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NY CREATES and Hprobe Announce Strategic Collaboration for Advanced Semiconductor Memory Testing

Albany, NY and Grenoble, France – NY CREATES and Hprobe today announced a strategic collaboration aimed at advancing testing capabilities for next-generation semiconductor memory technologies. This joint development project will focus on the co-development of advanced testing equipment at the 300mm wafer scale, the platform upon which computer chips are built.

The collaboration is designed to support the dynamic characterization of cutting-edge memory solutions, including Magnetoresistive Random Access Memory (MRAM), Resistive Random Access Memory (RRAM), and selector devices. Hprobe, a leading provider of innovative magnetic and electrical testing equipment for semiconductors, will work with NY CREATES to enhance testing solutions for the fast-evolving semiconductor industry.

"We are thrilled to collaborate with Hprobe on this innovative project that advances the testing capabilities for next-generation memory technologies," said NY CREATES Associate Vice President for Business Development Frank Tolic. "By combining NY CREATES' cutting-edge R&D expertise and Hprobe's magnetic and resistive memory testing, we can improve semiconductor memory validation. This collaboration aligns with our mission to accelerate the development of breakthrough technologies that will drive the future of computing and facilitate the competitiveness of the semiconductor ecosystem."

"Hprobe is excited to collaborate with NY CREATES on this important project," said Hprobe Founder and CTO, Siamak Salimy. "This partnership will allow us to expand the capabilities of our tester equipment to encompass a broader range of memory technologies like RRAM, reinforcing our position as a leader in advanced semiconductor testing solutions."

The partnership will validate and demonstrate new test protocols, paving the way for high-performance industrial-level testing solutions that meet the growing needs

of semiconductor research, development, and manufacturing. Overall, the collaboration is expected to create a platform for North American customers to evaluate and demonstrate new memory solutions, strengthening the high-tech ecosystem.

The joint project will focus on initial testing of MRAM and RRAM wafers from NY CREATES using Hprobe's equipment, including the full-scale implementation of Hprobe's IBEX wafer-level magnetic tester. Development of breakthrough testing procedures and algorithms for MRAM, RRAM, and selector devices, will also seek to advance the state-of-the-art in semiconductor memory testing.

Hprobe will bring its specialized expertise in MRAM and RF characterization and testing, while NY CREATES will provide CMOS-based 300mm RRAM and MRAM wafers, prototype memory devices, and arrays. NY CREATES will also contribute essential analytical and engineering support to implement and deploy advanced test protocols for emerging resistive memory technologies.

The development of advanced memory solutions such as MRAM and RRAM is crucial for improving computing performance, scalability, and energy efficiency. These emerging technologies offer faster speeds, non-volatility, and reduced power consumption, which are vital for applications such as artificial intelligence (AI), the Internet of Things (IoT), and in-memory computing. They also enable new architectural designs and enhance security features, contributing to sustainable technology development. By advancing these memory technologies, the collaboration between NY CREATES and Hprobe can benefit a wide range of industries while addressing the limitations of traditional memory systems.

This announcement follows recent memoranda of understanding between NY CREATES and leading high-tech organizations around the world. A [strategic research partnership between NY CREATES and CEA-Leti](#), announced in June during the annual Leti Innovation Days in Grenoble, focuses on the research and co-development of magnetic memory devices, used to store computer data. These devices are to be produced at the 300mm wafer scale, the industry-standard platform.

Last month, NY CREATES signed [an MOU with Nord Quantique](#) to collaborate on quantum-related R&D. In August, New York [Governor Hochul announced a new semiconductor R&D and workforce development agreement with the government of Hokkaido, Japan](#). Additionally, [NY CREATES and SEMI signed an MOU to advance environmental sustainability](#) in July during SEMICON West.

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About NY CREATES

NY CREATES serves as a lab-to-fab bridge for advanced electronics, fostering public-private and industry-academic partnerships for technology development and innovation. NY CREATES attracts and leads industry-connected innovation and commercialization projects that secure significant investment, advance R&D in emerging technologies, and generate the jobs of tomorrow. NY CREATES runs

some of the most advanced facilities in the world, boasts more than 2,700 industry experts and faculty, and manages public and private investments of more than \$20 billion—placing it at the global epicenter of high-tech innovation and commercialization. Learn more at www.ny-creates.org.

About Hprobe

Founded in March 2017 and based in Grenoble (France), Hprobe is a spin-off company of SPINTEC, one of the leading spintronics research laboratories worldwide. The company designs, manufactures, and markets equipment for wafer-level testing of magnetic devices in the semiconductor industry, serving consumer, communication, industrial, and automotive customers. <https://www.hprobe.com/>

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