R&D phase | Research **Expected Commercialization** | FY27-

Mehr Licht!
More Photonics for Intelligence

#D03

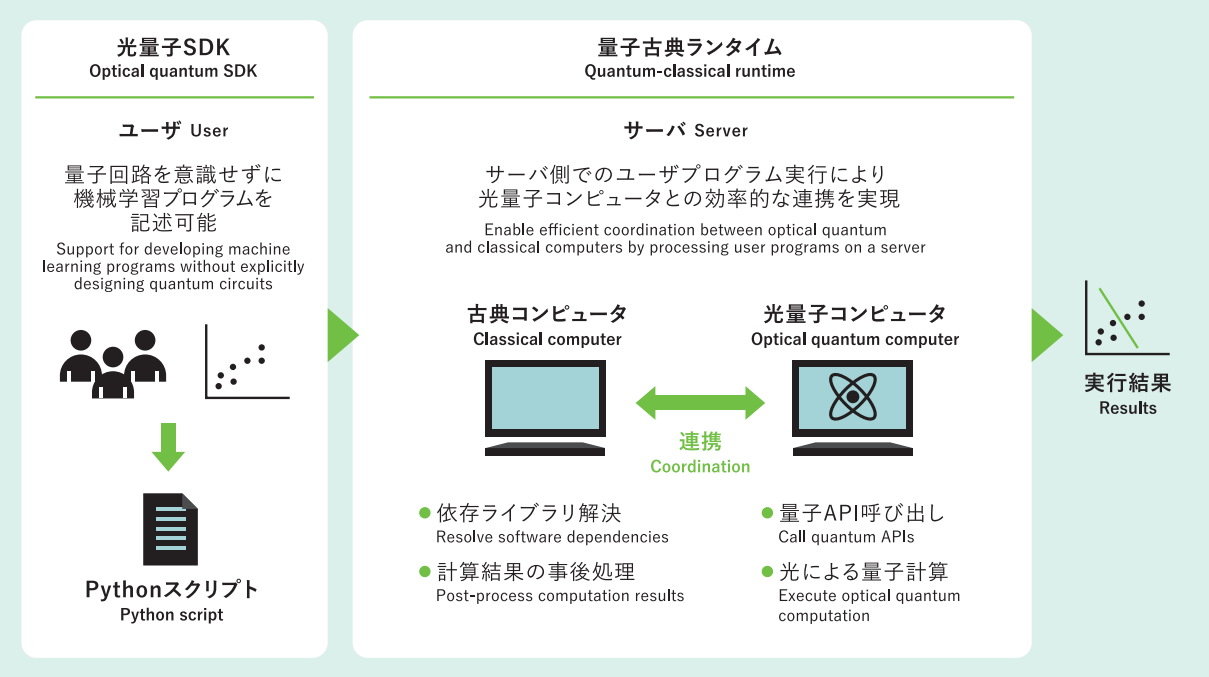
#AI & Quantum Infrastructure #Open Innovation

Software for Optical Quantum Computers

Making optical quantum computing accessible and practical

Technical Challenges & Goals

Optical quantum computers are expected to execute machine learning tasks considered difficult for classical computers. Software for implementing algorithms and supporting multiple users remains underdeveloped. We developed a software environment enabling users to efficiently run quantum computations.



Key Technologies

Core Technologies

- Software supporting programming for machine learning with optical quantum computers
- System software for hybrid quantum-classical computation on optical quantum computers

Key Differentiators

- Enables machine learning programming for optical quantum computers via quantum circuit abstraction
- Classical-optical quantum hybrid runs with user-set dependencies for efficient computations

Use Cases

Manufacturing

When identifying defective products from large volumes of image and sensor data, software for machine learning and hybrid quantum-classical computing using optical quantum computers eases implementation and cuts development-time and costs.

Exhibitors

NTT, Inc. Comptuter and Data Science Laboratories

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