



FOR IMMEDIATE RELEASE

## **Fixstars Amplify Adds German Quantum Startup QUDORA's Quantum Computing Environment to Its Standard Machines**

*The physical hardware is scheduled to be available by 2027, with the emulator being offered in advance.*

IRVINE, California – May 29, 2026 – Fixstars Corporation (TSE Prime: 3687; President and CEO: Satoshi Miki), a leading company in performance engineering, today announced that its group company Fixstars Amplify Corporation (President and CEO: Yoshiki Matsuda) has signed a partnership agreement with the German quantum startup QUDORA Technologies GmbH (hereinafter "QUDORA")—the first of its kind in Japan—and has added QUDORA's quantum computing environment, "QUDORA Cloud," to the optimization cloud service "Fixstars Amplify" (hereinafter "Amplify") as a standard machine. By supporting QUDORA's exceptional quantum computing environment, Fixstars Amplify will further promote optimization and the social implementation of quantum technology.

### **Applying Advanced Ion-Trap Quantum Computers to Optimization**

QUDORA is a leading full-stack quantum computing company in Germany, offering Europe's most advanced ion-trap systems by integrating its proprietary NFQC® technology [1] with in-house chip manufacturing. Its 50-qubit system, scheduled to be operational by 2027, utilizes proprietary, long-life "clock qubits" with excellent fidelity [2], having already demonstrated a remarkable coherence time exceeding 60 seconds. This characteristic of long-life qubits is expected to dramatically improve the calculation accuracy of optimization algorithms, including the Quantum Approximate Optimization Algorithm (QAOA) [3], is expected to improve dramatically compared to conventional physical hardware. The system will be capable of scaling to 200 qubits with subsequent QPU designs.

By using the **Fixstars Amplify SDK**, a development library that uniformly handles combinatorial optimization problems, and the **Amplify Quantum** extension, which supports quantum optimization algorithms, users can now utilize QUDORA's quantum computing resources to conduct research and development on various quantum optimization algorithms, including QAOA (\*).

\* Requires Amplify SDK version 1.6 or higher and Amplify Quantum version 1.1 or higher.

## **Launch of the "Qamelion Emulator"**

Ahead of the actual machine's operation, QUDORA is providing the Qamelion Emulator, which faithfully simulates the physical characteristics of the quantum hardware. Users can immediately experience the next-generation computing environment through the Amplify SDK without having to wait for the physical machine's resources.

To support evaluation and verification using the Qamelion Emulator, Fixstars Amplify has begun issuing access tokens. By submitting a request on the access token page, users can start utilizing the Qamelion Emulator via the Fixstars Amplify cloud. The emulator is available free of charge for up to 1 hour per person (\*\*).

\*\* Please contact us separately if you wish to use the emulator for more than 1 hour.

## **Comments**

### **Yoshiki Matsuda, President and CEO, Fixstars Amplify Inc.**

"We are thrilled to partner with QUDORA and integrate their exceptional ion-trap quantum computing environment into Amplify. QUDORA's proprietary NFQC® technology will dramatically improve the calculation accuracy of hybrid algorithms such as QAOA. In particular, its scalability to thousands or tens of thousands of qubits is expected to be key in realizing practical quantum computing. Under the vision 'Optimal answers through cutting-edge technology. Making society smarter,' Amplify aims to expand its value as a gateway to next-generation quantum computing environments through this collaboration. By actively incorporating innovative technologies alongside QUDORA, we will strongly promote the industrial application and social implementation of quantum technology."

### **Dr. Amado Bautista, CEO & Co-Founder, QUDORA Technologies GmbH**

"We are highly honored to partner with Fixstars Amplify and expand access to our quantum computing solutions. By combining the exceptional quality and coherence time of QUDORA's ion-trap qubits with Fixstars Amplify's outstanding optimization capabilities and infrastructure, users will be able to develop quantum applications more effectively and transition them into practical operations across all fields, from research to industrial use. Japan is a vital market for QUDORA, and this partnership solidifies our presence in the region. Fixstars Amplify is a partner that shares our philosophy of applying quantum technology to complex computational problems. In solving such problems, the performance and reliability of the underlying systems will continue to remain critically important."

## **About QUDORA Technologies GmbH**

Founded in 2021, QUDORA is a German full-stack quantum computing company leading the development and deployment of ion-trap quantum computers. With its proprietary NFQC® technology, it achieves precise qubit control and extremely long coherence times, enabling the construction of scalable and high-performance quantum systems. The company provides

access to quantum computers through both on-premises installations at HPC (High-Performance Computing) centers and secure cloud environments, promoting the practical application of quantum computing alongside major industrial and research partners in Europe and Asia. URL: <https://qudora.com/>

### **About Fixstars Amplify Inc.**

Fixstars Amplify provides an "Optimization Cloud Service" that tackles complex social issues utilizing cutting-edge technologies such as Quantum, AI, and GPUs. Under the vision, "Optimal answers through cutting-edge technology. Making society smarter," the company develops and offers the "Fixstars Amplify SDK," which handles diverse solvers—including quantum gates and quantum annealing—in a unified manner, alongside its proprietary high-performance solver, "Fixstars Amplify AE/SE." With over 1,100 registered organizations and cumulative executions surpassing 120 million (as of February 13, 2026), the company is vigorously driving social implementation across a wide range of fields. URL: <https://amplify.fixstars.com/>

[1] NFQC® (Near-Field Quantum Control) Technology: QUDORA's proprietary qubit control mechanism using microwaves. While conventional ion-trap systems rely on massive external laser optical systems, this technology controls qubits using near-field magnetics. This eliminates the complexity of optical systems and enables the construction of a control system highly compatible with semiconductor miniaturization technologies, providing a decisive advantage in scaling to the level of thousands or tens of thousands of qubits.

[2] Fidelity: An indicator in quantum computing that measures "how accurate" qubit operations and calculation results are compared to an ideal (error-free) state. The maximum value is 1 (or 100%); the higher this number, the lower the noise or errors, indicating high calculation precision. It serves as an extremely important performance evaluation metric for realizing practical quantum computers.

[3] Quantum Approximate Optimization Algorithm (QAOA): A quantum algorithm devised to solve "combinatorial optimization problems" by finding the optimal solution from a vast number of options. Designed to operate on current, noisy, transitional-stage quantum computers (commonly known as NISQ), it is expected to be applied in the future to solve a wide range of social issues, such as logistics route optimization, financial portfolio construction, and new material discovery.

**About Fixstars Corporation**

Fixstars is a technology company dedicated to accelerating AI inference and training through advanced software optimization solutions. It supports innovation in healthcare, manufacturing, finance, mobility, and other industries. For more information, visit: <https://www.fixstars.com/>

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