Prosperity positive

Planet positive

People positive

# NTT DATA Sustainability Report 2025

Case Book

NTT DATA

# Three Pillars and 13 Material Issues

NTT DATA established its material issues during the formulation of the mid-term management plan in FY2022 and has since been actively promoting sustainability management.

Through our initiatives addressing the 13 material topics, we aim to generate positive impacts across the environment, economy, and society. With this intent, we are advancing sustainability management globally under pillars of “3 Positives” (Planet Positive / Prosperity Positive / People Positive), contributing to the realization of a sustainable society.


**Lead by example, to disrupt industries for good, innovating services and solutions to regenerate our planet.**

- Climate Change
- Circularity
- Water Management


**Transform businesses and society for successful growth, with sustainable services and solutions.**

- Innovation through Technology
- Responsible Technology and AI Ethics
- Sustainable Supply Chain
- Digital Safety and Reliability
- Secure and Sustainable-by-design Services and Solutions


**Shape a better world for all, applying our digital capabilities to improve livelihoods and contribute to an inclusive society.**

- People-Centric Company
- Diversity and Inclusion
- Health and Safety
- Human Rights
- Digital Accessibility

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## Planet positive



## Prosperity positive



### Special Feature



## People positive



### Social contribution activities

## Planet positive

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# Battery Traceability Platform

Countries: Japan

Material Issues: Climate Change; Circularity; Secure and Sustainable-by-design Services and Solutions

SDGs: 7 Affordable and Clean Energy; 9 Industry, Innovation and Infrastructure; 13 Climate Action; 17 Partnerships for the Goals

## Advancing circular economies by leading secure cross-industry distribution of corporate data and launching an EV battery platform

### Social Issues

- To address social issues such as labor shortages, increasingly-severe natural disasters, and the need for decarbonization, and to drive innovation and achieve economic growth, it is essential to establish mechanisms for cross-industry and cross-border data sharing and system integration.
- Batteries used in electric vehicles (EVs) contain critical minerals such as lithium and nickel, and the processes of mining and refining these minerals generate $CO_2$ emissions. To achieve $CO_2$ emission reductions and ensure stable supplies, it is necessary to establish a circular economy that utilizes recycled materials.

### Business need

Following the EU Battery Regulations that came into effect in August 2023, companies are required to disclose data on total greenhouse gas emissions and raw material recycling rates throughout EV battery lifecycles. As of February 2025, EV batteries' carbon footprint must be disclosed. Non-compliant vehicles cannot be sold in the European market, posing a serious risk for OEM automobile manufacturers.

These regulations are planned to expand to cover all batteries sold in the EU, including industrial and portable batteries. Information platforms that enable stakeholders to adapt to the changing external environment by sharing only necessary data while protecting confidential information are urgently required. To address this, Japan's Ministry of Economy, Trade and Industry is leading the Ouranos Ecosystem initiative to create a cross-industry data ecosystem. Progress is being made toward a connected data platform aiming to resolve social and economic issues and support economic growth.

### Impact

Projected economic value of accelerating reduction in lifecycle GHG emissions:

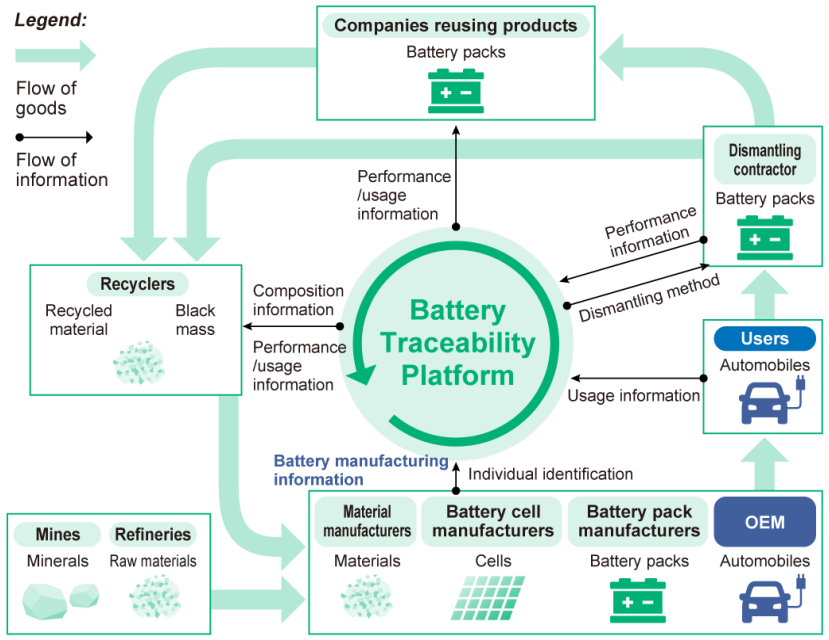
**Approx. JPY 240 billion / year**

Theoretical potential impact in 2030
Source: 2025 impact visualization report by NTT DATA (see next page for details)

### Solution

NTT DATA has launched the "Battery Traceability Platform," which supports cross-industry data collaboration between the automotive and storage battery sectors as the first use case of the "Ouranos Ecosystem." To achieve secure data-sharing between companies, it leveraged its broad client base to support various data formats and connect applications and systems used by different companies. Design optimization was achieved through extensive dialogue with industry groups and multiple vendors. NTT DATA used blockchain-based distributed ledger, smart contract, encryption and tamper detection technologies to create a platform that protects confidential information while offering freedom when exchanging data. The platform enables companies to share battery lifecycle information between countries with the aim of reducing risk and supporting thorough regulatory compliance.

The Battery Traceability Platform could be expanded to diverse industries as part of next-generation information infrastructure in Japan and beyond, and was selected for a project by the New Energy and Industrial Technology Development Organization (NEDO). To achieve widespread adoption as a database enabling data sharing between companies, industries and countries, NTT DATA continues to develop technologies supporting core functions such as interconnectedness, authentication and authorization, and will remain a global leader in the movement towards circular economies and decarbonization.




**Overview of Battery Traceability Platform**

Press Release:
NTT DATA Builds and Demonstrates Database Platform to Support Ouranos Ecosystem (in Japanese only)

NTT DATA Japan Corporation
First Public Sector
Third Public Sector
First Industry Business Sector Automotive Division
btraceability@hml.nttdata.co.jp

# Battery Traceability Platform

**Impact (details)**

Impact refers to long-term changes and effects that projects or activities bring to society and the environment, with consideration given to all relevant stakeholders. Specifically, this includes changes relating to individuals and regional communities in areas such as the economy, environment, health, education, and welfare.

## Anticipated Potential Impact (Theoretical Contribution in 2030)

### Strategic access to Europe and other global markets

**Impact of strategic access to European battery market**

Approx.

JPY **1.7**

trillion / year

- Calculated based on the value of business opportunities potentially created by use of the Battery Traceability Platform enabling relevant companies in Japan to continue accessing the European battery market.
- The annual value of Europe's battery market from 2025 onward was assumed to be about EUR 250 billion, and Japan's market share was set at a conservative estimate of 4.0%.

### Increased use of recycled materials and reduced dependence on virgin resources

**Benefit from recycling battery metal resources**

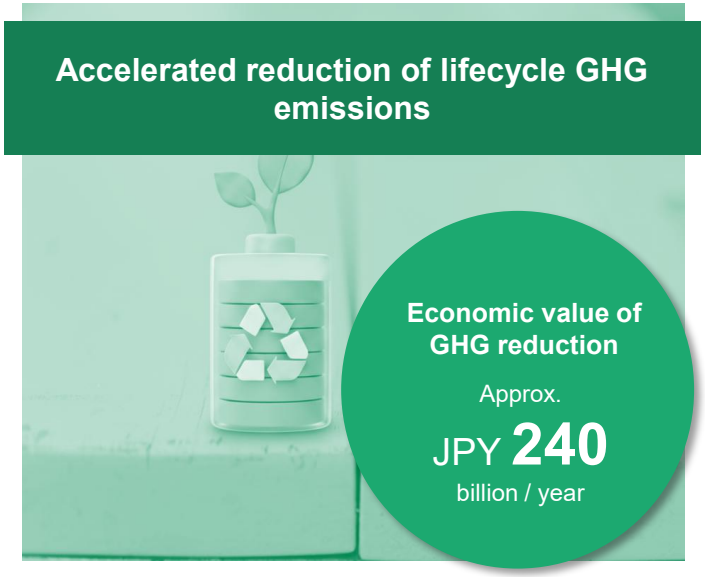
Approx.

JPY **2.1**

trillion / year

Quantitative calculation of benefit in terms of resource procurement when using recycled rare metals through the Battery Traceability Platform. Calculated based on anticipated resource procurement benefits (reduced cost of new procurement from overseas) and the assumption that battery metals managed through the Battery Traceability Platform will circulate with the quantities and recovery rates stated in Japan's national strategies for 2030 onward, with transactions occurring at market prices.

### Accelerated reduction of lifecycle GHG emissions



**Economic value of GHG reduction**

Approx.

JPY **240**

billion / year

- Calculations reflect the Battery Traceability Platform's maximum theoretical potential to reduce emissions by promoting resource recycling across entire supply chains
- GHG emission reductions calculated relative to a baseline scenario in which the battery manufacturing capabilities outlined in Japan's national strategies for 2030 onward are all achieved through conventional mining supply chains without the use of recycled materials
- Monetary equivalent calculated based on the projected value of $CO_2$ transactions around 2030

Target for Battery Traceability Platform adoption: **Over 500 companies** within 5 years

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# Data Center Trial Field

## Joint verification in partnership with diverse data center stakeholders on the road to carbon neutrality

Countries: Japan

Material Issues: Climate Change, Water Management, Innovation through Technology, Secure and Sustainable-by-design Services and Solutions

SDGs: 6, 7, 9, 13, 17

### Social Issues

- The Japanese government has declared that it aims to achieve carbon neutrality by 2050 and reduce greenhouse gas emissions by 46% from fiscal year 2013 levels in fiscal 2030, with ambitions to continue its efforts and cut emissions further to achieve a 50% reduction.
- Total power consumption by data centers in Japan is projected to rise considerably, reaching double fiscal 2022 levels by fiscal 2030 and five times fiscal 2022 levels by fiscal 2050. Energy efficiency improvements to significantly reduce data centers' energy consumption are urgently required.

### Business need

In Japan, the advancement of digital transformation (DX) and more widespread use of generative AI have led to increased demand for cloud infrastructure and use of data centers. At the same time, the sudden rise in data center power consumption and the heat generated from high-density server racks make it difficult to rely solely on traditional air cooling systems, making the need for liquid cooling technologies such as direct liquid cooling and immersion cooling more acute.

In addition, constructing server rooms requires mutual understanding and collaboration between data center operators and pipe construction companies, equipment manufacturers, design companies, and users. The lack of verification facilities for innovative cooling technologies and energy-efficient methods is also impeding the development and widespread adoption of technologies. Verification facilities that can reproduce data center environments and forums for communication enabling collaboration among business operators involved in data center-related fields are required.

### Impact

Reduction in energy consumption connected to data center cooling

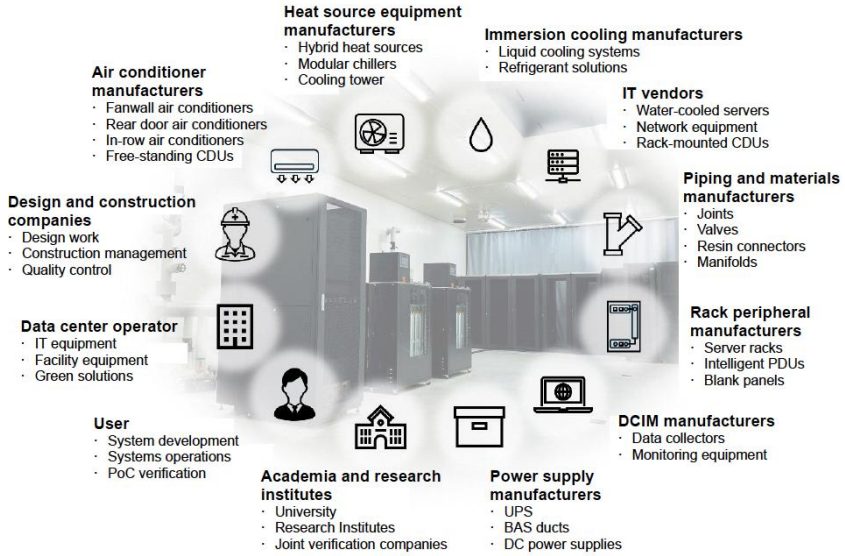
**Reduction of over 40%**

Source: Internal comparison calculated by NTT DATA based on conventional data centers (equivalent to PUE of 1.6).

### Solution

NTT DATA established Data Center Trial Field as a next-generation verification facility that aims to reduce data centers' environmental impact and foster innovation. The facility is equipped with the latest cooling technology and high-efficiency equipment to enable the demonstration of technology that can contribute to decarbonization and energy optimization in data centers. In addition, through collaboration with external research institutions and partner companies, it provides an open environment to accelerate technological innovation through co-creation, which supports the early delivery of solutions that bring value to both society and industry.

As a dedicated facility with features such as high-load IT equipment using cutting-edge cooling methods and functions for flexible switching of operating conditions, the configuration enables a diverse range of technical tests, including performance tests on liquid cooling and heat source equipment and the testing of changes to equipment configurations and materials. Evaluation based on power usage effectiveness (PUE) and other environmental performance metrics will also be carried out. Data Center Trial Field facilitates participation by stakeholders such as ICT vendors, research institutions and startups while also advancing NTT DATA's own accumulation of knowhow and environmental technologies. This initiative aims to be a starting point for the deployment of new technologies in tomorrow's commercial data centers.




**Layer/Target image that constitutes the Data Center Trial Field**

PDF:
Verification Facility "Data Center Trial Field" Established to Promote the Utilization of Liquid Cooling Technology in Data Centers

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Technology Consulting Sector
Technology Consulting Division
facility_consulting@kits.nttdata.co.jp

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# Data Centers Decarbonization with Renewable Energy

Countries: 25 countries

Material Issues: Climate Change; Secure and Sustainable-by-design Services and Solutions

SDGs: 6 CLEAN WATER AND SANITATION; 7 AFFORDABLE AND CLEAN ENERGY; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 13 CLIMATE ACTION

## Purchasing renewable energy and utilizing solar and wind power to reduce data center greenhouse gas emissions

### Social Issues

- Data centers are essential to the digital economy, but their rapid growth can pose environmental challenges through significant energy and water consumption. The International Energy Agency estimates that data centers consumed about 460TWh of electricity worldwide in 2022, almost 2% of total global electricity demand. The agency also predicts that global electricity consumption by data centers could more than double by 2026.
- As data usage and AI adoption rise, so do greenhouse gas (GHG) footprints, operators need to adopt sustainable practices, including both optimizing energy consumption and the timely implementation of renewable energy at scale.

### Business need

As part of NTT DATA, Global Data Centers (GDC) builds and operates data centers around the globe, currently possessing more than 160 data centers in over 25 countries and regions, with an IT load of 1.7MW.

Sources of operational greenhouse gas emissions include electricity usage for cooling, refrigerant leakages from cooling infrastructure and fuel usage for backup power systems.

GDC is driving towards achieving Net-Zero emissions in its operations (Scope 1, 2) by 2030 and across the complete value chain (Scope 3) by 2040 as part of NTT DATA's net-zero commitment validated by the Science Based Targets initiative (SBTi).

### Solution

NTT DATA is securing renewable energy at speed and scale to fulfil both its own 2030 Net-Zero target and client expectations. GDC reflects this commitment to renewable and low-carbon energy through its diverse renewable energy installations, strategic long-term partnerships, and investments in sustainable infrastructure.

GDC is accelerating procurement of power purchase agreements (PPAs) with bundled energy attribute certificates (EACs) for a major part of its energy consumption. PPAs ensure high-quality renewable energy, provide mid- to long-term certainty, and reduce dependency on the grid.

By focusing on additional PPAs, and thus investing in new power plants, GDC is also adding more renewable energy to the market, primarily solar and wind.

GDC's formalized relationships with global and regional renewable energy providers ensure access to a strong pipeline of PPAs, and GDC is also collaborating closely with grid operators by participating in demand side response markets and investing in battery energy storage systems (BESS) to stabilize the grid and to enhance renewable energy yield.

### Impact

Renewable energy usage for Scope 2

**60%**

up from 36% in FY2022

PPA contracts for Scope 2, 3

**Increased by 120% year on year to 660GWh**

An additional 1.1 TWh to be added by FY2026

**Conceptual image of a data center using renewable energy**

NTT Global Data Centers
Speak to our experts

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# Fishnet Vision

Using AI to enhance biodiversity while driving renewable energy

| Countries | Material Issues | SDGs |
|---|---|---|
| Portugal | Water Management | 7 AFFORDABLE AND CLEAN ENERGY, 15 LIFE ON LAND |

## Social Issues

- Dams play an important role in the shift toward renewable energy, with hydropower accounting for about 14% of global electricity production in 2024 according to the International Energy Agency. However, their impact on ecosystems can be significant. Rivers sustain countless species, including fish that depend on them for survival, making monitoring biodiversity around dams essential to aligning energy production with environmental conservation.
- Fishways are crucial for supporting ecosystems around dams—connecting fish populations and allowing them to reach their natural spawning grounds. Accurate counting of fish in fishways is key to operating them effectively and to ensuring regulatory compliance.

## Business need

When monitoring biodiversity around dams, biologists frequently have to painstakingly analyze hundreds of hours of video to identify fish species, determine whether they are traveling upstream or downstream through fishways, and quantify the number of individuals per species. These counts are reported to a government agency for regulatory compliance and management of the dam ecosystem. While such monitoring can lead to important ecological insights, the vast amount of video produced makes this work repetitive, time-consuming, and susceptible to human error. Technological solutions have the potential to enhance the efficiency and accuracy of fish counting and species identification, but factors such as murky water, inconsistent lighting, and difficulty distinguishing fish from other debris complicate the effective implementation of AI-supported systems.

## Impact

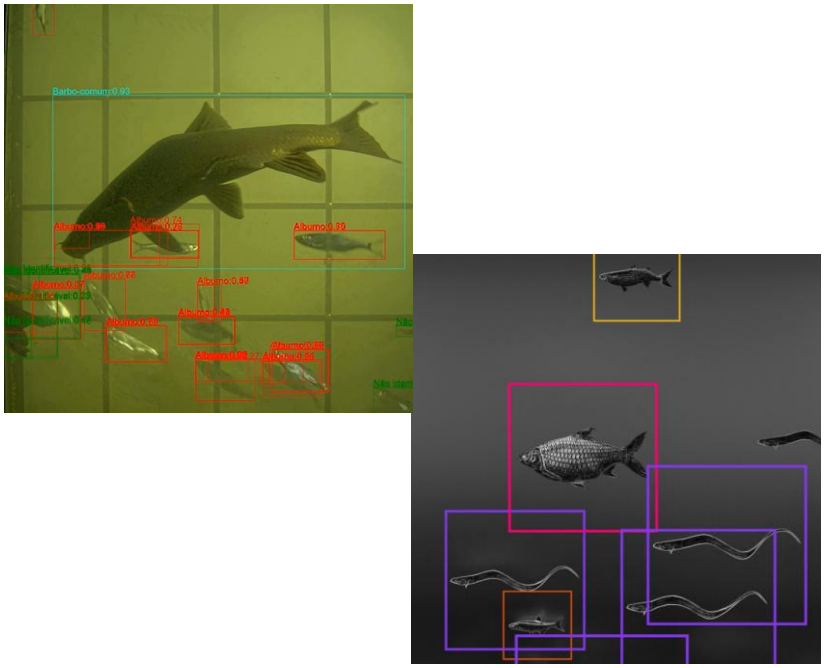
Percentage of workload reduction in image analysis through AI utilization

**reduced by over 40%**

Source: NTT DATA calculation of effect of using AI to narrow down sets of images requiring analyzation by humans

## Solution

NTT DATA developed Fishnet Vision as an AI-driven computer vision model to support a major Portuguese energy company's biodiversity stewardship efforts by automatically identifying and classifying fish species and detritus in video footage from fish migration systems integrated into its largest dams. Handling about 1.2 million frames of footage when training the system, the team engineered a cost-efficient analytics pipeline to convert video into actionable data and pre-label relevant objects with a custom tool. NTT DATA's expertise in computer vision was also key to developing advanced tracking algorithms that improved accuracy and reduced misidentifications. When a video contains fish, the new automated solution detects their presence 100% of the time, enabling the company to automatically filter out the 40% of videos that do not contain fish and focus human analysis only on relevant footage. Insights gained from the project can enable NTT DATA to help other organizations align their operations with biodiversity preservation commitments, ensuring effective, environmentally-responsible practices.



**Video analysis with Fishnet Vision**

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# Collaboration on Biodiversity with Development Bank of Latin America and the Caribbean

## Strategic Ecosystems Approach and Project Portfolio of CAF: Addressing biodiversity recovery to improve quality of life for people in Latin America and the Caribbean

| Countries | Material Issues | SDGs |
|---|---|---|
| Community of Latin American and Caribbean States | Climate Change, Water Management | 11, 14, 15, 17 |

### Social Issues

- The climate crisis and loss of biodiversity present urgent challenges across Latin America and the Caribbean, which is home to more than 60% of global biodiversity and considered the world's most biodiverse region. As said elsewhere*, there is no Net-Zero without nature.
- Biodiversity loss in key ecosystems like the Amazon Rainforest and Caribbean coral reefs threatens local communities' livelihoods. It can lead to health issues, increased natural disasters, reduced water availability, and decreased farm and fishery productivity, resulting in food insecurity, community displacement, and conflicts over dwindling natural resources.

** Guidance on nature in transition plans* – TNFD

### Business need

The impact of biodiversity loss on key regions in Latin America is a critical issue requiring urgent attention. CAF, a development bank that aims to improve the lives of Latin American and Caribbean people, sought to raise awareness in this area by identifying 15 strategic ecosystems based on their regional and global importance and interconnectedness with each other, finding the underlying causes threatening each ecosystem, then compiling costed plans detailing clear, decisive actions for protecting and restoring them.

To put this approach into practice, it sought a partner with the data analysis capabilities required to define specific issues, put forward solutions, and address funding gaps.

### Impact

Budget earmarked through these activities:

**USD 300 million**

Source: CAF press release

### Solution

NTT DATA was commissioned by CAF to analyze a portfolio of projects across 15 strategic ecosystems throughout Latin America. The team undertook an extensive assessment to define each strategic ecosystem, analyzed core biodiversity loss drivers, and identified targeted solutions.

NTT DATA defined nine specific problems related to each ecosystem and 20 named indicators of biodiversity health. It also supported funding discussions through a model estimating the required investment for each ecosystem, issue, and country based on three levels of ambition: conservative, focused and ambitious. A total of 232 potential funding sources were identified, and the 10 most relevant funds were highlighted according to their approach, quantity and benefactors.

NTT DATA is delivering country reports outlining key issues along with proposed solutions and cost estimates, as well as providing the information and insights on a platform that will be used by CAF's executives to prioritize investments when engaging with governments, including addressing financing gaps. As part of an ongoing process, this project is contributing to progress towards reversing biodiversity loss in Latin America and the Caribbean.


**Discussions at COP16 on biodiversity restoration in the Latin America and Caribbean region**

CAF Presents its New Strategic Focus for Ecosystems at COP16 (in Spanish only)

NTT DATA
Nature & Nature-based Solutions
NTT DATA Group

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# Hostile Activity Watch Kernel (HAWK)

Revolutionizing the fight against wildlife crime through digital data collection and analysis

| Countries | Material Issues | SDGs |
|---|---|---|
| India | Digital Accessibility | 15 LIFE ON LAND, 16 PEACE, JUSTICE AND STRONG INSTITUTIONS |

## Social Issues

- The illegal wildlife trade, a USD 19 billion global black market, continues to drive alarming biodiversity loss. In India, species such as elephants and leopards are among the most severely affected, with over 3,000 leopards killed between 1994 and 2010. In 2023 alone, enforcement agencies seized 75kg of raw ivory and 385 wildlife artifacts, highlighting the persistent scale of the crisis.
- India has recorded more than 33,300 wildlife crime cases involving over 400 species, but the conviction rate is just 2%. This is largely attributed to resource constraints and weak inter-agency coordination. Although a foundational legal framework is in place, there is an urgent need to bolster its implementation and strengthen institutional mechanisms.

## Business need

Forest and wildlife crime poses a significant threat to biodiversity, with wildlife trafficking ranking as the fourth largest illegal trade category. While centralized, intelligent systems can play a crucial role in tracking and management of wildlife crime, barriers to implementation include limited funding, technological constraints, and the absence of cohesive strategic frameworks.

In India, state forest departments urgently needed a solution to address these needs. Recognizing this critical gap, the Wildlife Trust of India (WTI) conceptualized a comprehensive monitoring solution, but required financial and technical support to put the system into practice.

## Solution

NTT DATA delivered financial backing and technical expertise to support the creation of Hostile Activity Watch Kernel (HAWK), a cloud-based, real-time wildlife crime monitoring platform developed by the WTI. As India's first expert-reviewed system for wildlife conservation, HAWK is built to be modular, scalable, and customizable to meet the diverse enforcement needs of forest and wildlife protection agencies.

HAWK is currently operational in three states across India (Kerala, Karnataka, and Tamil Nadu), with deployment underway in the state of Odisha. The implementation strategy involves a structured approach comprising needs assessment, system customization, phased rollout, capacity building through training, and planning that accounts for handover to state departments to ensure sustainable operation.

The platform is under active evaluation by India's Ministry of Environment, Forest and Climate Change for potential nationwide deployment, aimed at significantly strengthening India's proactive wildlife protection and enforcement capabilities.

## Impact

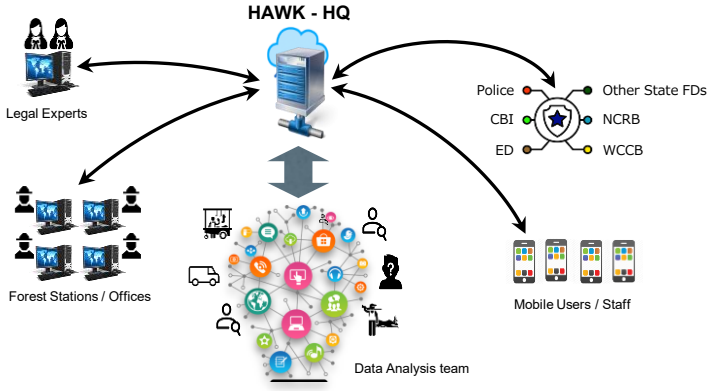
Number of suspects included in database:

**About 54,000**

Number of wildlife deaths uncovered:

**Over 5,800**

**WTI team members involved with HAWK**




**Conceptual diagram of HAWK deployment**

YouTube:
Combating Wildlife Crime with HAWK Technology

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# MeetZero Water Credits

Driving verifiable water positivity with blockchain technology

Countries: Spain

Material Issues: Circularity, Water Management, Innovation through Technology

SDGs: 6 Clean Water and Sanitation, 12 Responsible Consumption and Production

## Social Issues

- The world faces a water crisis, with demand projected to exceed available supplies by 40% in 2030 if current trends continue, according to a report by the UN-hosted International Resource Panel.
- The threat to supplies of water as a critical resource for people, communities and businesses has significantly increased the importance of water positivity—a commitment organizations make to return more water to the environment than they consume. This can be achieved through activities such as watershed restoration, wetland conservation and groundwater recharge.

## Business need

Water is an essential element of environmental conservation, and also a critical resource for data centers, manufacturing plants, and other commercial facilities. Water positivity is therefore a corporate sustainability priority. Organizations must also demonstrate the impact of their water positivity to meet ever-rising regulatory and reputational expectations. Environmental asset markets can help to address this through "credits" generated by verified environmentally beneficial projects, enabling organizations to purchase credits to offset negative environmental impacts or generate revenue from conservation activities, which can be reinvested in positive actions to conserve aquatic resources. However, concerns over transparency, double counting, and administrative inefficiencies make trusted digital infrastructure essential to realizing these markets' potential.

## Solution

NTT DATA developed MeetZero as a blockchain-powered platform for environmental asset trading to support climate action and environmental accountability. The platform enables Water Positive Credits (CAPs), which recognize and certify companies' efforts to reduce their water footprint and restore water ecosystems. MeetZero ensures that CAPs are real, additional and permanent, then tokenizes credits and stores them on a blockchain ledger, eliminating the risk of double counting or fraud.

NTT DATA leveraged MeetZero in partnership with the environmental management company Veolia, co-promoter of the Act4Water water footprint offsetting standard, to create Spain's first voluntary water credit market. NTT DATA's platform facilitated both credit certification and market exchange, creating a transparent and verifiable system for companies to demonstrate their sustainability efforts. By enabling verified, tokenized credits that eliminate ambiguity and provide clear ESG accounting, MeetZero has demonstrated a scalable solution to address water scarcity while generating economic benefits.


**Operational monitor image of MeetZero**

## Impact

Water credits generated equivalent to

**13.06 million liters**

of water saved or returned to the environment

Insights Hub | MeetZero: Driving Water Positivity With Blockchain

Vimeo: B15 Meetzero

NTT DATA EUROPE LATAM GREEN ENGINEERING SLU
NTT DATA Group

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# Jal Sanjivani Water Conservation Project

Enhancing stable water access to improve the livelihoods of communities

Countries: India

Material Issues: Water Management

SDGs: 6 CLEAN WATER AND SANITATION; 11 SUSTAINABLE CITIES AND COMMUNITIES; 13 CLIMATE ACTION; 15 LIFE ON LAND; 17 PARTNERSHIPS FOR THE GOALS

## Social Issues

- Water scarcity impacts about half of the world's population for at least part of the year, according to the 2024 UN World Water Development Report. In addition to health implications, the time and financial burden of purchasing and transporting water constrains economic development in affected communities.
- Water is a critical resource for both communities and businesses. With the UN-hosted International Resource Panel projecting that demand will exceed supply by 40% in 2030, enhancing water use efficiency and water conservation will be critical to the health of ecosystems and populations and to supporting economic development.

## Business need

Karjat, located in Maharashtra in India, receives 3,995 mm of annual rainfall, yet faces acute water scarcity due to its unique geology and rapid rainwater runoff. This has led to drought-like conditions, severely impacting farming communities such as the village of Ambherpada, where people are reliant on monsoon-dependent agriculture. Water scarcity impacts every facet of life, including leading to migration, economic hardship and stalled marriages. Women and children often walk twice daily with heavy water pots, facing long-term physical stress and limiting the time they can spend on work and family.

## Solution

NTT DATA supports the Jal Sanjivani Project, which aims to improve the livelihoods of the people in Ambherpada by enhancing sustained access to water. NTT DATA collaborated with an NGO partner to take a three-pronged approach, using techniques focused on sustainable solutions for the community. The three key measures involved clearing silt from water bodies to improve water storage capacity, creating embankments to prevent water runoff and conserve water during the monsoon season, and repairing the check dam to improve its structural integrity and efficiency, then installing a core wall gabion to slow runoff and enhance water percolation.

This project has successfully increased storage capacity to about 10 times its previous level, raising the water table by facilitating significant percolation into the sub-surface. Women and children who previously walked to retrieve water now have more time for work and family, and farmers can now grow crops during winter and carry out dual cropping, which were not previously possible. Not only can this improve economic stability, access to varied types of food grains supports greater diet diversity, which can reduce malnutrition.

## Impact

Water storage capacity has been increased tenfold to

**15 million liters**

benefiting more than 1,085 people across 217 households.

**Construction work**

**Completed water storage facility**

NTT Group Sustainability Conference: Jal Sanjivani - Water Conservation Project

NTT Global Data Centers
Global People & Culture Programs & Projects
NTT DATA Group

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# New Mobility Project (NeMo)

Transforming corporate mobility to benefit people and the planet

| Countries | Material Issues | SDGs |
|---|---|---|
| Germany | Climate Change | 9, 11, 12, 13 |

## Social Issues

- Transportation plays a crucial role in the world economy, but is also a major source of pollution, accounting for about 23% of total $CO_2$ emissions in 2022 according to the International Energy Agency. The same body reports that more than 60% of these emissions came from cars and vans, highlighting the need for rapid electrification.
- In addressing transport-related emissions, while the policies of national governments have drawn particular attention, companies have a meaningful role to play by transforming their approach to mobility and delivering appropriate incentives and support structures to smooth employees' transition to electric vehicles and other sustainable mobility choices.

## Business need

Mobility is a key factor influencing employee satisfaction. As values evolve and commuting styles diversify, offering flexible transportation options has become essential for employers who want to remain attractive. At the same time, mobility represents one of the largest direct emission sources for many companies.

Aligning mobility systems and policies with SBTi-approved Net-Zero targets is therefore crucial for reducing carbon emissions and contributing to the global effort to limit global warming. Barriers to sustainable commuting include limited infrastructure and resistance to change. Effective mobility solutions must address these challenges while ensuring inclusivity and accessibility across the workforce, providing low-emission options that meet both professional and personal needs.

## Impact

Number of employees benefiting from new mobility concepts through NeMo:

**About 2,400**

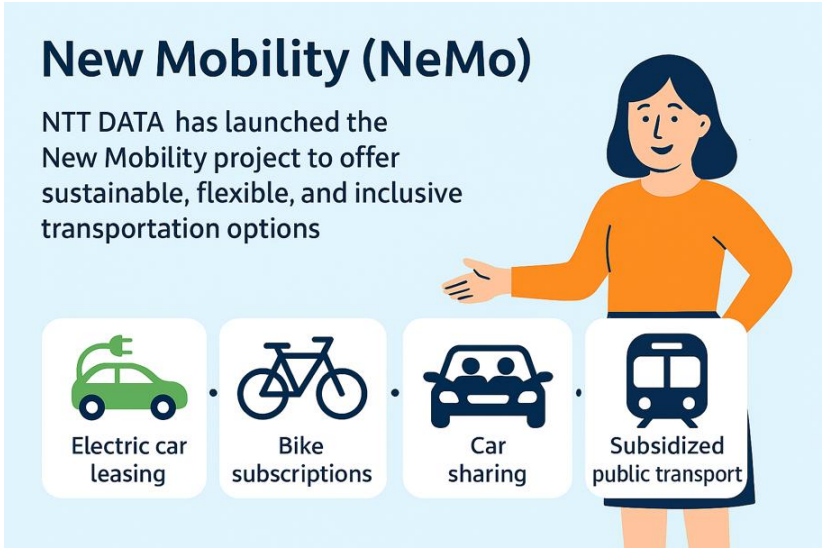
## Solution

NTT DATA launched the New Mobility project (NeMo) to fundamentally reshape employee mobility by offering sustainable, flexible, and inclusive transportation to fit diverse needs. Employees can build a mobility package to suit their individual requirements, including bicycle leasing, electric cars, and employer-subsidized public transport.

NeMo's approach includes a range of electric vehicles to meet diverse employee needs and flexible leasing enabling employees to switch between a bicycle in summer and a car in winter, or to try leasing an electric car without committing to a long term contract. NTT DATA also provides charge@home solutions at a reduced price to further smooth the transition.

All employees can use Companybike to lease electric bicycles for up to 40% below market rates, while the company-subsidized tickets give employees in Germany access to urban public transport and regional trains nationwide.

NeMo unlocks flexible mobility solutions to benefit all employees, wherever they live, providing a model for corporate mobility reimagined to combine environmental goals with enhanced employee satisfaction.




**Mobility methods offered through NeMo**

NTT Group Sustainability Conference: New Mobility (NeMo) at NTT DATA DACH

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# Collaboration with IPlanet to Promote EV Adoption

EV charging infrastructure simplifying customer journeys to promote electric mobility

Countries: Italy

Material Issues: Climate Change; Sustainable Supply Chain

SDGs: 9 Industry, Innovation and Infrastructure; 11 Sustainable Cities and Communities; 13 Climate Action

## Social Issues

- Italy's energy sector is undergoing a profound transformation, driven by the need to reduce fossil fuel dependence and accelerate the transition to more sustainable systems. Renewable energy sources are playing an increasingly central role, and the Italian government has set a goal of covering 30% of total national energy consumption with renewables by 2030.
- While electric mobility powered by expanded renewable capacity is emerging as a key element of decarbonization, Italy still has one of Europe's lowest battery electric vehicle adoption rates, at about 6% of new car sales in June 2025, compared to an EU average of 15%.

## Business need

Electric mobility is a vital part of the transition towards sustainable transportation. When charged using renewable energy sources, electric vehicles (EVs) can contribute to a substantial reduction in emissions. EVs also emit no tailpipe pollutants, significantly decreasing levels of harmful substances in urban environments.

Charging facilities are vital for EV uptake, and service station networks can provide a solid foundation for this infrastructure. However, built-for-purpose digital systems are required to manage charging equipment networks and create smooth customer journeys that lower resistance to change. These challenges, and the associated opportunities, are particularly significant in Italy, where EV adoption rates are currently well behind the EU average and a change in consumer behavior could open up a major new market.

## Impact

The number of service stations expected to contribute to improving user convenience through this activity in the future

**500 over**

## Solution

NTT DATA designed and implemented a digital solution for IPlanet, a joint venture between Italian group IP and Australian financial fund Macquarie Capital EV Asset Holding that aims to electrify urban and extra-urban service areas. IPlanet plans to transform over 500 service areas into multi-energy and multi-service hubs by 2032.

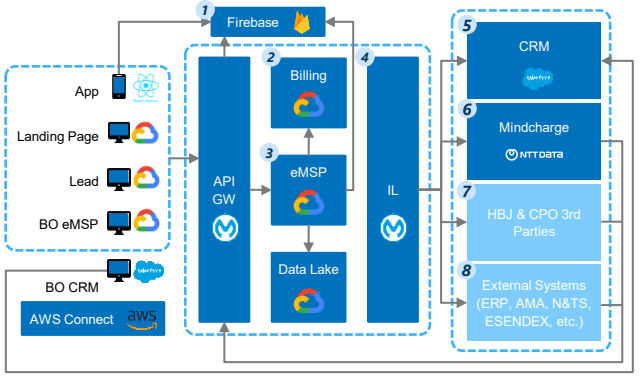
In a project to create a complete digital solution enabling E-Mobility Service Provider (EMSP) and Charging Point Operator (CPO) processes, NTT DATA initially worked as a strategic consultant, leading business and IT strategy to design a digital solution for EMSP/CPO processes and create a unified customer experience integrating EV services with fuel and non-oil offers. In the second phase, NTT DATA developed a mobile application and underlying systems to offer EMSP services for B2B and B2C markets. After delivering this system that simplifies customer journeys by accompanying users from onboarding through to service provision and after-sales service, NTT DATA continues to support IPlanet's efforts to create more charging points and promote electric mobility.

1 **Firebase**: An IAM system, responsible for users registration and autentication

2 **Billing**: A layer dedicated to pricing management, payment methods and subscriptions, payment flow management

3 **eMSP**: Orchestrates business logic between Mobile App and all other infrastructure modules. Enables communication with the IPlanet CPO Charging infrastructures and with the various interoperability of which IPlanet is a partner

4 **IL (Mulesoft)**: A layer that contains integration logics and ensures centralized management of communication with external systems connected to the platform




5 **CRM/Salesforce**: Holds the entire IPlanet Customer Base, manages offers and eligibility rules and all other assets

6 **MindCharge e-Mobility platform**: An NTT DATA solution created to enable electric vehicle charging services, both for CPO IPlanet and CPO integration with third parties via protocols (PCIP, OCPI, OICP).

7 **Hubject**: The roaming platform that connects and communicates with the eMSP to manage all customer recharges with interoperability

8 Layer grouping all external systems with which interfacing occurs (**ERP** for invoicing, **AMA** as an RFID card producer, **N&TS** as a payment gateway, etc.)

**Overview of integrated digital solution for IPlanet**

PDF:
IP and Macquarie Announce Joint Venture for Electrification of Service Areas

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Planet positive

# Use of Digital Twins to Enhance Oil Refinery Efficiency

## Energy optimization powered by AI and digital twin technology

Countries: Italy

Material Issues: Climate Change; Innovation through Technology; Sustainable Supply Chain

SDGs: 9 Industry, Innovation and Infrastructure; 7 Affordable and Clean Energy; 12 Responsible Consumption and Production; 13 Climate Action

### Social Issues

- Oil and gas operations comprise about 15% of global energy-related emissions, equivalent to 5.1 billion tons of greenhouse gas emissions, according to the International Energy Agency. Within this sector, refineries account for a significant proportion of emissions, meaning environmental improvement to refinery processes can have a major impact on the industry's carbon footprint.
- While carbon capture, utilization and storage (CCUS) technologies are one means to reduce net carbon emissions at refineries, reducing energy use during operations is another key factor that can limit environmental impact.

### Business need

Refineries' low-pressure thermal systems integrate vacuum, visbreaker, and thermal cracking units to convert heavy crude fractions into lighter hydrocarbons and produce bitumen and heavy fuel oil. To operate efficiently, these systems rely the recirculation of heavy visbreaking gas oil and thermal TAR. However, unnecessary recirculation increases energy use and equipment fouling.

In addition, because the crude oil composition significantly impacts processing complexity, adaptive control is required to optimize operation to balance energy efficiency with product quality. Technological solutions to enhance such optimization can prevent unnecessary heating of previously cooled materials, improving energy efficiency and ultimately cutting $CO_2$ emissions.

### Impact

Reduction in oil refinery operating costs through these activities:

**Approx. EUR 2.5 million / year**

### Solution

NTT DATA carried out a proof of concept (PoC) demonstrating Digital Twin and Analytics for Refinery Technology (DART), a modular digital twin solution integrating advanced AI-driven analytics for refinery optimization. DART leverages real-time operational data to perform predictive and prescriptive analytics. Key components include a data acquisition module, a data elaboration module, a backend orchestrator, and an interactive dashboard that visualizes real-time data, predictions, KPIs, and actionable recommendations.

The project originated through a collaboration facilitated by NTT Innovation Laboratory Israel (NTT IL), which identified and introduced Qsee and its technology to NTT Data as part of an open innovation challenge.

Through this PoC, NTT DATA aimed to demonstrate AI models' ability to accurately model refinery process KPIs to optimize bitumen production processes, with significant potential to reduce emissions and optimize end product quality. The implementation of this type of technology, which combines ML/AI mathematical models with digital twins, and its extension to other refinery processes could lead to notable improvements in production efficiency and meaningful environmental benefits.


**Conceptual image showing DART analysis**

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## Prosperity positive

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Prosperity positive

# Aisaku

## Leveraging digital technology optimized in partnership with people working in food and agriculture to build more sustainable communities

Countries: Japan

Material Issues: Climate Change; Innovation through Technology; Secure and Sustainable-by-design Services and Solutions

SDGs: 8 DECENT WORK AND ECONOMIC GROWTH; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 11 SUSTAINABLE CITIES AND COMMUNITIES; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION; 13 CLIMATE ACTION

### Social Issues

- Japanese agriculture faces numerous challenges, particularly an aging population and lack of successorship. Statistics from the Ministry of Agriculture, Forestry and Fisheries show that the number of people working in agriculture fell from about 1.757 million in 2015 to 1.114 million in 2024, a decrease of approximately 37%. Declining rural populations are also leading to social issues such as an increase in abandoned farmland.
- JA Group supports farmers in Japan in all processes relating to agricultural goods, from production to shipping, sale and consumption. However, a decline in membership is complicating its efforts to contribute to enriched, sustainable communities.

### Business need

Maintaining and developing regional economies lies at the foundation of JA Group's activities, but shrinking rural populations and an aging society have led to falling agricultural worker numbers. This has forced the organization to pursue greater efficiency by restructuring and reforming its locations and facilities. Fewer locations, facilities and members of staff, means fewer contact points with members and local people, making it difficult to create opportunities to use JA Group services and provide flexible support to meet user needs. Moving forward, the group must leverage digital technology to provide labor-saving services that do not require face-to-face support alongside its diligent in-person services, all while maintaining the principle of equality among members.

For JA to achieve sustainability together with communities, it must also redefine the relationship between members and regions and implement business enhancement with an integrated perspective.

### Impact

Adoption of Aisaku services by JA organizations:
(As of December 2025)

**Introduced by about**

**150 JA organizations in 40 prefectures**

### Solution

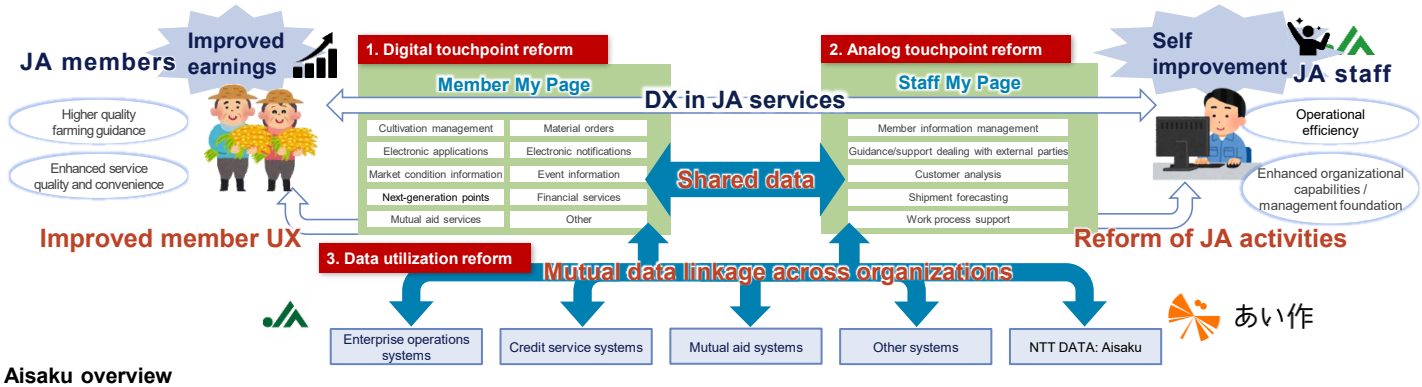
NTT DATA worked with JA Group to create Aisaku, a project providing wide-ranging digital services to enhance productivity and sustainability by connecting everyone involved in the production, shipping, sale and consumption of agricultural products.

Specifically, it began providing farming support services for producers, online store services for materials, and shipment forecasting services in 2018. The Member My Page service for JA members was launched in 2022, providing a digital touchpoint to communicate with members and distribute notifications. This contributed to lower mail and labor costs, improved user convenience, and enhanced efficiency for staff.

This was followed by additions such as Staff My Page as a support service for JA staff dealing with external parties and a next-generation loyalty point system for members and local people.

Aisaku will continue to leverage digital technology optimized for regional societies, value local connections, and contribute to the building of enriched, sustainable communities.

1. Digital touchpoint reform: Promoting member-facing digital services to both enhance member services and rationalize JA management
2. Analog touchpoint reform: Promoting digital tools for staff to support activities through data not dependent on staff experience
3. Data utilization reform: Promoting data linkage and utilization across organizations, leveraging strengths as an integrated project




**Aisaku overview**

Aisaku: Building Futures for Local Communities (in Japanese only)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Prosperity positive

# MOD Deployment of Digital Twins with IOWN® Technology

Creating a digital twin of Japanese territory to support national defense exercises through more accurate real-time alignment with actual conditions

Countries: Japan

Material Issues: Innovation through Technology; Responsible Technology and AI Ethics; Digital Safety and Reliability; Secure and Sustainable-by-design Services and Solutions

SDGs: 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS; 17 PARTNERSHIPS FOR THE GOALS

## Social Issues

- As the global situation has grown increasingly unstable in recent years, Japan's national security environment is also becoming more complex.
- In a 2022 Japanese Cabinet Office survey of Japanese citizens aged 18 and over (1,602 valid responses, response rate of 53.4%), 86.2% of respondents agreed that current global conditions put Japan at risk of becoming involved in a war, with 38.1% answering that they agreed and 48.1% responding that they agreed more than they disagreed. In addition, 83.6% expressed agreement with using cutting-edge technologies from private companies, universities and other research institutions for defense purposes.

Source: *Public Opinion Survey on Self Defense Force and Defense Issues*, November 2022, Public Relations Office, Cabinet Office, Government of Japan (https://survey.gov-online.go.jp/r04/r04-bouei/gairyaku.pdf) (in Japanese only)

## Business need

In its mission to maintain national security, Japan's Ministry of Defense holds simulations and exercises preempting various scenarios. However, exercises with real units take time, require funding and face scope limitations. Tabletop exercises address these restrictions, but conventional technology struggles to recreate Japan's territory with high accuracy while also reflecting real-time data such as weather, geography and the position and movement of objects, resulting in positional inaccuracies and delays tracking movements.

In addition, high levels of confidentiality and security must be maintained while collecting, analyzing and leveraging vast amounts of data from various angles. In particular, while satellite image data delivers a bird's eye view and is the most effective source of situational awareness, high-accuracy image processing AI models are required to interpret huge quantities of data quickly and precisely. Obtaining enough high-quality data to train such models is difficult, and issues to address included high development costs relative to the outcomes achieved through machine learning.

## Impact

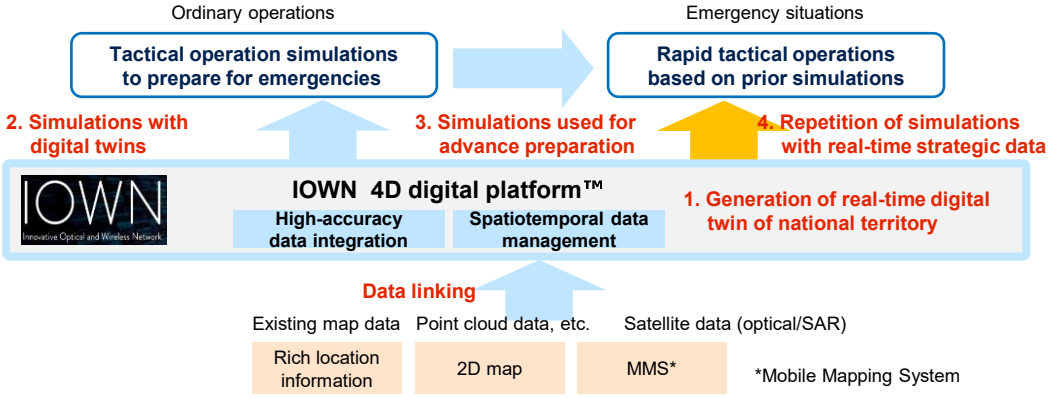
Leveraging the latest technology in security operations enables more reliable execution, enhancing **safety and security** of mind for residents.

## Solution

NTT DATA utilized NTT laboratories' cutting-edge IOWN® technology to build a 4D digital platform™ and combined existing map data with point cloud data of buildings and similar objects to enhance map accuracy. This overcomes technical barriers such as limits on spatial awareness to generate a digital twin of Japanese territory in real time while enabling processes such as immediate data updates and simulations. This supports a range of simulations beyond previous capabilities, which can contribute to bolstering national defense.

NTT DATA is also developing AI models for satellite image data analysis and is using image generation AI to create and utilize large quantities of high-quality satellite image data suitable for machine learning, thereby enhancing the accuracy of image analysis models while significantly reducing development costs.

The 4D digital platform™ is also intended for deployment in various fields supporting Japan's security, and NTT DATA also aims to expand in diverse industries around the world through satellite data image analysis based on technology that generates AI training data. Through this work, NTT DATA will continue its contribution to safety and security of mind for people in Japan.




**Conceptual Diagram of IOWN® Deployment**

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First Public Sector Mobility & Resilience Division
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Prosperity positive

# Distributed Data Center Interconnection Using IOWN® Technology

Leveraging IOWN technology to enhance the resiliency, efficiency, and agility of next-generation financial systems

Countries: Japan

Material Issues: Innovation through Technology; Digital Safety and Reliability; Secure and Sustainable-by-design Services and Solutions

SDGs: 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 17 PARTNERSHIPS FOR THE GOALS

## Social Issues

- As IT innovation enriches our lives, it has become a fundamental pillar of social infrastructure—alongside transport and power networks.
- As the volume of data continues to grow exponentially, data handling requires the same reliability as other infrastructure types, supported by vast bandwidth and low-latency communication to realize a data-driven society.

## Business need

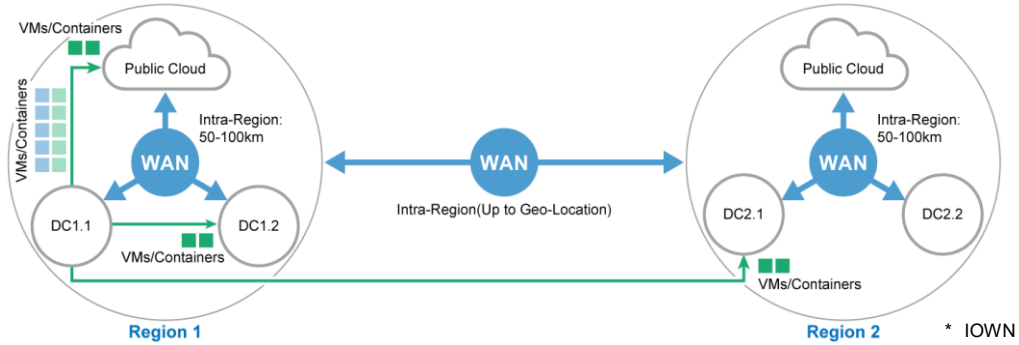
In financial systems, maintaining uninterrupted service—even during large-scale natural disasters—is a top priority. To achieve such resiliency, ultra-low latency communication enabling rapid switching to backup systems across distant locations is essential. Stable service continuity requires geographically-distributed data centers, which demand reliable, low-latency data connectivity to achieve energy efficient, flexible use of system resources.

## Solution

NTT DATA conducted a successful series of demonstration tests using IOWN* technology to address challenges related to digital transformation and next-generation financial systems, as a joint assessment with MUFG Bank, Ltd. and NTT WEST, Inc. The first assessment evaluated the live migration of a virtualized simulated financial system across multiple data centers within a 70km radius. The results showed system stoppages of one second or less when switching between locations. The second assessment evaluated database synchronization performance using a long-distance optical communication network, simulating distances ranging from 250 to 2,500km. A significant reduction in delays and fluctuations was observed, showcasing capabilities that overcome the long-standing challenge of synchronizing database transfers across vast distances. NTT DATA will build on the results of these demonstration tests and continue exploring possible system configurations and the potential for IOWN technology to meet the diverse requirements of actual financial systems.

**1 Intra-region application deployment and data migration**

**2 Data backup and workload migration between regions**




**Two financial data center interconnection use cases**

* IOWN (Innovative Optical and Wireless Network): Next-generation communications and information infrastructure designed for ultra-high capacity, ultra-low latency and ultra-low power consumption.

## Impact

Data centers in remote areas have traditionally relied on site switching for disaster recovery, but keeping standby systems running increases environmental impact. IOWN technology empowers each data center system with real-time data transfers and synchronization, enabling dynamic roles that support not only disaster recovery but also efficient resource utilization, while also contributing to the **prevention of critical system downtime**. (Under verification)

Press Release:
MUFG Bank, NTT DATA and NTT WEST Announce Successful All-Photonics Network Demonstration in Data Center Interconnection

Press Release:
MUFG Bank, NTT DATA and NTT West Publish PoC Report on Inter-Data Center Connectivity Using IOWN APN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Prosperity positive

# Mortgage One®

Countries: Japan

Material Issues: Innovation through Technology; Secure and Sustainable-by-design Services and Solutions

SDGs: 8 DECENT WORK AND ECONOMIC GROWTH; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

## Making mortgage applications more convenient and reducing the burden on housing business operators and financial institutions

### Social Issues

- Mortgage applicants are often required to follow analog procedures when dealing with housing business operators and financial institutions, resulting in inefficient processes that take time and effort.
- With shrinking workforces due to low birthrates and aging populations, both housing business operators and financial institutions face labor shortages exacerbated by the lack in digitalization of mortgage application processes. This results in significant workloads, with impacts including staff having to work on their days off.

### Business need

About 80-90% of mortgage requests are submitted to financial institutions by housing business operators, and the process up to loan disbursement requires close communication between both parties.

However, in addition to tasks such as physically signing and mailing documents, current processes often involve phone calls, face-to-face meetings and even the need to travel and work on days off, placing significant strain on staff on both sides. Mortgage applications also include a complex array of procedures ranging from fire insurance applications to communication with judicial scriveners, adding further workload. A seamless, integrated process combining and simplifying these tasks is urgently required.

For financial institutions, mortgages are important products directly linked to customer base expansion and stable revenue, making it a critical area in which to enhance profitability, employ more sophisticated risk management and optimize customer experiences. The proliferation of related systems at various financial institutions means digitalization is urgently needed across the mortgage industry, including housing business operators.

### Impact

Adoption as a platform connecting finance and real estate industries:

**Over 100 companies**

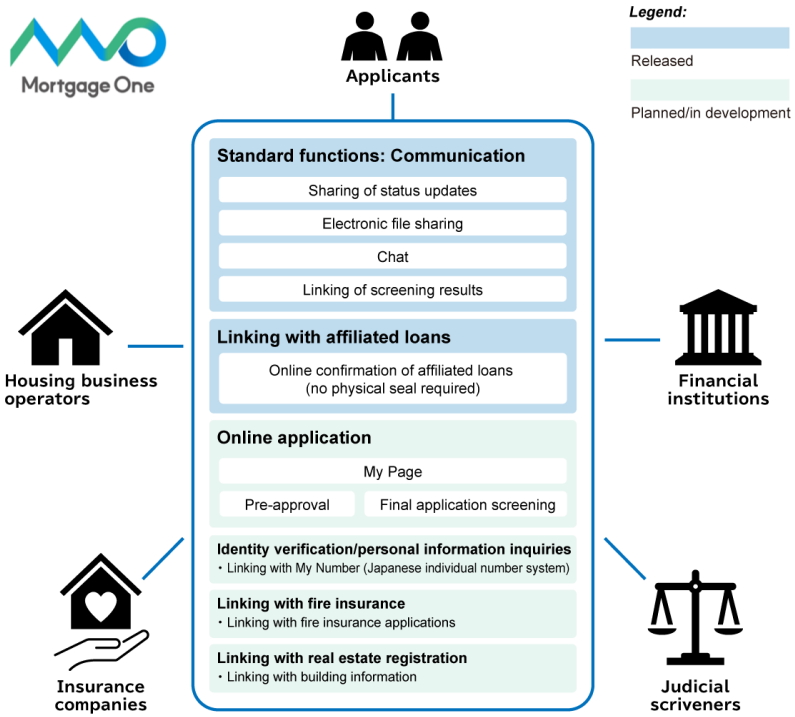
expected to implement adoption over the next five years

### Solution

NTT DATA launched Mortgage One® in June 2025 as a service enabling safe, easy online communication between applicants, housing business operators and financial institutions in mortgage-related processes.

Built on secure infrastructure, this service enables progress management, chat-based messaging between the parties involved, and file uploads, reducing use of analog methods such as phone, fax, physical mail, and face-to-face meetings.

Planned future support for online mortgage applications will enable the entire process to be handled digitally in one place. In addition, an integrated mortgage platform created by leveraging generative AI and other cutting-edge technologies will digitally link personal information and official documents using Japan's My Number system of numbers assigned to individual residents and enable the digitalization of fire insurance sales in collaboration with insurance companies. NTT DATA also leads the Mortgage DX Consortium, through which it promotes industry standardization and the expansion of functions to accelerate digitalization across the sector. Through this work, it seeks to eliminate complex procedures and inefficiencies in the handling of mortgages in order to enhance efficiency for all related parties, boost customer satisfaction, and contribute to performance improvements in terms of home sales and loan amounts.




**Conceptual image showing Mortgage One® utilization**

Mortgage One® (in Japanese only)

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Prosperity positive

# BeSTA-BaaS

Providing digital banking services in collaboration with digital-only brands and non-financial businesses

Countries: Japan

Material Issues: Innovation through Technology

SDGs: 1 NO POVERTY, 8 DECENT WORK AND ECONOMIC GROWTH, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 10 REDUCED INEQUALITIES, 11 SUSTAINABLE CITIES AND COMMUNITIES

## Social Issues

- Regional banks are downsizing, consolidating, and closing, making it more difficult for local people to access financial services.
- Japan faces frequent natural disasters, including earthquakes and floods. Damage to bank branches and ATMs risks interrupting in-person provision of financial services.
- Efforts to cater to the digital native generation must improve and services that meet the needs of new customers are required.

## Business need

Regional financial institutions are under strong pressure to digitalize and Banking as a Service (BaaS), a model in which banks use bank agency service or similar licenses to enable non-financial companies to provide banking services under their own brands, has seen accelerating growth. The agility and flexibility of banking systems must be enhanced to deliver diverse services while maintaining financial institutions' non-negotiable high standards of security and peace of mind.

Regional financial institutions are also using digital technology to acquire new customers through smartphone-native brands that do not use branches or cards. This enables them to reach new markets nationwide, including beyond their own business area, and to deliver new services for the digital native generation.

## Impact

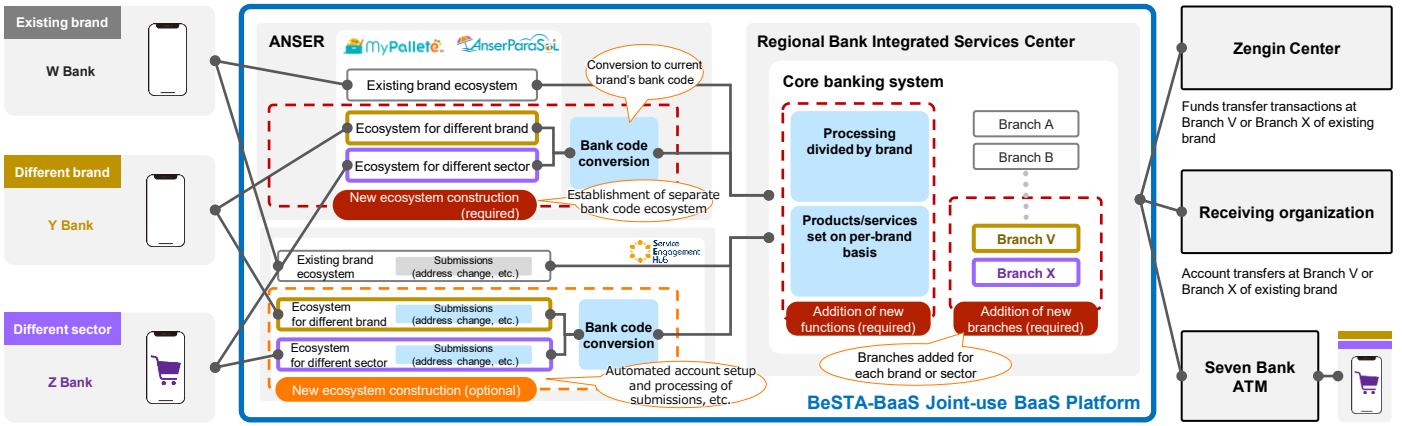
- **10,000s** of new account holders created per month
  (Simulation of use by non-financial companies. Results may vary depending on number of existing customers.)
- **More than 5,000** accounts set up over several months in one case study
  (Launch of second brand.)

## Solution

NTT DATA is engaged in open innovation with numerous stakeholders in the financial IT field and launched BeSTA-BaaS in October 2024.

Financial institutions that utilize NTT DATA's joint-use core banking systems can offer digital-only brands, and digital bank services can be provided in partnership with non-financial companies using bank agency service licenses. Specifically, with BeSTA®, the core banking system that enables the addition of new products, existing products and digital bank products can be delivered separately and at speed. Back-office operations at digital-only branches can implement workflows optimized for them, reducing the workload associated with creating new brands.

For the banking apps that are most important to end users, the white-label banking app My Pallete® can be used to create bespoke banking apps aligned with the worldview of new digital brands or non-financial partners from fields such as logistics and communications. NTT DATA will continue applying these solutions to enhance financial institutions' ability to implement DX with the aim of attracting new customers.




**Overall image of BeSTA-BaaS**

Press Release:
BeSTA-BaaS Launched as Japan's First Joint-use BaaS Platform (in Japanese only)


NTT DATA Japan Corporation
Second Financial Sector
Sales Planning and Promotion Department
Second Sales Planning Section
NTT DATA GROUP

Prosperity positive

# Loan Digital Platform®

Countries: Japan

Material Issues: Climate Change; Innovation through Technology; Digital Accessibility

SDGs: 9 Industry, Innovation and Infrastructure; 10 Reduced Inequalities; 13 Climate Action

## Supporting comprehensive digital transformation of personal loan operations across all financial institutions and loan guarantee companies

### Social Issues

- Personal banking customers increasingly favor smartphone-based services, services not requiring face-to-face interaction and options without time- or place-based restrictions.
- Conventional paper-based processes are inefficient and impact the environment, heightening the need for efficient digital systems. At financial institutions and loan guarantee companies, factors such as overlap between management processes and use of fax result in increased operational costs and complexity.

### Business need

In a fiercely competitive market, factors such as falling populations mean financial institutions are facing an ever more unforgiving business environment and are accelerating their digital transformation (DX) efforts to enhance their competitiveness. This includes developing personal loan products in which the entire process, from application to contract conclusion, can be completed without face-to-face service.

However, the diverse array of personal loan products, including the fact that the loan guarantee company often varies depending on the specific product, has prevented comprehensive, fundamental improvements, with many financial instructions and loan guarantee companies still using paper documents and faxes. This means financial instructions and loan guarantee companies are continuing to run both system- and paper-based operations, leading to ballooning management costs and operational inefficiencies.

### Impact

- Enabling DX by establishing a position as a standard platform linking financial institutions and loan guarantee
- Paper saving through reduction of faxes between banks and loan guarantee companies

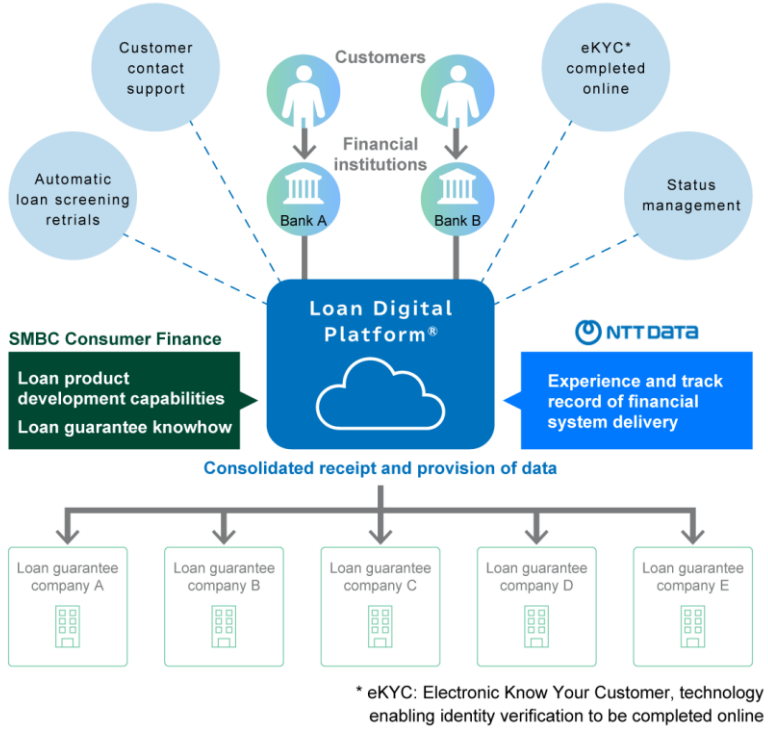
(Total amount of reduced paper, including banks planned for implementation as of October 2025)

**Approx. 360,000 pages / year**

### Solution

NTT DATA worked with SMBC Consumer Finance Co., Ltd. to deliver the Loan Digital Platform®. This service for personal loan customers, financial institutions and loan guarantee companies enables all necessary processes to be performed online, from application to contract conclusion. With the entire process supported online and identity verification as standard, users can apply for a personal loan and proceed to conclude the contract on a single smart device. When requesting screening by loan guarantee companies, the industry-first automatic retrial function enables fully-automated submission of screening requests to multiple loan guarantee companies, eliminating the need to send faxes or manually enter data. By unifying the interface used to connect with loan guarantee companies, loan screening data can be received from any loan guarantee company on the platform without changing the interface layout, accelerating new product releases by financial institutions. Form formats that minimize drop-off before application registration is complete have also been adopted, lowering per-customer acquisition costs. Eliminating the physical and time limitations of conventional in-store applications has also enhanced operational efficiency and customer convenience.

By providing additional functions and services in future, this solution can contribute to further problem solving and revitalization across the entire industry.




**Conceptual diagram showing Loan Digital Platform® utilization**

Loan Digital Platform®
(in Japanese only)

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Prosperity positive

# Passing on Tacit Knowledge with Generative AI

## Passing on craftsmanship into the future: Sharing knowledge and enhancing productivity on the frontlines of consumer goods development

| Countries | Material Issues | SDGs |
|---|---|---|
| Japan | Innovation through Technology | |

### Social Issues

- While Japan's working population has seen a temporary increase due to the participation of women and older workers in the labor market, a decrease in the number of young workers due to the declining birthrate and a fall in the average hours that each employee works annually are expected to lead to labor shortages.
- Further enhancements to worker productivity are essential to address these labor shortages. Boosting efficiency by effectively passing on the knowledge and skills of experienced personnel is particularly crucial.

### Business need

At work sites, experienced technicians leaving their professions, are making it difficult to pass on their knowledge. Securing talent to inherit these skills is also increasingly challenging. There is an urgent need for efficient systems to pass on skilled professionals' abundant practical knowledge. Such workers had typically conveyed insight and skills built up over years through manuals, written instructions and on-the-job training. However, tacit knowledge—the experience and intuition of experts—presented a challenge, because it is difficult to convey through manuals and must be built up through experience over time. The speed and efficiency with which knowledge can be passed on to subsequent generations was therefore a major issue to address.

### Solution

NTT Group has extensive experience capturing and systematizing the expertise and intuition of skilled workers. Lion Corporation utilized NTT TechnoCross Corporation's consulting service in its powder laundry detergent development processes. Skills, knowledge and knowhow were identified through interviews and workshops with skilled workers, then put into a key point matrix and combined with a knowledge inheritance AI system, establishing a structure for the smooth passing on of knowhow. This initiative enables the extraction and organization of knowledge based solely on the experience and intuition of skilled workers, which was difficult to put into words. Tacit knowledge that once took weeks to document can now be handled in days. These strengths will support the training of young employees and overseas expansion, contributing to the resolution of social issues such as labor shortages and the need to pass on manufacturing skills.

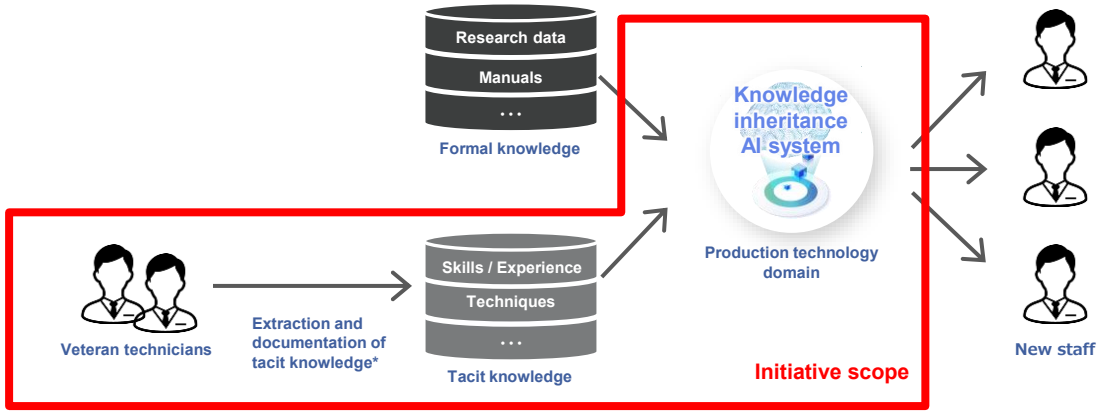
NTT DATA will use constantly-evolving generative AI to bolster the knowledge utilization knowhow it has built up through its global operations and work in wide-ranging industries, and promote implementation in business operations with the aim of supporting further advancements in the passing on of tacit knowledge.

### Impact

- Reduction in time required for new labor market participants to learn skills
- Enhanced productivity through early development into productive workers

Reduction of time needed to document tacit knowledge from

**weeks to days**




**Conceptual diagram showing passing on of tacit knowledge using generative AI**

* Based on NTT's proprietary "MEISTER" technology extraction and content creation methodology, this initiative utilizes an NTT TechnoCross consulting service that extracts tacit knowledge and formalizes it as explicit knowledge.

Press Release:
Initiative Utilizing Generative AI to Pass on Tacit Knowledge from Skilled Workers in Japan Launched (in Japanese only)


NTT DATA Japan Corporation
Second Industry Business Sector
CPG Division
NTT DATA GROUP

Prosperity positive

# Corporate Sustainability Report Simplified (CSRS)

Streamlining reporting and disclosure processes through AI-powered automation

Countries: Europe

Material Issues: Innovation through Technology; Digital Safety and Reliability

SDGs: 12 Responsible Consumption and Production; 13 Climate Action; 16 Peace, Justice and Strong Institutions

## Social Issues

- The EU's Corporate Sustainability Reporting Directive (CSRD) aims to improve the transparency and consistency of environmental, social and governance (ESG) reporting by companies. Around 11,000 large listed enterprises are currently required to report in 2025, with the scope expanding to 7,000-10,000 more companies required to submit reports from 2028 onwards, followed by smaller companies. Many companies are also proactively making preparations for reporting,
- Among reporting standards, CSRD is uniquely challenging in the wide scope of its requirements, as defined in the European Sustainability Reporting Standards (ESRS).

## Business need

Reporting to comply with CSRD's wide-ranging requirements is time and labor intensive. Sustainability leaders must gather, consolidate and review numerous quantitative and qualitative data points, then format them into reports for disclosure. The entire process can take a number of person days to complete.

Companies are therefore seeking solutions that enable them to meet these complex disclosure standards more efficiently. AI-enabled automation has the potential to dramatically reduce the manual workload placed on teams, but any solution must also ensure transparency and explainability in line with the objectives of CSRD.

## Impact

Potential reduction in the time taken to gather information and draft qualitative ESRS data points by using CSRS:

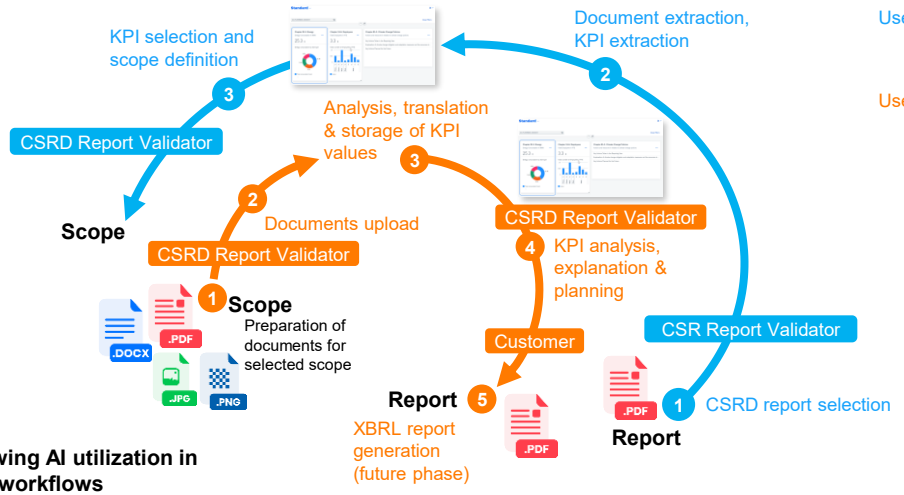
**50-75%**

This empowers sustainability leaders to dedicate more time to achieving ESG goals.

## Solution

NTT DATA's Corporate Sustainability Report Simplified (CSRS) solution utilizes AI-powered automation to streamline the CSRD reporting process for companies. An automated procedure is used to draft all required qualitative data points needed for the CSRD report, using generative AI to extract all relevant information from the source documents. After AI-driven parsing, ESRS data point responses are automatically generated and visualized, and the corresponding report can be created using the texts produced. In addition to delivering impactful time savings by eliminating the majority of manual processing tasks, CSRS ensures full traceability and explainability by specifying sources for each piece of information.

With other regions expected to shape their reporting and disclosure frameworks around EU standards, this effective automation of CSRD compliance processes can also enable global companies to future-proof their ESG reporting against changing regulations worldwide.




**Conceptual diagram showing AI utilization in reporting and disclosure workflows**

YouTube:
Introducing Simplified Corporate Sustainability Report

NTT DATA Business Solutions
Global Managed Services GmbH
Application Innovation Services
NTT DATA Group

Prosperity positive

# Smart AI Agent™

Countries: Japan

Material Issues: Innovation through Technology; Digital Safety and Reliability

SDGs: 8 DECENT WORK AND ECONOMIC GROWTH; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

## Leveraging generative AI to dramatically enhance productivity and shift focus to high value-added tasks

### Social Issues

- Japan's labor productivity equaled JPY 5,543 of value added per hour in fiscal 2024, the highest level since fiscal 1994 when adjusted for inflation. However, this leaves Japan below the OECD average, ranking 29th out of 38 countries (result in 2023).
- Japan's population decline is accelerating due to falling birthrates and aging populations, meaning the country needs to significantly improve efficiency and productivity.

### Business need

Japan's declining working population means there is an urgent need to reform workstyles and improve productivity. Generative AI can handle tasks outside the capabilities of conventional AI and can be expected to transform work in fields from content creation to customer support and construction. The 2024 White Paper on Information and Communications in Japan published by Japan's Ministry of Internal Affairs and Communications states that "the emergence of generative AI is arguably one of the most significant revolutions in human history. The greatest risk for companies is not utilizing it due to security concerns; rather, they should aim to become generative AI-first companies in the next era."

However, the same report states that only approximately 46.8% of Japanese companies are using generative AI—about half the rate in the US and Germany. In terms of use cases, while firms in other countries leverage generative AI in wide-ranging fields, including customer service, adoption in Japan has been cautious and focused on internal use.

### Solution

NTT DATA sees generative AI as a technology that can go beyond single tasks to be leveraged across entire operating processes and is working to advance Smart AI Agent™, a solution to dramatically enhance productivity for office workers. A personal agent, an AI agent optimized for office work, coordinates with multiple specialized AI agents possessing expertise in their respective fields to identify, organize and execute required tasks. Through AI agents optimized for users' work, this system provides a new source of labor through automation and other functions, which can transform workstyles by reducing repetitive and non-value added tasks for users.

NTT DATA is also developing other technologies based on the Smart AI Agent™ concept. In the sales field, it has started operating LITRON® Sales, a service that provides autonomous support covering various functions and carries out tasks instead of humans. It has also launched LITRON® Marketing as a new AI agent service to enhance productivity in marketing. Outside Japan, such systems have already been introduced to improve processes in the manufacturing industry.

NTT DATA will continue to expand its lineup of services, and provide comprehensive support, from consulting to adoption and ongoing operation, as it strives to enhance productivity and address labor shortages and other social issues.


**Overview of Smart AI Agent™**

### Impact

Productivity improvement with adoption of Smart AI Agent™

**Work time spent on sales activities** **31% → 78%**

- Percentage of work time after Smart AI Agent™ adoption calculated by NTT DATA Group based on Exhibits 10 and 11 in *The Economic Potential of Generative AI* by McKinsey & Company (McKinsey Global Institute analysis)
- Based on one month of work (160 hours) for one member of sales staff

AI Agent (in Japanese only)

NTT DATA Group Corporation
Technology and Innovation General Headquarters
AI Technology Department
appsdata_pr@hml.nttdata.co.jp

Prosperity positive

# LITRON® Sales & LITRON® Marketing

Leveraging AI agents to achieve more sophisticated, more efficient sales and marketing

| Countries | Material Issues | SDGs |
|---|---|---|
| Japan | Innovation through Technology; Responsible Technology and AI Ethics | 8 DECENT WORK AND ECONOMIC GROWTH; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE |

## Social Issues

- Sales and marketing teams need to accomplish advanced, complex tasks with limited staff, but labor productivity remains low and progress towards DX is insufficient.
- Increasingly diverse customer touchpoints mean companies must optimize offers and communication on an individual level, and staff are struggling to keep pace with trends and varying needs.
- Marketing professionals busy gathering information and evaluating possibilities face difficulties achieving effective planning and speedy implementation of measures.

## Business need

Sales departments face challenges such as large amounts of office work, from report creation to customer scheduling and data entry, and the impact on sales performance caused by significant disparities in individual employees' skills, such as the ability to analyze customers, make proposals and effectively balance schedules. Before putting ideas to customers, professionals must also ensure awareness of competitors, public information and past proposals, resulting in significant time pressure.

Similarly, in marketing, technological evolutions and diversifying customer touchpoints mean customers expect personalized communication, and professionals must be agile in adapting to changing trends and preferences. Marketers are under constant pressure to respond to these complex, dynamic changes, and many companies are struggling to formulate measures effectively and implement them quickly.

## Impact

Reduction in overall burden of marketing operations

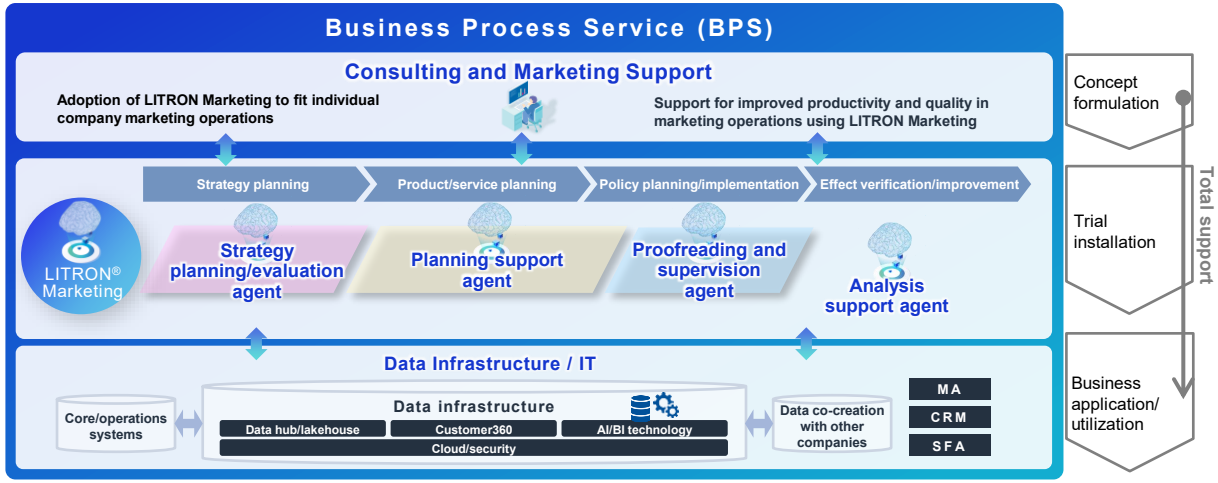
**Reduced by up to 60%**

## Solution

NTT DATA built on its Smart AI Agent™ concept to develop AI agents designed for sales and marketing. This solution provides autonomous AI support and outsourcing through a personal agent that receives instructions from the user, then assigns tasks to agents specializing in various areas.

LITRON® Sales is a support and outsourcing service for the sales field that uses AI agents for data entry and the creation of documents, including written proposals and contracts. Professionals can focus on tasks with high added value, such as putting proposals to customers, and enhance their ability to build hypotheses and suggest solutions based on internal and external information.

LITRON® Marketing is a support and outsourcing service for the marketing field that uses AI agents to cover everything from marketing strategy formulation to planning, implementation and evaluation. It also provides a total solution supporting business process re-engineering (BPR) consulting for various business processes, application in business operations and the establishment of systems that produce results. Based on the three pillars of generative AI, consulting and IT infrastructure, LITRON® Marketing achieves more sophisticated, more efficient marketing tailored to customer needs and contributes to maximizing ROI.




**Overview of LITRON®**

LITRON Sales (in Japanese only)

LITRON Marketing (in Japanese only)

NTT DATA Japan Corporation
Technology Consulting Sector
contact.litron@kits.nttdata.co.jp

Prosperity positive

# Unified MDR™ for Cyber Recovery

Countries: Japan

Material Issues: Secure and Sustainable-by-design Services and Solutions

SDGs: 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS; 17 PARTNERSHIPS FOR THE GOALS

## A risk assessment and cyber recovery service tailored to tackling rampant ransomware attacks

### Social Issues

- In its 10 Major Security Threats 2025 report for organizations, Japan's Information-technology Promotion Agency (IPA) identified ransomware attacks as the information security threat with the most significant impact on society in 2024.
- Global economic losses from cyberattacks in 2025 are reported to be over USD 1 trillion. In Japan, 70.9% of companies have experienced a cyberattack in the past three years, and the average cost of cyber attacks to Japanese businesses reached a record high of JPY 700 million in the 12 months up to February 2024.

  (Sources: *The Hidden Costs of Cybercrime*, McAfee; *Security Maturity and Incident Survey*, Trend Micro; *Average Cost of Cyber Attacks to Companies Reaches Record High of JPY 700 Million, Finds IBM Study*, The Sankei Shimbun)
- Cyber attacks impact not only the targeted company but also their business partners, making such threats highly significant supply chain risks with serious consequences for business continuity.

### Business need

Ransomware is a type of unauthorized program that can lock infected devices or encrypt files on devices and shared networks, halting business operations and causing severe economic losses. Attackers often demand a ransom for access to locked devices or encrypted data, but payment does not guarantee that data will be returned.

Preparation is essential in enabling companies that experience a cyber attack to swiftly confirm whether important data has been encrypted and to implement recovery plans so that normal business operations can resume rapidly. In addition, the globalization of business operations and changes in industry-specific laws and regulations in different countries mean the need for advanced security measures on a global scale is urgent. Responding to this situation requires enhanced security governance and security personnel with advanced specialist knowledge, but many companies struggle to achieve this in-house.

### Impact

Number of customers using NTT DATA global cyber security services:

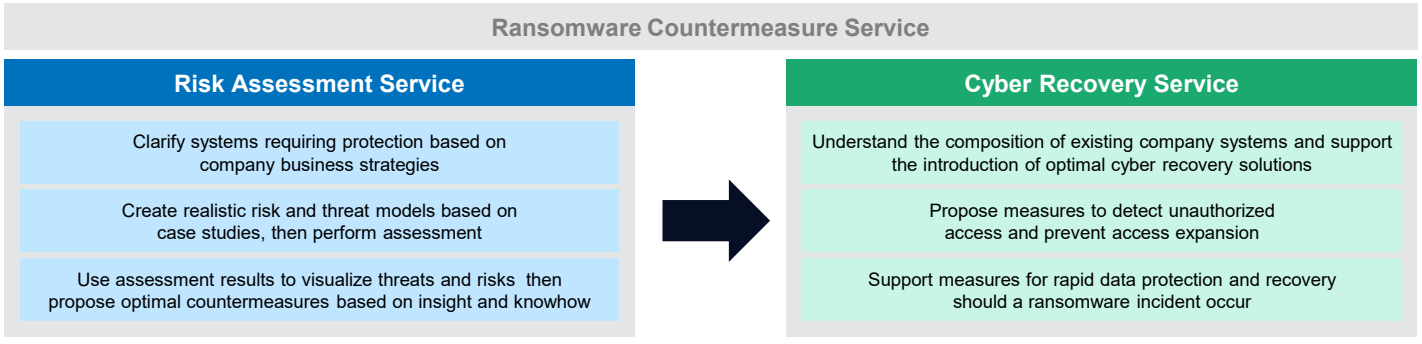
**Over 1,000 companies**

### Solution

NTT DATA has added Unified MDR™ for Cyber Recovery to its Unified MDR™ global security service as a service designed specifically to counter ransomware. This service supports companies in achieving cyber resilience that enables them to recover rapidly in the event of a ransomware attack. NTT DATA boasts a Computer Security Incident Response Team (CSIRT*) with a track record spanning more than 20 years and has built and operated one of the world's largest Zero Trust environments, covering about 190,000 people in 56 countries and regions. It leverages these strengths to offer companies operating all over the globe consistent global security services.

Unified MDR™ for Cyber Recovery assesses the appropriateness of current ransomware attack countermeasures and puts forward solutions. In addition, protection for data essential for recovery after a ransomware attack delivers a highly-reliable cyber recovery solution. Rapid recovery of systems using backups taken before an incident enables business continuity.

* Computer Security Incident Response Team:
A specialized organization for responding to information security incidents that occur within companies and organizations




**Overview of ransomware countermeasure service**

Press Release:
NTT DATA Launches Risk Assessment and Cyber Recovery Service Designed to Counter Ransomware Attacks (in Japanese only)

NTT DATA Japan Corporation
Technology Consulting Sector
security-contact@kits.nttdata.co.jp

Prosperity positive

# Automated Checking of Proposal-related Documents with Generative AI

Leveraging generative AI powered by knowhow from experts to check system proposal documents in pre-development phases

Countries: Japan

Material Issues: Innovation through Technology; Sustainable Supply Chain

SDGs: 8 DECENT WORK AND ECONOMIC GROWTH; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

## Social Issues

- Falling populations are accelerating the decline in worker numbers. The resulting labor shortages are creating an urgent need to shorten task lead times and enhance productivity.
- Diverse fields in various sectors of society are facing a need to create systems that pass on the abundant expertise of highly-experienced personnel with accuracy and efficiency.

## Business need

Customers seeking to build information systems, update equipment or outsource operations solicit concrete plans from potential suppliers through a Request for Proposal (RFP) stating the required system specifications and functions, including issues to resolve, operational methods, and system characteristics such as the projected number of users. However, unintentional omissions and ambiguous language can cause discrepancies and misunderstandings between stakeholders, which risks the original requirements not being met.

On the supplier side, project management, system infrastructure and technological experts propose measures based on RFPs and similar documents. However, document reviews vary depending on each person's knowledge and individual knowhow, meaning passing on knowledge and ensuring review efficiency are issues requiring attention. Against this backdrop, there is a growing need to standardize and streamline check methods and ensure that proposals are of consistent quality.

## Impact

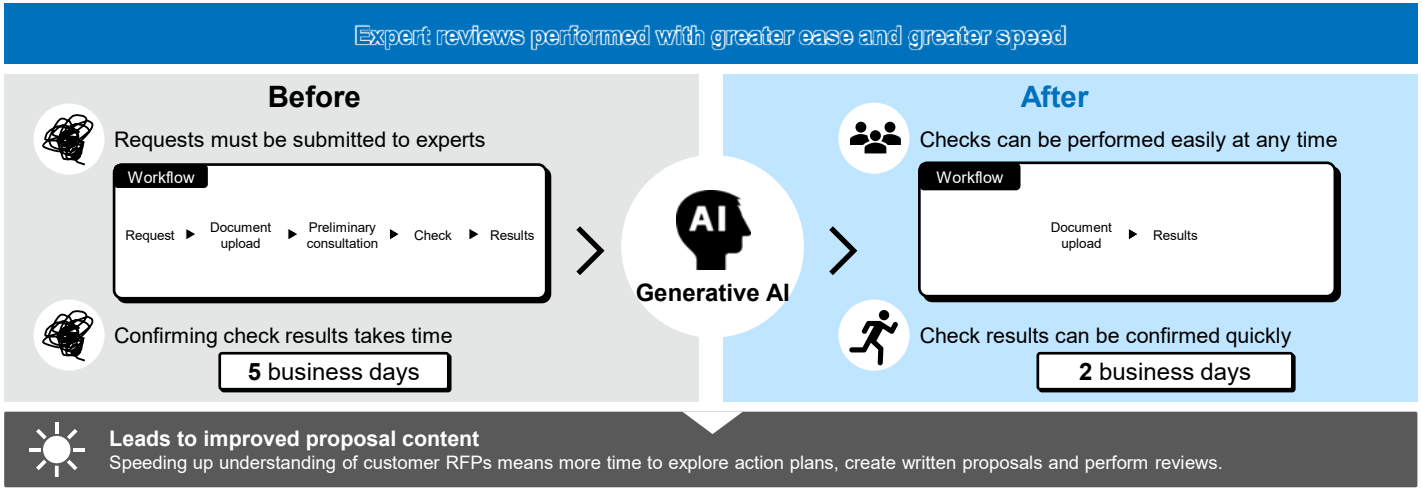
Reduction in time required to examine RFPs following introduction of generative AI

**Working time reduced by approximately 60%**

## Solution

NTT DATA aimed to enhance the quality of system development proposals by fully implementing generative AI in document checking processes. It used knowhow spanning 20 years of expert reviews to train generative AI to efficiently standardize check quality, removing dependency on individualized knowledge. Starting from October 2024, applying this practice in work to confirm that RFPs contain sufficient information reduced working times by about 60%, with full-fledged deployment subsequently implemented in December. Efficiency gains from using generative AI to perform previously manual checking tasks increase checking capacity to cover the approximately 1,000 projects that are ongoing in Japan at any given time, enabling people to focus on elements that require human attention.

This initiative leverages generative AI specializing in quality assurance related to the generative AI utilization concept Smart AI Agent™. Future applications being explored include expansion to cover materials such as project planning and design documents, as NTT DATA continues to constantly enhance the system services it delivers to customers.




**Conceptual diagram of generative AI utilization in proposal phases**

DATA INSIGHT:
Utilizing Generative AI to Automate Checking of Pre-development Documents (in Japanese only)

NTT DATA Group Corporation
Technology and Innovation General Headquarters
Quality Assurance Department
NTT DATA GROUP

Prosperity positive

# Engineering Capability Enhancement to Support Social Infrastructure

Elevating system implementation capabilities in terms of quality and scale to strengthen DX and support social infrastructure

| Countries | Material Issues | SDGs |
|---|---|---|
| Japan | Digital Safety and Reliability; People-Centric Company | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE |

## Social Issues

- Demand for IT is growing in numerous sectors of society. However, the breakneck speed of technological development is exacerbating the lack of IT talent, with the shortfall of IT professionals expected to be as high as 790,000 by 2030.
- Efficient, flexible system development is needed to enable businesses and wider society to respond to rapidly-changing environments and innovations in IT technology.
- In the IMD World Digital Competitiveness Ranking, Japan ranks 31st overall and fell to its lowest-ever position of 67th for agility of companies, making this an area requiring improvement on the world stage.

## Business need

Numerous companies are attempting to move forward with digital transformation (DX). To implement DX, a management strategy that sets out how the business will transform itself through new IT technology is essential. Furthermore, this technology must be used to enhance profitability in addition to promoting labor saving and efficiency. Business leaders must also go beyond strategy and vision to set out concrete DX policies. However, IT systems are aging, growing larger and more complex, and becoming more like black boxes, and these so-called “legacy systems” are leading to high-cost structures. It has been noted that funds and human resources are not always being allocated to strategic IT investment. Companies looking to break away from legacy systems need to radically reform their IT systems in line with their business and management strategies.

## Solution

Supporting stable IT infrastructure and advancing DX at companies requires talent that can bridge the gap between business and management strategies, among which IT architects are key. NTT DATA trains IT architects possessing three core capabilities, “Architecture-building capabilities”, “Quality assurance process-building capabilities” and “Resilience”. These professionals work to understand customers’ business needs as a basis for designing the optimal system architecture aligned with functional and non-functional system requirements, then implement reliable operation and take the lead on site to resolve any system issues.

Specifically, NTT DATA offers a training program for prospective IT architects. This program utilizes the knowledge of NTT DATA’s top engineers and their experience from designing real systems and tackling real-world issues. The practical content gets participants to think about what they would do in the same situations as a means of passing on technical skills and knowhow built up over many years and ensuring stable operation of IT systems as social infrastructure.

In addition, so that participants can gain a wide range of experience in system development fields, an individual development and placement plan is formulated for each prospective IT architect and a system of individual feedback and follow-up is in place. NTT DATA will continue these efforts to train architects who can play an active role on the global stage.

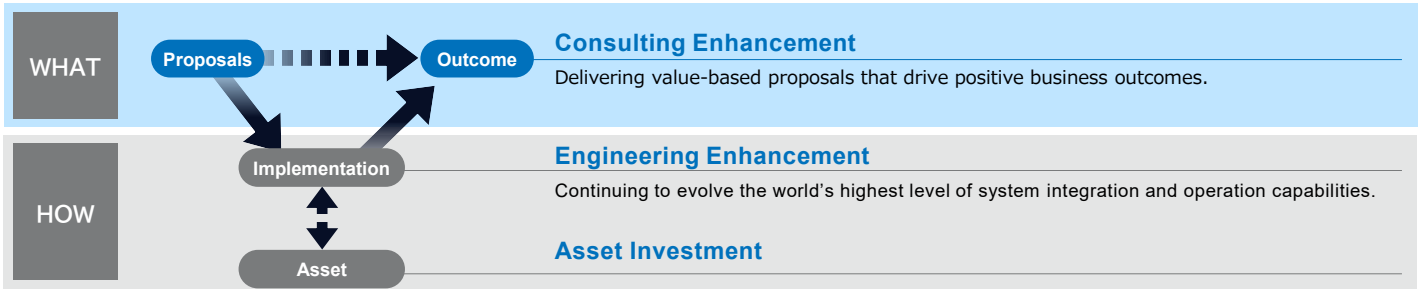
Also, NTT DATA holds a Tech Contest as an opportunity for employees, including those at group companies, to improve their technical skills. It also hosts communities promoting information sharing between engineers as part of its efforts to be a company where engineers enjoy working.

All employees also possess the basic knowledge required for system development, and NTT DATA is working to continue raising the baseline for technical skills among everyone involved in IT development.

## Impact

Human Resource Development Goal for IT Architects
(approximately 350 as of October 2025)

**700 IT architects**




**NTT DATA's "Proposal, Outcome, Implementation" model**

DATA INSIGHT:
NTT DATA’s Future Vision – Taking on Challenges Through Engineering Capabilities and Competitiveness To Create New Value (in Japanese only)

NTT DATA Group Corporation
Technology and Innovation General Headquarters
Global Architect Headquarters
NTT DATA GROUP

Prosperity positive

# Centralized IT Device Lifecycle Management

Advancing sustainability and efficiency through intelligent lifecycle management

Countries: Europe, America

Material Issues: Circularity; Sustainable Supply Chain; Digital Accessibility

SDGs: 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 13 CLIMATE ACTION

## Social Issues

- Digital technologies are crucial to modern business but are also significant sources of greenhouse gas emissions. Among these, endpoint devices account for 50-75% of overall IT-related $CO_2$ emissions.
- Device manufacturing has a particularly significant environmental impact, both consuming valuable natural resources and generating emissions. For example, about 80% of a laptop's $CO_2$ footprint occurs in the manufacturing phase. Extending device lifecycles is therefore an important avenue towards more sustainable device ecosystems.

## Business need

Enterprises are rapidly adapting to changes such as hybrid working while also transforming their IT approaches to reduce costs and boost efficiency. This means larger, more diverse device ecosystems. Legacy management methods ill-equipped for this scale and complexity lead to poor standardization, time-consuming onboarding with extensive manual configuration and inadequate e-waste practices. Conventional age-based refresh schedules also cause inefficiencies, with some employees using machines with degraded performance, hindering productivity, while other fully-functional devices are replaced to fulfil age requirements.

A holistic, systematic solution is required to give employees seamless onboarding, minimize downtime, and generate resource efficiencies aligning business objectives with circular economy practices.

## Impact

Reduction in carbon footprint

**20- 40%**

Reduction in the total cost of ownership of devices

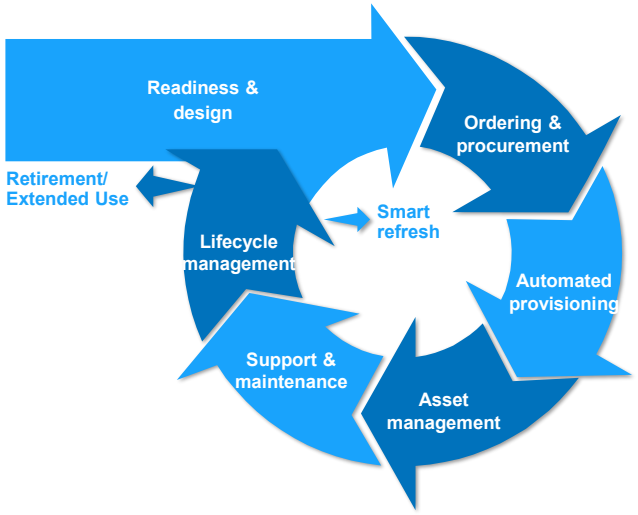
**over 15%**

## Solution

NTT DATA Digital Workplace Services (DWS) are designed to provide clients with a strategy for the future of work, significantly enhance productivity, foster seamless collaboration, strengthen security measures, and improve overall user experiences. These offerings include our Smart, Sustainable and Social Device-as-a-Service (SDaaS), which delivers comprehensive end-to-end device lifecycle management with a strong focus on sustainability.

Instead of refresh scheduling based on device age, SDaaS involves proactively monitoring devices based on performance and supporting longer lifespans through regular maintenance and updates. This means devices are only replaced once their performance degrades. Efficiencies are also generated through hardware catalogs tailored to specific personas in each organization, optimizing configurations and limiting bespoke provisioning. High-specification devices still working well at reduced capacity can also be refurbished and reassigned to employees with less intensive computing needs. In addition, digital twins generate further efficiencies by simulating entire IT processes to provide a comprehensive view of end-user device health and emissions, driving smart, sustainable decision-making. For devices that remain functional at end-of-term or end-of-life, NTT DATA enables their donation to schools or underprivileged communities, helping to advance digital access and empowerment.

Clients are also provided with a dashboard that provides real-time views into the impact their devices have on carbon footprint and offers insights for cost optimization and refresh management. SDaaS can transform organizations' approach to their digital needs, embracing the circular economy in manner that also brings business benefits in terms of cost and productivity.




**SDaaS lifecycle overview**

Insights and Resources:
Reboot Your Device Strategy and Reduce Ewaste with Sustainable Device as a Service

Digital Workplace Services Global Offering
NTT DATA Group

# Special Feature: Initiatives to Visualize Social Impact

## Initiatives

NTT DATA engages in business based informed by its Mission Statement, “Accelerate client success and positively impact society through responsible innovation.”

In everyday work, there is a common tendency to focus too much on fulfilling the needs and expectations of our customers, and opportunities to feel the impact of business on society can be limited. To address this, NTT DATA is advancing initiatives to take a fresh look at the social issues that it tackles through its various business activities and to visualize its effects on society and the environment as social impact.

These initiatives give participating employees the opportunity to reevaluate the value and significance that business creates from both quantitative and qualitative perspectives, thereby rediscovering the social significance of their own work. These employees also share the results with those around them, which expands mutual understanding with other employees and promotes multifaced awareness of business value and behavioral change. By enabling deeper understanding, these initiatives aim to foster specific action towards the the realization of a sustainable society.

NTT DATA visualizes social impact in various ways adapted to relevant materiality issues and the characteristics of participants. For information regarding the impact and results of specific sustainable offerings, which address social issues based on materiality, please refer to resources regarding individual solutions (Battery traceability platform, PipitLINQ®, Digital accessibility consultations, IT human resource development). This section introduces a case study from a Shinkin Bank Division initiative centered on workshops, with young team members playing a key role.

## Case study

Case study: Empowering Shinkin Banks to Keep Supporting Communities Through Technology - Shinkin Bank Division, Second Financial Sector, NTT DATA Japan Corporation

Overview: Three workshops, breakout work and four individual interviews, carried out between August and October 2025

Objective: In addition to enabling young employees, who will lead the business in the future, to rediscover the meaning behind their own work and spread this insight to their teams, this initiative aims to visualize the social impact of mission critical systems that support the shinkin bank business to clarify the contribution and value brought to communities and society, enable each employee to feel their significance, and bring about behavioral change.

Results: Participants responded positively, describing the initiative as a beneficial opportunity. Reflecting on the experience, many participants reported a sense of obligation at the outset, but that creating impact summaries and vision maps gave them renewed appreciation of the shinkin bank system’s social significance and the value of their own work, and that they would like to spread the impact to non-participant employees and other team members.

### Workshop 1

Participants studied the origins and value of the shinkin bank business, then discussed how beneficiaries have changed and the ideal shinkin bank. Participants drafted a logic model together and shared their future direction.

### Breakout work

Participants thought more deeply about shinkin banks, with teams assigned issues to consider based on the proposed logic model and identifying ways to enhance the model’s precision.

### Workshop 2

Based on the breakout work outcomes, participants revised the logic model and indicators and made a specific evaluation plan. Teams were chosen to create data measurement and vision maps, then created an implementation system.

### Interviews

Interviews with shinkin banks, the division's Joint Center, and senior employees deepened participants’ understanding of customers’ circumstances and case studies to be included in impact summaries.

### Workshop 3

Participants evaluated impacts by discussing how to interpret and use the collected data. Teams shared their future utilization plans and what they had learned, enhancing awareness of implementing impact management.

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## Special Feature: Initiatives to Visualize Social Impact

# Empowering Shinkin Banks to Continue Supporting Communities Through Technology

Impact Summary (Part 1 of 2)

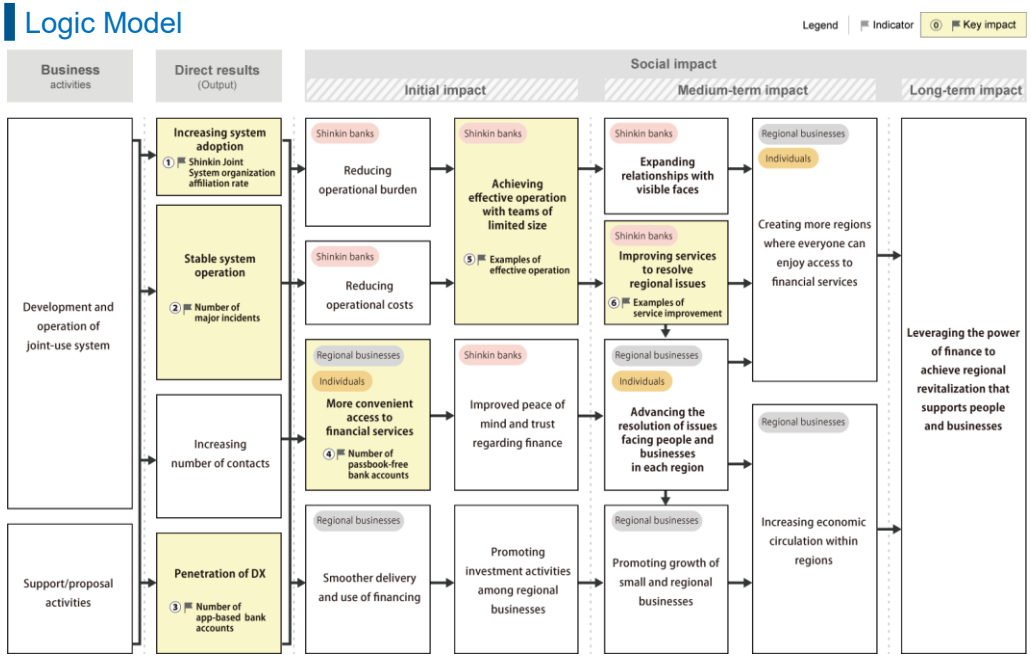
## Social Issues Targeted

The Shinkin Bank Division understands structural social issues that shinkin banks, SMEs, and local communities face, including falling populations, labor shortages, difficulty acquiring investment, and delays in making use of information and digital technology within regions. In the shinkin bank field, the falling number of members, employees and branches and the digital gap are barriers to use of services, particularly for older people and SMEs. Impaired access to financial services can also impede local economic cycles. This initiative aims to leverage technology to support shinkin banks as financial institutions that accompany communities, thereby enhancing sustainability for people and business in each region.

## Impact Strategy

The ultimate objective is to leverage the power of finance to achieve regional revitalization that supports people and businesses. As a hypothetical mechanism to this end, desirable states were defined for three beneficiaries, comprising regional businesses and individuals in addition to shinkin banks, which act as touchpoints between people and businesses in a region. For shinkin banks, reducing operational burdens, particularly for frontline staff, and the complementary goal of enabling people to concentrate on core tasks were identified as initial impacts to focus on. For individuals and regional businesses, more convenient access to financial services is a starting point that can expand into greater economic circulation in the region and help to create more regions where everyone can enjoy access to financial services.

## Logic Model




## Social Impact Visualization Process

When visualizing social impact, in addition to allocating time to learn about the division's history built up over more than half a century, with a focus on written materials, the initiative took a deeper dive into the existence of shinkin banks as regional financial institutions, the hope that they bring to each region, the role they play, and the possibilities they present. After investigating these fundamental aspects, we put the social impact that our division strives to achieve into words, then designed an impact strategy. We then collected impact data by interviewing stakeholders with reference to social impacts in the field and demonstrated the confidence level of the logic model.

## Initiative Content

### System Planning, Development and Maintenance for Shinkin Banks Nationwide

From the Shinkin Joint System, which enhances system efficiency and reduces costs through joint use between multiple shinkin banks, to network and sales office systems and applications that act as customer touch points, the power of technology supports shinkin banks by enabling stable system provision. The Shinkin Joint System is a core system that performs data management as a basis for the various types of information that make up the general ledgers of more than 230 shinkin banks nationwide, making it part of shinkin banks' infrastructure. The system uses scale to provide high-quality service, including rapid security responses and backups should natural disasters arise.

### Developing Systems to Support Rationalization and Efficiency

To dramatically enhance work efficiency and enable shinkin bank employees to focus on their core tasks, NTT DATA provides support to digitize various shinkin bank operations. One example is the adoption of a mechanism for sales office counter support systems that links tablet input and devices. Once input, data is linked to the Shinkin Joint System, enhancing efficiency and reducing errors, thereby improving the customer UX. UI/UX improvements in customer touchpoints can also further solidify "face-to-face" service as an existing strength of shinkin banks, enhance service quality through shinkin banks' ability to align with communities, and support the resolution of increasingly diverse regional issues.

## Notable Outcomes

Legend: ⓪ Indicators from logic model

**① Shinkin Joint System organization affiliation rate**

92.5 %

**② Number of major incidents**

Disruptions impacting "Ensuring availability of core systems" provisions of SLA

0

**③ Number of app-based bank accounts**

1,580,000 accounts

**④ Number of passbook-free bank accounts**

889,452 accounts

**⑤ Examples of effective operation**

- Transitioning from system development and operation by individual shinkin banks to an approach based on joint system use through affiliation with the Shinkin Joint System has enabled the redeployment of staff to initiatives that provide added value.
- Value is placed on maintaining face-to-face customer touchpoints as a strength of shinkin banks. For example, providing diligent in-person explanations about usage methods is enabling older people to use digital devices with peace of mind.

**⑥ Examples of service improvements to resolve regional issues**

In recent times, in addition to providing financing and other financial services, NTT DATA has focused on consulting that resolves issues rooted in local communities. It supports regional revitalization through activities such as matching between business within the same region and beyond. In terms of successor support, it promotes the survival of SMEs and continued employment through business succession and management consultations. Expectations are also rising that AI and other digital technologies can drive radical change to address labor shortages, which are becoming more severe in rural areas.

# Empowering Shinkin Banks to Continue Supporting Communities Through Technology

Impact Summary (Part 2 of 2)

## Key Reference Data and Calculation Methods

**① Shinkin Joint System organization affiliation rate ｜ 92.5%**

Percentage of organizations affiliated with Shinkin Joint System, a leader among a multitude of existing systems (As of March 31, 2025)
Coverage of affiliated shinkin banks relative to total number of shinkin banks: 92.5%（235/254);
Number of affiliated locations: 5,803

- In addition to the core Shinkin Joint System, NTT DATA hopes to increase use of subsystems such as app-based banking and systems to support contact with external stakeholders, contributing to greater operational efficiency for shinkin banks nationwide.

**② Number of major incidents ｜ 0**

Number of disruptions affecting “Ensuring core system availability” provisions under the Shinkin Joint System Service Level Agreement (SLA):
0 (Fiscal 2024)

- Stable year-round operation has been achieved, without major incidents that may lead to service suspension. However, other disruption does occur during system operation. In addition to minimizing impediments to stable operation, NTT DATA is working to further enhance resilience, such as by quickly identifying causes and taking remedial action when disruption does occur.

**③ Number of app-based bank accounts ｜ 1,580,000 accounts**

Number of bank accounts registered for passbook-free apps or app-based banking (Results as of August 2025)

- Results point to a certain level of widespread adoption among generations with high digital affinity. However, overall user numbers suggest that this indicator can be improved further, and NTT DATA will work to increase the number of accounts using apps by expanding security measures, enhancing links with other services, and improving convenience for app users.

**④ Number of passbook-free bank accounts ｜889,452 accounts**

Number of shinkin bank accounts that no longer require a paper passbook (Results as of August 2025)

- Making accessing financial services through apps more convenient for regional businesses and individuals makes passbooks less necessary. For financial institutions, passbook-free bank accounts also reduce costs related to printing, posting and storing passbooks and lowen the ongoing burden of maintaining passbook printing machines. NTT DATA will continue to provide value through digital technology with the aim of further expanding the number of passbook-free bank accounts.

**⑤ Examples of effective operations ⑥ Examples of service improvements to resolve regional issues**

This section contains summaries of case studies from NTT DATA’s business activities, based on interviews with the Shinkin Joint Center. (Held in October 2025)

Interviews(from left): Atsushi Ogawa / Yuka Sugawara / Tadayoshi Nakano / Taisei Miyakawa

## Social Impact Visualization Process

Rather than covering all of the division’s systems, the logic model and impact indicators presented in the impact summary focus on certain systems as representative examples. In obtaining impact data, the Shinkin Bank Division principally utilized quantitative internal data, alongside qualitative data from interviews with stakeholders. As the main initial focus is implementing impact management, the team recognizes outstanding issues relating to data collection, management and quality assurance and will continue to explore improvement measures moving forward.

Head of Shinkin Bank Division Hideo Hanamura (back row, third from left) delivered a message of encouragement to participants on the day of the final workshop.

## Participant Feedback

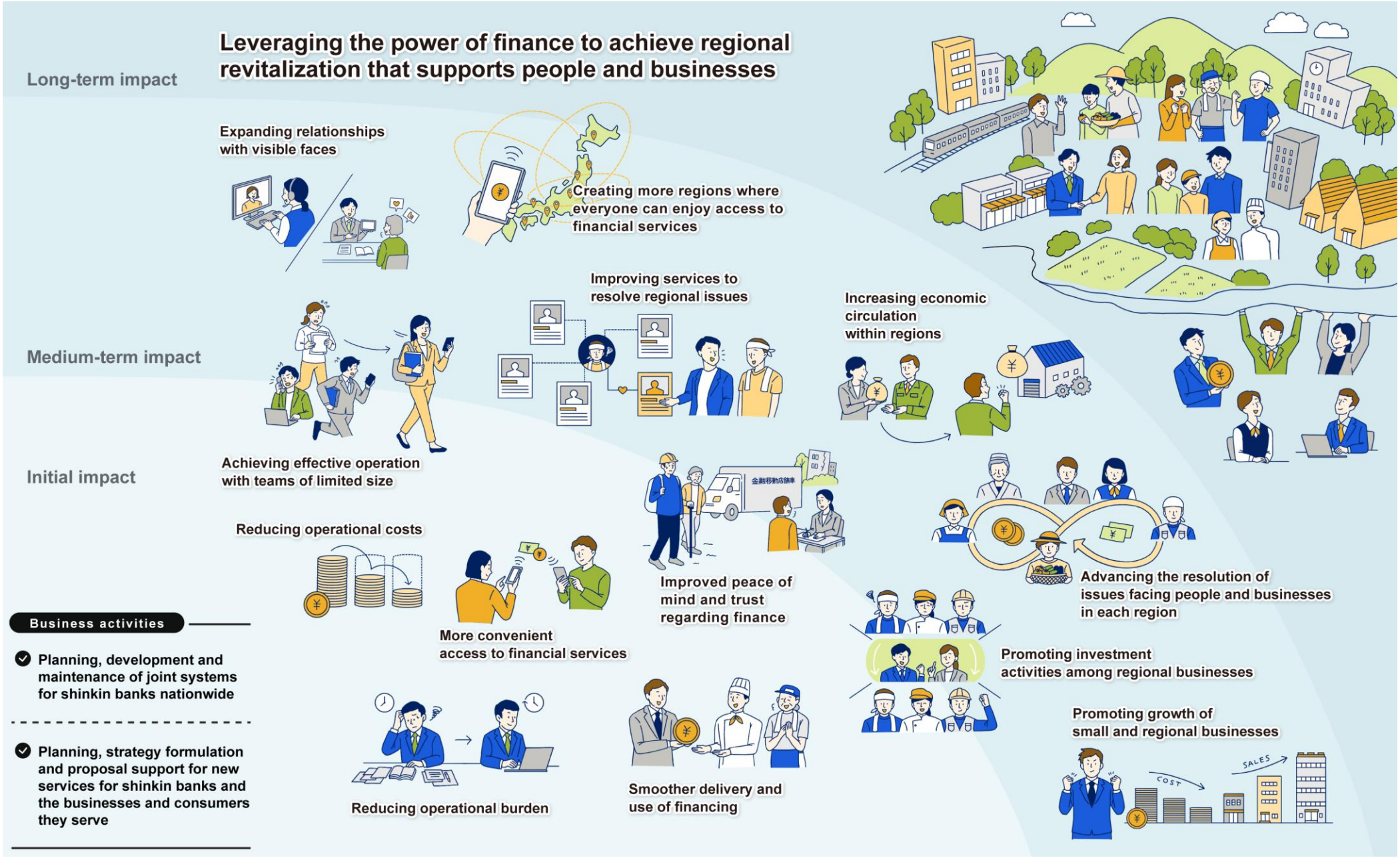
- We held interviews with the Shinkin Joint Center as a way to understand the social impact of our work. While we had created hypotheses regarding issues faced by shinkin banks, hearing about aspects such as the way that urban and rural areas feel different challenges showed me the importance of receiving input from customers directly.
- We had a chance to learn from the customer, that at the time of a natural disaster, a shinkin bank in an affected area was able to provide customers with ATM and consultation services, with help from a nearby shinkin bank‘s mobile vending car, due to the fact that they were using joint systems. My regular work focuses on infrastructure development, so I have had few opportunities to hear from customers directly, but through this initiative, I was able to understand more fully how our system supports our customers.
- Despite working hard on my own tasks every day, I realized that I had been unable to fully visualize how the entire division connects together and the impact that we have on customers. This initiative gave me a clearer idea of what to strive for. I will engage in dialogue with the members of my team about how our current work connects to everything else as I continue to my daily efforts.
- I had found it difficult to convey the full picture of our work to people who are new to the division and other stakeholders. This initiative helped me to put those concepts into words and visualize them, which I hope can boost the division’s image.

Workshop participants

Ryoga Ohashi, Atsushi Ogawa, Yuka Sugawara, Kao Tanaka, Tadayoshi Nakano, Keiko Nakamura, Mao Fujita, Shintarou Matsuura, Atsushi Mizunaga, Taisei Miyakawa, Yasushi Miyano, Megumi Yasuda, Shinya Yamanishi

# Empowering Shinkin Banks to Continue Supporting Communities Through Technology

Vision map



# People positive

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# Marble Visions

## High-precision, high-frequency satellite data delivering insights and supporting decision-making to address pressing social issues

Countries: Japan

Material Issues: Climate Change; Water Management; Innovation through Technology; Sustainable Supply Chain; Secure and Sustainable-by-design Services and Solutions; Digital Accessibility

SDGs: 3 GOOD HEALTH AND WELL-BEING; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 11 SUSTAINABLE CITIES AND COMMUNITIES; 13 CLIMATE ACTION; 17 PARTNERSHIPS FOR THE GOALS

### Social Issues

- As the world faces dramatic environmental changes and frequent natural disasters, understanding current conditions and generating accurate forecasts has become more complex, hindering the adoption of effective countermeasures.
- Rapid urbanization and aging infrastructure are further complicating efforts to implement appropriate land-use planning and disaster risk assessments.
- Wide-ranging, up-to-date awareness of the current state of agricultural products, forests, resources and infrastructure is needed to implement resource management and environmental conservation.

### Business need

The large number of satellites launched in recent years, boosted by lower-cost rockets and more compact designs, is expected to enable high-resolution, high-frequency satellite imaging. This data is being recreated in cyberspace for use in a growing range of areas, including infrastructure design and disaster prevention planning. This technology can also help to address social issues, from environmental changes to natural disasters and aging urban infrastructure. High-accuracy geospatial data and analysis are also needed to enhance productivity in agriculture, forestry and resource exploration. In addition to understanding the current situation and how it is evolving, addressing issues in these areas requires analysis, simulations, and forecasting to support rapid, precise action. One-stop services spanning from high-accuracy observation satellite systems to satellite image-based analysis and decision-making support capabilities are therefore key.

### Impact

Number of solution usages

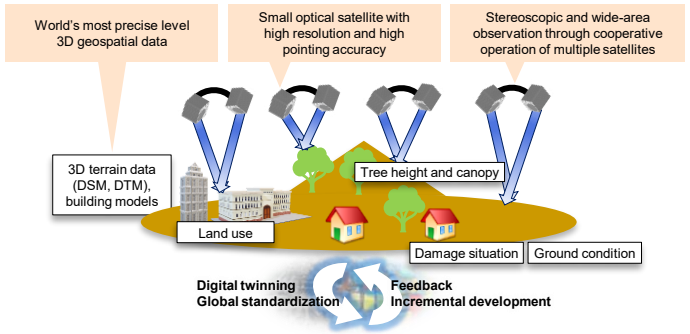
**Over 100 / year**

### Solution

NTT DATA has achieved detailed building-level representations of undulations with resolution as precise as 50cm, principally in urban areas, through its digital 3D map service AW3D, which delivers content adding value to satellite images. Working to leverage AI and other cutting-edge technologies in geographic information extraction, its services have been deployed on more than 4,000 projects in 130 countries and regions around the world.

As a new evolution building on these achievements, NTT DATA launched the dedicated satellite observation service supplier Marble Visions in July 2024. Using more precise, higher-frequency data, this one-stop service covers everything from satellite development and operation to advanced data analysis, including 3D data. In the future, observation satellite systems capable of 3D observation, visualization and use of digital maps covering the earth will support not only confirmation of present conditions, but also understanding of how the situation is changing and analysis, simulations and forecasting regarding urban areas, thereby enabling rapid, precise decision making. This can support a sustainable future through applications in areas such as labor saving in land management, evaluation of forest resources, disaster risk management, remote infrastructure inspections, infrastructure optimization, optimal natural energy allocation and management, remote resource evaluation, the shift to smart cities, and assessment and management of real estate assets.

**High-resolution, high-frequency 3D earth observation satellite system**




**Expanding to various public and industrial sectors to meet social needs**




**Usage image of AW3D**

MARBLE VISIONS

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Marble Visions Inc.
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People positive

# EYE-BOUSAI

An integrated disaster information system delivering real-time information sharing to enhance regional disaster resilience and keep residents safe

Countries: Japan

Material Issues: Climate Change; Innovation through Technology; Digital Safety and Reliability; Secure and Sustainable-by-design Services and Solutions

SDGs: 3 GOOD HEALTH AND WELL-BEING; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 11 SUSTAINABLE CITIES AND COMMUNITIES; 13 CLIMATE ACTION; 17 PARTNERSHIPS FOR THE GOALS

## Social Issues

- Regions across Japan have been struck by severe natural disasters, including heavy rain and typhoons. Forecasts also indicate a high probability of a megaquake in the Nankai Trough within the next 30 years.
- Local governments are streamlining their workforces, increasing the need for self-support and mutual assistance among residents. However, aging populations and weakening local ties are aggravating support shortages in the event of natural disasters.

## Business need

During natural disasters, local governments, fire services, police, defense forces and other related bodies collect and share information separately, often meaning delayed, fragmented delivery of information to residents and news organizations. Local governments with limited workforces can also be slow to issue evacuation orders, share information about relief and distribute supplies. Disaster responses are a race against time, necessitating systems to unify information from relevant bodies, frontlines and disaster prevention centers, then distribute it quickly and efficiently, even with limited staff. Digital technology is needed to collect, share and distribute information in centralized manner in order to reduce casualties and enable appropriate decision making.

## Impact

among Japanese prefectures and designated cities

**No.1 market share nationwide**

## Solution

EYE-BOUSAI is an integrated disaster prevention system that collates and analyzes diverse information in real time. This includes observation information from the Japan Meteorological Agency and disaster prevention bodies covering weather, earthquakes, river floods and landslides, information on lifelines such as electricity, gas and railway operations, the extent of damage shown in photos and videos from frontline staff and residents, and information from evacuation sites. This platform bridges real-time awareness between disaster prevention centers and those in the damaged areas. EYE-BOUSAI visualizes collected data in formats including GIS maps to support rapid decision making, therefore enabling quick, reliable batch distribution of evacuation orders and other important information through channels ranging from social media to disaster prevention apps, TV, radio and websites.

NTT DATA developed the system based on experience from the Great Hanshin-Awaji Earthquake in 1995. Accumulating expertise ever since, the system has been adopted by numerous prefectures and designated cities across Japan. Mitigating the psychological toll on disaster victims and responders while reducing the time required for information collection, information dissemination and decision making, EYE-BOUSAI enables focus on life-saving actions. In addition, the low-cost subscription model does not require full-time staff, enabling mutual support and joint use among small and medium-sized local authorities with the aim of improving information sharing and response capabilities when disasters occur.


**EYE-BOUSAI features**

EYE-BOUSAI Integrated Disaster Prevention System (in Japanese only)

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People positive

# pipitLINQ®

## Reducing workload through the digitalization of deposit account inquiries between government bodies and financial institutions

Countries: Japan

Material Issues: Climate Change; Digital Safety and Reliability; Secure and Sustainable-by-design Services and Solutions; Digital Accessibility

SDGs: 8 DECENT WORK AND ECONOMIC GROWTH; 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE; 13 CLIMATE ACTION; 16 PEACE, JUSTICE AND STRONG INSTITUTIONS; 17 PARTNERSHIPS FOR THE GOALS

### Social Issues

- To ensure the stable operation of social security systems, fair taxation, and a safe and secure society, local governments, national tax offices, police, and other government bodies conduct investigations into individuals' and corporations' deposit balances and transaction records by submitting inquiries to financial institutions. Speed and accuracy are essential in carrying out this work.
- Currently, both inquiries to financial institutions and the responses that they issue are still handled on paper. This process is time-consuming, and the need to check information in various formats increases operational workload.

### Business need

Every year, government bodies and financial institutions process roughly 60 million deposit account inquiries. Traditionally, financial institutions handled these inquiries individually on paper and sent responses by physical mail. This labor-intensive process typically took one to two weeks, and in some cases, up to 50 days. To improve speed and accuracy, a secure system was needed to connect government bodies and financial institutions and to support deposit account inquiries in a unified electronic format. Such a system reduces the effort required to handle paper documents, mailing costs and associated delays, and the complexity caused by differing document formats. Wider adoption of such systems by both government bodies and financial institutions is expected to further enhance efficiency.

### Impact

Inquiry response time

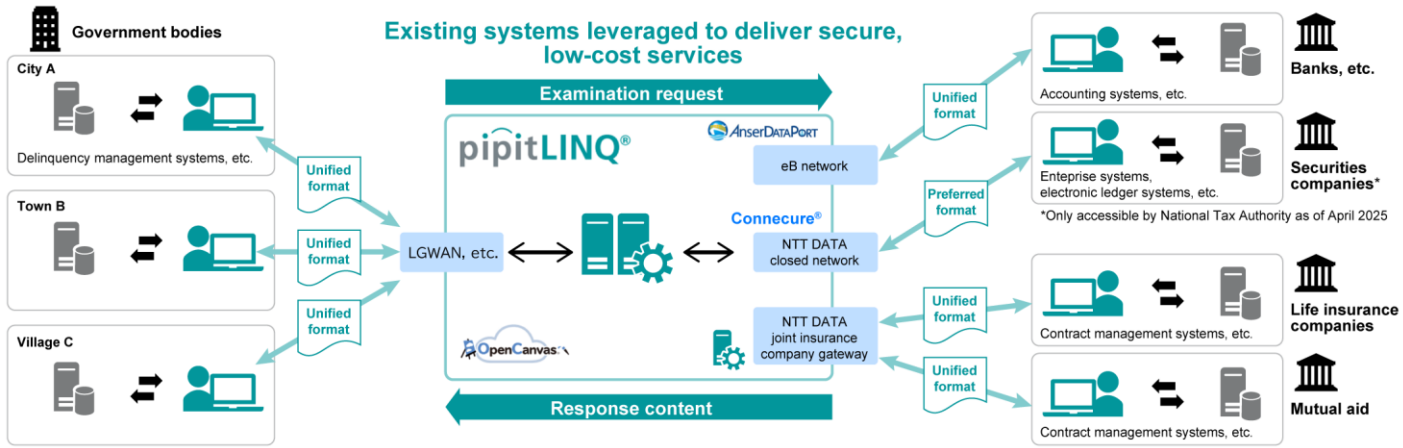
Conventional processes: 20 days → With pipitLINQ: **3 days**

Source: Survey of institutions that have implemented pipitLINQ® (valid responses: 379 public institutions, 15 financial institutions; conducted Sept. 26–Oct. 15, 2025)

### Solution

pipitLINQ® is a public-private collaboration platform that connects government bodies and financial institutions, enabling the digital handling of deposit account inquiries among participating organizations. Leveraging NTT DATA's technological assets, the platform ensures secure and efficient data linkage. Recognizing the high costs of traditional paper-based operations, NTT DATA organized joint study sessions with administrative and financial institutions to share best practices, conducted demonstration tests to verify feasibility, and provided policy recommendations to promote nationwide adoption—advancing the digitalization of government procedures.

Eliminating paper-based processes has significantly reduced labor, costs, and delays—cutting working hours by 55% for government bodies and 99% for financial institutions—and has contributed to improving the quality of social security systems. Looking ahead, pipitLINQ® will continue to leverage this trusted public-private information infrastructure to connect industries, organizations, and people, contributing to the creation of a more equitable and prosperous society.




**Overview of pipitLINQ® utilization**

pipitLINQ: Electronic Deposit Account Inquiry Service from NTT DATA Connecting Government Bodies and Financial Institutions (in Japanese only)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Social Infrastructure Solution Sector
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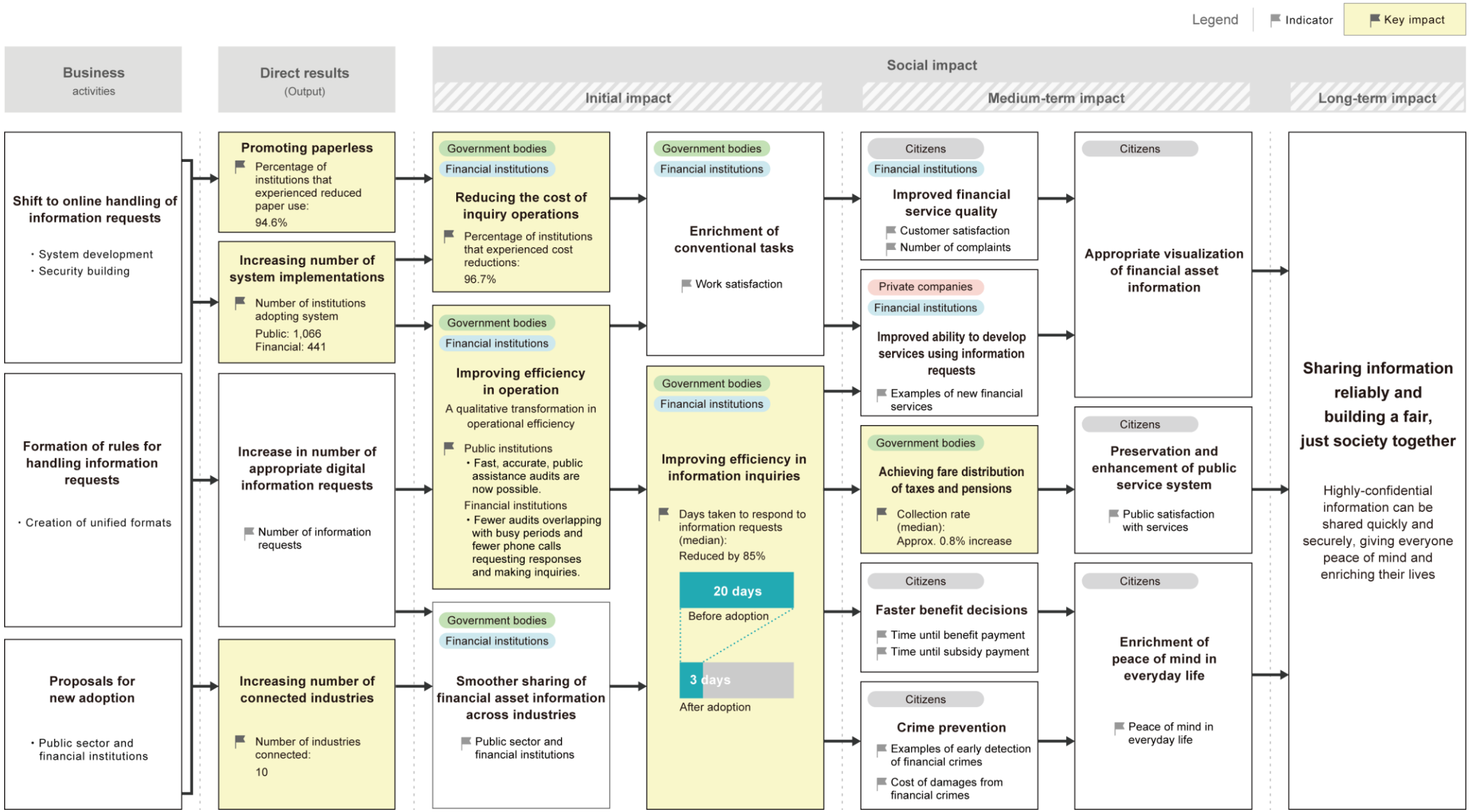
# pipitLINQ®

A logic model is a graphical depiction that outlines the causal correlation leading to the desired outcomes of initiatives or projects.

## Logic model



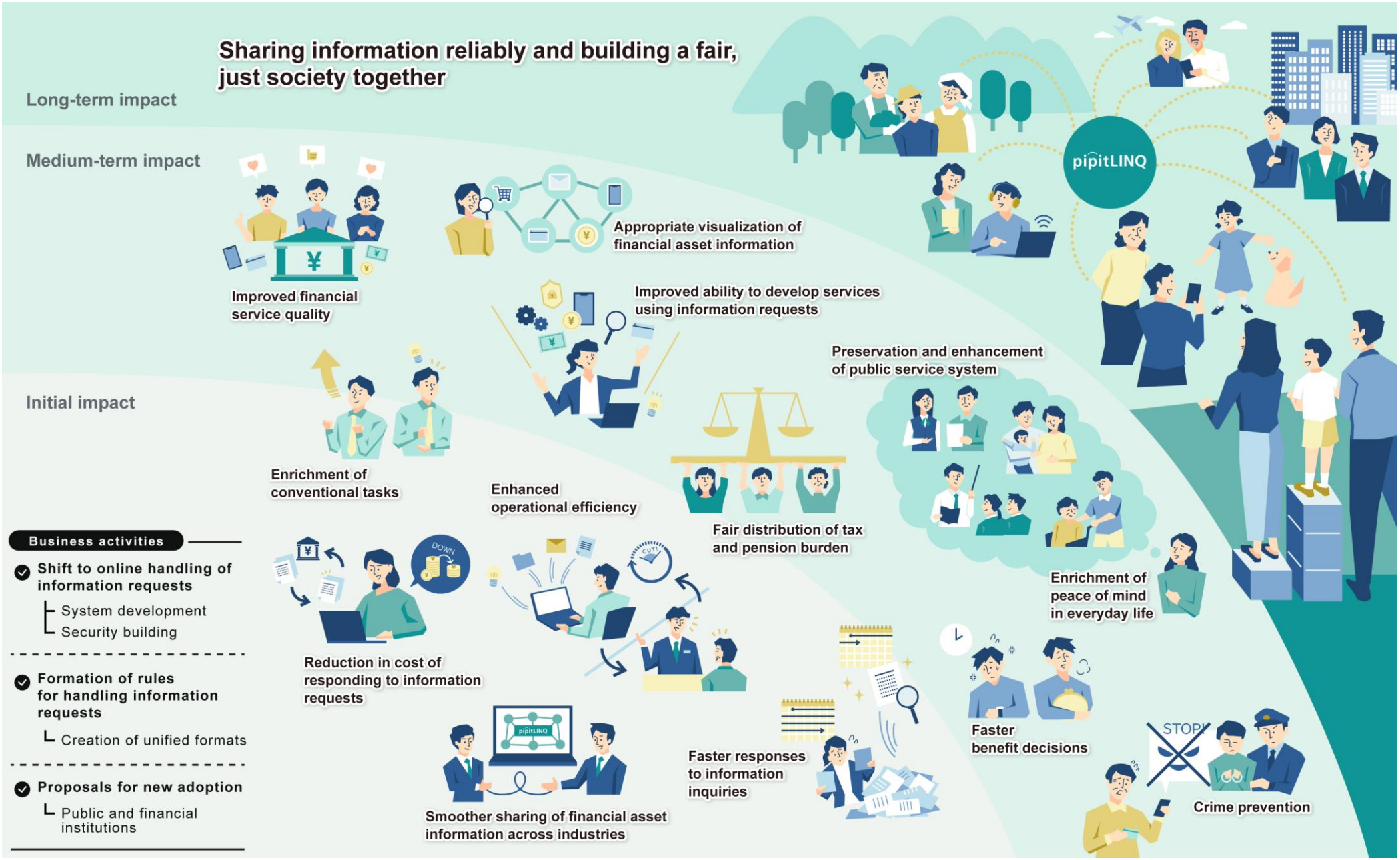

**Principal reference data and calculation methods used regarding impact:**

Values are calculated based on valid responses to a survey of institutions that have adopted pipitLINQ®, carried out between September 26 and October 15, 2025 (valid responses received from 379 public institutions and 15 financial institutions). For details, reference data, calculation methods, etc. regarding impact, scan the QR code to access the Impact Summary. (In Japanese only)

# pipitLINQ®

A vision map illustrates the desired ideal state of an organization or initiative and visually represents the path toward its realization.

## Vison map



People positive

# Digital Accessibility Consultations

Working to realize a society where IT technology enhance usability for all

Countries: Japan

Material Issues: Digital Accessibility; Secure and Sustainable-by-design Services and Solutions

SDGs: 4 QUALITY EDUCATION; 10 REDUCED INEQUALITIES

## Social Issues

- The ubiquity of the internet and smartphones has made it easier to access information and complete various procedures. However, people with disabilities and older people can struggle to access information and submit digital applications online, which may cause disadvantage in everyday life. This can also lead to life-threatening situations if, for example, some residents are unable to find evacuation site locations and other crucial information during natural disasters.
- Regardless of disabilities, age, or usage environment, all people require equal access to information and services that are widely available through digital channels.

## Business need

Government bodies and local goverments procuring systems must ensure that everyone, including older people and people with disabilities, can use their websites without inconvenience. Achieving this requires alignment with standards such as the Japanese Industrial Standards JIS X 8341-3 Guidelines for Older Persons and Persons with Disabilities—Information and Communications Equipment, Software and Services—Part 3: Web Content and the international Web Content Accessibility Guidelines (WCAG). Specialist knowledge and insight into disabilities and accessibility are essential for understanding such standards and for developing and designing user interfaces (UIs) based on universal design (UD), which considers ease of use for all people.

## Impact

Direct contribution to company revenue/profit based on number of support projects

**JPY 2.0 to 2.4 billion**

Number of people benefitting from accessibility in government services based on smartphone JKPI results

**171,000 people**

Source: 2025 impact visualization report by NTT DATA (see next page for details)

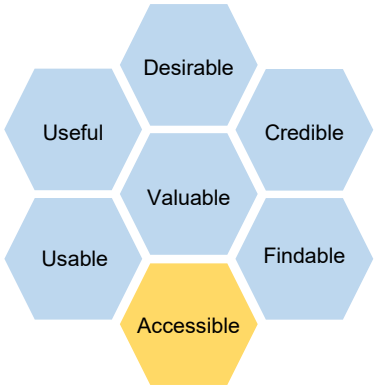
## Solution

NTT DATA aims to create services that are kind to people. It began initiatives to improve digital accessibility in 2002, and formulated its Digital Accessibility Guidelines the following year. In collaboration with NTT laboratories, it is engaging in internal dissemination and awareness-raising activities, training accessibility experts, and carrying out project support centered on the public and social infrastructure business.

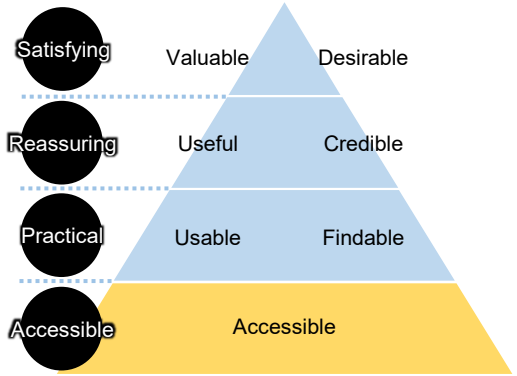
Specific support measures include providing advice and accessibility diagnoses from the proposal and design stages to contribute to the delivery of services that are easy for anyone to use. In addition to continuously updating guidelines, other internal measures include creating checklists and written procedures that enable system developers to perform self checks and providing accessible design templates as references for accessible UI implementation.

Furthermore, for projects requiring more advanced responses, experts take part directly, evaluations are performed based on JIS X 8341-3 and WCAG standards, and support for user testing by people with visual impairments is provided.

Moving forward, through measures such as revisions to written self-check procedures, NTT DATA will continue contributing to creating a society in which digital services make everyone's lives more convenient.




UX Honeycomb Structure (Source: Semantic Studios)




UX Pyramid (Source: bookslope blog)

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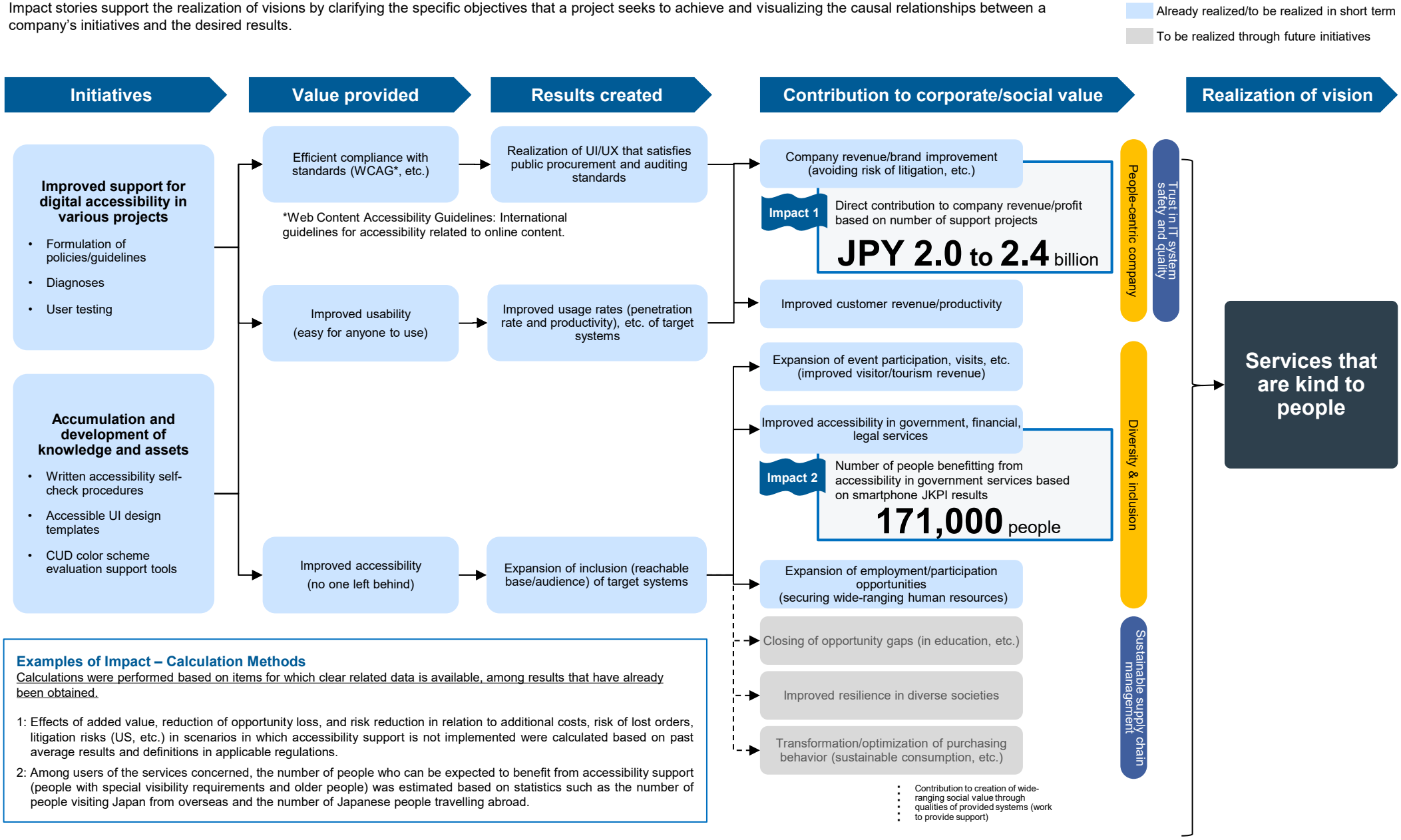
# Digital Accessibility Consultations

**Impact story**

Impact stories support the realization of visions by clarifying the specific objectives that a project seeks to achieve and visualizing the causal relationships between a company's initiatives and the desired results.




**Examples of Impact – Calculation Methods**

Calculations were performed based on items for which clear related data is available, among results that have already been obtained.

1: Effects of added value, reduction of opportunity loss, and risk reduction in relation to additional costs, risk of lost orders, litigation risks (US, etc.) in scenarios in which accessibility support is not implemented were calculated based on past average results and definitions in applicable regulations.

2: Among users of the services concerned, the number of people who can be expected to benefit from accessibility support (people with special visibility requirements and older people) was estimated based on statistics such as the number of people visiting Japan from overseas and the number of Japanese people travelling abroad.

# CARE la CARE

Countries: Japan

Material Issues: People-Centric Company; Diversity and Inclusion

SDGs: 3 GOOD HEALTH AND WELL-BEING; 8 DECENT WORK AND ECONOMIC GROWTH; 17 PARTNERSHIPS FOR THE GOALS

An integrated, end-to-end solution supporting employees balancing work and caregiving, by combining “Corporate services” and “Personal services”

## Social Issues

- With the rapid progression of a super-aging society, the number of “working caregivers” who must balance full-time employment with caring for aging parents is rising sharply.
- As labor shortages become an increasingly critical issue for companies, caregiving has emerged as a challenge faced by many core employees aged 40 and above. When these key personnel experience productivity decline or leave the organization due to caregiving responsibilities, it directly translates into a business-continuity risk.
- Estimates by the Ministry of Economy, Trade and Industry (METI), show the number of working caregivers will be 3.18 million by 2030, and the economic loss caused by productivity decline and turnover related to caregiving will exceed 9.2 trillion yen.

## Business need

(Corporate) Following the April 2025 revisions to the Childcare and Caregiver Leave Act, companies have been taking initiatives to support employees balancing work and caregiving. However, these programs are recognized and used by only few caregivers. Reasons include the fact that over 50% of companies lack clear understanding of employees’ needs, resulting in a mismatch between the support provided and the support truly needed. In addition, caregiving stages and challenges vary by individuals, making standardized communication ineffective.

(Employee) Employees who are facing caregiving responsibilities often experience significant anxiety and stress in balancing work and caregiving. Many find existing consultation services insufficient, as they primarily offer information rather than personalized guidance. As a result, there is a growing demand for a trusted advisor.

(Non-Insurance Service Providers’) For care recipients, government-insured care services are available with only a 10–20% copayment, making 100% non-insurance services relatively costly. However, for working caregivers, these non-insurance services can be positioned as “private services that can substitute for part of their parent’s caregiving.

## Solution

NTT DATA offers “*Care la Care*”, an integrated solution that combines “Corporate services”—which support companies in strengthening their programs for employees balancing work and caregiving—with ”Personal services” —which help reduce the anxiety and burden experienced by employees facing caregiving responsibilities. By supporting both employers and employees, we help create an environment where employees can continue working with confidence while caring for their loved ones.

Corporate Services: 1.Identifing overall trends and patterns of employees’ caregiving needs, based on employee survey and using generative AI. This provides evidence-based insights to companies in designing effective programs and policies. 2.Using generative AI, we deliver personalized reports for employees derived from survey results, supporting each individual to understand their caregiving situation and the company support available for them. 3.Through personal counseling by Care Life Designers (caregiving specialists), we assess the level and type of support required for caregiving challenges employees face and, when necessary, introduce relevant individual services.

Individual Services: Care Life Designers act as trusted advisors for employees, offering timely, personalized support. In collaboration with various partner organizations—including non-insurance service providers—we combine AI, IoT, and human expertise to deliver individualized support services . These services help ease employees’ caregiving-related anxiety, burden, and stress.

By leveraging data generated through “*Carela Care*” and NTT DATA’s technologies, we will continue working with clients to create new business opportunities in caregiving-related domains.

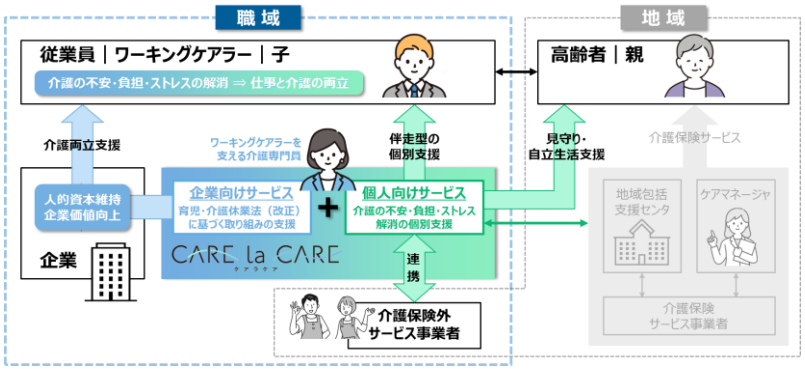
## Impact

Our impact goal for 2030

- Share of large Japanese companies utilizing caregiving support programs — **15%**
- Share of working caregivers enabled to balance work and caregiving through this service — **10%**
- Wage increases for care workers — **150% increase**

介護もキャリアもうまくいく
CARE la CARE
ケアラケア

**Overview of Services**




NTT DATA Life Design Corporation (in Japanese only)

Press Release: Launch of Working Carer Support Project "CARE la CARE“ NTT DATA Life Design Corporation (in Japanese only)

NTT DATA Life Design Corporation
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People positive

# AI Hospital Assistance

Humanizing healthcare technology to enhance the patient experience

Countries: Denmark

Material Issues: Health and Safety, Digital Accessibility

SDGs: 3 GOOD HEALTH AND WELL-BEING, 10 REDUCED INEQUALITIES

## Social Issues

- Chronic obstructive pulmonary disease (COPD) is a lung condition causing restricted airflow and breathing problems and is the eight leading cause of poor health worldwide, according to the WHO. This uncurable condition requires constant monitoring and management and has a significant impact on patients' quality of life.
- Living with COPD also takes a significant psychological toll on many patients, with over one in three experiencing severe depression. Anxiety and reluctance to leave home are also common among patients, potentially leading to social isolation.

## Business need

Effective monitoring of COPD can help to manage patients' condition, minimize unnecessary hospital visits, and enable precautionary steps to prevent severe flare-ups requiring hospitalization. With healthcare systems are under extreme pressure, there is also urgent need for innovations that enable this monitoring without increasing the burden on medical professionals.

Apps offer a potential solution, with patients able to use Bluetooth-connected peripherals to perform measurements at home and share results with staff. However, patients can have difficulty operating these devices, particularly older people, who account for a significant proportion of COPD patients.

A new approach is needed to expand access to at-home monitoring solutions while also delivering humanized assistance to ensure patients feel supported.

## Impact

Patients felt comfortable interacting with the digital human and expressed interest in discussing topics beyond measurement, demonstrating potential applications in areas such as assistance with rehabilitation and providing information about procedures,

**including for patients with conditions other than COPD.**

## Solution

NTT DATA leveraged its digital human platform PARSONII in a collaboration with Region Zealand in Denmark to develop a prototype digital avatar to assist patients with self-measurement of oxygen levels, temperature and respiratory capacity. Working closely with doctors, nurses and patients, the avatar was customized to provide a reassuring presence while serving functions such as measuring patient's condition through dialogue and data, engaging patients with open-ended questions based on LLM models, and providing guidance on equipment use and breathing exercises.

Designed for a patient group including many older people, the solution also takes poor hearing into account and can support patients with limited IT experience in using Bluetooth and Wi-Fi, or handling technical issues.

In the trial with COPD patients aged 65-72, participants were able to comfortably engage with the digital human, including about topics not directly related to measurements, demonstrating significant potential for humanizing digital healthcare that supports patients in their homes.


**Image of digital human**

NTT DATA Business Solutions Denmark
NTT DATA Group

# Career Ownership Management in Practice

| Countries | Material Issues | SDGs |
|---|---|---|
| Japan | People-Centric Company | 5 GENDER EQUALITY, 8 DECENT WORK AND ECONOMIC GROWTH |

## Combining employees' career aspirations with relevant data to realize systems for suitable talent deployment and development, promoting a new model for human resource management

### Social Issues

- Technologies such as AI, IoT and big data are evolving rapidly, causing a drastic shift in industrial and social structures and making it difficult to meet modern needs through conventional one-size-fits-all human resource strategies.
- With Japan's declining birthrate and aging population leading to a shrinking workforce, progress in hiring diverse talent, including women, older workers and employees from different countries, means increasing demand for career plans and workstyles tailored to each individual. Companies must build relationships that make this possible.

### Business need

The Ito Report 2.0 for Human Capital Management published by Japan's Ministry of Economy, Trade and Industry in 2022 states that companies are tackling wide-ranging management challenges. These issues are inextricably linked to human resources, making rapid action in this area essential. The report also points out that human resource strategies must be overhauled to sustainably enhance corporate value. In an era of rapid change, companies and individuals cannot rest on past successes, they must be able to change and adapt flexibly to shifting circumstances. To maximize each worker's potential and benefit society, companies must connect their management, business and human resource strategies and expand and utilize their pool of career ownership talent, professionals who can take an active approach to their career and work by being autonomous and self-driven while also co-creating with those around them. This can enable individuals and organizations to build and rebuild new, equal relationships supporting continuous growth for both parties.

### Impact

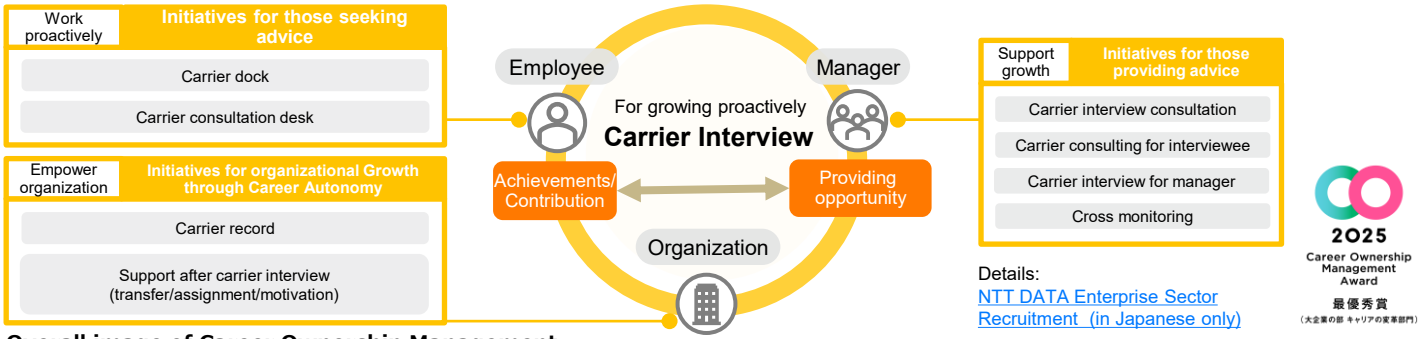
Career consultation rate

Fiscal 2024 **97%**

10% improvement compared to Fiscal 2023 (87%)

### Solution

NTT DATA aims to maximize the potential of its human resources and its organizational capabilities. Believing that autonomous career advancement contributes to growth for organizations, it launched a company-wide initiative to promote career ownership among employees in fiscal 2023. By aligning the organization's purpose with each individual's vision for their career, it aims to create a virtuous cycle in which personal growth inspires organizational growth, which in turn leads to further personal growth. In the enterprise sector, which comprises 3,000 employees, NTT DATA is proceeding with initiatives that maximize organizational capabilities by connecting personnel deployment and development with employees' own ambitions. Specific work includes the creation of dedicated career checkup sessions and a hotline for the enterprise sector to help employees build a vision for their career. Managers receive consultation training and advice sessions to enhance their ability to support team members. NTT DATA has also adopted a system that takes each employee's input as a foundation for training policies, and ties this input to the organization's needs during employee assignment. Using human resource data utilization capabilities built up as a large-scale organization and design expertise connecting people with data, human resource personnel in the enterprise sector objectively check and analyze career charts from about 2,000 employees to identify any gaps in understanding between employees and managers, cooperate closely with on-site organizational leaders, and provide follow up concerning areas such as transfers, reassignments and motivation. Coordination with data-informed assignment and training is helping to advance the contribution of women and older workers and enhance wellbeing, providing an example of pioneering human capital management. At the Career Ownership Management Award 2025, NTT DATA was praised for its outstanding work in transitioning to organizational policies based on each employee's career formation aspirations, receiving the Premier Award in recognition of its efforts.




**Overall image of Career Ownership Management**

Details:
NTT DATA Enterprise Sector Recruitment (in Japanese only)

Press Release:
NTT DATA Receives Career Ownership Management AWARD 2025 Premier Award (in Japanese only)

NTT DATA Japan Corporation
Enterprise Segment
HR Group Business Strategy Department
houjin_career@am.nttdata.co.jp

People positive

# STEM Education in India

Transforming education to empower students, and igniting girls' passion for STEM

Countries: India

Material Issues: Digital Accessibility; Diversity and Inclusion

SDGs: 4 Quality Education; 5 Gender Equality; 8 Decent Work and Economic Growth; 10 Reduced Inequalities

## Social Issues

- Education in India continues to grapple with deep-rooted inequalities. While private schools boast nearly 70% digital availability, many government schools, which account for half of the country's student population, lack even basic digital infrastructure. Students in underserved and communities face poor learning outcomes, elevated dropout rates, and limited pathways for future academic or professional opportunities.
- Women account for only 30% of STEM students and 14% of STEM professionals in India (Ministry of Science and Technology), impeding innovation and inclusion.

## Business need

Digital competencies and STEM skills are essential for success in a technology-driven future. This makes addressing disparities in access to digital-supported learning a foundational pillar of sustainable development.

India is a country were the educational divide between government and private schools is particularly severe, with a significant number of public schools lacking fundamental infrastructure, including functional computer labs, science laboratories, and even reliable electricity. Many teachers in these schools also do not have the tools and skills they need to teach STEM subjects effectively.

Addressing low representation of women in STEM by equipping girls with relevant skills from an early age can support the creation of a skilled, diverse talent pool prepared to step into critical roles in line with business needs. Not only does this have the potential to enhance a country's competitiveness in the global market, it also empowers women by opening up higher-paying job opportunities, contributing to their economic independence and the financial stability of their families.

## Impact

students reached through implementation across government schools

**More than 10,000**

ages 10 to 15 years have benefited from this initiative.

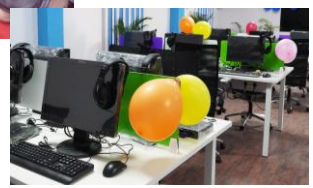
**About 300 girls**

## Solution

NTT DATA initiated its STEM education project in India as part of its broader sustainability agenda with particular emphasis on enhancing digital accessibility. As a global leader in IT, NTT DATA understands the transformative potential of technology in reducing educational disparities and aimed to extend access to high-quality STEM and robotics learning in government schools in order to equip students with essential digital skills. In close partnership with NGOs and local stakeholders, the program has established digital and science laboratories in underserved schools, deployed solar-powered computer labs to overcome infrastructure challenges, and trained teachers to deliver hands-on, experiment-based learning experiences. This has empowered students with foundational and advanced skills in technology, critical thinking, and problem-solving—equipping them for success in emerging, innovation-driven industries.

In another initiative, NTT DATA supports Ignite Her STEM Journey, a transformative initiative to inspire passion for STEM among girls at a school serving marginalized communities in India. This holistic initiative prepares girls for leadership and innovation roles through engagement activities and infrastructure upgrades, including state-of-the-art lab apparatus and access to an interactive board.

In addition to providing STEM kits that make experiments more enriching, NTT DATA staff volunteered at events such as workshops to equip teachers with the latest STEM teaching methodologies, interactive sessions and field visits for students, and parent engagement sessions to foster mindsets and home environments conducive to learning. These efforts have improved participation and academic performance, particularly in science and mathematics.



**190 STEM kits distributed by 14 NTT DATA employee volunteers**

YouTube: Transforming Education – Empowering Futures

YouTube: Ignite Her STEM Journey

NTT DATA, Inc. India
People & Culture
NTT DATA Group

NTT DATA North Americas
Global Corporate Social Responsibility & Marketing
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People positive

# Move for the SDGs

Implement employee participation programs across 8 Latin American countries to promote the resolution of regional social issues and enhance employee engagement

| Countries | Material Issues | SDGs |
|---|---|---|
| 8 countries | Health and Safety, Climate Change | 3, 5, 10, 13 |

## Social Issues

- Global social and environmental issues such as the shortage of IT professionals, insufficient educational infrastructure, and climate change caused by greenhouse gas emissions are also becoming evident in the Latin American region
- On the other hand, understanding of SDGs and ESG is not sufficient, and mechanisms are needed to raise awareness and promote participation so that corporate employees and others can proactively engage in social contribution activities

## Business need

In the Latin American region as well, global social issues such as gender disparities in career advancement, shortage of IT professionals, insufficient consideration for persons with disabilities, and the digital divide are present. In addition, environmental challenges such as greenhouse gas emissions, deforestation, and underutilization of recycling are becoming evident. To address these issues, it is essential for many people to participate in programs that contribute to solving social challenges, and to promote this, widespread understanding of SDGs and ESG is required.

Furthermore, by establishing a mechanism to quantitatively capture and evaluate the social impact generated through these programs, it becomes possible not only to verify and improve the effectiveness of initiatives but also to respond to sustainability disclosure requirements imposed on companies by governments and other entities.

## Solution

NTT DATA promoted sustainability initiatives in the Latin American region through a program called “Move For the SDGs.” This was a collaborative program led by overseas group companies in eight key Latin American countries. It provided each company with the know-how, data for planning and implementing social contribution activities, and methods for measuring impact, all within a common company-wide framework. Under this framework, each region implemented specific programs aimed at addressing local social issues. For example, in Argentina, workshops were held to enhance IT knowledge and skills to promote women’s participation in society. In Chile, IT education was provided for younger generations, while in Mexico, donation activities were carried out to reduce the number of people without access to IT and to bridge the digital divide. Furthermore, we provided communication tools that could be used company wide to facilitate information sharing among group companies.

In addition, this program also aimed to improve the health and satisfaction of participating employees, which was one of its key objectives. To achieve this, the program shared marathon events held in various countries with employees. By participating in these events wearing a common uniform, employees strengthened their sense of unity as a team and engaged in addressing social issues with high levels of engagement. More than 5,200 employees participated in these events.

This program was featured in over 300 digital content pieces and had received numerous positive evaluations for its social media communications. These platforms also shared specific impact metrics, clearly demonstrating the effectiveness of the program.

NTT DATA will continue implementing various initiatives to address social challenges in Latin America and providing transparent disclosure.


**Common uniform of Marathon events**

## Impact

Number of employees who participate program

**Over 17,000**

Number of executed program

**Over 120**

YouTube:
V4 NTT DATA LATAM

Move For The SDG's | NTT DATA (in Portuguese only)

NTT DATA, Inc. Iberia & LATAM
NTT DATA Group

Social Contribution

# Common Activities

NTT DATA organizes and implements social contribution activities such as Sustainability Month (sustainability promotion month), World Cleanup Day (cleanup activity) and a Global Giving Campaign (donation activity by employees) as part of its global efforts throughout the year.

## World Cleanup Day

Regions across 27 countries participated in the World Cleanup Day cleanup activity conducted in September 2025. More than 1,800 employees collected over 16,400 kg of waste.

**82 events across 27 countries**

At least one in every region where we operate!

**>1,800 employees involved**

Including over 4,780 hours of volunteer time contributed

**>16,400kg of waste collected**

That's equivalent to 32 polar bears, 5,124 chickens, or 455 pedal harps.

Fiscal 2025 results

## Global Giving Campaign

Regions across 30 countries participated in the Global Giving Campaign donation activity conducted by employees in December 2024. More than 2,800 employees collected a total of over $66,600, along with a large amount of food and many other items. A similar global event is planned for fiscal 2025.

**>2,800 employees**

involved

**83 events**

across 30 countries

**>USD 66,600 donations**

collected

**>6,200kg donations**

collected

**>7,300 donated items**

collected

Fiscal 2024 results

Social Contribution

# Global Case Studies

NTT DATA engages in various social contribution activities across the globe by leveraging its strength: technology. These activities cover a wide variety of areas, including education support, employment support, food donations, donation events, improvement of access to medical services and minority support. Some examples are shown below.

*Results for fiscal 2024

## »AI Learning Helper

Area: UK, Denmark Period: 2024

Provided support through AI to assist at-home learning for children unable to go to school due to illness, disability or mental issues—significantly reducing education costs and helping to alleviate the burden on parents and teachers by using AI to support tasks such as monitoring of learning

Home screening costs **reduced by approx. 50%**

## »Cycling Event Donation Drive

Area: Belgium

Circuit Zolder in Belgium hosts an event combining a donation drive and a cycling race every September, with the 2024 edition attracting 93 participants and collecting more than EUR 8,000 in donations

## »Kinder Forschen

Area: Germany

Participated in a children's networking event held by a non-profit organization in September 2024, running an experience-based space and other content to enhance interest in STEM fields

## »Peanut Butter Drive

Area: North America Period: 2024

Continued to donate to the North Texas Food Bank's annual Peanut Butter Drive, topping the list of corporate contributors for six consecutive years as part of ongoing efforts to combat food instability

**Donations** **Fiscal year: USD 45,000** **Cumulative total: Over USD 298,000**

## »Madrid Food Banking

Area: Spain

Provided support to the Madrid Food Bank, which has engaged in volunteer activities for 27 years, with staff volunteering to support activities such as the sending of food and management of warehouse supplies

## »Social Contribution Activities in Japan

See P50

## »Provision of IT Equipment to Students

Area: Chile

As part of activities donating laptops, smartphones, and other IT equipment to students in need in Chile, in partnership with relevant organizations, NTT DATA Chile has donated 260 computers to students

## »CDS System in Adolescent Mental Health

Area: Chile Period: From November 2024

With 16.5% of young people in Chile having mental disorders, NTT DATA developed a mental health support system for adolescents, providing chat-based psychological first aid

## »School Repairs and Training for Educators

Area: India Period: 2024

Worked with NGOs, local communities and volunteer groups to contribute to raising education levels, including setting up school laboratories, repairing buildings and providing teacher training

**Support provided to over 30,000 students**

## »Food Donations

Area: India

Donated food to children without sufficient access to nutrition, working with organizations that offer support to give numerous children balanced meals through actions such as the provision of food delivery vehicles

**Over 3 million meals provided**

## » Donation of School Supplies

Area: Brazil

Donated essential school supplies to children in need, creating packages containing stationery, such as pencils and notebooks, for more than 160 children

## » Missing Map Mapathon

Area: Nigeria

Mapped the positions of buildings and other objects in Nigeria to contribute to improving map data accuracy in the country, helping organizations that provide support to plan their relief activities

**More than 6,000 buildings mapped**

## »Academy for Women Empowerment

Area: India

Provided STEM education to female students in India for over seven years to support their independence. In addition to providing scholarships and internships, NTT DATA employees acted as volunteers to provide STEM education and supported women who had interrupted their careers for reasons such as marriage by helping them to enhance their skills in order to return to work.

**Program participants** | **Fiscal year: More than 48** **Cumulative total: More than 170**

## »Support for STEM Education in Public Schools

Area: India Period: 2024

NTT DATA has provided high-quality STEM and robotics education in India, working with NGOs and communities to address educational disparities and supporting the establishment of STEM labs and teacher training

**6,299** people ages 12 to 16 leaning robotics

## »Move for the SDGs

Area: Latin America Period: 2024

At least 17,000 NTT DATA employees in eight countries participated in initiatives related to environmental, health promotion and social contribution activities as part of initiatives to promote the Sustainable Development Goals (SDGs)

**17,000 in 8 countries**

Related social contribution activities STEM Education in India P46

Social Contribution

# Japan Case Studies

NTT DATA also engages in various social contribution activities within Japan by leveraging the Group's strength: technical capabilities. We place particular focus on IT education to nurture IT talent that will support the next generation, providing support to a wide range of people, from education programs for elementary and junior high school students to IT education support for NPOs.

## Education


### NTT DATA Academia

Approx. **1,900** (parent-child pairs)

Area: Nationwide

Since fiscal 2020, NTT DATA has been conducting an IT education program called NTT DATA Academia targeting elementary school students to impart knowledge about programming and IT systems.


### SENSEI YONONAKA GAKU IT EDUCATION

Approx.**18,000**

Area: Nationwide

NTT DATA and ARROWS Inc. provide IT classes to junior high students nationwide with the theme of creating the future with IT to nurture next-gen IT talent.

### CAREER ROUNDTABLE DISCUSSION FOR FEMALE JUNIOR HIGH AND HIGH SCHOOL STUDENTS

Approx.**100**

Area: Nationwide

Since 2024, NTT DATA has participated in the Girls Meet STEM Career program organized by the Shintaro Yamada D&I Foundation, which provides tours of offices and roundtable discussions for female junior high and high school students, to promote interests in becoming next-gen IT talent.

### NPTech INITIATIVE

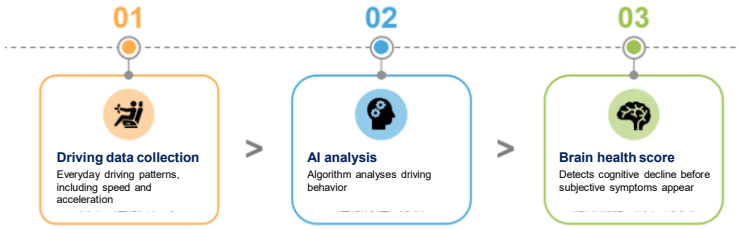
Approx. **300***

Area: Nationwide

Training programs are provided by NTT DATA Group, five other IT companies, Japan's National Women's Education Center, and the Japan NPO Center to support NPOs by enhancing their utilization of IT technology.

*Amount of FY2023 and 2024

## Health




### ESTIMATING BRAIN HEALTH FROM DRIVING BEHAVIOR DATA

Area: Nationwide

NTT DATA has developed an algorithm that takes driving data (speed, acceleration, deceleration, etc.) automatically collected from GPS devices installed in vehicles and integrates it with map data to detect dangerous driving, then uses those characteristics to estimate drivers' cognitive health.

Press Release: NTT DATA Verifies Effectiveness of Algorithm to Estimate Cognitive Health from Driving Behavior Data | NTT DATA Group

## Environmental Conservation

### SATOYAMA FARMING EXPERIENCE

**60**

Area: Kanagawa Prefecture

CIJ and NTT DATA have jointly conducted farming experience programs and workshops at mandarin farms in Oimachi, Kanagawa Prefecture. Since 2023, they have been certified as Oimachi SDGs Partners.

## Donations

### FOOD DONATIONS

Area: Nationwide

**106kg**

*Fiscal 2024 results

### USED BOOK DONATIONS

Area: Nationwide

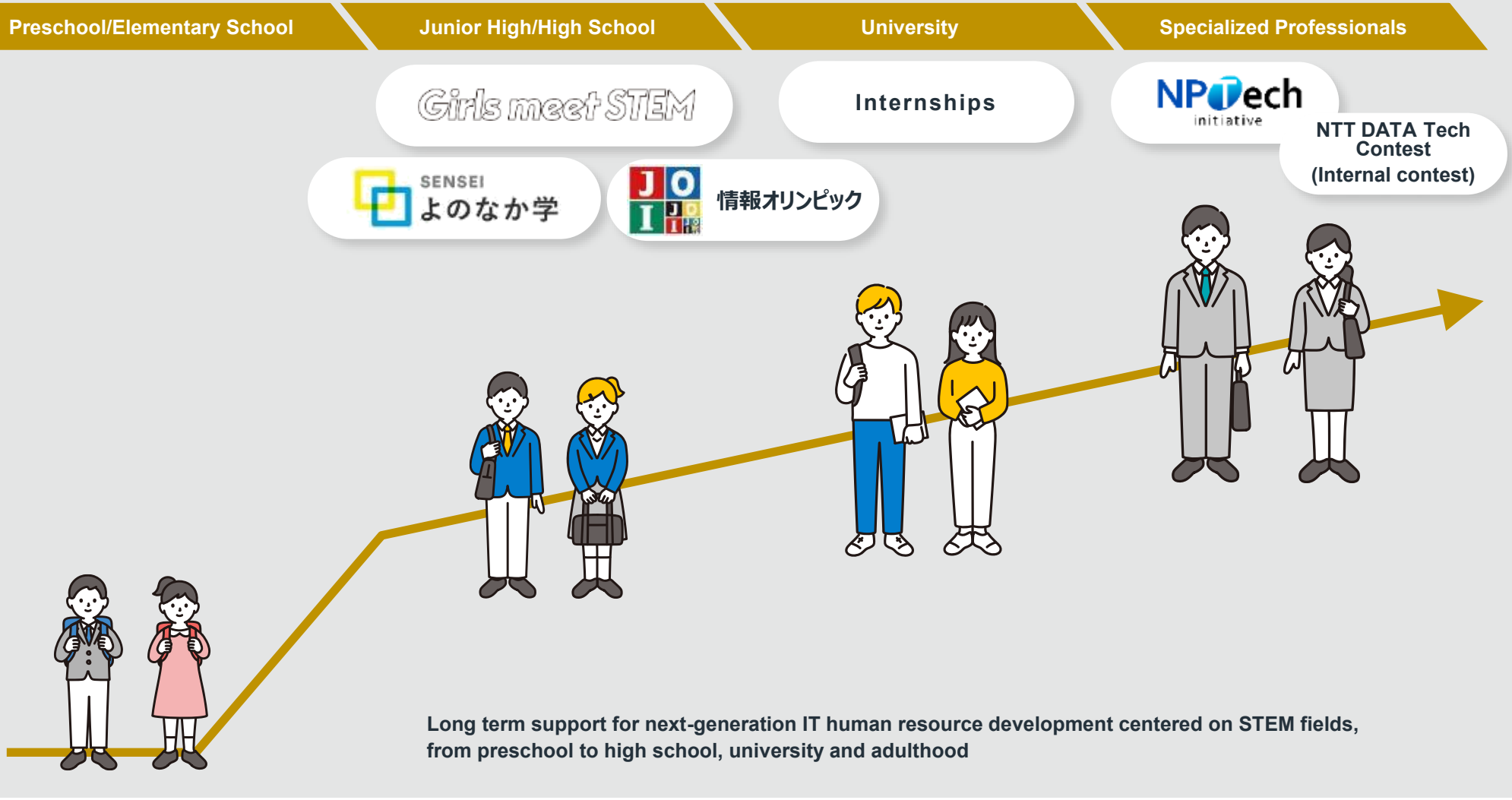
Approx. **2,600 books**

*Results between April and October 2025

# Developing IT Human Resources in Japan

NTT DATA sees next-generation STEM and IT education as initiatives that support digital accessibility across society. With Japan's IT industry expected to face an IT talent shortfall of about 700,000 workers, NTT DATA is focusing on developing the next generation of IT personnel.

**Video: Developing Next-Generation IT Human Resources**



# IT Human Resource Development

A logic model is a graphical depiction that outlines the causal correlation leading to the desired outcomes of initiatives or projects.

**Logic model**

## Current Issues

| | |
|---|---|
| 1. **IT talent shortage** | Japan's falling population and rising demand for IT mean a shortage of IT talent, increasing the risk of economic downturn. |
| 2. **Gender gap in science fields** | The severe gender gap in science fields on an international scale is undermining social and economic vitality. |
| 3. **Education gap** | Economic, regional and educational disparities lead to an uneven supply of human resources, significantly impacting Japan's labor market and regional economies. |

## Activities Initiatives on page 50

| | |
|---|---|
| 1 | **Experience-based IT workshops/events for young people** |
| 2 | **Experience-based IT workshops/events for regions** |
| 3 | **Teaching materials using cutting-edge IT case studies** |
| 4 | **Experience-based IT workshops/events welcoming women/girls** |
| 5 | **IT workplace tours targeted at women/girls** |
| 6 | Development of **teaching materials for IT curricula** |
| 7 | **Dispatching of employees** to facilities engaged in IT education |
| 8 | Development of young people with talent for IT and **sponsorship** of events promoting international exchanges |

## Output

| | |
|---|---|
| 1 | Workshops/events held |
| | Children/students participating in workshops/events |
| | Participants who understand programs |
| 2 | Regions in which programs are held |
| | Programs held in regions |
| | Children/students participating in regions |
| 3 | Teaching materials using cutting-edge IT case studies |
| | Students participating in classes using IT teaching materials |
| | Employees involved in teaching material development |
| 4 | Workshops/events welcoming women/girls held |
| | Female students participating in workshops/events |
| 5 | Programs targeted at women/girls |
| | Students participating in programs targeted at women/girls |
| 6 | Educators using IT teaching materials |
| | Schools using IT teaching materials |
| 7 | Schools receiving dispatched employees |
| | Employees dispatched to education facilities |
| 8 | Programs held for people with advanced IT skills |
| | Olympiad for Informatics participants |

NTT DATA Academy
Cumulative number of participants:
**Over 12,000**
(From 2020; includes guardians)

Girls Meet STEM Career
**About 100** students
(Fiscal 2024 results)

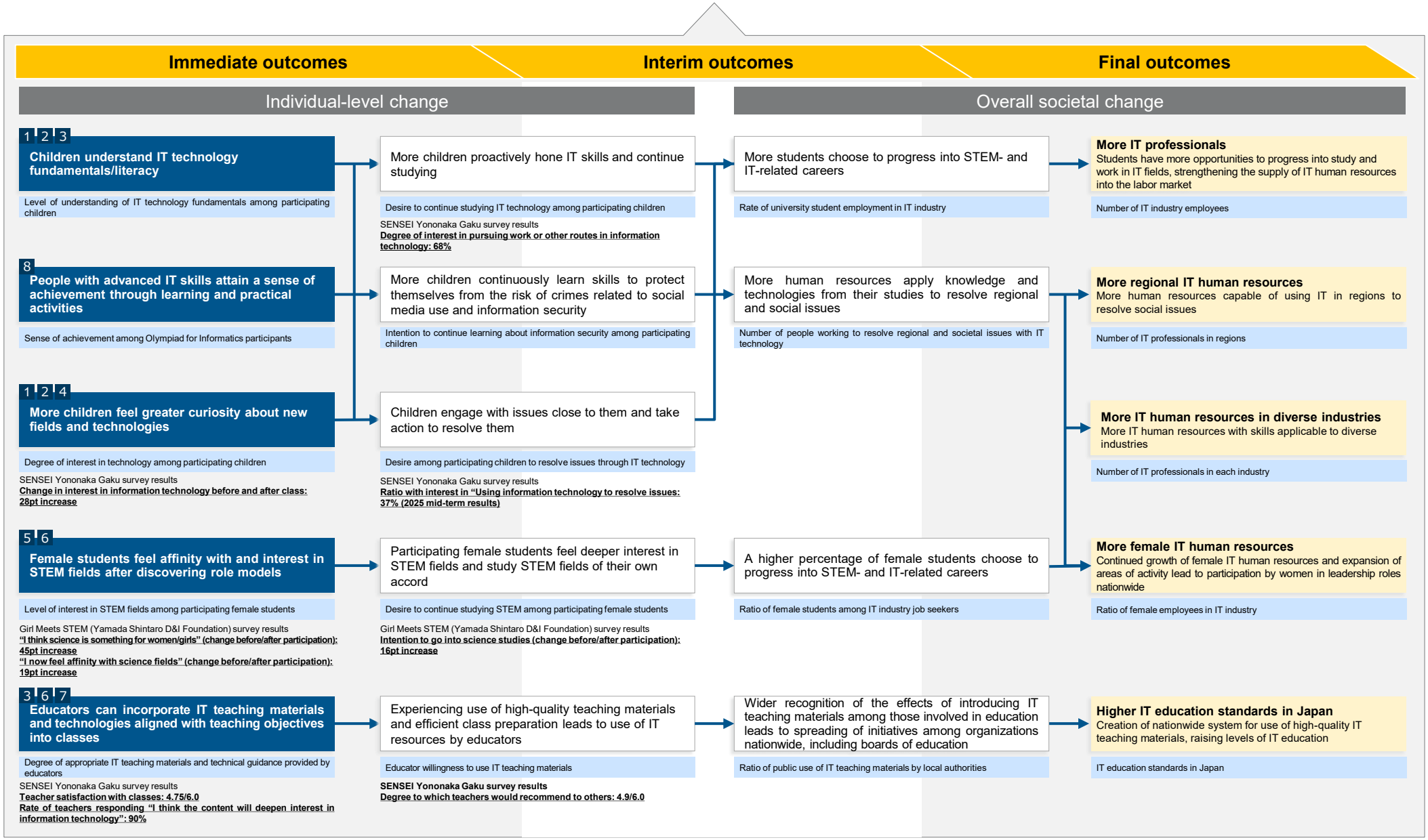
SENSEI Yononaka Gaku
Schools: **Over 170**
Students: **Over 18,000**
(Fiscal 2024 results)

## Outcomes See next page

Vision

## Improving digital accessibility and realizing sustainable societal growth through IT human resources

Aiming to realize a society in which diverse IT human resources expand possibilities for society through their digital capabilities, transforming industry and achieving sustainable, prosperous growth while enabling everyone to enjoy the benefits.



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