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CASE STUDY · MARLUC SYNOPSIS

JPX AI programme and trading-system monitoring

IMPLEMENTED 2025 ONWARDS · FINANCIAL SERVICES AND INSURANCE · JAPAN · BAND D · CLAIMED ONLY

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The operator of the Tokyo and Osaka exchanges runs a company-wide AI programme. An internal survey found staff save about 12 hours a month each, and from October 2026 a generative AI assistant helps operators respond to alerts on more than 40 trading systems.

ABOUT THIS SYNOPSIS

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Facts and figures are as reported by the sources listed below, which may be incomplete, self-reported or out of date. Check the original source before relying on any figure.

The impact band, proof marker and SEAM view are MarLuc's opinion. The organisation is not a MarLuc client and has not reviewed or endorsed this synopsis. Names and trademarks belong to their owners.

NOTICE WORDING LAST UPDATED 16 NOVEMBER 2026

AT A GLANCE

AI used: Generative AI assistants (in-house applications and Microsoft 365 Copilot), AI scoring in market surveillance, and a generative AI assistant for trading-system monitoring.

Implemented: 2025 onwards. Grade: band D, Task support, Claimed only.

Headline result, as reported: About 12 working hours saved per employee per month, by JPX's internal survey; the CFO equates this to nearly 5% of personnel expenses

1 · The case

The facts, as reported by the 4 sources listed at the end. Where a source is silent, the field says "Not reported".

Organisation

Japan Exchange Group, Inc. (JPX). Japanese exchange group operating the Tokyo Stock Exchange, Osaka Exchange and Tokyo Commodity Exchange. Its systems handle trading in shares, derivatives and market data. Canvas block: 4. Operations and process. Also 5. People and skills, 8. Governance and risk.

Business challenge

The challenge. JPX's Medium-Term Management Plan 2027 names the proactive use of AI as one of its main initiatives. For system operations, the joint release with Hitachi says systems are becoming more complex while IT staff are scarce, making it urgent to pass on experts' know-how and keep operations sustainable.

How it was addressed. From the 2025 financial year JPX set up an AI Promotion & Communication Committee chaired by the chief executive, with people in each department responsible for AI projects. Employees have in-house generative AI applications and Microsoft 365 Copilot, with training. Japan Exchange Regulation has used AI-based scoring in market surveillance since 2018. In October 2026 JPX began using Hitachi's JP1 Cloud Service generative AI assistant to monitor more than 40 trading systems around the clock: when an alert fires, the AI narrows down the response procedures that experienced staff used to choose from experience. [1] [2] [3] [4]

Who implemented it

Hitachi (Software vendor): Supplied and tuned the JP1 Cloud Service generative AI assistant for trading-system monitoring.
Microsoft (Software vendor): Supplied Microsoft 365 Copilot for employees.
In-house (In-house): Developed internal generative AI applications for staff.

Technology (SEAM pillar E)

SEAM types: T1 Chat assistants, T2 Embedded AI in existing software, T8 Predictive / ML models. Deployment: Mixture. Vendors and products: Microsoft, Hitachi, Microsoft 365 Copilot, JP1 Cloud Service generative AI assistant.

Where it was built in: Productivity tools for staff; AI scoring in Japan Exchange Regulation's market surveillance; and an assistant in the 24-hour monitoring of more than 40 trading systems, drawing on more than 10,000 past incidents and procedures.

What changed

Before: alert responses on trading systems depended on experienced operators' judgement. After: the assistant proposes candidate procedures with its reasons, so newer operators can respond with consistent quality, by JPX's account. Across the company, staff report saving about 12 hours a month each. [1] [2] [3] [4]

What it cost

Not reported

What it saved

About 12 working hours per employee per month, by an internal survey; the CFO said this equals nearly 5% of personnel expenses. The chief executive said Japan Exchange Regulation saw even greater savings. No cost reduction in the accounts is reported. [1] [2] [3] [4]

Governance and control

The AI Promotion & Communication Committee, chaired by the chief executive, reviews policies and priorities and monitors initiatives across departments, by JPX's account. In the monitoring proof of concept, JPX and Hitachi added features that show the reasons for AI answers and steps to curb hallucination. Market surveillance AI is checked for accuracy and improved, by JPX's account.

S2 · Accountable owner · Claimed
The AI Promotion & Communication Committee, chaired by the chief executive, reviews AI policies and priorities, with persons in charge of AI promotion in each department, by JPX's account. [1]

A1 · Safe use · Claimed
Employees receive training to build the skills to use AI effectively, by JPX's account; a written use policy is not reported. [1]

A2 · Human in the loop · Claimed
The monitoring assistant narrows candidate procedures and operators respond; JPX plans to extend AI to tasks people now handle, by JPX's account. [3]

A3 · Monitoring and assurance · Claimed
The committee monitors initiatives across departments; surveillance AI is verified for accuracy; the monitoring assistant scored at least 97% in testing, by JPX's account. [1] [3]

A4 · Vendor AI · Claimed
Hitachi's assistant was tuned with functions to show reasons for answers and reduce hallucination, and results fed back into the product, by JPX and Hitachi's account. [3] [4]

A5 · Agent controls · Not reported
No agents in use; JPX plans AI agents for initial fault isolation in future. [3]

A6 · Standards and regulation · Not reported
Not reported.

What worked, what did not, what is unproven

WORKED

– Time saved per employee, by JPX's internal survey.

– At least 97% accuracy in narrowing response procedures across about 1,600 test cases, by JPX and Hitachi's account.

DID NOT

– Not reported

UNPROVEN

– How the survey measured time saved, and whether the time is used for more productive work; the chief executive said JPX plans to analyse this.

– Live performance of the monitoring assistant after October 2026.

– Any change in staff numbers or costs.

Timeline

2022 JPX and Hitachi begin studying how to advance future system operations [3]

2025 Company-wide AI promotion framework launched under the Medium-Term Management Plan 2027 [1]

Apr 2026 JPX reports an internal survey showing about 12 working hours saved per employee per month [1]

Oct 2026 Generative AI assistant applied in production to trading-system monitoring [3]

2 · Grade and SEAM assessment

MarLuc's opinion, made on the evidence above. How cases are graded: marluc.co.uk/case-studies/how-we-rate

Level of change and impact

Claimed: Not applicable. Grade: D, Task support. Proof: Claimed only. Level of change: Task support.

Task support (Level 1, band D). Staff save time with AI tools; a process change in trading-system monitoring has started but has only test results so far.

Staff use AI tools to do the same work faster; JPX reports time saved and no change in budgets, and its chief executive said the next step is to analyse where the saved time goes. The trading-system monitoring assistant changes how operators choose responses to alerts but went live only in October 2026, with test results so far.

The SEAM view and lessons learnt

JPX pairs a chief-executive-led committee with named AI leads in each department, which gives ownership at both ends. The time saving is measured by survey, and the company is open that it does not yet know where the time goes. For a market operator, the monitoring assistant is the higher-stakes use: it proposes procedures for operators to act on, and its published test accuracy is the baseline to track in live use.

1. Give one senior committee ownership and name an AI lead in each department.
2. Measure where saved time goes, not only how much is saved.
3. Test AI against your own incident history before using it on critical systems.

Evidence

Score 1 of 4. Self-reported: JPX's release, earnings call and joint release with Hitachi; trade press repeats the release.

Evaluation method. Self-reported company figures: an internal staff survey, and a proof of concept on about 1,600 test cases.

Status. Ongoing: AI programme under the Medium-Term Management Plan 2027; monitoring assistant in production from October 2026, with wider use including AI agents planned.

3 · Original sources

Read these in full. To challenge a fact or a grade, use the contact form at marluc.co.uk or the link on https://marluc.co.uk/case-studies/jpx-ai-programme-and-trading-system-monitoring

[1] Japan Exchange Group: Progress of AI Utilization Under Medium-Term Management Plan 2027 (April 2026)
https://www.jpx.co.jp/english/corporate/news/news-releases/0060/20260428-01.html

[2] Japan Exchange Group: Earnings Conference for Q2 FY2026, transcript (28 October 2026)
https://www.jpx.co.jp/english/corporate/investor-relations/ir-library/events/transcript_Q2_FY2026_E.pdf

[3] Japan Exchange Group and Hitachi: JPX□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□AI□□□□□□□□ (20 October 2026, Japanese)
https://www.jpx.co.jp/corporate/news/news-releases/0060/t13vrt000002h499-att/20261020-01.pdf

[4] IT Leaders (Impress): □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□AI□□□□ (October 2026, Japanese)
https://it.impress.co.jp/articles/-/29910

Japan Exchange Group, Inc. (JPX) website: https://www.jpx.co.jp/english/

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