Fujitsu and AMD to begin strategic partnership to develop more sustainable computing infrastructure intended to accelerate open-source AI initiatives

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*Technology *Portfolio

Fujitsu Limited

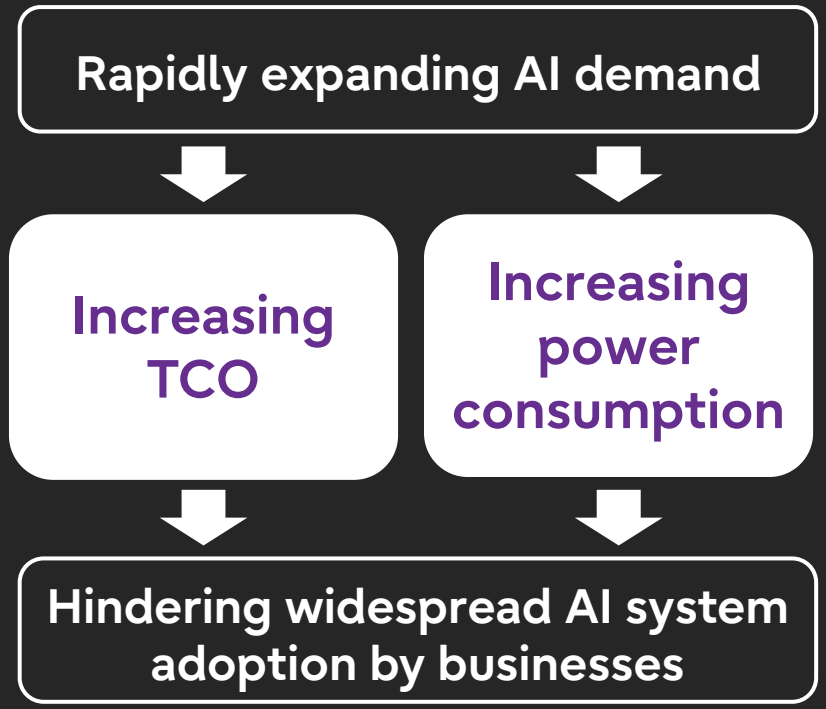
November 1, 2024

Forge a long-term strategic partnership to build computing platforms via a Memorandum of Understanding (MOU)

Collaboration Overview (1/2)

FUJITSU | AMD

Challenges



Vision

Delivering innovative, open, and sustainable computing platforms for AI and HPC.

Open AI

Sustainable platform

Collaboration Overview (2/2)

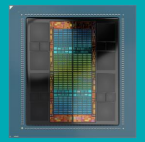
FUJITSU | AMD

Technologies

FUJITSU

CPU
FUJITSU-MONAKA

AMD



GPU
AMD Instinct

Details

Engineering

Optimized performance through hardware and software integration of FUJITSU-MONAKA and AMD Instinct.

Ecosystem

Fostering an open-source ecosystem using combined software assets.

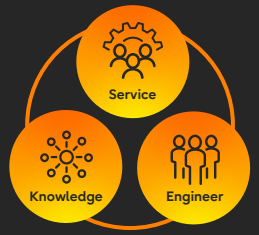
Business

Expanding use cases and accelerating global infrastructure deployment.

Three growth drivers supported by Fujitsu's technology strategy

FUJITSU

Generating new value by integrating technology fields around AI and building a differentiated solutions business



Modernization

Raising business efficiency and productivity by applying generative AI in all phases, from design to testing

Uvance

Developing technologies for AI offerings

Consulting

Technology consulting e.g. data&AI (technology/integrated know-how)

5 Key Technologies

Enterprise technologies

- Converging technologies
- Computing
- AI
- Data & Security
- Network

Global leadership in technology capabilities

Upfront investments in fields requiring specialized expertise

FUJITSU

Next-Gen CPU

FUJITSU-MONAKA

2nm process , Armv9-A SVE2

- High-performance
- Energy efficient
- TCO reduction
- Secure and reliable
- Open architecture
- AI workloads

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

* Image is for illustration purposes only.

FUJITSU

Broad workload compatibility

AI, HPC, data centers, and more

Cost-effective performance

Versatile applications

To be shipped in 2027

288 cores
144cores × 2 sockets

Fujitsu-designed CPU core

DDR5 24 channels
12 channels x 2 sockets

PCIe 6.0

FUJITSU

Efficiently run multiple AI services using only a CPU, delivering superior performance at lower cost.

Hardware

Software

Solution

Fast processing with AI-only instructions

FP16,FP8,INT8,bfloat16

Energy saving technology

Ultra low-voltage SRAM

Open Development environment

Arm-based AI platform support.
Optimized for FUJITSU-MONAKA

Flexible AI Infrastructure

Unified Acceleration

Generative AI

CPU-executable generative AI engine

Driving Innovation

Cutting-edge AI services co-created with our customers

FUJITSU-MONAKA case study

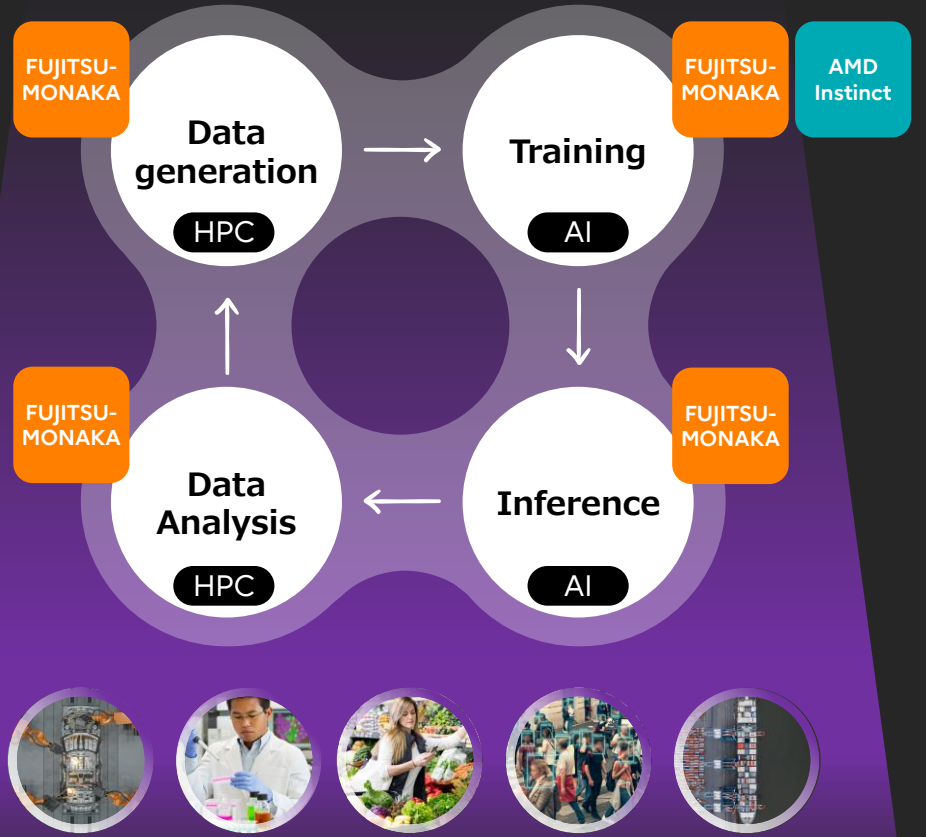
Fujitsu Technology

HPC x AI Technology

Combining CPU-based HPC and
AI inference with GPU-based AI training
to solve complex challenges at
unprecedented speeds.

Expected outcomes

Strengthening CPU-GPU synergy
to deliver more innovative value
to our customers.



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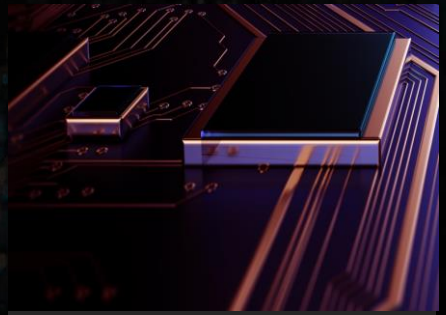
Phil Guido

Executive Vice President and
Chief Commercial Officer

AMD

November 1, 2024

AMD's long history of providing leading-edge technology and performance



1960s

CPU & memory for PC

2000s

Graphics for PC (ATI Technologies acquired)

2010s

Zen for PC, Workstation and Data Center

2020s

CDNA™ for AI Data Center Acceleration

26,000
employees around the world pushing the limits of innovation

33%
of the world's servers are powered by AMD

10/10
of the world's largest hyperscalers

#1
Supercomputer - Top500

10/10
of the world's top automotive manufacturers

$6B
spend on research and development

End-to-End AI Infrastructure Leadership

Data Center CPUs

5th Generation
AMD EPYC™ “Turin”

Shipping Now

Data Center GPUs

AMD Instinct™
MI325X Series

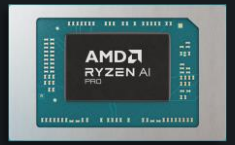
Production Q4, Systems Q1

Solutions

AMD Pensando™
Pollara 400/Salina 400

Coming 1H25

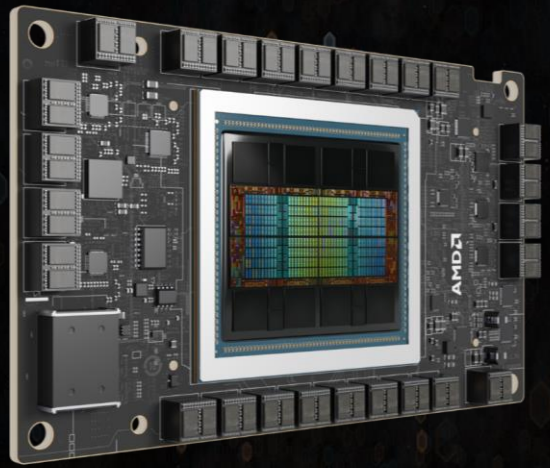
AI PCs



3rd Generation
AMD Ryzen™ AI PRO

Shipping Now

AMD continues to commit to providing leadership high-performance GPUs for the data center AI accelerator market



2023

AMD CDNA 3

MI300X

Gen AI Leadership

2024

AMD CDNA 3

MI325X

HBM3E Memory Increased Compute

2025

AMD CDNA 4

MI350 SERIES

Compute and Memory Leadership

2026

AMD CDNA Next

MI400 SERIES

Next-Gen Architecture

Roadmap subject to change

AMD

AMD ROCm

AMD supports users AI innovations with open software and ecosystem

AI models & algorithm

PyTorch ONNX TensorFlow

Libraries

Compilers & Tools

Runtimes

AMD GPUs

AMD INSTINCT

AMD RADEON

200+ AI implementations

Open source base model

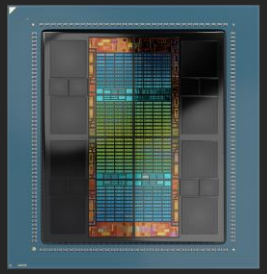
Fujitsu and AMD join forces to enhance open-source, energy-efficient AI and HPC platforms

FUJITSU × AMD

Combining leading-edge technologies from both companies

Delivering a more open and sustainable AI ecosystem

- Critical systems, HPC, and AI
- CPU : FUJITSU-MONAKA
- Arm software ecosystem

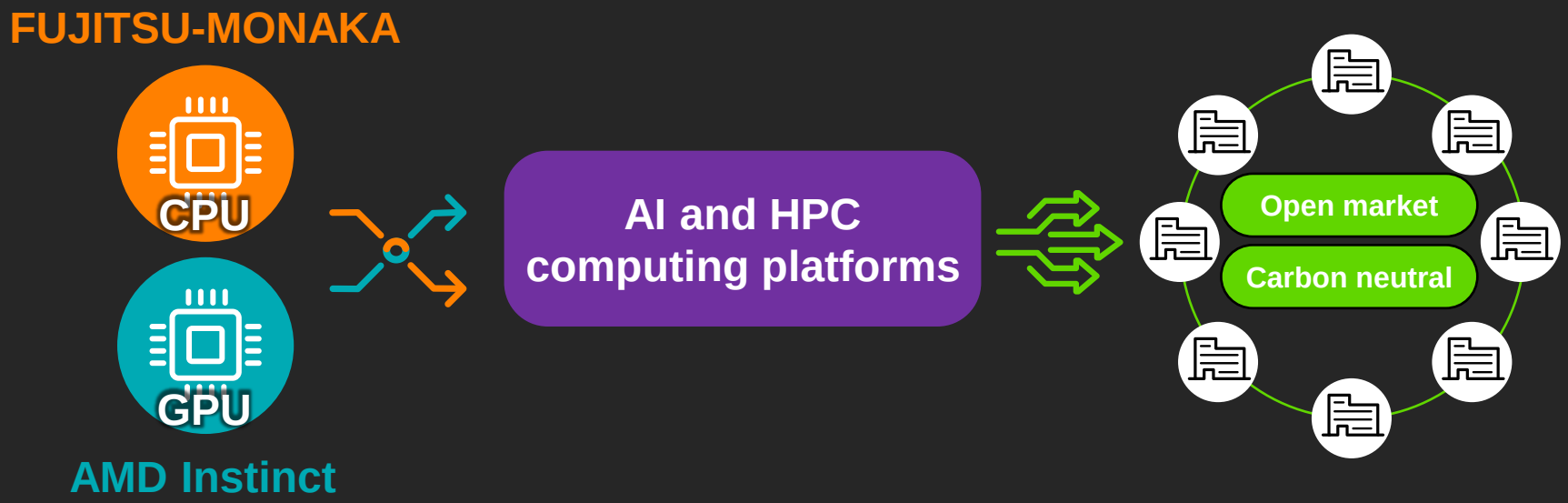


- Graphics, HPC, and AI
- GPU : AMD Instinct
- AI and HPC software stack

Goal

Targeting development of open and sustainable computing platforms for AI and HPC by 2027.

Enabling broader AI adoption while minimizing power consumption.



Thank you