



Xanadu and GlobalFoundries Announce Strategic Partnership to Accelerate Utility-Scale Quantum Manufacturing

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TORONTO, Oct. 06, 2026 (GLOBE NEWSWIRE) -- Xanadu Quantum Technologies Limited ("[Xanadu](#)"; NASDAQ/TSX: XNDU), a leading photonic quantum computing company, today announced a strategic multi-year partnership with GlobalFoundries (GF), a leading semiconductor manufacturer, to address the high-volume production required for utility-scale quantum computing. This partnership combines Xanadu's existing expertise in ultra-low loss photonic design and process development with GF's industry-leading photonics manufacturing prowess to accelerate the development and manufacturing of advanced photonic components, including ultra-low loss silicon nitride (SiN) photonics and Superconducting Nanowire Single-Photon Detectors (SNSPDs), through GF's 300 mm production line in Malta, New York.

The initial focus of the Xanadu and GF partnership is on the industrialization of Xanadu's SNSPDs and its ultra-low-loss SiN platform. In photonic quantum computing, where information is carried by photons, reading calculation outputs requires photon number resolving (PNR) detectors, which are advanced optical sensors that determine the number of photons in a single light pulse. Xanadu has adopted SNSPDs, widely recognized as the most reliable PNR technology, as its PNR platform for utility-scale quantum computing. The adoption of SNSPDs is expected to dramatically increase the speed of Xanadu's quantum computing systems and considerably reduce the chip overheads needed to deliver utility-scale quantum computers with Xanadu's photonic quantum computing architecture. Combining ultra-high efficiency SNSPDs with ultra-low loss SiN photonics, used as optical circuit boards to guide photons with negligible signal loss across a wide spectrum of light, forms the backbone of Xanadu's photonic quantum computing technology.

Transferring components of Xanadu's existing advanced photonics technology to GF's 300 mm manufacturing line represents a critical shift from lab-scale prototyping to industrial-grade production. In addition to SNSPDs and SiN, Xanadu and GF are exploring future work packages to further develop high-performance quantum modules that are intended to increase the power and utility of photonic quantum computing systems. The output of this collaboration is expected to serve as the manufacturing foundation for Xanadu's upcoming fault-tolerant demonstrators, supporting the company's long-term objective of providing the hardware architecture for future quantum data centers.

"Transitioning quantum computing technology to a high-volume manufacturing line is fundamental to delivering quantum computing at scale," said Dr. Christian Weedbrook, Founder and Chief Executive Officer of Xanadu. "Partnering with GlobalFoundries allows Xanadu to refine and scale up our existing industry-leading photonics platform and apply GF's industrial expertise and technology to our photonic chip production. This partnership demonstrates our focus on execution and seeks to provide the reliable, precision-manufactured infrastructure necessary to transition quantum technology from the research environment to commercial-scale data centers."

"By combining Xanadu's advanced photonic computing technology with GF's 300 mm manufacturing expertise, this partnership creates a path to industrialize the critical components needed to accelerate the deployment of fault-tolerant systems and enable future quantum computing architectures," said Nicholas Sergeant, VP of Quantum Technology Solutions at GF.

Xanadu is on a mission to build quantum computers that are useful and available to people everywhere. By securing this manufacturing pathway, Xanadu is reinforcing its position as a global leader in photonic quantum computing.

About Xanadu

Founded in 2016, Xanadu is a Canadian photonic quantum computing company with the mission to build quantum computers that are useful and available to people everywhere. Xanadu is building fault-tolerant quantum computers using light, with systems designed to compute at room temperature. Xanadu develops both hardware and software, including [PennyLane](#), its open-source quantum computing platform. Xanadu is the first pure-play photonic quantum computing company to list on public markets (NASDAQ/TSX: XNDU) and is recognized globally for its breakthroughs in scalable quantum technologies. Visit [xanadu.ai](#) or follow on X [@XanaduAI](#).

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About GlobalFoundries

GlobalFoundries (GF) is a leading manufacturer of essential semiconductors, enabling AI at scale from the cloud to the physical world. Through deep partnerships with customers, GF delivers differentiated, power-efficient and high-performance solutions for automotive, aerospace and defense, data center, smart mobile devices, internet of things and other high-growth markets. With global manufacturing operations across the U.S., Europe and Asia, GF is a trusted and holistic technology partner for customers around the world. GF's talented, global team remains focused every day on security, longevity and sustainability. For more information, visit www.gf.com.

Forward-Looking Statements

This communication includes "forward-looking statements" within the meaning of the U.S. federal securities laws and "forward-looking information" within the meaning of applicable Canadian securities laws (collectively, "forward-looking statements"). Forward-looking statements may be identified by the use of words such as "estimate," "plan," "project," "forecast," "intend," "will," "expect," "anticipate," "believe," "seek," "target," "continue," "could," "may," "might," "possible," "potential," "predict" or similar expressions that predict or indicate future events or trends or that are not statements of historical matters. We have based these forward-looking statements on current expectations and projections about future events. These statements include: statements regarding the strategic multi-year partnership with GlobalFoundries (GF) and the ability of the parties to successfully collaborate; the ability to address high-volume production required for utility-scale quantum computing; the expected development, manufacturing, and scale-up of advanced photonic components, including ultra-low loss silicon nitride (SiN) photonics and Superconducting Nanowire Single-Photon Detectors (SNSPDs), on GF's 300 mm production line in Malta, New York; the ability to successfully transfer Xanadu's technology to GF's manufacturing lines; the exploration and successful development of future work packages for high-performance quantum modules; the capability of the output of the collaboration to serve as the manufacturing foundation for Xanadu's upcoming fault-tolerant demonstrators and future quantum data centers; and the performance, speed, and overhead reduction benefits achieved by integrating SNSPDs and SiN photonics.

These forward-looking statements are provided for illustrative purposes only and are not intended to serve as, and must not be relied on as, a guarantee, an assurance, a prediction or a definitive statement of fact or probability. Actual events and circumstances are difficult or impossible to predict and will differ from assumptions, many of which are beyond the control of Xanadu. These forward-looking statements are subject to known and unknown risks, uncertainties and assumptions that may cause the actual results of Xanadu, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by such statements. Such risks and uncertainties include: the risk that the strategic partnership with GF may not achieve its intended benefits, manufacturing milestones, or volume production goals; technical challenges in transferring complex photonics processes, SiN platforms, and SNSPD manufacturing to a 300 mm commercial semiconductor manufacturing line; risks associated with reliance on GF as a manufacturing partner and potential disruptions or delays in GF's facilities or supply chain; yield, quality, and technical performance risks related to precision-manufactured photonic components and modules; that Xanadu is pursuing an emerging technology, faces significant technical challenges and may not achieve commercialization or market acceptance; Xanadu's historical net losses and limited operating history; Xanadu's expectations regarding future financial performance, capital requirements and unit economics; Xanadu's use and reporting of business and operational metrics; Xanadu's competitive landscape; Xanadu's dependence on members of its senior management and its ability to attract and retain qualified personnel; the potential need for additional future financing; Xanadu's ability to manage growth and expand its operations; potential future acquisitions or investments in companies, products, services or technologies; Xanadu's reliance on strategic partners and other third parties; Xanadu's concentration of revenue in contracts with government or state-funded entities; Xanadu's ability to maintain, protect and defend its intellectual property rights; risks associated with privacy, data protection or cybersecurity incidents and related regulations; the use, rate of adoption, and regulation of artificial intelligence and machine learning; uncertainty or changes with respect to laws and regulations; uncertainty or changes with respect to taxes, trade conditions and the macroeconomic environment; material weaknesses in Xanadu's internal control over financial reporting and its ability to maintain internal control over financial reporting and operate as a public company; the outcome of any legal proceedings or government investigations that may be commenced against Xanadu; Xanadu's ability to issue equity or equity-linked securities in the future; and other factors described in Xanadu's filings with the SEC (www.sec.gov) and the Canadian Securities Administrators (www.sedarplus.com). These forward-looking statements are based on certain assumptions, including that none of the risks identified above materialize; that there are no unforeseen changes to economic and market conditions, and that no significant events occur outside the ordinary course of business. Additional information concerning these and other factors that may impact such forward-looking statements can be found in filings and potential filings by Xanadu with the SEC and the Canadian Securities Administrators, including under the heading "Risk Factors." If any of these risks materialize or assumptions prove incorrect, actual results could differ materially from the results implied by these forward-looking statements. In addition, these statements reflect the expectations, plans and forecasts of Xanadu's management as of the date of this communication; subsequent events and developments may cause their assessments to change. While Xanadu may elect to update these forward-looking statements at some point in the future, they specifically disclaim any obligation to do so, unless required by applicable securities laws. Accordingly, undue reliance should not be placed upon these statements.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this communication, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

