

Hitachi Social Innovation Forum 2026 JAPAN

The Dawn of Physical AI



Physical AI

Humanoids



Robotic Arms



Manufacturing Equipment



Inspection Equipment



Systems



Automation

Predefined Operations

Autonomy

Makes Decisions
Based on the Situation

Manufacturing

Energy

Rail

**Finance
Public Services**

Logistics





2040: 11 Million Worker Shortage in Japan

The image is a collage of four photographs. The top-left photo shows a multi-lane highway bridge with concrete railings and some green-tinted windows or panels. The top-right photo shows the interior of a large, circular tunnel with a bright light at the far end. The bottom-left photo is a close-up of a rusty, leaking pipe with water spraying out. The bottom-right photo shows a close-up of a steel truss structure, likely part of a bridge, with many bolts and rivets.

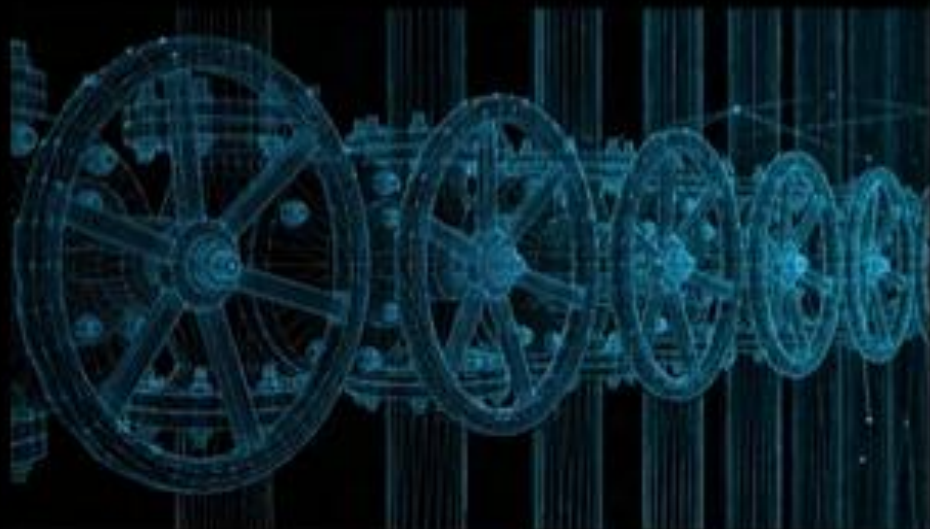
2040: Infrastructure Reaching End of Life



Operating System That Powers Social Infrastructure



Self-Evolving Digital Infrastructure



4 Apply in Real-World Operations

3 Learn Industry-Specific Rules

2 Test Through Digital Twins

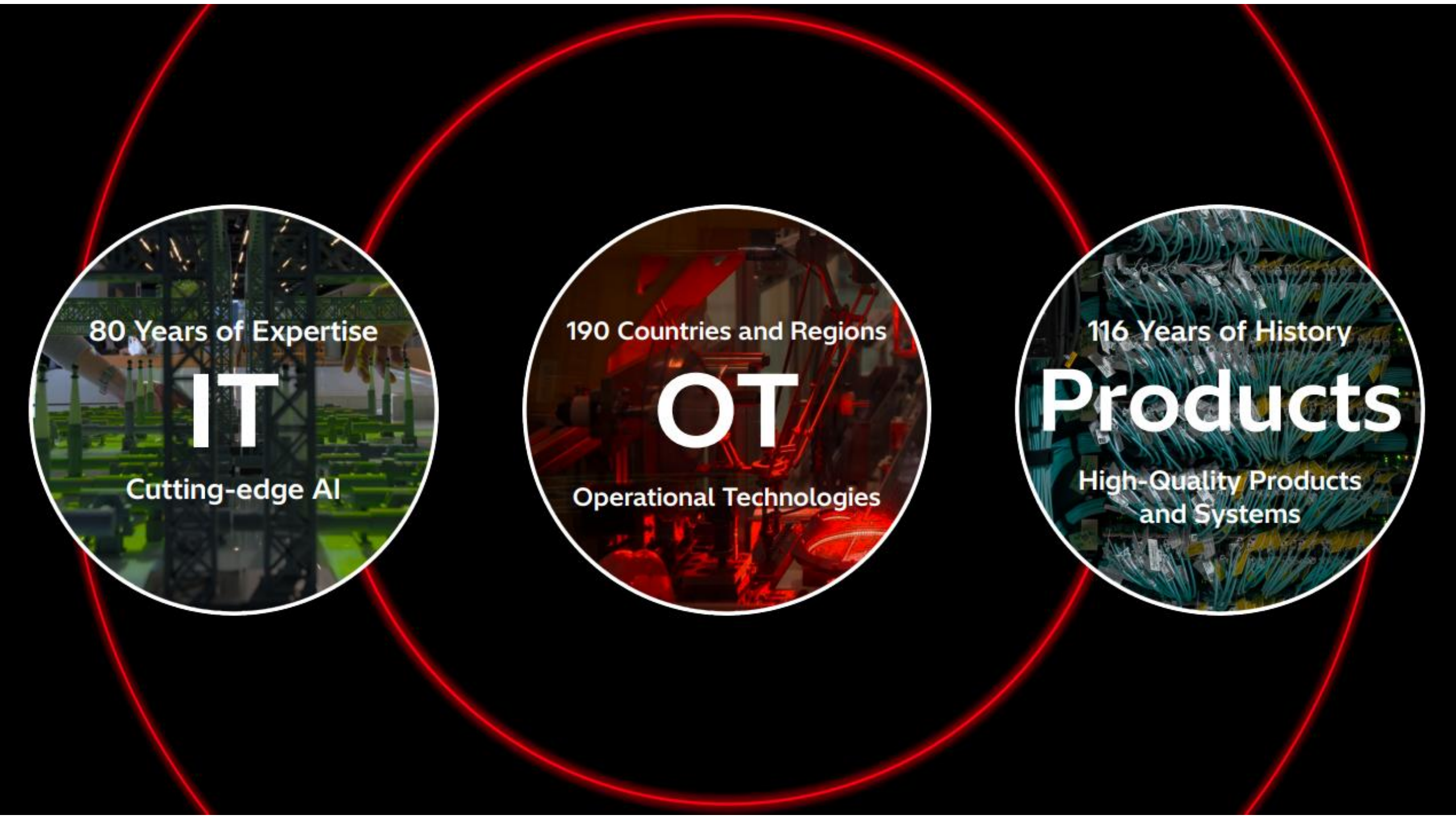
1 Learn the Laws of the Physical World

4 Apply in Real-World Operations

3 Learn Industry-Specific Rules

2 Test Through Digital Twins

1 Learn the Laws of the Physical World



80 Years of Expertise

IT

Cutting-edge AI

190 Countries and Regions

OT

Operational Technologies

116 Years of History

Products

High-Quality Products
and Systems





**Data from
Customers' Environments**



**Cutting-Edge AI
and Domain Knowledge**



**Digital Services That Solve
Customer Challenges**

Dropper Top 0.73 0.50

Dropper 0.59

CP 0.72

Dropper 0.94 0.77

Dropper Bottom 0.80

Dropper 0.85 0.64

Dropper Bottom 0.66 0.47

Dropper 0.93 0.47

An aerial photograph of a large electrical substation. The image shows a complex network of high-voltage power lines and metal support structures. In the background, a body of water is visible. A large, semi-transparent white circle is centered over the middle of the image, containing the word "HIMAX" in a bold, red, sans-serif font.

HIMAX

HMAX Industry

HMAX Industry



CD-SEM

Critical Dimension Scanning
Electron Microscope

Global No.1 Market Share

Enhancing Semiconductor Manufacturing Productivity with Physical AI



Reduction in
Development Time

Approx. **50%**

Maintain & Improve
Utilization Rate

Approx. **90%**

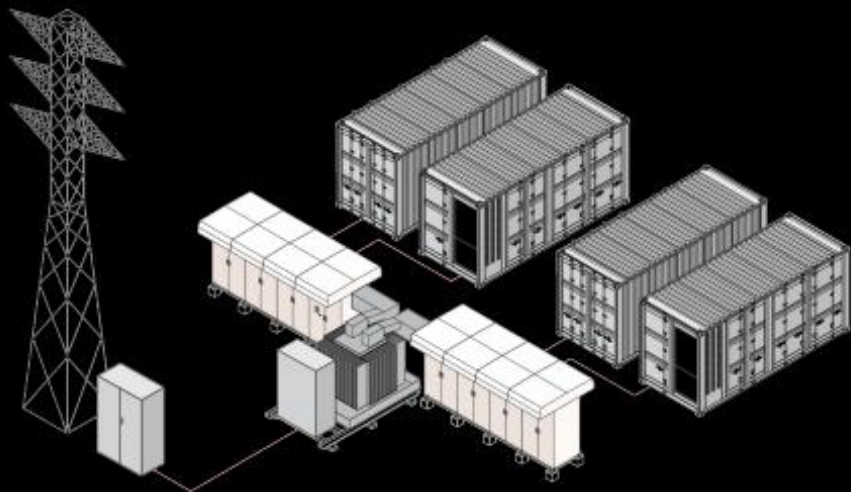
HITACHI

intel.[®]

HMAX Energy

Building Sustainable and Resilient Energy Infrastructure

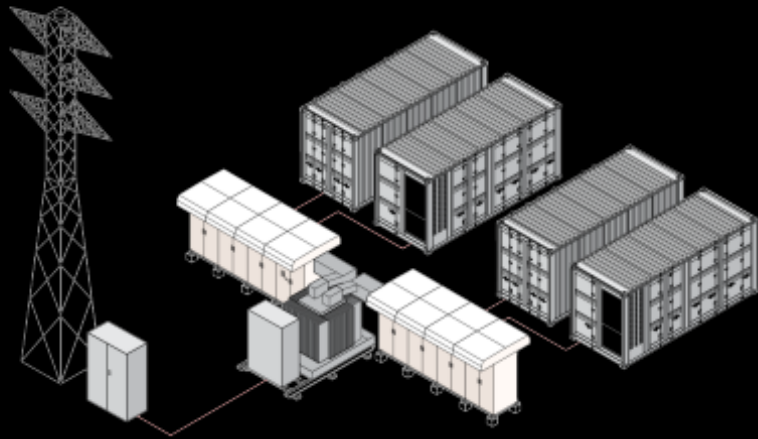
Battery Energy Storage Systems



Physical AI



Building Sustainable and Resilient Energy Infrastructure



Grid Stabilization
Improved Asset Availability

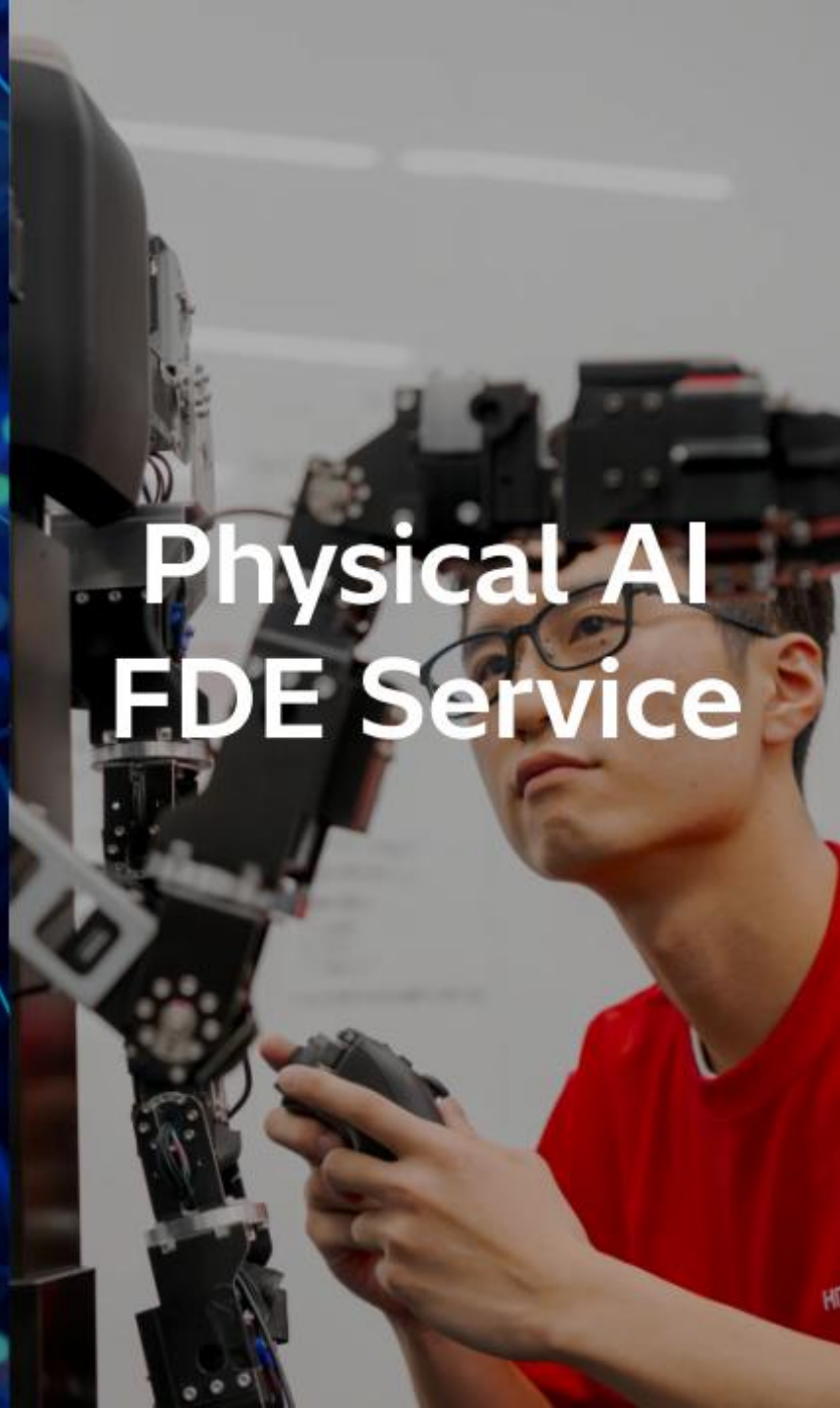


**HMAX
Data Center**

HITACHI



HMAX Cyber



**Physical AI
FDE Service**

HMAX Data Center

**Electrical
Facility**

Optimize
Energy Management

**Cooling
Infrastructure**

Maximize
Cooling Efficiency

**AI
Infrastructure**

Maximize AI Output

**Autonomous Operations and System-Wide Optimization
Powered by Physical AI**

HMAX Data Center

Domain-Specific Solutions for HMAX

HMAX
Mobility

HMAX
Energy

HMAX
Industry

HMAX
Finance

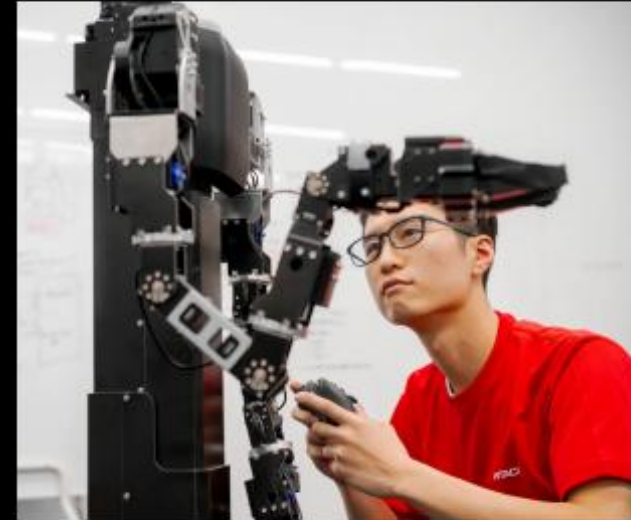
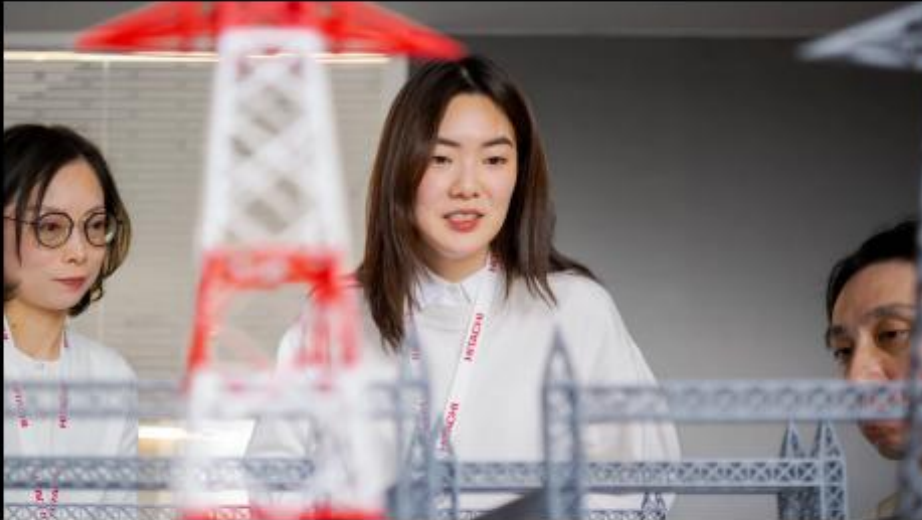
HMAX
Data Center

HMAX Cyber

Operational Resilience Service



Physical AI FDE Service



Transform Customers' Tacit Knowledge into AI-Ready Data
Forward Deployed Engineer

**Identify
management challenges** ► **AI Adoption** ► **Frontline operation**

Physical AI FDE Service

Data Platform that Integrates
Tacit Frontline Knowledge and Data

HMAX Data Fabric

Prevent Inappropriate AI Behavior

HMAX AI Operations

HMAX Data Center

**Build the Infrastructure
that Powers AI.**

HMAX Cyber

**Protect Against the Risks
of the AI Era.**

Physical AI FDE Service

**Transform Frontline Knowledge
into Value.**



 Claude

Google Cloud

 Microsoft

 NVIDIA

OpenAI

Harmonized Society

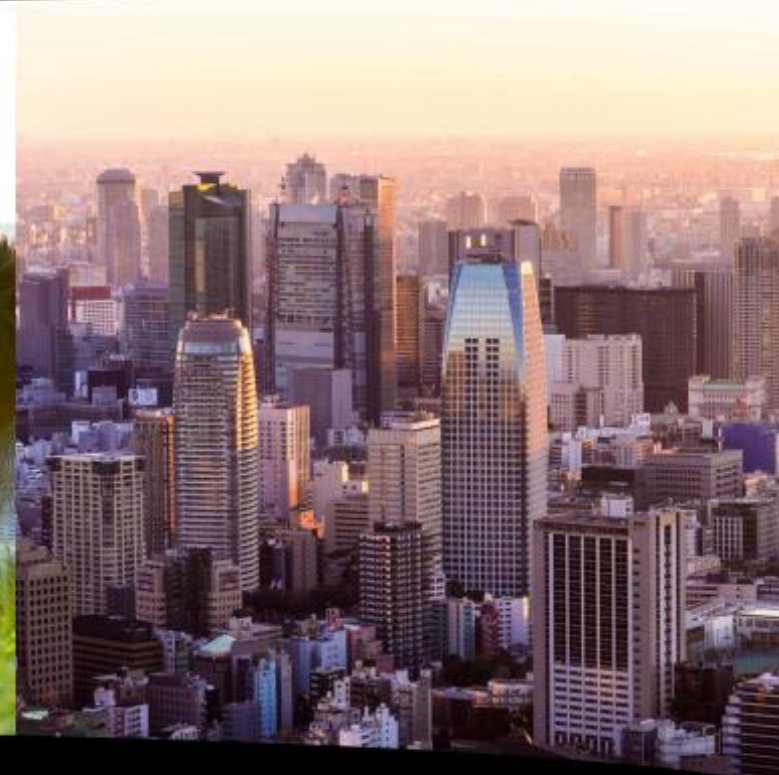
Environment



Wellbeing



Economic growth



Harmonized Society



Start Now with Hitachi.