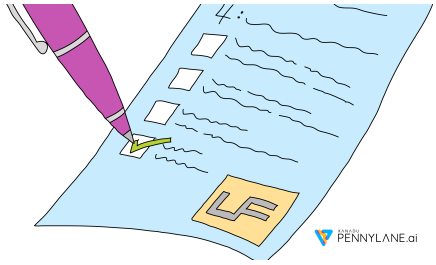
# Xanadu's PennyLane Sees 36% Adoption Increase Since 2025

November 23, 2026

## 2026 Unitary Foundation Quantum Open Source Software Survey finds nearly 50 percent of respondents use, or plan to use, PennyLane for utility-scale quantum computing development

**Unitary Foundation 2026 Quantum Open Source Software Survey**




Unitary Foundation 2026 Quantum Open Source Software Survey, represented in the PennyLane hand-drawn style.

TORONTO, Nov. 23, 2026 (GLOBE NEWSWIRE) -- Xanadu Quantum Technologies Limited ("Xanadu"; NASDAQ/TSX: XNDU), a leading photonic quantum computing company, today highlighted the results of Unitary Foundation's 2026 Quantum Open Source Software Survey, demonstrating strong adoption of PennyLane, Xanadu's open-source quantum software platform, and its growing strategic position as the industry advances toward fault-tolerant quantum computing.

Conducted annually by the independent nonprofit Unitary Foundation, the survey examines how the global quantum computing community uses open-source software, including the tools, frameworks, and technologies supporting quantum research and development.

This year's survey, which attracted more than 1,800 participants, found that 35% used PennyLane over the past year, with 46% reporting that they currently use or intend to use the platform in the coming year.

PennyLane ranked as the second most widely used quantum software development kit (SDK) overall.

**Key findings from the 2026 survey include:**

- **54% adoption in quantum resource estimation:** PennyLane ranked first among named tools for estimating the computational resources required to execute quantum algorithms
- **36% increase in adoption since 2025:** PennyLane ranked as the second most widely used quantum SDK
- **46% current or intended usage:** Nearly half of respondents reported using PennyLane or planning to use it in the coming year
- **#2 in quantum compilation:** Catalyst, Xanadu's quantum compiler, ranked as the second most widely used compiler or transpiler, with 24% of respondents reporting current or intended usage
- **#2 in quantum simulation:** PennyLane Lightning, Xanadu's high-performance quantum simulation framework, ranked as the second most widely used simulator, with 27% of respondents reporting current or intended usage

"Surveys like this one from the Unitary Foundation offer compelling proof of the accelerating adoption of quantum software. They provide key insights that help us shape the ecosystem and assist the industry in navigating key technical trends," said Dr. Christian Weedbrook, Founder and Chief Executive Officer of Xanadu. "PennyLane's expanding global footprint demonstrates the critical importance of building a robust software ecosystem alongside our quantum hardware."

**Building the software ecosystem for utility-scale quantum computing**

The survey also highlights a broader industry shift toward technologies central to Xanadu's software and hardware commercialization strategy. Among respondents:

- 53% reported using hybrid quantum-classical workflows
- 37% reported using high-performance computing software in their quantum workflows
- 35% reported using quantum error correction software
- 33% reported using resource estimation in software development and research
- 44% identified quantum error correction as one of the most promising areas for future quantum computing research

"A growing global community of researchers, developers, and enterprises using and building with Xanadu's PennyLane software today is laying the foundation for future system demand. These findings reinforce our strategy of delivering an integrated software stack that spans algorithm development, resource estimation, high-performance simulation, compilation, and real-time quantum-classical computing," continued Dr. Weedbrook.

The full results of the 2026 Quantum Open Source Software Survey are available at https://unitaryfoundation.github.io/survey-2026/.

**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 was 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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