

Q.ANT Brings Commercial Photonic Computing to the United States, Appoints Bruno Spruth as CTO

German startup will open US headquarters in Austin, taking its mission for radically more energy-efficient and scalable computing solutions international

Stuttgart, 04/23 – [Q.ANT](#), the pioneer in commercial photonic computing, today announced the opening of its U.S. headquarters in Austin, Texas, and the appointment of semiconductor veteran Bruno Spruth as Chief Technology Officer.

Spruth, who previously served as Vice President of Power Processor Development at IBM, leading one of the world's most advanced high-performance computing architectures, will drive Q.ANT's technological strategy and product development and lead Q.ANT in North America.

"Q.ANT's US expansion offers hyperscalers, data centers, and innovators the opportunity to explore how they can reduce energy consumption and improve compute performance through our Native Processing Server. Bruno's deep semiconductor experience and record of global execution is vital for our growth in one of the world's most competitive and innovative markets for artificial intelligence," said Michael Förtsch, CEO of Q.ANT. "Bruno has spent his career at the center of modern computing. He knows its limits, and that the future of innovation requires reinvention. That is exactly what we are doing at Q.ANT."

The expansion into the U.S. marks a pivotal shift in the global AI race, introducing a photonic processor platform designed to power the world's most demanding artificial intelligence infrastructure. As U.S. companies commit to [invest over \\$690 billion](#) into AI this year, the functionality of silicon processors and accelerators are pushing against their computation limits. At the same time, data centers are consuming exponentially more power and generating more heat, creating additional physical and technical obstacles for hyperscalers and the new features they hope to bring to market.

Q.ANT was founded in Stuttgart in 2018 to solve these problems. The company developed a processor that computes natively in light, executing complex mathematical operations in the optical domain where heat generation is near zero. At the heart of the processors are photonic chips, built on a Thin-Film Lithium Niobate platform and produced on Q.ANT's own pilot line through its Stuttgart-based partner, IMS Chips.

Q.ANT's Native Processing Units deliver up to 30 times the energy efficiency and 50 times the performance of conventional processors for AI and high-performance computing workloads. Q.ANT's Native Processing Server integrates into existing data centers via standard PCIe interfaces, operating as co-processor alongside CPUs and GPUs without requiring specialized cooling infrastructure.

In 2025, Q.ANT became the first company in the world to deploy a commercial photonic processor in a live production HPC environment, at the Leibniz Supercomputing Centre (LRZ) in Germany, where its processors are actively running workloads in climate modeling, medical imaging, and fusion energy research.

Now, Q.ANT is expanding into the U.S. market with plans to localize chip manufacturing as it brings commercial photonics processors to North America. By establishing its headquarters in Austin, Q.ANT is at the epicenter of one of the world's leading ecosystems for semiconductor research, hyperscale infrastructure, and advanced computing talent. Over the next six months, Q.ANT plans to increase its U.S. headcount across software development, photonics, and digital system design to 20 employees.

As CTO, Spruth brings 16 years of senior leadership at IBM, culminating in global responsibility for the POWER processor development, technology that underpins mission-critical systems, AI workloads, and some of the world's most demanding computing environments. In his new role, he will lead Q.ANT's technological strategy and product development across North America.

"Photonics is not an incremental step forward — it is a different way to compute entirely," said Spruth. "Q.ANT has built something the industry has needed for a long time, and it is time to bring this technology into the U.S. market at scale. With its combination of top-tier technical universities, a mature semiconductor ecosystem, and supportive regulatory environment, Austin is the ideal home for Q.ANT's U.S. headquarters."

This expansion into the U.S. market follows the launch of the company's Generation 2 processor, currently used by LRZ to explore non-linear mathematical applications, and the close of its USD80 million Series A round from investors, including Duquesne Family Office, Hermann Hauser, Cherry Ventures, UVC Ventures, L-Bank, imec.xpand, Verve Ventures, Grazia Equity, EXF Alpha, LEA Partners, Onsite Ventures, and TRUMPF.

About Q.ANT

Q.ANT is commercializing photonic accelerators for AI and high-performance computing, offering a scalable alternative to transistor-based systems. Its Native Processing Units (NPUs) use photonic integrated circuits based on a lithium niobate material platform to perform mathematical operations directly on the chip using optical signals, enabling energy-efficient co-processing for complex computational tasks. Q.ANT operates its own TFLN chip pilot line in collaboration with IMS CHIPS. Q.ANT was founded in 2018, and is headquartered in Stuttgart, Germany.

Pictures



As Chief Technology Officer (CTO), semiconductor expert Bruno Spruth (top left and bottom) will be responsible for Q.ANT's technology strategy and will lead the company's US operations. Together with Q.ANT CEO Michael Förtsch, he is presenting Q.ANT's second-generation Native Processing Unit (NPU) (top right).

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