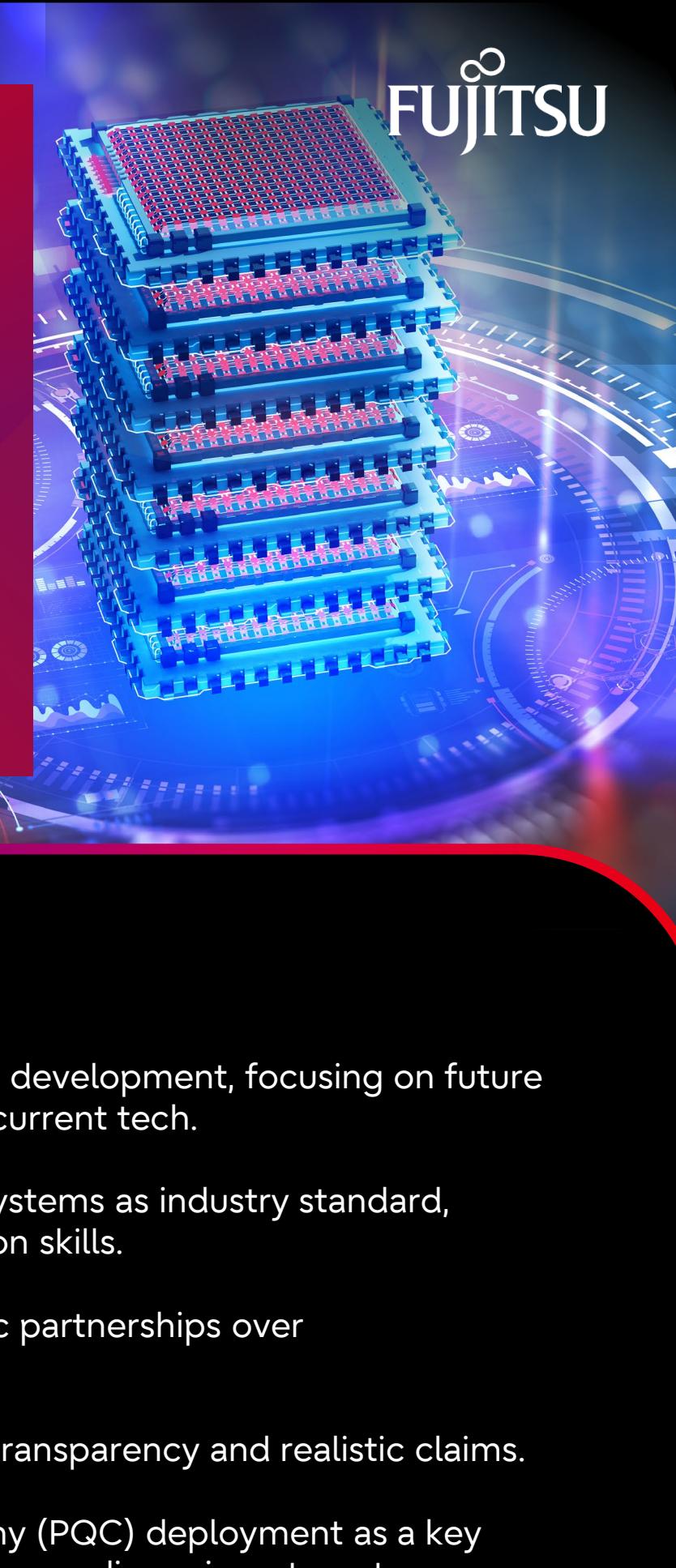


# Fujitsu on Quantum Computing

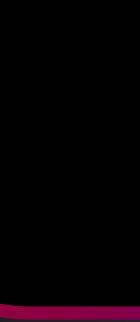
FUJITSU



## Outlook for 2026

- Shift from hype to strategic development, focusing on future advantage rather than just current tech.
- Hybrid quantum-classical systems as industry standard, mandating strong integration skills.
- Human capital and strategic partnerships over hardware acquisition.
- Market leaders defined by transparency and realistic claims.
- Post-Quantum Cryptography (PQC) deployment as a key near-term driver for quantum readiness investments.
- Quantum technology partnerships and development heavily influenced by geopolitical dynamics (export controls, funding).

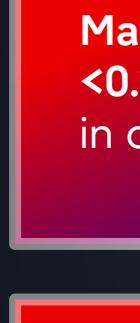
## Future Vision



Seamless **quantum + AI** integration

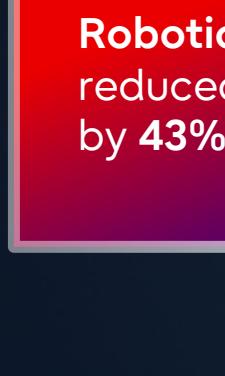


Hybrid systems  
(quantum + simulators + HPC)



Utility-scale applications:  
**materials, pharma, finance, mobility**

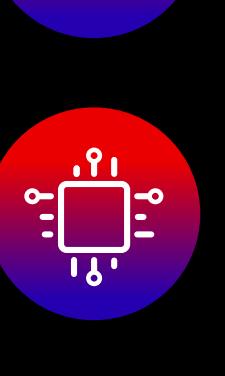
## Why Quantum?



Classical computing is hitting limits  
(end of **Moore's Law**)



Quantum computers can solve  
**complex problems faster**  
(materials, drugs, and finance)



Main hurdle:  
**errors in qubits**  
(decoherence + entanglement)

## Current state

**NISQ devices:** up to ~1,000 physical qubits, but only a few *logical* qubits

**Fault-tolerant QC** needs ~1 million physical qubits

Superconducting qubits  
need **ultra-low temps**  
(~10 mK)

## Fujitsu breakthroughs

**2023-2024:** New "STAR" error-corrected architecture → **10,000 qubits may be enough** (vs. 1M)

**Mar 2025 (With QuTech):** <0.1% error rate in diamond spin qubits

**Apr 2025:** 256-qubit superconducting quantum computer (4x density)

**Aug 2025:** Development begins on 10,000+ qubit system (goal: 250 logical qubits by 2030, 1000 by 2035)

**Robotics:** Quantum ML reduced robot control errors by 43%

"We're on the brink of a symbiotic relationship between quantum and AI, pushing the boundaries of what's possible."

Dr. Shintaro Sato,  
Fujitsu Research

Start your Quantum journey with Fujitsu Quantum Computing

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