NTT DATA

NTT DATA Technology Foresight 2025
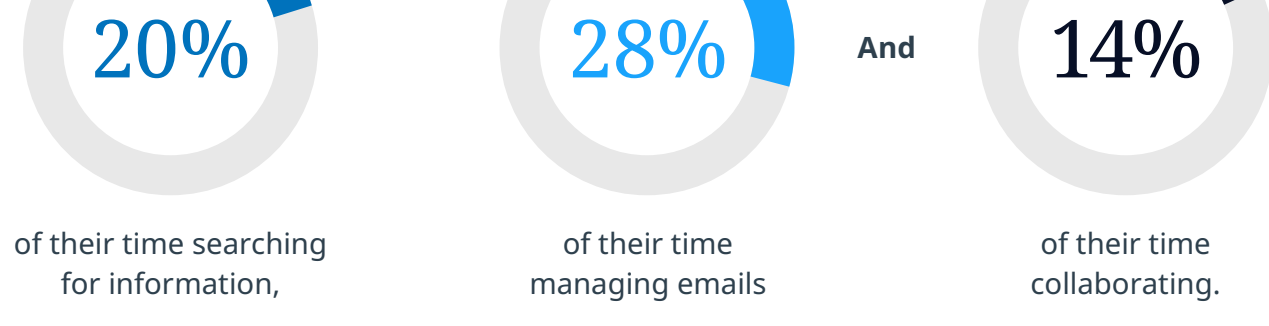
Enhanced humans: the next frontier in human–AI enablement

> "Imagine a future where your potential isn't limited by time, task or knowledge.
>
> **Enhanced humans:** the amplification of human abilities through synergistic collaboration between people and machines, using technologies such as AI, machine learning and automation.

Reducing the time employees spend daily on nonproductive activities

Every day, the average employee spends

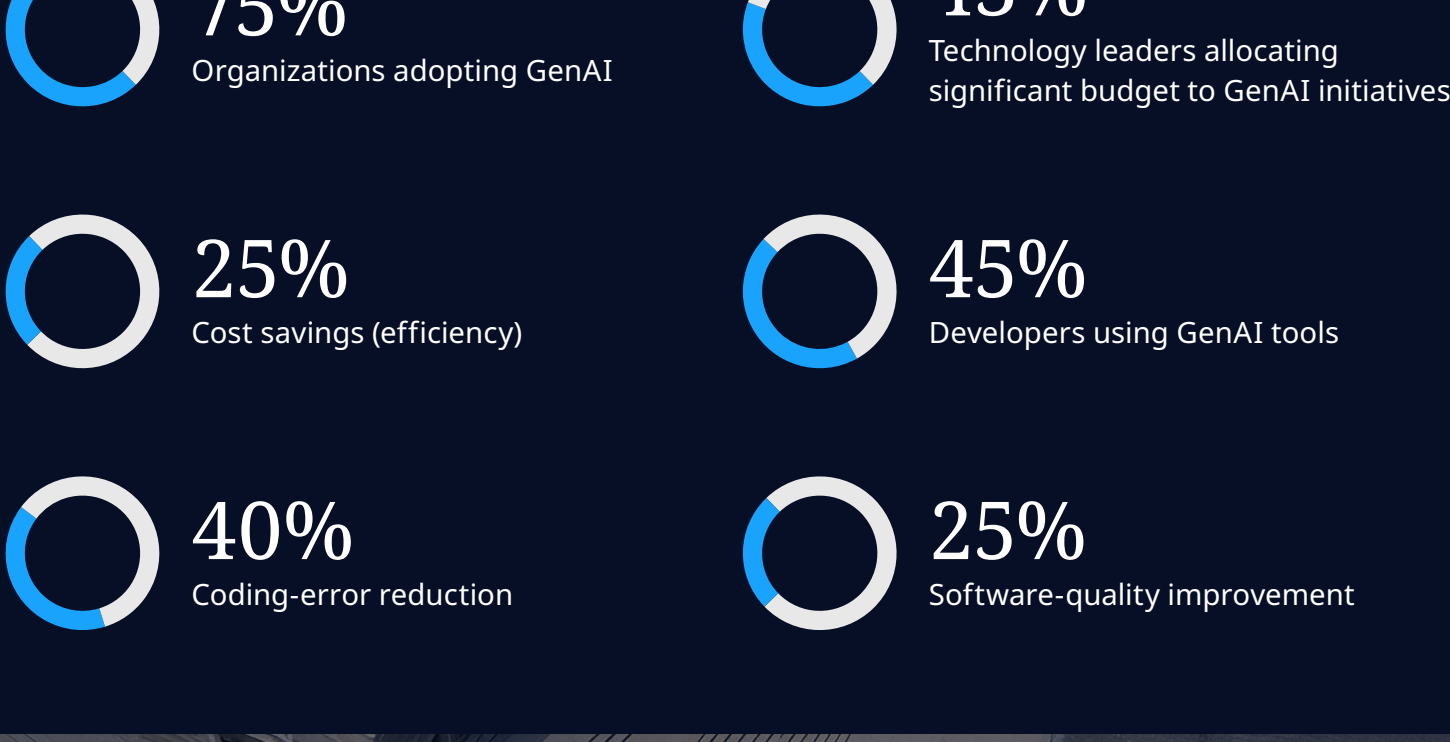**20%** of their time searching for information,

28% of their time managing emails

And **14%** of their time collaborating.

€ 1.5 million
The savings an **organization with 1,000 employees** could realize annually by reducing the time people spend on searches **by 30 minutes daily.**

Benefits to organizations

- Boost employees' productivity
- Improve the quality of their outputs
- Equip them with skills to handle more complex and value-generating tasks
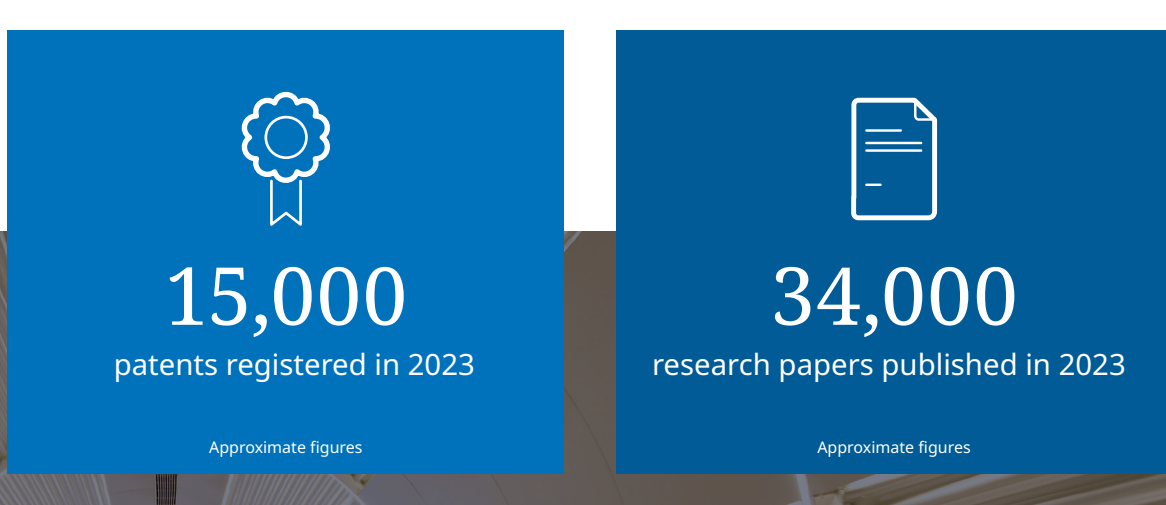
Adoption rates and benefits

75% Organizations adopting GenAI

43% Technology leaders allocating significant budget to GenAI initiatives

25% Cost savings (efficiency)

45% Developers using GenAI tools

40% Coding-error reduction

25% Software-quality improvement

Technological advances to monitor

Technologies steadily enabling the integration of AI into daily work:

| Large language models (LLMs) | GPT models | OpenAI's o1 model | Retrieval-augmented generation (RAG) | Digital humans (also called AI avatars) |

Research and development

15,000 patents registered in 2023
Approximate figures

34,000 research papers published in 2023
Approximate figures

Strategies for success

1. Deploy safety and compliance guardrails.
2. Prioritize organizational enablement for AI adoption.
3. Make AI assistants part of daily life.
4. Welcome AI as a partner in software development.

Spotlight on: GenAI in software development

$49.8 billion Market size in 2024

21.46% Market size growth 2023–24 (YoY)
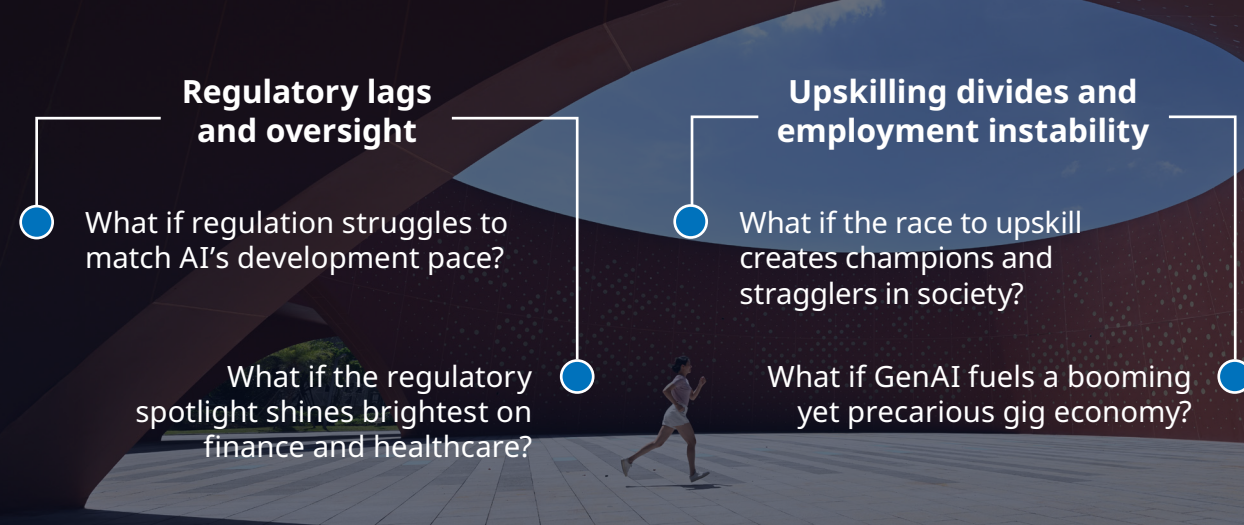
21.5% Forecast CAGR 2024–2033

Future scenarios and GenAI-powered personas can help organizations:

- Explore the possibilities of what lies ahead
- Simulate realistic business environments
- Minimize risk through scenario-based planning

Navigating blind spots: what if ...?

Like almost every technological breakthrough, enhanced-human technology comes with uncertainties:

Regulatory lags and oversight
What if regulation struggles to match AI's development pace?

What if the regulatory spotlight shines brightest on finance and healthcare?

Upskilling divides and employment instability
What if the race to upskill creates champions and stragglers in society?

What if GenAI fuels a booming yet precarious gig economy?

Where to next?

- Constantly adapt and integrate the latest tools and techniques.
- Deploy transparent and explainable AI systems that comply with new laws.
- Critical thinking and targeted questioning remain essential.
- Establish clarity on the ownership of AI models.
- Ensure the value generated by AI services is shared.

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