Kyushu Electric Power
Transmission & Distribution

Our Digital Transformation Journey

Lead the Future of Japan's Power Transmission
and Distribution from Kyushu through DX

President's Message

The environment surrounding our company is changing significantly. In addition to structural challenges such as the expanding introduction of renewable energy, the aging of our facilities, the intensification of natural disasters, and—further—the decline in the labor force population, and with semiconductor fabs and data centers expanding, more sophisticated responses are increasingly required in both the quality and quantity of power supply.

Against this backdrop, in April 2023 we established our "Management Philosophy" and set out our commitment to "Become one of the most advanced infrastructure companies in Japan by strengthening our core technical capabilities through digital transformation." To realize this, in August 2024 we formulated our DX Vision, and we are fully committed to driving transformation as one company throughout the entire organization.

Our DX has started by envisioning the future state of our operations ten years from now, and has begun with a fundamental business and operations redesign—revisiting how we operate from scratch.

To realize this, we have planned DX initiatives for the short and mid term and at the same time, established a specialized organization—the "Digital Factory"—to turn ideas into tangible results quickly. While also accelerating the recruitment of digital talent who have driven DX at other companies, together with the business divisions, we are developing DX efficiency-improvement applications in-house.

In these developments, we have adopted agile methods and progressively advanced our solutions by engaging users, enabling shorter development cycles and the implementation of mechanisms that can be put to practical use in the field.

Going forward, we will further accelerate our DX efforts in light of advances in AI technology. In addition to automating and enhancing business operations through AI utilization in the digital space, we will accumulate front-line know-how as data. In the future, we will take on the challenge of upgrading on-site work—such as facilities construction and maintenance—through the use of "physical AI," thereby building a new way of working in which people and AI collaborate.

Through these transformations, guided by our purpose—"Deliver 'POWER' to Kyushu and energize society"—Lead the Future of Japan's Power Transmission and Distribution from Kyushu through DX"



Kyushu Electric Power Transmission and Distribution Co.,Inc.
President and Representative Director

Hiroshi Imamura

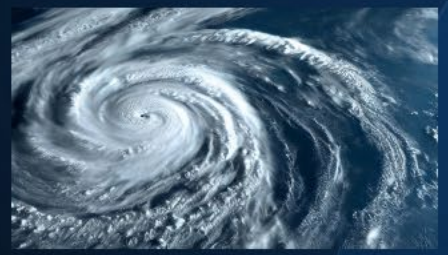
Social issues surrounding our company



An aging society with a declining birthrate



Rising demand for electricity



More severe natural disasters



Adoption of renewable energy



Aging of existing infrastructure



Achieving carbon neutrality (CN)

Kyushu Electric Power Transmission & Distribution

Tackling Social Issues Through DX

Advances in digital technology

- AI
- Robots
- Drones
- AR/VR/MR
- Digital twins

Overview of DX Initiative

Management Philosophy (Vision)

Our Vision

Become one of the most advanced infrastructure companies in Japan by strengthening our core technical capabilities through digital transformation

Taking into account changes in the business environment and social issues—including the introduction of the revenue cap system—we established it as our "Company-wide policy" in April 2023
Stating that we will work on digital transformation with a view to the next 10 years

Kyuden T&D DX Vision

DX Vision

Lead the Future of Japan's Power Transmission and Distribution from Kyushu through DX

To realize our Management Philosophy, we formulated the DX Vision in August 2024—aiming to proactively solve customers' and society's challenges by achieving both business efficiency and quality improvement through DX

DX Project

Key Concepts

❶ Business Process Redesign
❷ Agile Development
❸ In-house Development

As a means to achieve DX, we set 3 key concepts:
❶ Redesigning our operations from the ground up
❷ Rapid execution of initiatives through Agile development × ❸ In-house development

Management Philosophy

Purpose	Deliver "POWER" to Kyushu and energize society Enrich customers and solve social challenges by fulfilling our mission: stable and efficient power supply
Values	Trust : Build up stakeholder trust first and foremost Evolution : Strive proactively for continuous organizational transformation Co-creation : Leverage the power of diversity for higher value creation
Vision	Become one of the most advanced infrastructure companies in Japan by strengthening our core technical capabilities through digital transformation

Kyuden T&D DX Vision (established in August 2024)

DX Vision



Our intent behind the DX vision

By dramatically improving operational efficiency and quality through digital transformation, and by proactively solving the various challenges facing Japan's transmission and distribution business, we aim to become a company that leads the future of power transmission and distribution.

Specifically, by using digital technology to redesign our operations from the ground up, we aim to double productivity. As an infrastructure company, we will achieve enhanced service quality—including a stable power supply and improved customer satisfaction—and provide innovative value not only to our business but also to society as a whole.

As we deliver these outcomes, we want to make our company a place where each and every employee works with enthusiasm—feeling "I want to do it" and "I want to try it"—and where both our people and our organization continue to grow.

Roadmap toward realizing our vision (how we implement the DX project)

2023 24 25 26 27 28 29 30 31 32 33 34

DX Project Phase 1

Step 1 | Step 2

DX Project Phase 2

Building organizational capability and structure

- Defining the desired operational model and developing a roadmap
- Establishing a specialized organization for agile in-house development, "Digital Factory"
- Building DX capabilities through agile development and rollout

Enhancing development and DX capacity

- Considering further improvements in operational efficiency and sophistication through the use of AI technology
- Strengthening in-house development (recruiting and developing talent)
- Rolling out in-house-developed business applications

Full-scale rollout

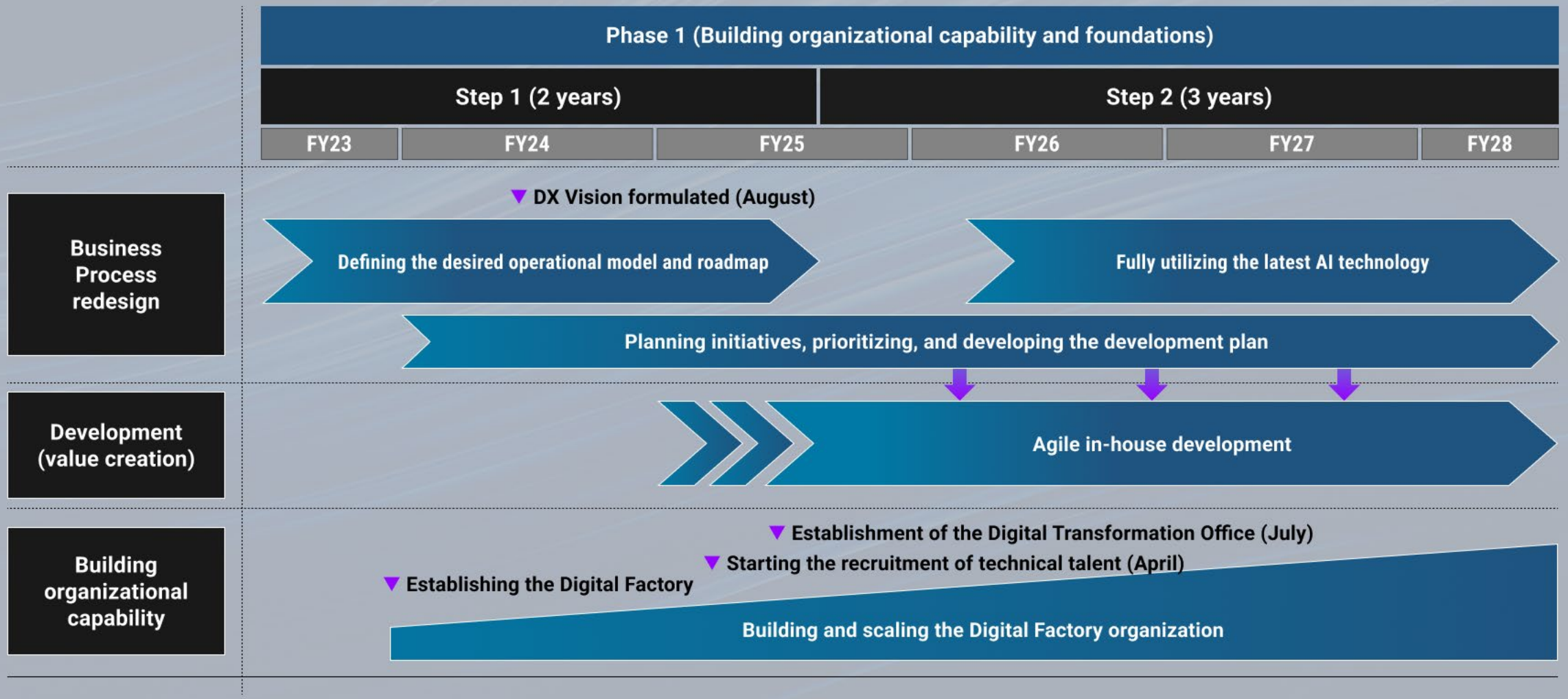
- Expanding the platform to business partners and local governments, and extending into new lines of business
- Strengthening organizational capability and scaling up the organization
- Fully driving value creation (strengthening the financial base and securing investment for growth businesses)

Realizing the DX vision



Schedule for the DX Project (Phase 1)

Dividing the five-year period into two steps, we will establish our structure in Step 1, and fully advance the development and use of AI technology in Step 2.





DX Initiatives

Overview of DX initiatives

DX Vision

Lead the Future of Japan's Power Transmission and Distribution from Kyushu through DX

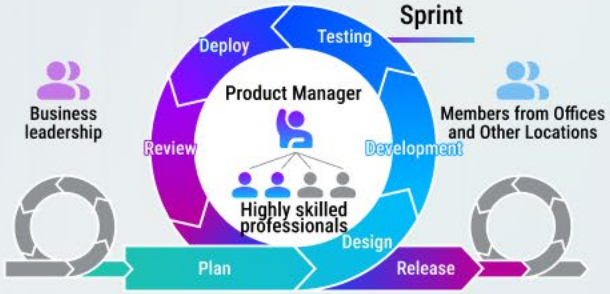
Three key concepts

1 Business Process Redesign



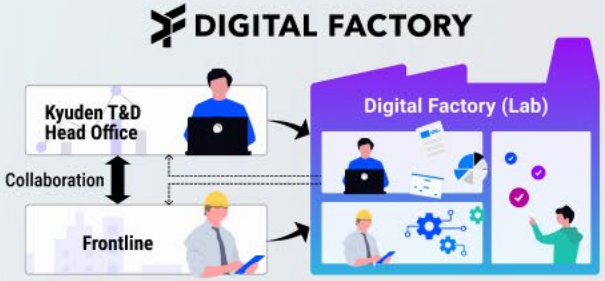
Unlike conventional business improvement approaches, we define the operations to be realized starting not from the current state, but from the desired future state and ideal state.

2 Agile Development



First develop a product with the minimum essential functions that has the highest value (MVP), and gradually develop the offering while incorporating customer feedback.

3 In-house Development



An organization specialized in agile development (Digital Factory) where digital professionals develop with their own hands and accumulate knowledge.

Infrastructure / Governance

4 AI and Data Platform

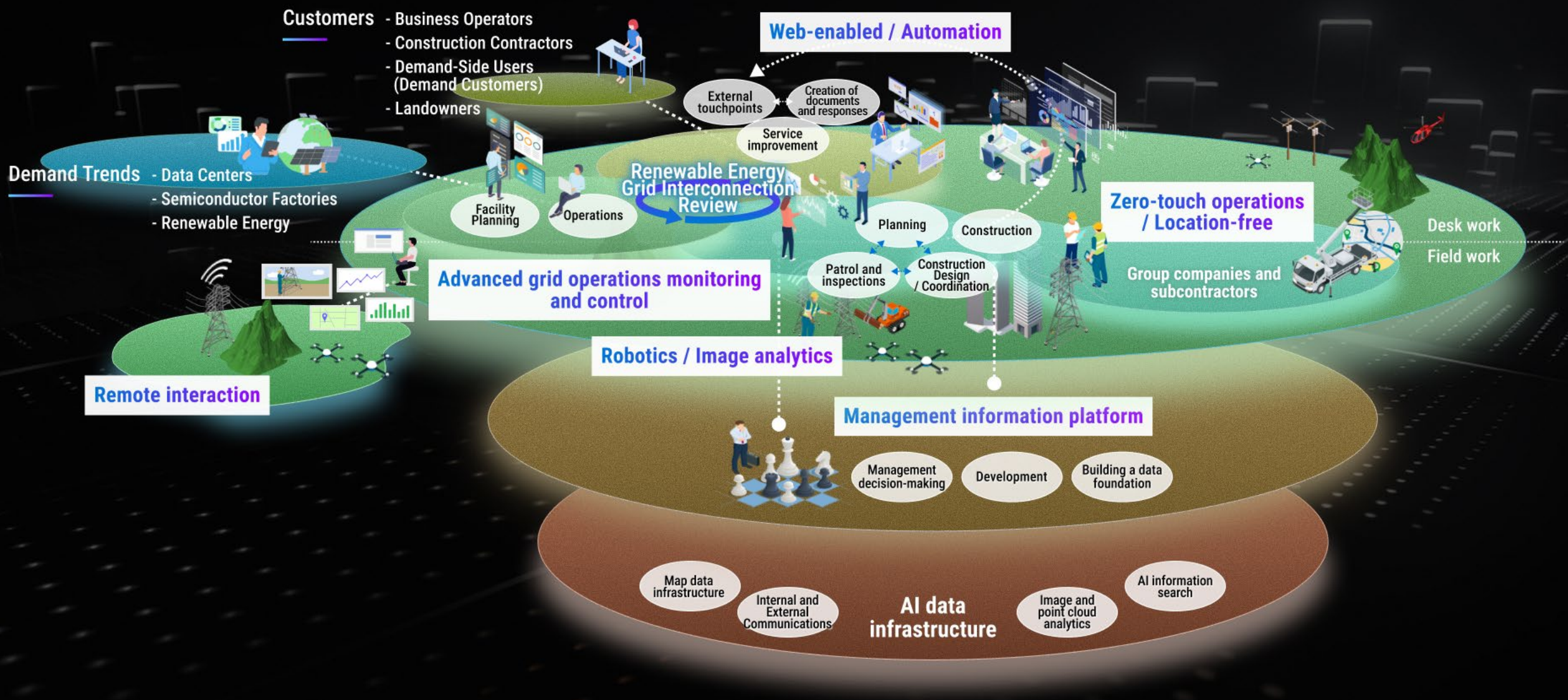
Establishing a common platform that facilitates and safely promotes the application of AI to business operations and the use of internal data.

5 AI-CoE

Establish a CoE function responsible for promoting the proactive and effective adoption of AI and overall system optimization.

1 Business Process Redesign – Desired operating model we aim for

Company Business Overview and Main Business Process Redesign Concepts



The "Digital Factory" Driving ② Agile Development × ③ In-house Development

DIGITAL FACTORY

Purpose of establishing a digital factory

Acceleration of in-house development

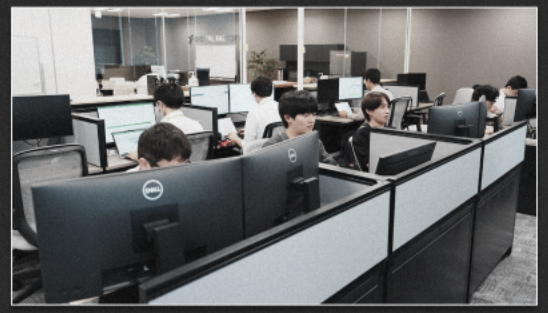
Form cross-functional teams comprising Head Office staff, frontline employees, and digital specialists, and rapidly drive product development in-house while incorporating the user perspective.

Acquiring a user perspective

Serve as a hub where Digital Factory members and members of business owner departments (including regional branches and offices) come together, and propose the latest technologies and optimal solutions while incorporating the user perspective.

Knowledge accumulation

Continuously accumulate business and digital expertise gained through product development, as well as information on the latest technologies and solutions, and drive company-wide digitalization in a robust and optimized manner.



In-house development led by digital specialists

As the core organization for company-wide DX promotion and in-house development, the Digital Transformation Office was established within the Power System Operation & Engineering Division in July 2025. Within the office, the "Digital Factory (DF)" was established as an in-house development function, carrying out in-house development using agile methods. The organization is being strengthened in stages through external recruitment and internal job postings for core digital specialists.

2 Our Agile Development — Fast and Flexible Development

Agile development cycle



Develop apps quickly and iteratively by repeating a two-week Sprint
(idea generation → development → operation → improvement)

Flow of one sprint



Functionality and requirements (product backlog)

Daily stand-up meeting

Development sprint (iteration)





Planning (sprint planning)

Inspection / adjustment (sprint review)

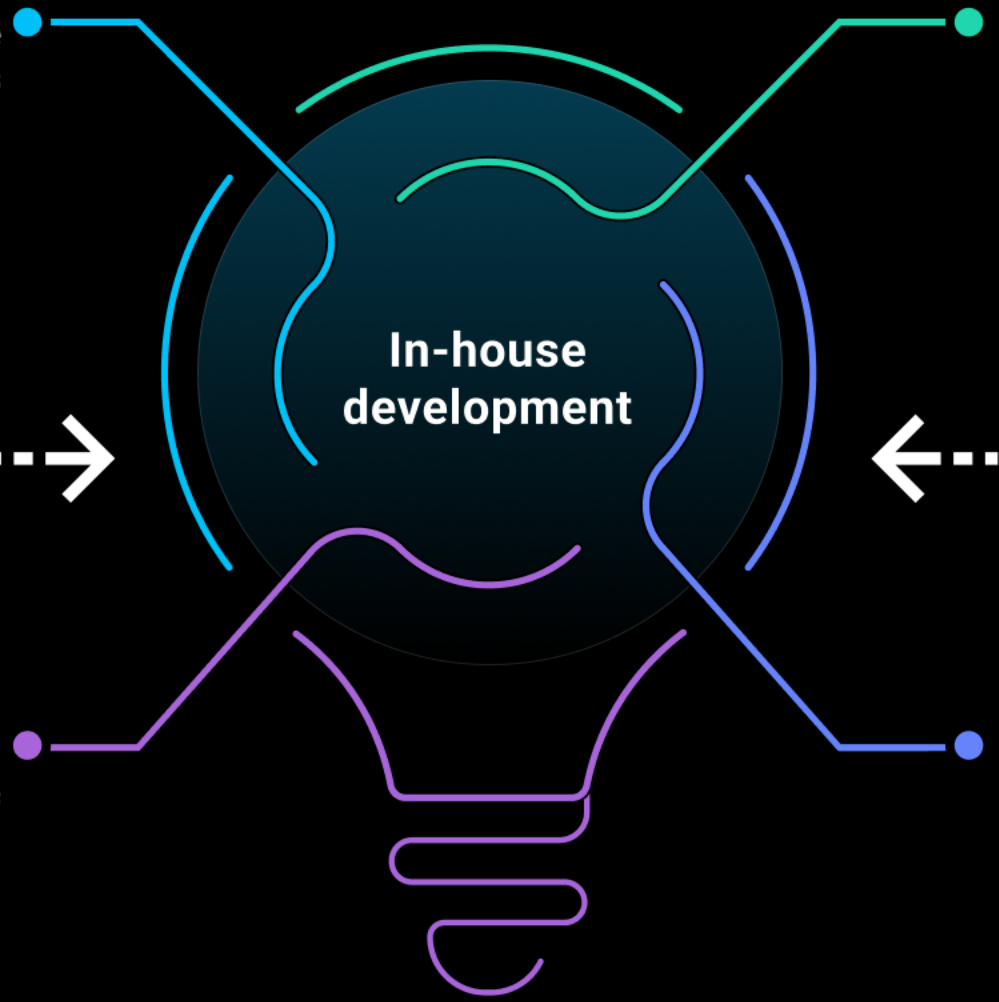
Working product (increment)

Improvement retrospective (retrospective)

3 In-house development — Creating value with our own hands

By staying closely connected to the field and developing solutions iteratively while incorporating users' feedback and ideas, we can achieve rapid feature improvements (enhancements).

We can quickly test new technologies, reflect them in the solution in the most suitable form, and continuously accumulate those insights.



Changes in the internal and external environment

The ability to flexibly and quickly respond to changes in customer and internal needs, and emerging social challenges.

Advances in technology

Widespread adoption of cloud, AI, and no-code tools

It also enables transformation of management through data utilization, and flexible and rapid redesign of business processes and implementation of initiatives in line with new social challenges and regulation changes.

By actively utilizing the latest development methods and tools, such as AI-driven development, we can improve productivity



Digital Transformation Office — Senior Engineer

Through development closely connected to the field and the accumulation of know-how, we can achieve a fast-paced organizational transformation.

The reason the Digital Factory promotes in-house development is to quickly reflect on-site needs and maximize the speed of improvement.
In-house development brings us closer to users, enabling us to efficiently turn solutions tailored to frontline needs into reality.
By accumulating development know-how in-house, we also aim to reduce dependence on external parties and transform into an organization capable of autonomously advancing digitalization.

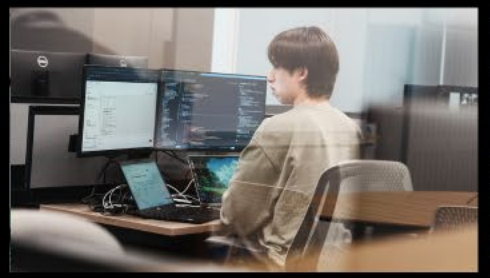
















DX initiatives led by each regional branches and offices

Led by each regional branches and officees



Use of Generative AI and ICT Tools

- Actively utilize generative AI
- Enable citizen development of apps using low-code development tools
- Perform data analysis and visualization with self-service BI tools
- Promote on-site adoption of ICT tools such as web cameras, various sensors, and drones



Improvement and scaling driven by the field

- Promote DX initiatives tailored to business challenges in each workplace
- Generate improvement ideas originating from the field
- Scale initiatives across workplaces and departments (e.g., cross-department DX activities, building a knowledge-sharing platform, etc.)

Support framework

Provision of various tools

- Provide common AI services and various DX tools

Use case sharing and showcasing best practices

- Disseminate information via the internal DX site
- Share generative AI and data utilization use cases, etc.

Human resources development and fostering momentum

- Offer common DX training
- Introduce a DX recognition/award program

4 AI and data platforms that enable DX

Overall architecture (conceptual) based on the AI and data platforms that support DX and AI promotion



Users

Applications and business systems

Electricity contract management
Equipment / construction management
Smart meters
In-house apps
...
Groupware

Common AI Services (SaaS)

Data integration / ETL

AI and data platform

Data Analytics Environment

Data analytics
Machine learning
Self-service BI

Data utilization

AI common foundation

AI Agent
AI Agent
AI Agent
Orchestration
Gateway
Guardrails
LLM / Agent Ops
LLMs

Data utilization
Data utilization

Data accumulation

Integrated data foundation

Contract information
Equipment information
Electricity usage data
...
Various documents

Governance

Set up guidelines to promote DX and AI safely and efficiently

- Data utilization guidelines
- AI utilization guidelines

AI common infrastructure

Establish AI agent development, governance, and operations functions

Common infrastructure enablement

Data foundation and analytics environment

Set up an environment that can accumulate and integrate internal data, such as a data lake, and support diverse analytics methods

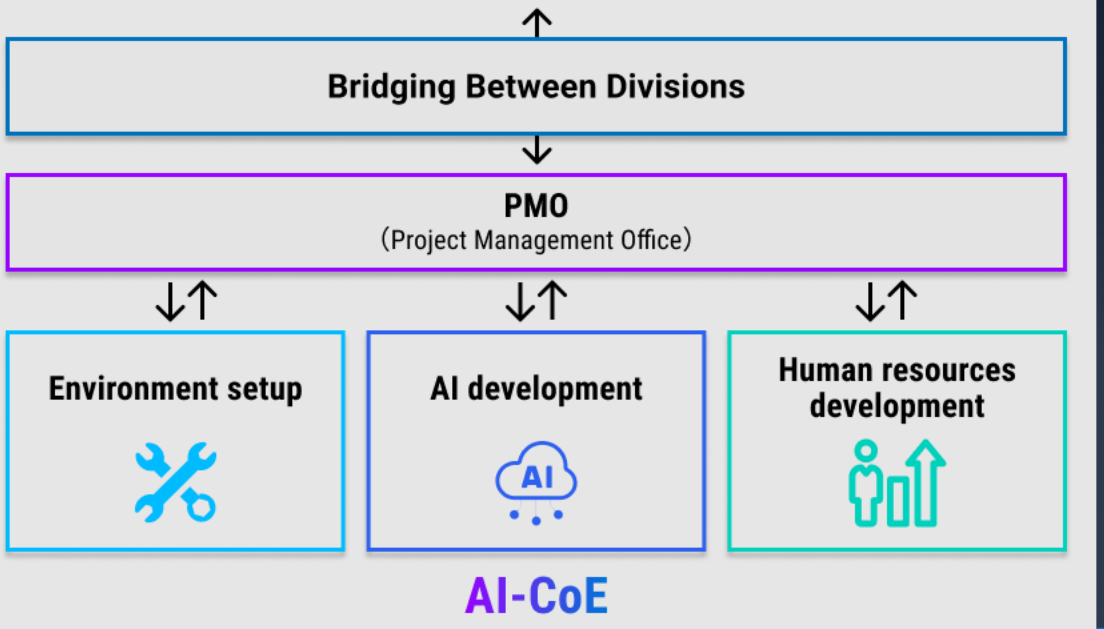
Build a platform that accelerates DX
by integrating all data distributed across and outside the company and connecting it directly to business utilization

5 Establishing a CoE to streamline and enhance AI adoption

AI-CoE organization

Divisions at Headquarters

- Planning Division
- Power System Operation & Engineering Division
- Transmission & Substation Division
- Distribution Division
- Power Contract Division



Roles of the AI-CoE

Bridge-building	• Connect AI technology with business needs to create AI initiatives • Support the adoption of developed AI initiatives into day-to-day operations
PMO	• Evaluate AI initiatives, assign priorities, and keep information updated • Establish AI governance • Conduct research on and study the latest technology trends, and disseminate findings internally
Environment setup	• Select tools for the AI common foundation (LLM foundation) • Build the AI common foundation • Build an integrated data foundation
AI development	• Support formulation of implementation policies for AI initiatives / estimate benefits • Develop AI initiatives (analytics models, agents, etc.)
Human resources development	• Provide training and awareness programs for AI tool users

To promote the efficient and advanced adoption of AI, we will establish an AI-CoE to bridge business needs and AI technologies.



Organization and Talent Development

Promotion structure

Steering Committee Meeting (monthly)

Key participants

- President / Executive Vice President
- DX promotion responsible officer
- Heads / directors of each headquarters / department

Purpose

- Manage overall project progress
- Discuss key issues and topics
- Make decisions

Steering committee
(President, Executive Vice President, and all Headquarters/Department heads)

DX promotion responsible officer
(Executive Vice President)

Other major executive-level meetings in which management participates

- **DX-TO meeting (monthly)**
  A cross-headquarters meeting that manages progress and makes decisions on DX initiatives by business domain
- **DF open session (monthly)**
  A forum for exchanging opinions between development teams and management through demonstrations of development results

Head Office	Planning Division	Power System Operation & Engineering Division	Transmission & Substation Division	Distribution Division	Power Contract Division
Branch Offices	Kitakyushu	Fukuoka	Saga	Nagasaki	Oita	Kumamoto	Miyazaki	Kagoshima

Digital Transformation Office

AI-CoE

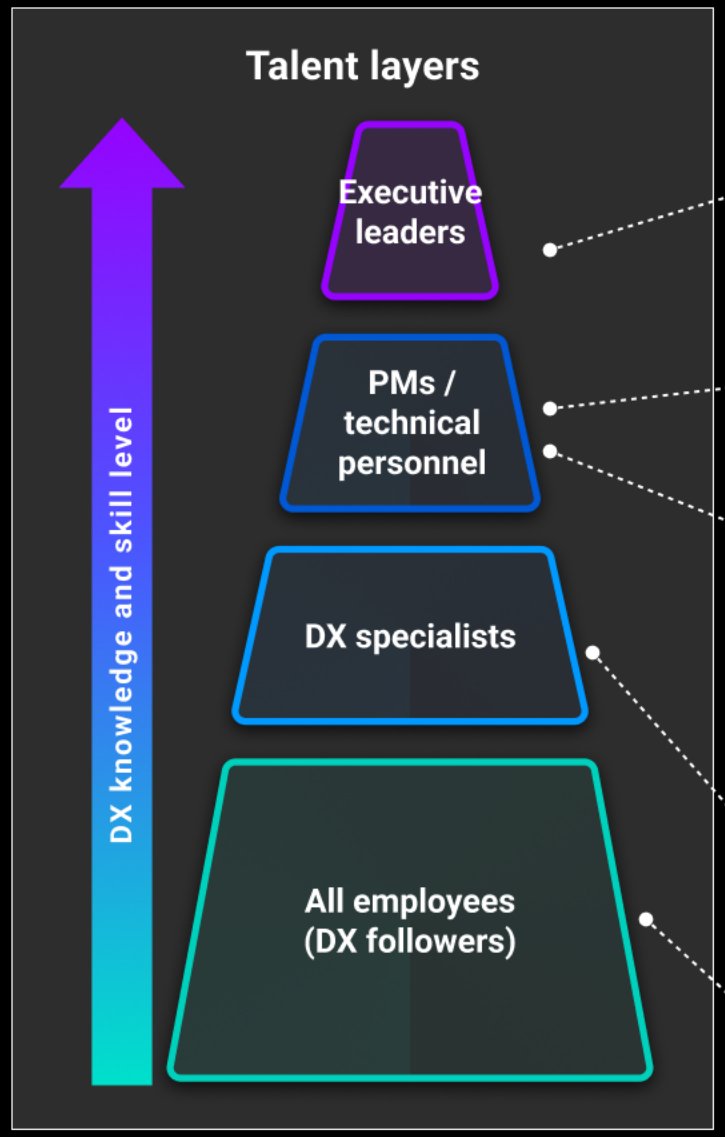
DX secretariat

DIGITAL FACTORY (DF)

Engineers
Data scientists
Product managers
Designers

Executive management, each division and branch office, and the Digital Transformation Office work as one to promote the DX project.

Talent acquisition and development



In-house development organization

Executive talent	Recruitment	Recruit highly specialized personnel who are responsible for formulating the DX strategy, overseeing multiple products, developing talent, selecting technologies, and setting up development infrastructure (e.g., program lead PM (executive product manager), engineering managers, tech leads)
PM	Development	As a command center for agile in-house development teams, we will develop personnel from existing employees who take on roles such as deciding business requirements and managing development (scope, schedule, and cost), as well as coordinating with stakeholders.
Technical talent	Recruitment	We will recruit digital specialists who will practice agile in-house development, such as product develop (e.g., engineers, data scientists, designers.)ment, data analytics, and UI/UX design)

Strengthening the execution capabilities of all employees

DX specialist talent	Development	Within business owner departments, develop existing employees who can plan and promote DX initiatives, identify departmental data analytics use cases, and design, implement, and embed AI-driven business processes.
All employees (DX followers)	Development	We will improve DX literacy through basic DX training and skills assessments, and strengthen execution capabilities by expanding the base of DX adoption through initiatives such as introducing an award program.

By strengthening the in-house development organization and enhancing the execution capabilities of all employees, we will promote DX companywide.

DX Five Principles

1	Leaders - including the next generation - envision and drive the desired future state	Regardless of organization or title, leaders - including the next generation - with a strong determination to realize the DX Vision will take the lead in DX, envision the desired future state, and drive its realization.
2	Collaborate across the Head Office, regional branches and offices, and Digital Transformation Office to drive transformation	From the very beginning of transformation, the Head office, regional branches/offices, and Digital Transformation Office will form a scrum together and conduct planning and development.
3	Do not fear disruptive changes	Approach challenges with a mindset of repeatedly redefining businesses and business processes from scratch, guided by the DX vision.
4	Learn from failures	Proactively adopt advanced technologies and agile practices without fear of failure. Rapidly roll out deliverables and improve them iteratively according to objectives and needs.
5	Build capabilities in-house	By closely coordinating across the Head Office, regional branches/offices, and Digital Transformation Office, we will acquire the capabilities to execute DX independently in response to changes in the external environment.



Executive management and all employees share the "DX Five Principles"—a set of five guiding mindsets—
and work together as one to realize the company's desired future state (vision) and goals.

We Change With Digital.

Kyushu Electric Power
Transmission & Distribution