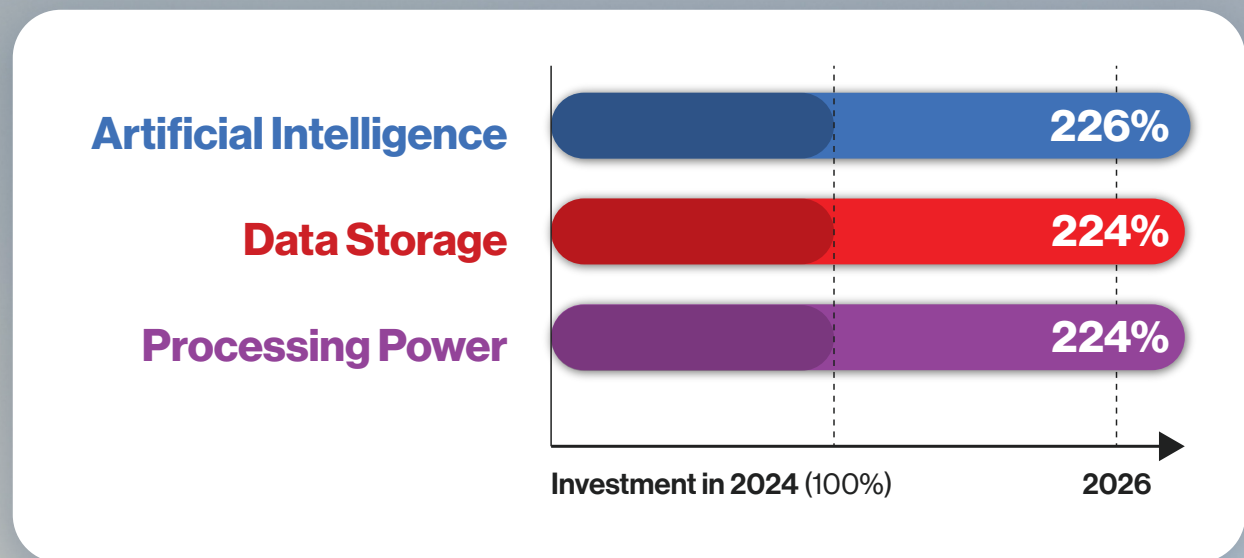
1,200
IT decision makers

+

15
Countries

> "
> **Companies are not prepared for what comes next. The data explosion. Many need to completely rearchitect their infrastructure."**
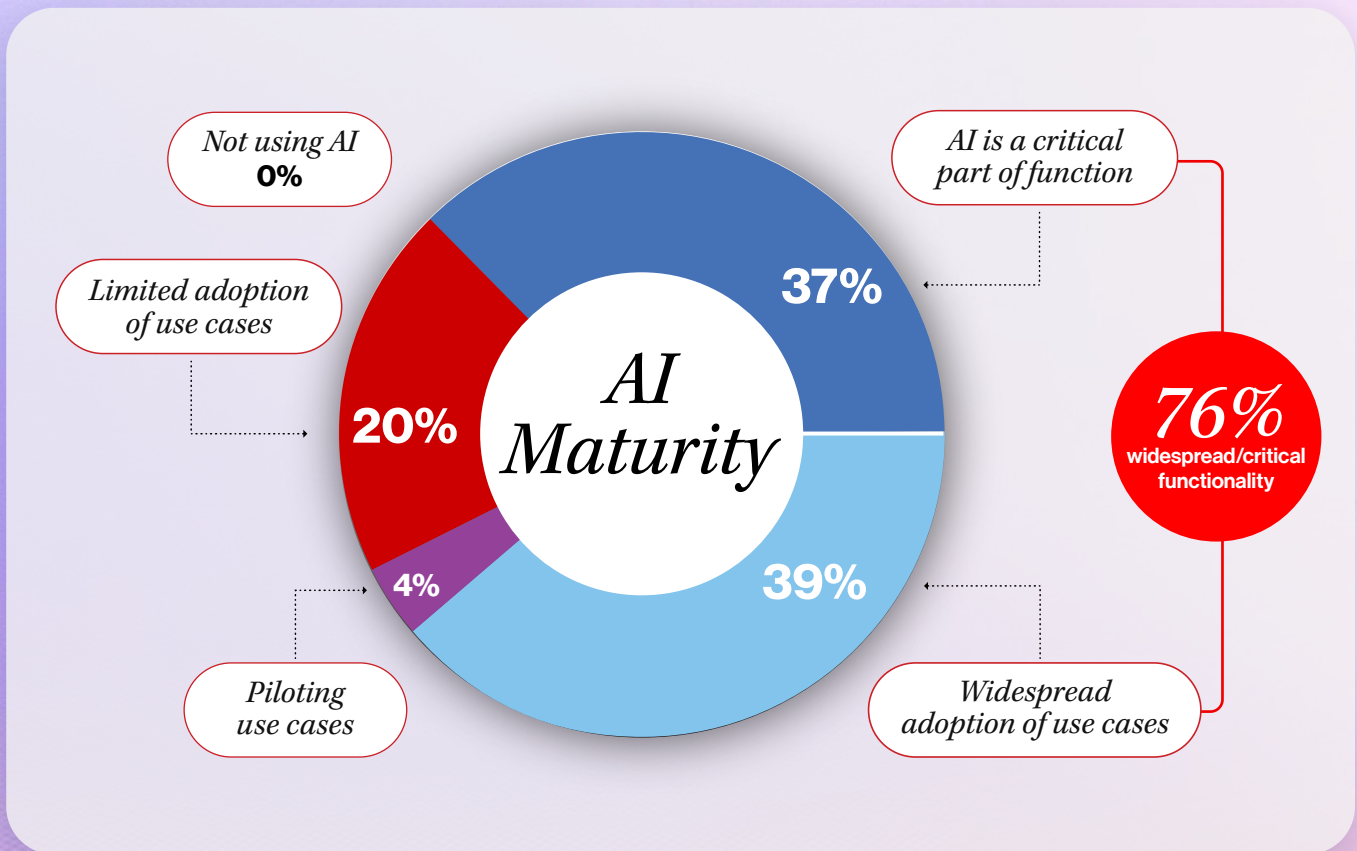>
> **CTO**
> Global telecoms company
> Germany

Expected Growth in Investments Over the Next Two Years

Artificial Intelligence — **226%**

Data Storage — **224%**

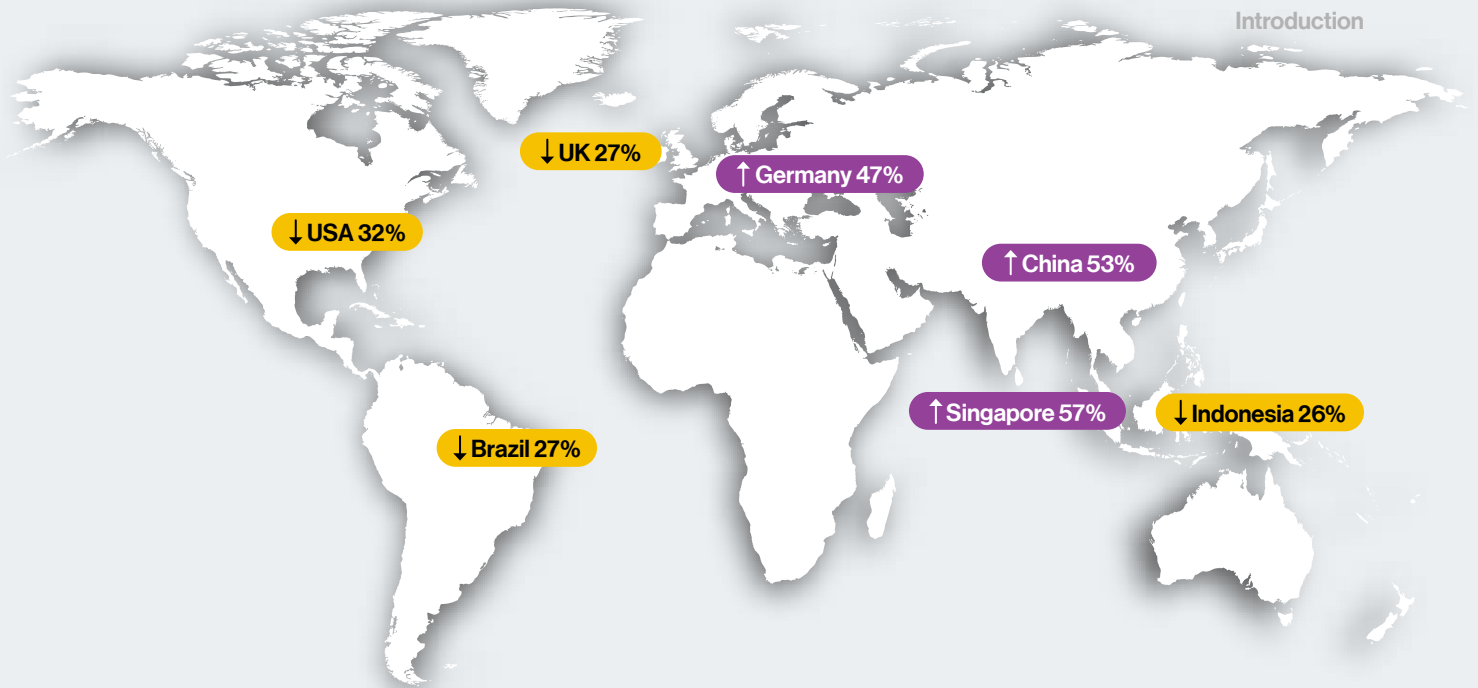**Processing Power** — **224%**

Investment in 2024 (100%)　　　　2026

The increase may look steep, but our research indicates estimates are likely conservative. IT leaders are planning for investments in AI, data storage and processing power to more than double before the end of 2026.

GenAI has captured stakeholders' imaginations, from CEOs to customers. The groundbreaking successes of AI pioneers have sparked a surge of investment and expectation. And the opportunities are real. A recent study commissioned by Google Cloud showed that 86% of AI early adopters gained an average of 6% in revenue[3].

AI Adoption Among Large Organizations

Not using AI
0%

AI is a critical part of function

Limited adoption of use cases

AI Maturity

37%

20%

76% widespread/critical functionality

4%

39%

Piloting use cases

Widespread adoption of use cases

Nobody wants to be left behind. Every company in our study has adopted AI in some capacity. **Three quarters (76%) have progressed beyond limited adoption of AI use cases**, and a third (37%) say AI is already critical to their business.

↓ UK 27%

↑ Germany 47%

↓ USA 32%

↑ China 53%

↑ Singapore 57%   ↓ Indonesia 26%

↓ Brazil 27%

Adoption is highest in Singapore (57%) and China (53%). In Europe, Germany is leading (47%). Adoption is slower in the US (32%), UK (27%), Brazil (27%) and Indonesia (26%).

IT leaders face a future with more significant rewards, but also more risks than ever. The current rate of growth is placing a strain on organizations' critical assets. IT leaders are concerned about limited resources like quality data (37%), skilled workers (31%), data storage (31%) and processing power (28%).

Successful transformation depends on making informed, strategic decisions about data infrastructure. A robust foundation is critical for scaling effectively to get the most out of AI without sacrificing data quality, security or sustainability management.

37%

**include data quality
in their top 3 functions**

> ❝
> To make AI a core strategic advantage, companies must lay the groundwork now with a strong data collection strategy. The complexity and cost of infrastructure will keep rising, especially in cloud environments. This demands proactive decisions around security, GDPR compliance and data privacy. Yet, few organizations are truly prepared with a comprehensive data strategy."

Srihari Udugani
VP of Technology Innovation & Operations
Borderless Access, India

The End of the Beginning

AI has captured the world's imagination, but we're just scratching the surface. To lead the way, organizations must build scalable, sustainable and secure data infrastructure. Trustworthy data drives AI's transformative power. Only with unwavering attention to data quality can organizations unlock AI's full potential.

Dive Into the Full Report →

⊚ Hitachi Vantara

About Hitachi Vantara

Hitachi Vantara is transforming the way data fuels innovation. A wholly owned subsidiary of Hitachi, Ltd., we're the data foundation the world's leading innovators rely on. Through data storage, infrastructure systems, cloud management and digital expertise, we build the foundation for sustainable business growth.

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