



NVIDIA Grace Hopper Ignites New Era of AI Supercomputing

From Climate and Weather to Scientific Exploration, Switzerland's Alps Supercomputer, France's EXA1-HE Supercomputer and Others to Deliver 200 Exaflops of AI for Groundbreaking Research Using Energy-Efficient Grace-Based Systems

ISC—Driving a fundamental shift in the high-performance computing industry toward AI-powered systems, NVIDIA today announced nine new supercomputers worldwide are using [NVIDIA Grace Hopper™ Superchips](#) to speed scientific research and discovery. Combined, the systems deliver 200 exaflops, or 200 quintillion calculations per second, of energy-efficient AI processing power.

New Grace Hopper-based supercomputers coming online include EXA1-HE, in France, from CEA and Eviden; Helios at Academic Computer Centre Cyfronet, in Poland, from Hewlett Packard Enterprise (HPE); Alps at the Swiss National Supercomputing Centre, from HPE; JUPITER at the Jülich Supercomputing Centre, in Germany; DeltaAI at the National Center for Supercomputing Applications at the University of Illinois Urbana-Champaign; and Miyabi at Japan's Joint Center for Advanced High Performance Computing — established between the Center for Computational Sciences at the University of Tsukuba and the Information Technology Center at the University of Tokyo.

CEA, the French Alternative Energies and Atomic Energy Commission, and Eviden, an Atos Group company, in April announced the delivery of the EXA1-HE supercomputer, based on Eviden's BullSequana XH3000 technology. The BullSequana XH3000 architecture offers a new, patented warm-water cooling system, while the EXA1-HE is equipped with 477 compute nodes based on Grace Hopper.

"AI is accelerating research into climate change, speeding drug discovery and leading to breakthroughs in dozens of other fields," said Ian Buck, vice president of hyperscale and HPC at NVIDIA. "NVIDIA Grace Hopper-powered systems are becoming an essential part of HPC for their ability to transform industries while driving better energy efficiency."

In addition, Isambard-AI and Isambard 3 from the University of Bristol in the U.K. and systems at the Los Alamos National Laboratory and the Texas Advanced Computing Center in the U.S. join a growing wave of NVIDIA Arm-based supercomputers using Grace CPU Superchips and the Grace Hopper platform.

Sovereign AI

The drive to construct new, more efficient, AI-based supercomputers is accelerating as countries around the world recognize the strategic and cultural importance of [sovereign AI](#) — investing in domestically owned and hosted data, infrastructure and workforces to foster innovation.

Bringing together the Arm-based NVIDIA Grace CPU and NVIDIA Hopper™ GPU architectures using [NVIDIA NVLink®-C2C interconnect technology](#), GH200 serves as the engine behind scientific supercomputing centers across the globe. Many centers are planning to go from system installation to real science in months instead of years.

Isambard-AI phase one consists of an HPE Cray EX2500 supercomputer with 168 NVIDIA GH200 Superchips, making it one of the most efficient supercomputers ever built. When the remaining 5,280 NVIDIA Grace Hopper Superchips arrive at the University of Bristol's National Composites Centre this summer, it will increase performance by about 32x.

"Isambard-AI positions the U.K. as a global leader in AI, and will help foster open science innovation both domestically and internationally," said Simon McIntosh-Smith, professor of high-performance computing at the University of Bristol. "Working with NVIDIA, we delivered phase one of the project in record time, and when completed this summer will see a massive jump in performance to advance data analytics, drug discovery, climate research and many more areas."

Accelerating Scientific Discovery

NVIDIA's accelerated computing platform comprises [NVIDIA Hopper architecture-based GPUs](#), NVIDIA Grace CPU Superchips, NVIDIA Grace Hopper Superchips, [NVIDIA Quantum-2 InfiniBand](#) networking and a full suite of NVIDIA AI and HPC software.

About NVIDIA

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

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AI accelerating research into climate change, speeding drug discovery and leading to breakthroughs in dozens of other fields; NVIDIA Grace Hopper-powered systems becoming an essential part of HPC for their ability to transform industries while driving better energy efficiency; many centers planning to go from system installation to real science in months instead of years; and the drive to construct new, more efficient, AI-based supercomputers accelerating as countries around the world recognize the strategic and cultural importance of sovereign AI — investing in domestically owned and hosted data, infrastructure and workforces to foster innovation; Isambard-AI helping foster open science innovation both domestically and internationally are forward-looking statements that 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 conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners' products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems; 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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