Technology Strategy to Support Business Growth

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Corporate Vice President,
CTO, in charge of System Platform
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Corporate Executive Officer, Corporate Vice President, CTO, in charge of System Platform

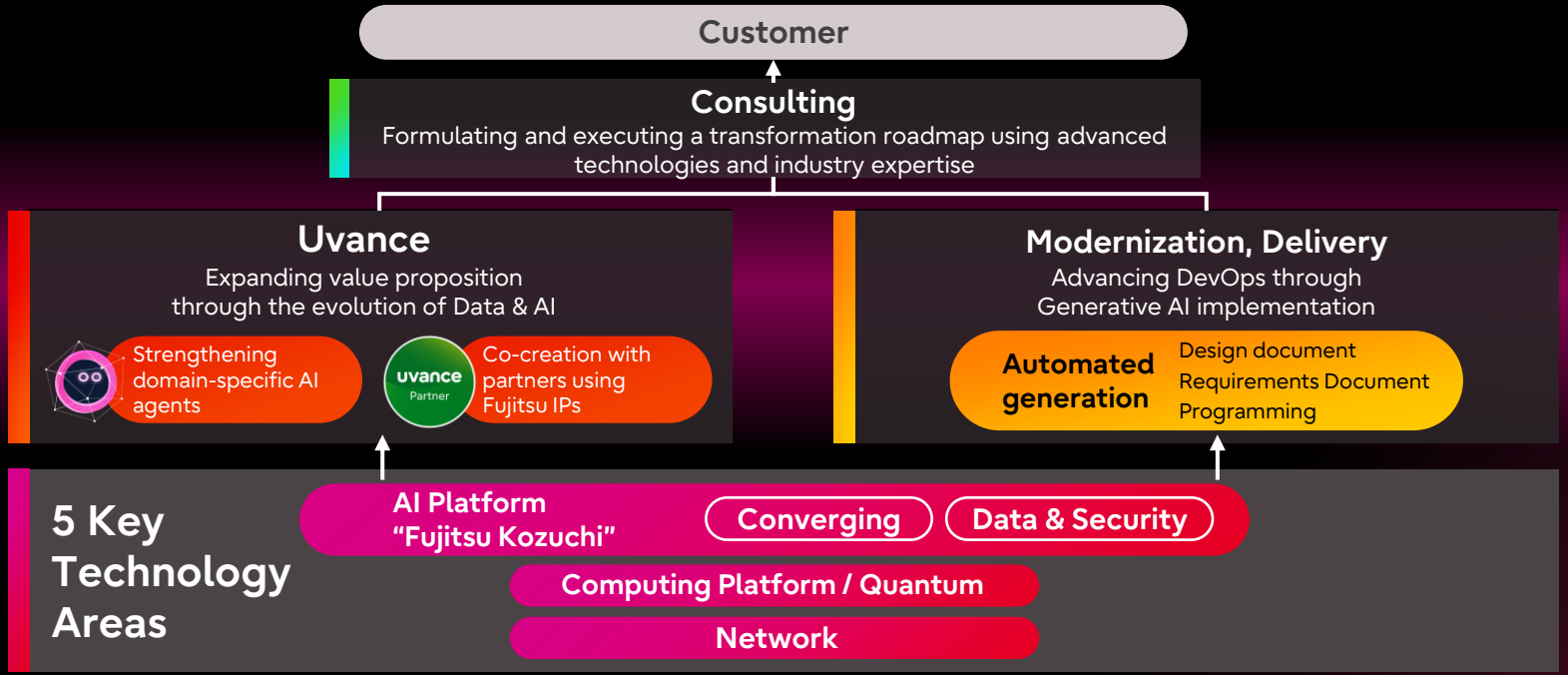
Vivek Mahajan

Vivek entered Fujitsu in July 2021 as Corporate Executive Officer and Chief Technology Officer. In 2023, he became Chief Portfolio Officer and Co-Head of the System Platform Business Group and took on the roles of Corporate Executive Officer and Corporate Vice President in 2024.
He is focused on transforming Fujitsu into a world-leading technology company with innovative technologies.

Vivek started his career with Tandem Computers in 1994. He has worked with leading global companies, including General Electric, Siebel Systems, Oracle, and IBM. He is a business professional focused on global leadership in innovation and technology.

Strengthening Technology to Innovate Customer Businesses

Strengthening value proposition and efficiency through the business application of cutting-edge technologies developed at Fujitsu Research



Fujitsu AI Strategy

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Delivering the latest AI technology - **specialized for enterprises** to meet corporate needs.

Target: Industries that require **Sovereign AI Platform (Defense, Government, Healthcare, Finance, Manufacturing)**

Fujitsu Kozuchi

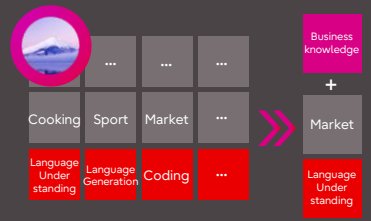
Enterprise Generative AI Framework ・Generative AI reconstruction ・Knowledge Graph Enhanced RAG ・Generative AI trust

Generative AI reconstruction

- High flexibility to provide the best customized models to meet corporate needs
- Can be lightweight for customer use cases

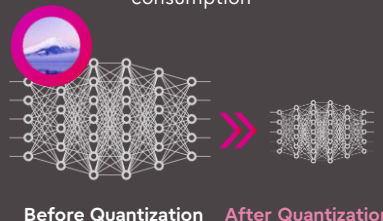
Specialized AI Distillation

Dedicated models with only the knowledge needed for specific use cases



Quantization

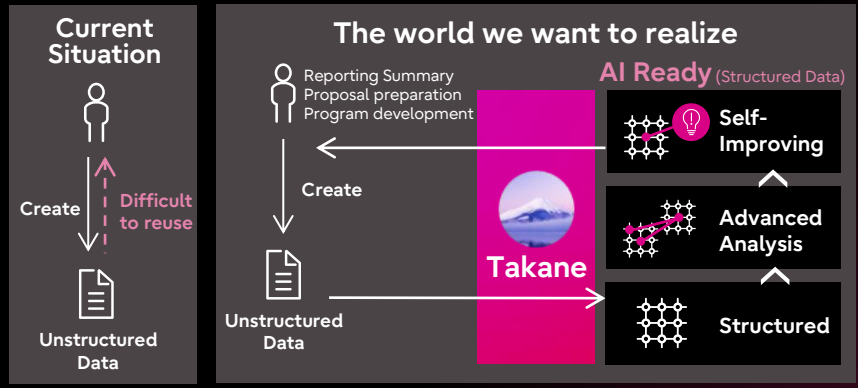
Lightweight models capable of maintaining accuracy with lower power consumption



Knowledge Graph Enhanced RAG

Structure corporate data as a management resource to ensure it is always available for AI utilization

*90% of enterprise data is unstructured, 42% never reused



Large Language model Takane

Knowledge Graph ・Root Cause Analysis ・Software Engineering ・Vision Analytics ・Question & Answering

AI Core Engine ・Generative AI ・AI Security ・Vision AI ・Graph AI

KDDI 株式会社 九州地区農協オンラインセンター Genequest ユーグレナ GR Toyota Gazoo Racing トヨタ車体 TOYOTA AUTO BODY NKSOL 日興システムソリューションズ Panasonic

Fujitsu AI Roadmap

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	2025	2026	2027	2028	2029	2030
	Kozuchi 2.0	Kozuchi 3.0	Kozuchi 4.0	Kozuchi 5.0	Kozuchi 6.0	
AI Platform	Takane 2.0 **Business-specific lightweight model** Specialized AI distillation performs specific world-class tasks accurately, lightweight, power saving Multi-AI Agent Establishment of AI agent and evaluation framework	Takane 3.0 **Deeper business understanding by modal fusion** Deeper understanding of the relationships between a company's diverse data and the meaning of customer instructions Orchestration for specialized task	Takane 4.0 **Adaptive evolution against environmental change** Evolve to adapt to changes in business and external environments Distributed collaborative learning	Takane 5.0 **Future-insight strategy planning model** Strategy planning based on deep insights through multiaxial hypothesis generation and self-testing Knowledge sharing, Federated learning	Takane 6.0 **Meta-learning and self-evolving model** Improve learning methods, adapt to unknown conditions, and evolve automatically Multi-AI agent self-organization	
Security	LLM Scanner / guardrail AI Ethics / Compliance	Multi-agent security Countermeasures for digital fakes	Safety reinforcement learning AI alignment	AI threat hunting Brain security	Cyber-neuroimmunity (Self-healing)	Self-evolving security
Physical	BRAIN 1.0 Robotics memory, inference, security Spatial world model Model building from multiple sensors	BRAIN 2.0 Distributed memory, inference, security Fusion of robot fundamental model	BRAIN 3.0 Experience sharing, task function binding heterogeneous small fleet Few-shot imitation learning	World model sharing	BRAIN 4.0 Autonomous task division and organization of small robot fleet Cross-modal sensing	BRAIN 5.0 Multiple autonomous cooperative robots Cross-domain and scale expansion

FUJITSU-MONAKA

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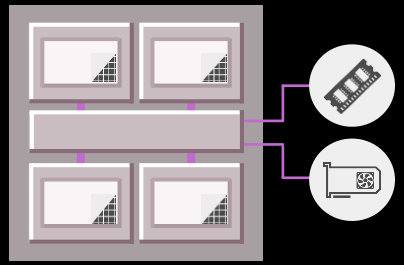
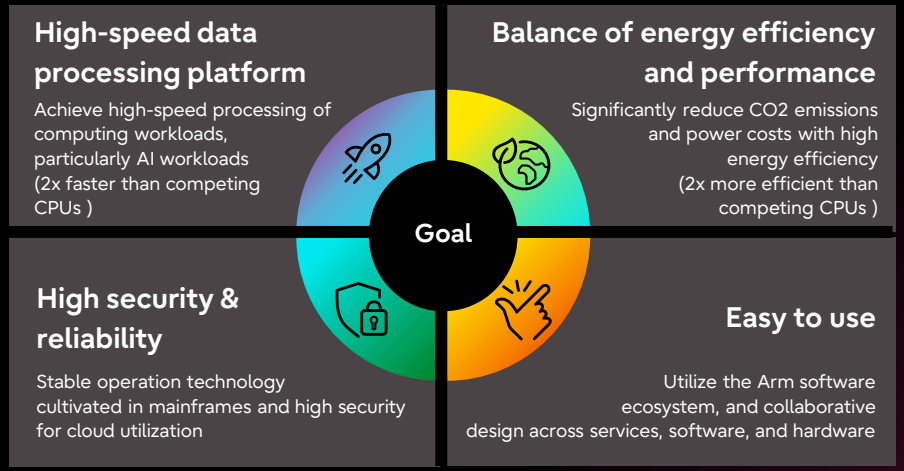


- Armv9-A Architecture
- 3D chiplet
  - Core die 2nm
  - SRAM die/IO die 5nm
- Ultra low voltage for energy-efficiency
- DDR5 12 channels
- Air cooling
- Arm SVE2 for AI and HPC
- 144 cores x 2 sockets (288 cores per node)
- Confidential Computing for security
- PCI Express 6.0 (CXL3.0)

** FUJITSU-MONAKA : This is based on results obtained from a project subsidized by the New Energy and Industrial Technology Development Organization (NEDO).*

Next-generation high-performance, energy-efficient, Japan-made processor for a digital society



Achieved through proprietary technologies, including a self-designed microarchitecture and ultra low-voltage technology

FUJITSU-MONAKA Strategic Technology Partnership

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Strengthening Global Sales Network through OEMs

Collaboration with Supermicro

- Provision of servers for DCs equipped with FUJITSU-MONAKA
- Next Generation Green Data Center, Joint Development of Water Cooling Solution for HPC
- Agreed to mass-ship servers in 2027

Providing World-Leading Computing Infrastructure

“Fugaku NEXT” Basic Design

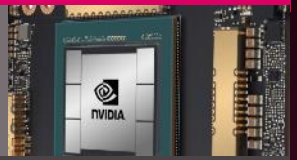
- Received order for basic design (including overall system/Compute node/CPU)
- Working with GPUs and accelerators to create a system that can respond flexibly to diverse demand changes

Expanding the AI Learning Portfolio by Building an Ecosystem

Collaboration with AMD

- Collaborative development of innovative computing infrastructure for AI/HPC
- Collaboration in three strategic areas - engineering, ecosystem and business.

Collaboration with NVIDIA



- AI systems powered by Fujitsu CPUs and NVIDIA GPUs
- NVIDIA software support and optimization at the silicon level

FUJITSU-MONAKA Targets and Roadmap

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Supporting AI Foundations globally with state-of-the-art computing made in Japan

Sovereign Infrastructure target : Defense, Government, Healthcare, Finance [part], Manufacturing [part]

Data Center

High-performance, low-power consumption FUJITSU-MONAKA platform to meet growing demand in data centers

High power efficiency and AI service co-creation

- AI Services
- Lower TCO
- Security
- Strategic alliances with partners
  - Expanding global sales network by leveraging OEM channels
  - Enhance AI learning capabilities by enhancing collaboration with other companies' GPU platfoms

Security

Providing domestic technology to relevant ministries, agencies and companies for next-generation security

Safety and security by domestic technology

- Confidential computing
- Domestic technology made in Japan

2011 — SPARC64 K — 45nm

World-class performance Massively Parallel SPARC Supercomputer

2020 — A64FX Fugaku — 7nm

The world's first Arm-based No. 1 Supercomputer

2027 — FUJITSU-MONAKA — 2nm

- High-speed data processing infrastructure
- Power efficiency and performance
- Reliability and security

2029 — FUJITSU-MONAKA-X — 1.4nm

- Consider potential NPU development
- Plan to develop with next generation node

2031 — FUJITSU-MONAKA-XX — Cutting Edge Process Node

- CPU-NPU fusion
- Leverage cutting-edge processes

Market Size (2027-2030):
Data Center 2,108.7 billion Yen / Security 355.3 billion Yen

Quantum Computing R&D Strategy

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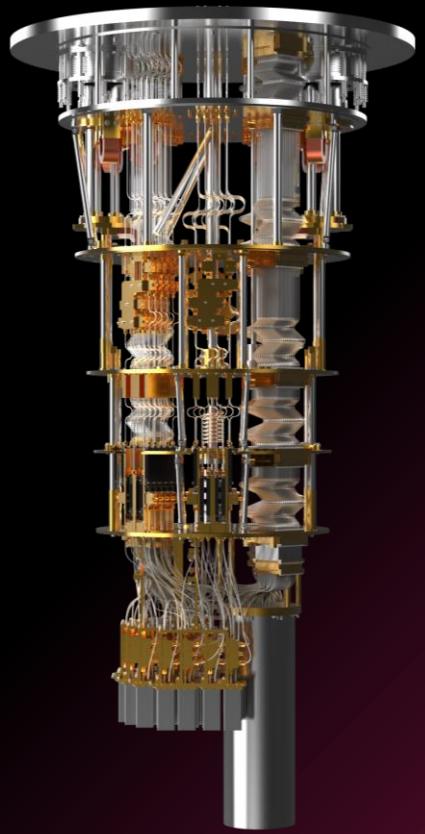
Leading player building large-scale, Japan-made quantum computer

Joint research with world's leading institutions and companies	RIKEN / TU Delft **FUJIFILM** (Quantum application) **Tokyo Electron** (Quantum application)
Extensive development focus, from quantum devices to software and applications	
Development status of quantum simulator and quantum device	**2023.07** 40 -qubit quantum simulator announced **2023.10** Superconducting quantum computer (64 qubits) **2025.03** Superconducting quantum computer (256 qubits) **FY 2026** Superconducting quantum computer (1,024 qubits) **FY 2030** Superconducting Quantum Computer (10,000+ qubits, **250 logical** qubits) **FY 2035** Superconducting quantum computer (**1,000 logical** qubits)
Technology development for breakthrough	• To achieve Fault-tolerant Quantum Computer (FTQC) • Diamond-spin quantum computer • STAR Architecture
Achievements	• CESGA: Delivery of 34 –qubit quantum simulator (2023.09) Establishment of Fujitsu International Quantum Center (2023.09) • AIST: Delivery of 64 qubit superconducting quantum computer (2025.03)
2035 Market Size (Cumulative)	Approx. 4 trillion yen | Material discovery, Process simulation, Product development & engineering, Secure collaboration



Fujitsu Quantum Computer Roadmap

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FY 2022 | 2023 | 2024 | 2025 | 2026 | 2030 | 2035

March
36
-qubit Simulator

March
Helped RIKEN release first Japanese domestic quantum computer

July
40
-qubit Simulator

October
64
-qubit quantum computer
Developed by RIKEN RQC – Fujitsu Collaboration Centre

August
Establishment of high-speed execution method of practical algorithm using original quantum computing technology STAR architecture

March
256
-qubit quantum computer
Computer with quantum-classical hybrid applications

December
1,024
-qubit quantum computer

10,000+
-qubit (250 logical qubits) quantum computer

1,000
-logical qubit quantum computer

2024
64 qubit machines x HPC hybrid calculation

September 2025
Completion of quantum building

December 2026
1,024 -qubit machine ×HPC(**FUJITSU-MONAKA**), Hybrid calculation center

2031
10,000+ -qubit machine ×HPC (**MONAKA-X, GPU servers**) Hybrid calculation center

The Future Fujitsu Aims for in 2035

Autonomous robotics capable of understanding human emotions and intentions, and acting collectively.

Types of technology
① Autonomy
② Cooperation with humans
③ Robot-to-robot cooperation
④ Other

Brain

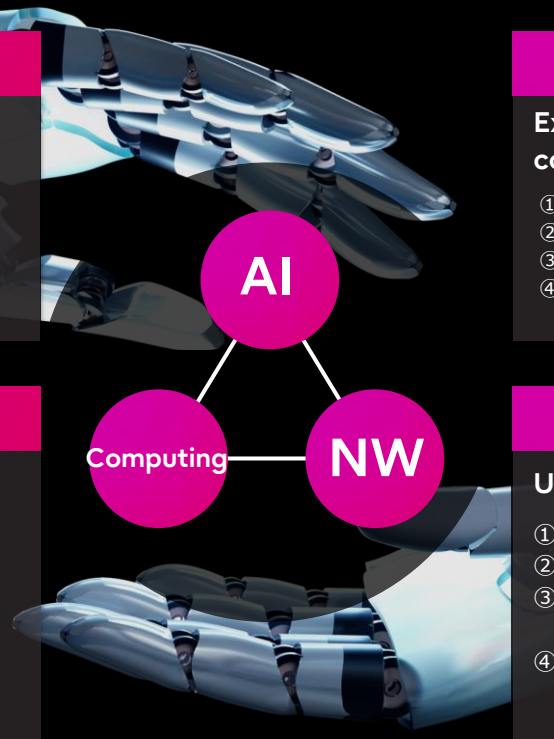
Technologies for achieving autonomy: self-growth, understanding human inner states, and collective action

① Meta-learning / Self-evolving AI
② World model that understands the human inner state
③ Collective intelligence AI for multiple robots
④ Edge AI

Movement/Control

Execution of diverse tasks, collaboration / cooperative behavior with humans

① Robotics foundation model
② Imitation learning
③ Autonomous control of multiple robots
④ Edge Computing Platform
(Real-time control, digital reflection)



Sensing/Perception

Multimodal sensors fusion for achieving cooperation, Cooperative perception

① Multimodal integrated cognition
(Vision, audition, haptics, and olfaction)
② Human emotion / intention sensing
③ Cooperative perception of multiple robots
④ Affordance perception

Safety/Security

Uncertainty handling and self-repair

① Safe reinforcement learning
② AI Alignment (Risk mitigation/Alignment with ethics)
③ Robot cooperation guardrails
(Prevention of dangerous actions, etc)
④ Self-healing against cyber attacks

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Thank you

Cautionary Statement

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These materials may contain forward-looking statements that are based on management's current information, views and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in such statements. Actual results may differ materially from those projected or implied in the forward-looking statements due to, without limitation, the following factors listed below.

- General economic and market conditions in key markets (particularly in Japan, Europe, North America, Oceania, and Asia, including China)
- Fluctuations in exchange rates or interest rates
- Fluctuations in capital markets
- Intensifying price competition
- Changes in market positioning due to competition in R&D
- Changes in the environment for the procurement of parts and components
- Changes in competitive relationships relating to collaborations, alliances and technical provisions
- Risks related to public regulations, public policy and tax matters
- Risks related to product or services defects
- Potential emergence of unprofitable projects
- Risks related to R&D investments, capital expenditures, business acquisitions, business restructuring, etc.
- Risks related to natural disasters and unforeseen events
- Changes in accounting policies