

SiPearl and Quobly partner to explore European CPU-QPU integration for sovereign quantum computing

A first step towards bridging Europe's HPC and quantum computing ecosystems

Maisons-Laffitte, Grenoble (France) – 9 October 2026 – SiPearl, the designer of European high-performance energy-efficient CPUs for sovereign supercomputing, AI and data centre, and Quobly, a French quantum computing company developing industrially scalable quantum computers based on silicon spin qubits, have signed a Memorandum of Understanding (MoU) to combine their respective technologies and expertise towards a sovereign quantum computing solution, bringing together SiPearl's CPU technology and Quobly's quantum processors.

Integrating European CPU and quantum technologies

This non-exclusive collaboration will initially focus on integrating SiPearl's first-generation Rhea1 CPU and its associated Seine reference server with a Quobly QPU system, as part of the development of Quobly's Alloy product line.

This first phase will assess the technical feasibility of hybridizing the two technologies within a common system architecture. The partners will then explore the optimization and deployment of hybrid HPC-quantum workloads, followed by potential architecture synergies for future generations of products.

Supporting a European sovereign computing ecosystem

The collaboration brings together two core building blocks for European computing, combining SiPearl's CPU technology with Quobly's quantum processors, and marks a first step towards bridging Europe's HPC and quantum computing ecosystems.

SiPearl and Quobly also intend to coordinate their efforts to respond to European calls for tenders, including potential joint opportunities under the Chips Joint Undertaking (Chips JU) on Quantum.

"Building scalable quantum computers also means building the classical computing environment around them. By exploring the integration of SiPearl's CPU technology with our quantum computers, we are looking at how HPC and quantum computing can work together efficiently, from the system level to future architectures. This cooperation is also part of our

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ambition to build quantum computers that can integrate into existing computing infrastructures,” said Maud Vinet, CEO and Co-founder of Quobly.

“We have had close ties with Quobly for a long time, thanks in particular to SiPearl’s R&D centre in Grenoble, but above all because we share the same vision regarding the need to build a European hardware ecosystem for sovereign computing. This first partnership with a quantum expert marks another significant milestone in the development of this ecosystem which will offer complementary sovereign hardware solutions in the fields of HPC, AI and quantum computing for Europe’s strategic applications”, concluded Philippe Notton, CEO and Founder of SiPearl.

About... SiPearl

SiPearl is the European fabless designer of secure high-performance energy-efficient CPUs built for sovereign HPC, AI and data centre. These CPUs will help address strategic challenges in the fields of security, defence, medical research, energy, climate and engineering with a reduced environmental footprint.

Featuring 80 Arm Neoverse V1 cores with 61 billion transistors, SiPearl’s first-generation CPU, Rhea1, will be released end of 2026. SiPearl’s CPUs will equip the two first European exascale supercomputers: Rhea1 will be integrated into the JUPITER machine based in Germany and Rhea2 will be part of Alice Recoque in France.

Supported by the European Union and France, SiPearl employs 200 people in France, Spain, Italy and Taiwan.

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About... Quobly

Quobly is building the first industrially scalable quantum computer by combining silicon spin qubits with advanced semiconductor manufacturing. Founded in 2022 in Grenoble, France, the company has developed a unique co-design approach with STMicroelectronics, bringing quantum processors and cryogenic control electronics onto a proven 300mm FD-SOI manufacturing platform and enabling an approach in which the quantum-computing capacity can scale through semiconductor-style integration and manufacturing.

Quobly’s Alloy product family combines a commercial product roadmap with a long-term scaling strategy: first cloud access from the end of 2026 for high-performance computing and research users, and a target of one million qubits by 2032. This roadmap applies the same VLSI (Very Large-Scale Integration) principle that transformed classical computing: increasing computational capacity through semiconductor integration rather than increases in physical infrastructure. This creates a path toward predictable system footprint, energy requirements, manufacturing economics and customer ROI as quantum computing scales.

The company leverages Europe’s industrial semiconductor ecosystem, building and securing a Si-28 value chain with strategic partners including Air Liquide, Soitec and Orano to accelerate the industrialization of its quantum processors, reduce deployment risk and support long-term scalability.

In June 2026, Quobly raised a €115 million Series A led by Bpifrance, STMicroelectronics and SEALSQ, with participation from leading industrial and deeptech investors, to accelerate the commercialization of its Alloy

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product family. With more than 100 employees, Quobly is headquartered in Grenoble, France, with subsidiaries in Singapore and Canada.

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