



NVIDIA and SK Group Build AI Factory to Drive Korea's Manufacturing and Digital Transformation

New AI Infrastructure With Over 50,000 NVIDIA GPUs to Boost Chip Design, Digital Twin, Robotics and AI Agent Development

News Summary:

- SK Group and NVIDIA are deepening their partnership to advance SK hynix HBM and future memory solutions for NVIDIA GPUs, chip manufacturing and telecommunications.
- SK Group is building an NVIDIA AI factory featuring more than 50,000 NVIDIA GPUs.
- SK hynix is advancing chip manufacturing with NVIDIA CUDA-X technologies, including through the NVIDIA PhysicsNeMo framework, tapping AI physics to significantly accelerate technology computer-aided design simulation.
- SK hynix is developing semiconductor fab digital twins using NVIDIA Omniverse libraries and NVIDIA RTX PRO Servers to achieve faster production ramp-up, higher efficiency and progress toward robotic self-optimizing fabs.
- SK hynix is deploying AI-powered agents with NVIDIA NIM microservices and NVIDIA AI Enterprise software to boost productivity for over 40,000 employees.
- SK Telecom is launching an industrial cloud built on NVIDIA RTX PRO 6000 Blackwell GPUs in Asia, enabling startups, enterprises and government agencies to accelerate digital twin and robotics innovation.

APEC Summit—NVIDIA today announced that it is working with SK Group to build an AI factory to advance semiconductor research, development and production, as well as cloud infrastructure to support digital twin and AI agent development.

SK Group is building an AI factory featuring more than 50,000 NVIDIA GPUs, with the first phase planned for completion by late 2027. Once complete, the system is expected to be one of Korea's largest AI factories.

The new factory will serve SK subsidiaries — including SK hynix and SK Telecom (SKT) — as well as external organizations through a GPU-as-a-service model, accelerating digital transformation and industrial innovation for Korea's industries.

Further expanding the NVIDIA and SK Group partnership, the companies are collaborating on the development of SK hynix high-bandwidth memory (HBM) and next-generation advanced memory solutions for NVIDIA GPUs, semiconductor manufacturing and telecommunications infrastructure.

"In the era of AI, a new kind of manufacturing plant has emerged: the AI factory," said Jensen Huang, founder and CEO of NVIDIA. "SK Group is a vital memory technology partner, helping NVIDIA create the world's most advanced GPU computing platforms that power global AI progress. We are delighted to partner with SK to build its AI foundation on NVIDIA accelerated computing and software, creating AI factories that will transform SK and energize Korea's AI ecosystem."

"SK Group is working with NVIDIA to make AI the engine of a profound transformation that will enable industries across Korea to transcend traditional limits of scale, speed and precision," said Chey Tae-Won, chairman of SK Group. "With the NVIDIA AI factory as our foundation, SK Group will forge the infrastructure that powers the next generation of memory, robotics, digital twins and intelligent AI agents."

The SK Group AI factory infrastructure will be available to sovereign model developers participating in the Korea government's Sovereign AI Foundation Models project. SKT is also taking part in the program as a model developer to provide foundation models for enterprises, industries and researchers working on AI agent and application development.

SK Telecom Advances Physical AI and Robotics With NVIDIA Omniverse

NVIDIA Cloud Provider SKT plans to build an industrial AI cloud with [NVIDIA RTX PRO™ 6000 Blackwell Server Edition GPUs](#) in Asia, empowering the nation's manufacturing leaders to advance physical AI and robotics development.

The initial deployment will include over 2,000 NVIDIA RTX PRO 6000 Blackwell GPUs, and will run [NVIDIA Omniverse™](#) workloads to support SK hynix's semiconductor manufacturing, fab digital twins and internal AI agents.

SK Hynix Boosts Productivity Through AI Physics, Digital Twins, Robotics and AI Agents

SK hynix is using the accelerated cloud infrastructure from SKT to scale its operations.

SK hynix is tapping [NVIDIA CUDA-X™](#) technologies, including through the [NVIDIA PhysicsNeMo™](#) framework, to accelerate chip design with AI physics. This accelerates technology computer-aided design simulations, enabling SK hynix to deliver next-generation semiconductor products faster and with greater precision. SK hynix is also testing opportunities to accelerate its current use of Synopsys software with NVIDIA Blackwell GPUs for technology computer-aided design and

circuit simulation.

To boost efficiency, SK hynix is building autonomous fab digital twins using NVIDIA Omniverse libraries and [NVIDIA RTX PRO Servers](#) with NVIDIA RTX PRO 6000 Blackwell GPUs. These digital twins enable real-time simulation, monitoring and optimization of fab operations, resulting in faster production ramp-up, improved operational agility and progress toward fully self-optimizing manufacturing facilities.

SKT is developing a foundation model called A.X. that will power SK hynix's AI agents, built with [NVIDIA NIM™](#) microservices and the [NVIDIA AI Enterprise](#) software platform. These agents will help more than 40,000 employees, production staff and office workers collaborate and solve problems faster, accelerating productivity across chip development and fabrication.

Learn more about these collaborations by joining the NVIDIA [keynote and sessions](#) at the SK AI Summit, running Nov. 3-4.

About NVIDIA

[NVIDIA](#) (NASDAQ: NVDA) is the world leader in AI and accelerated computing.

Certain statements in this press release including, but not limited to, statements as to: SK Group helping NVIDIA create the world's most advanced GPU computing platforms that power global AI progress; NVIDIA partnering with SK to build its AI foundation on NVIDIA accelerated computing and software, creating AI factories that will transform SK and energize Korea's AI ecosystem; SK Group's business plan and expectations with respect to its AI factory; the benefits, impact, performance, and availability of NVIDIA's products, services, and technologies; expectations with respect to NVIDIA's third party arrangements, including with its collaborators and partners; expectations with respect to technology developments; and other statements that are not historical facts are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which are subject to the "safe harbor" created by those sections based on management's beliefs and assumptions and on information currently available to management and are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic and political conditions; NVIDIA's reliance on third parties to manufacture, assemble, package and test NVIDIA's products; the impact of technological development and competition; development of new products and technologies or enhancements to NVIDIA's existing product and technologies; market acceptance of NVIDIA's products or NVIDIA's partners' products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of NVIDIA's products or technologies when integrated into systems; and changes in applicable laws and regulations, as well as other factors detailed from time to time in the most recent reports NVIDIA files with the Securities and Exchange Commission, or SEC, including, but not limited to, its annual report on Form 10-K and quarterly reports on Form 10-Q. Copies of reports filed with the SEC are posted on the company's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

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