



Press Release

Quantum Optics Jena Secures €8.5 Million in Series A Funding to Revolutionize Secure Communications

Investors Back German Quantum Technology as a Cybersecurity Solution

Jena, September 11, 2024 – Quantum Optics Jena (QOJ), a pioneering startup in the field of quantum technology, today announced the closing of an €8.5 million Series A funding round. This investment underscores the growing confidence in German quantum technology and its potential to revolutionize secure data transmission.

Led by Join Capital, a leading European venture capital firm, joined by early investors ELAS Technologies GmbH, Fraunhofer Technologies-Transfer Fonds, and beteiligungsmanagement Thüringen (bm|t) as well as business angel Malte Pollmann, this latest funding round will fuel QOJ's expansion and accelerate the commercialization of its quantum key distribution technology. With its quantum encryption, QOJ enables tap-proof communication for companies and institutions of all sizes. The fresh capital from this Series A will fuel expansion and help bring QOJ's quantum key technology to a wider market.

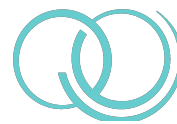
Unhackable communication, thanks to quantum optics

"We are excited to support QOJ in their mission to fundamentally transform the cybersecurity landscape," said Tobias Schirmer, Partner at Join Capital. "Quantum key distribution is a groundbreaking approach to data security, and QOJ is leading the way in this exciting field." The QOJ team is pioneering advancements in cybersecurity by harnessing quantum optics – a technology that uses entangled pairs of photons (light particles) to transmit information with complete security. These photons generate a secret key, which is then used to encrypt and decrypt data—a method known as entanglement-based key distribution (EKD). With this approach, multiple users can securely communicate at the same time using the generated quantum keys.

Quantum Optics Jena is the world's only commercial provider of such multi-party quantum key distribution systems. The company – which develops hardware, software and services for data exchange – has received multiple awards for its technologies. QOJ's solutions are particularly interesting for customers with high security requirements, such as government networks, as well as banks that need to communicate confidentially and securely but have high risk of exposure to hackers. This technology can also benefit research institutions, small and medium-sized enterprises, the healthcare sector, and society as a whole.

Global Expansion and European Quantum Communication Infrastructure Development

"Our technology has moved beyond the research lab and is now ready for practical applications. With this funding, we can expand our production capacity and scale our technology globally," explains Dr. Kevin Füchsel, CEO of Quantum Optics Jena. "I've had the privilege of collaborating closely with the highly skilled founding team at Quantum Optics Jena for years. Their groundbreaking advancements in quantum technology have consistently



impressed me. I'm thrilled to be part of their journey as they redefine the landscape of secure communication", says business angel Malte Pollmann.

Quantum Optics Jena is already a global player and is also active in Singapore, Spain, Austria, and Slovakia, with a sales office in North Carolina, USA. Currently, the company is working on connecting data centers and critical infrastructures. In the rural area surrounding the university town of Jena, Germany, QOJ is building a communication system with partners to securely send information and patient data to the Jena University Hospital. The company is also involved in the construction of a European Quantum Communication Infrastructure (EuroQCI), which is expected to be operational across all of Europe by 2027.

About Quantum Optics Jena

Quantum Optics Jena was spun off from the Fraunhofer Institute for Applied Optics and Fine Mechanics (IOF) in Jena in 2020. The managing directors are Dr. Kevin Füchsel and Dr. Oliver de Vries. Just a few months after Alain Aspect, John F. Clauser, and Anton Zeilinger, whose research made a significant contribution to the understanding of entanglement and received the Nobel Prize in Physics, Quantum Optics Jena launched its first commercial solutions. Learn more about Quantum Optics Jena at www.qo-jena.com.

Investors

Join Capital is an early-stage venture capital fund with offices in Berlin, London, and Milan that has been investing in "New Industry" startups across Europe since 2017. The fund's strategy focuses on deep-tech and B2B software companies committed to the digital transformation of industry and making a significant contribution to solving the major challenges of our time. Join Capital is currently investing from its second fund and manages more than €150 million in assets. Investors include the Nato Innovation Fund (NIF), KfW Capital as well as leading fund of funds and family offices. Since inception, Join Capital has already invested in a total of 25 portfolio companies and realized four exits. Learn more at www.join.capital

[bm-t beteiligungsmanagement Thüringen \(bm|t\)](#), headquartered in Erfurt – a subsidiary of the Thüringer Aufbau Bank – is the first point of contact for venture capital investments in Thuringia, Germany. bm|t currently manages twelve funds with a total volume of €445 million and invests in innovative companies with strong growth potential across all industries and all phases of the corporate life cycle.

[Fraunhofer Technologie-Transfer Fonds \(FTTF\)](#) is an independent early-stage venture capital investor for deep-tech startups using Fraunhofer technologies, and the first of its kind in Germany. With a volume of €60 million, FTTF provides startups with capital of up to €5 million during the challenging early phases. The FTTF is backed by its two fund investors, the Fraunhofer-Gesellschaft and the European Investment Fund (EIF). Since its establishment in 2019, FTTF has invested in 39 startups pursuing innovative business models based on a wide range of Fraunhofer technologies.

[ELAS Technology Investment GmbH \(ELAS\)](#) is a German-based but globally oriented financial investor headquartered in Hamburg in northern Germany. ELAS was founded to provide financial and infrastructural support to promising companies and organizations in the global photonics and high-tech industry.

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