

News Release

FOR IMMEDIATE RELEASE

Hitachi Accelerates AI-Driven Transformation for Physical and Industrial Applications

One Year's Momentum Yields Achievements Ranging from New Products to Visionary Application Frameworks to Launching Disruptive Technologies Impacting Efficiency, Reliability, and Performance

SANTA CLARA, Calif., March 18, 2025 –Hitachi, Ltd. (TSE:6501) today announced substantial achievements stemming from its collaboration with NVIDIA, unveiled just one year ago. This partnership has driven a wave of innovation, delivering breakthroughs such as new product launches, advanced prototype developments, and the establishment of expert advisory councils—all propelling the realization of Physical AI. Through the combination of Hitachi's expertise in the physical world and NVIDIA's cutting-edge AI technologies, the partnership is setting new benchmarks.

In March 2024, Hitachi and NVIDIA announced collaboration*¹ to advance social innovation by developing AI solutions that transform industrial sectors, including Energy, Mobility, and Connected Systems. The partnership initially defined three primary focus areas: enhancing industrial simulations and asset optimization via digital twins, integrating Hitachi's Industrial AI solutions with [NVIDIA AI Enterprise](#) and NVIDIA PhysicsNeMo platforms, and creating a comprehensive portfolio of AI infrastructure and solutions.

Hitachi Digital has since established an exclusive Industrial AI Advisory Council to guide AI adoption and deliver impactful solutions for clients and society. Additionally, in early 2024, Hitachi Digital launched the AI Center of Excellence (COE) which focuses on defining innovative solutions using Hitachi and NVIDIA AI technologies. The COE has successfully piloted advanced prototypes in the Energy, Industrial, and Mobility sectors, including the Line Builder for factory assembly line design and the Power Grid Optimization Solver for optimizing grid operations.

“For years, we’ve envisioned the next wave of AI, centered on empowering frontline workers, evolving energy solutions, and advancing mobility,” said Jun Taniguchi, CEO of Hitachi Digital and Vice President and Executive Officer of Hitachi, Ltd. “That vision is now coming to life. We’re proud of the strides we’ve made together and excited about driving the future of the Industrial AI market with NVIDIA.”

*¹ <https://www.hitachi.com/New/cnews/month/2024/03/240319.html>

Hitachi AI Momentum

Industrial AI Advisory Council

Hitachi Digital established an exclusive, invitation-only Industrial AI Advisory Council, comprising leading experts and thought leaders from diverse industries. Members include professionals from large enterprises, innovative software companies, disruptive start-ups, and academia -- advising on topics ranging from large-scale platform development and open-source LLM applications to intelligent software and Physical AI applications. This council is tasked with shaping the Industrial AI category and guiding Hitachi's efforts to accelerate AI adoption while delivering sophisticated, impactful solutions for clients and society.

AI Center of Excellence

Launched in early 2024, the Hitachi AI Center of Excellence (COE) is focused on exploring, refining, and implementing integrated solutions utilizing Hitachi and other leading AI technologies across various industries. To date, the COE has successfully piloted several

advanced prototypes across the Energy, Industrial, and Mobility sectors. Two examples include:

Line Builder, powered by [NVIDIA Omniverse](#) and jointly developed by the AI COE and JR Automation (a Hitachi Group Company specializing in automated manufacturing and distribution technology solutions), offers AI-driven visualizations to aid in the concept development of factory assembly lines. By utilizing existing connected datasets, it generates and visualizes future solutions while referencing engineering data. This approach enhances design exploration and speeds up the development of effective solutions.

Hitachi Energy's **Power Grid Optimization Solver**, built on [NVIDIA cuDSS](#), simplifies the management of complex, large-scale power flow equations driven by intricate workloads and unpredictable energy demands. The solution efficiently handles large, sparse matrices typical of real-world power grids without requiring massive computational resources. At the same time, it enables accelerated power flow calculations, optimizes grid operations, and supports the transition to clean, affordable electricity.

Hitachi iQ

Introduced by Hitachi Vantara last year, the Hitachi iQ portfolio delivers cutting-edge AI infrastructure and solutions with unparalleled scalability and cost-effectiveness. Leveraging NVIDIA accelerated computing, the portfolio provides customers with the flexibility to adapt to diverse and fluctuating data sizes, data types, and workloads, meaning businesses can allocate resources efficiently, scaling compute or storage rather than overprovisioning and reducing unnecessary expenses.

Hitachi Vantara just announced the availability of Hitachi iQ M Series, the latest addition to the Hitachi iQ portfolio, which provides a lower entry cost with built-in adaptability and scalability as customer needs evolve. Integrating accelerated compute servers with robust networking, Hitachi iQ M Series combines Hitachi Virtual Storage Platform One (VSP One) storage, integrated file system choices, and optional NVIDIA AI Enterprise software into a scalable, adaptable, cost-effective AI infrastructure solution. Additionally, Hitachi iQ is integrating the NVIDIA AI Data Platform, a new reference design created to power the era of enterprise agentic AI. This will bring together Hitachi Vantara's best-in-class enterprise storage with NVIDIA's accelerated computing, networking, and AI software to provide AI agents with near real-time business insights.

HMAX

Unveiled by Hitachi Rail, the HMAX suite offers comprehensive digital asset management solutions for the rail ecosystem, covering trains, signaling systems, and infrastructure. HMAX, powered by NVIDIA IGX, an industrial-grade edge AI platform, and NVIDIA Holoscan sensor processing platform, enables real-time, high-volume data processing at the edge. It improves maintenance and energy efficiency by optimizing trains, signaling, and infrastructure, promising to turn traditional rail systems into intelligent ecosystems.

Hitachi's Corporate Venture Capital Fund

Reinforcing its commitment to pioneering advancements in AI, Hitachi's Corporate Venture Capital Fund, managed by Hitachi Ventures, has a portfolio of 38 companies including over 10 groundbreaking AI startups that are pushing the boundaries of innovation. These startups span revolutionary AI technologies, ranging from enhancing operational safety and leveraging advanced large language models to developing next-generation robotics, edge computing solutions to life saving drug discovery companies. In February 2025, Hitachi Ventures announced the establishment of its fourth corporate venture capital fund with the size of \$400 million USD bringing the total Assets Under Management (AUM) to \$1B. The new fund will invest in startups with cutting-edge digital technologies and emerging frontier

technologies. Through these investments, Hitachi is strategically accelerating access to disruptive technologies, further strengthening Hitachi's role in solving complex industrial and societal challenges with AI.

Showcasing Solutions at NVIDIA GTC 2025 Conference

Hitachi, as a Gold Sponsor of GTC 2025—the premier global AI conference—will showcase its transformative Industrial AI solutions from March 17–21. Attendees at booth #1236 can explore advancements in energy, industrial systems, and mobility sectors. Hitachi will also host three presentations offering deeper insights into select solutions listed above including:

- Trains as a Sensor: Real-time Vision AI System in Ruggedized Environments (S72653) March 18 @ 2:00 PM
- Unlocking Next-Level Efficiency with Accelerated Computing and Optimized Solvers (EXS74248) March 19 @ 3:00 PM
- Manifesting Physical AI in Industrial Applications (S74264) virtual session on demand

- End -

About Hitachi, Ltd.

Hitachi drives Social Innovation Business, creating a sustainable society through the use of data and technology. We solve customers' and society's challenges with Lumada solutions leveraging IT, OT (Operational Technology) and products. Hitachi operates under the 3 business sectors of "Digital Systems & Services" – supporting our customers' digital transformation; "Green Energy & Mobility" – contributing to a decarbonized society through energy and railway systems, and "Connective Industries" – connecting products through digital technology to provide solutions in various industries. Driven by Digital, Green, and Innovation, we aim for growth through co-creation with our customers. The company's revenues as 3 sectors for fiscal year 2023 (ended March 31, 2024) totaled 8,564.3 billion yen, with 573 consolidated subsidiaries and approximately 270,000 employees worldwide. For more information on Hitachi, please visit the company's website at <https://www.hitachi.com>.

Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.
