

Press Kit – Quandela

About Quandela :

Quandela is a global leader in quantum computing, designing, building, and delivering cutting-edge quantum solutions for research and industry. Its offerings include the most energy-efficient quantum computers for data centres, full-stack quantum computing solutions accessible via the cloud, and algorithm access services for academic and industrial customers. Following a pragmatic, step-by-step roadmap, Quandela has been deploying industrial-grade systems since 2023 while developing future generations of fault-tolerant quantum computers capable of scaling through the integration of thousands of photonic components. Quandela is committed to making quantum computing accessible to all in order to address the most complex industrial and societal challenges.

Learn more at: [Quandela | Leading Photonic Quantum Computing Solutions](#)

Key Historic dates:

2017: Quandela Founded

Quandela was founded in Massy, France, as a spin-off from CNRS and C2N research in quantum photonics by Pascale Senellart, Niccolo Somaschi, and Valérian Giesz.

2021: €15M Series A Funding

Quandela raised €15 million to industrialise its first full-stack photonic quantum computer and accelerate product development.

2022: First European Photonic Quantum Computer Accessible via Cloud

The company launched Ascella, a 6-qubit photonic quantum computer available through cloud access, alongside the open-source framework Perceval.

2023: Opening of France's First Quantum Computer Factory

Quandela inaugurated its production facility in Massy and delivered MosaiQ to OVHcloud, marking one of Europe's first industrial quantum computer deployments.

2023: €50M Series B Funding

The company secured €50 million to support international expansion and industrial-scale manufacturing.

2024: Roadmap 2030 Unveiled

Quandela announced its strategy to achieve fault-tolerant universal quantum computing by 2030 and was selected for France's strategic PROQCIMA programme.

2025: Launch of Belenos

Quandela introduced *Belenos*, a 12-qubit photonic quantum computer described as the world's most powerful in its category, delivering 4,000 times more computing power than the previous generation.

2025: Integration into EuroHPC Infrastructure

The *Lucy* photonic quantum computer was deployed at the CEA's TGCC supercomputing centre as part of the EuroQCS-France initiative.

2026: Integration into OVHcloud Quantum Platform

OVHcloud integrated Quandela's *Belenos* system into its Quantum Platform, expanding cloud-based access to photonic quantum computing.

2026: Safran Partnership for Quantum Simulation

Quandela partnered with Safran on the AQeFLU project to develop quantum algorithms for industrial fluid dynamics and simulation applications.

Key Events:

1. October 2024: Quandela Unveils its 2024–2030 Roadmap

Quandela unveiled its strategic roadmap towards fault-tolerant quantum computing, outlining major milestones including the achievement of the first logical qubits by 2025, the scaling to 50 logical qubits by 2028, and the industrialisation of error-corrected quantum computers by 2030. The roadmap also includes the expansion of manufacturing capacity, quantum networking capabilities, and hybrid QPU-GPU architectures for AI applications.

Read the full press release here: <https://www.quandela.com/about-us/newsroom/quandela-unveils-its-2024-2030-roadmap/>

2. May 2025: Belenos, the World's Most Powerful Photonic Quantum Computer

Quandela announced the launch of *Belenos*, a 12-qubit photonic quantum computer delivering 4,000× more computing power than its previous generation released in 2022. Accessible through the cloud to more than 1,200 users across 30 countries, *Belenos* marks a major milestone in Quandela's Roadmap 2030 towards scalable fault-tolerant quantum computing. The system is designed for applications in quantum machine learning, AI acceleration, materials simulation, structural mechanics, and meteorology, with an integrated version scheduled for deployment in a EuroHPC supercomputer by the end of 2025.

Read the full press release here: <https://www.quandela.com/about-us/newsroom/belenos-the-worlds-most-powerful-photonic-quantum-computer-launched-by-quandela/>

3. May 2025: Quandela Delivers Lucy to EuroHPC and GENCI at CEA's TGCC

Quandela announced the delivery of *Lucy*, a 12-qubit photonic quantum computer, to the CEA's Très Grand Centre de Calcul (TGCC) as part of the EuroQCS-France initiative supported by EuroHPC and GENCI. Integrated with the *Joliot-Curie* supercomputer, Lucy becomes one of the first photonic quantum systems connected to a major European high-performance computing infrastructure. The deployment supports advanced research in areas such as materials simulation, fluid dynamics, structural mechanics, and climate modelling, while reinforcing Europe's sovereign quantum computing capabilities.

Read the full press release here: <https://www.quandela.com/about-us/newsroom/cea-lucy-photonic-quantum-computer-europe/>

4. April 2026: OVHcloud Integrates Quandela's Belenos into its Quantum Platform

OVHcloud announced the integration of Quandela's *Belenos* photonic quantum computer into its Quantum Platform, expanding cloud access to one of the world's most advanced photonic quantum systems. The partnership enables researchers, developers, and industrial users to access hybrid quantum-classical computing resources through OVHcloud's infrastructure, reinforcing Europe's sovereign quantum ecosystem. The deployment also demonstrates the growing maturity of photonic quantum computing for real-world industrial and scientific applications.

Read the full press release here: <https://www.quandela.com/about-us/newsroom/quandela-belenos-ovhcloud-quantum-platform/>

5. September 2024: Quandela Launches its Canadian Subsidiary, Quandela Canada

Quandela announced the launch of its Canadian subsidiary, Quandela Canada, in Montréal, marking a major step in the company's international expansion strategy. The announcement was accompanied by the deployment of the first European quantum computer on North American soil at Exaion's Bellevue Data Centre in Québec, strengthening collaboration between European and Canadian quantum ecosystems.

The initiative reinforces Quandela's ambition to develop international quantum hubs bringing together industrial, scientific and technological partners to accelerate the adoption of quantum computing applications across multiple sectors, including energy, aerospace, cybersecurity and artificial intelligence.

Read the full press release here: <https://www.quandela.com/about-us/newsroom/quandela-announces-the-launching-of-its-canadian-subsiary-quandela-canada/>

6. February 2025: Quandela Achieves Major Breakthrough in Fault-Tolerant Quantum Computing

Quandela announced a major scientific breakthrough enabling a 100,000-fold reduction in the number of components required for fault-tolerant quantum calculations. Based on its hybrid photonic architecture combining semiconductor quantum emitters and photonic qubits, the approach requires only 12 components to generate a logical qubit, compared with approximately one million in conventional all-photonic approaches. The breakthrough represents a significant step towards scalable, energy-efficient and industrialised fault-tolerant quantum computing.

Read the full press release here: <https://www.quandela.com/about-us/newsroom/quandela-announces-a-100000-reduction-in-the-number-of-components-needed-for-fault-tolerant-calculations-a-major-breakthrough-for-photonic-quantum-computing/>

Founders' Bio

Dr. Niccolo Somaschi:

Niccolo Somaschi is the CEO of Quandela. Since 2023, he has led the company's strategic growth and international expansion in quantum photonics and quantum computing. Before becoming CEO, he served as CTO, overseeing the development of the first generation of quantum computers based on semiconductor quantum light emitters.

Niccolo Somaschi holds a PhD in experimental physics from the University of Southampton; he worked in several research laboratories across Europe before joining the C2N-CNRS laboratory in Paris-France. His work contributed to the technological advances that led to the creation of Quandela.

He has authored numerous scientific publications in top scientific journals. In 2023, Niccolo Somaschi received the Jean Jerphagnon Award, recognising leading innovators in photonic technologies.

Prof. Pascale Senellart:

Prof. Pascale Senellart is co-founder and scientific adviser of Quandela and CNRS Research Director at the Centre for Nanoscience and Nanotechnology (CNRS- Université

Paris-Saclay). Prof. Senellart is a world-renowned expert recognised for her research on quantum light -sources based on semiconductor quantum dots. The unique performance of the photon sources developed by her team over the past 20 years enabled Quandela to become the first European company to put a photonic quantum computer online in 2022. Her most recent work on many-photon entanglement has unlocked the path towards fault-tolerant quantum computing.

Pascale Senellart joined the CNRS in 2002 and École Polytechnique in 2014 as associate professor. She received many awards including the CNRS silver medal (2014), the Mergier-Bourdeix grand prize from the Académie des Sciences (2021), the Jean-Ricard grand prize from the Société française de physique (2023) and the CNRS innovation medal in 2025

She was elected to the Académie des Sciences in 2022, to the Académie des Technologies in 2024 and invited professor at Collège de France in 2025. She is a member of the President Macron's Council for Science since 2023.

Dr. Valérian Giesz

Valérian Giesz is an engineer who graduated from Institut d'Optique (Paris-Saclay) and holds a PhD in photonics, semiconductors, and quantum technologies. During his doctoral research in Professor Pascale Senellart's group, he was involved from the early stages in the development of high-performance single-photon sources based on quantum dots.

In 2017, he co-founded Quandela and played a central role in transforming cutting-edge scientific research into an industrial and entrepreneurial venture. Serving as CEO from 2017 to 2023, he helped grow the company from a deeptech start-up into an international player in quantum computing. His work lies at the intersection of science, innovation, business development, and strategic communication, with a constant focus on bridging advanced research and real-world applications.

Beyond technology development, Valérian Giesz is actively committed to promoting the adoption of quantum computing across industry, academia, and public institutions. He regularly speaks about the promise of quantum technologies, the challenges of scaling them, and the need to build a strong European ecosystem in this strategic field. Through his leadership and advocacy, he contributes to shaping the future of practical and accessible quantum computing. Since 2023, he has been recognized by Institut Choiseul as one of its Top 100 Young Leaders.

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