

DX Strategy

Driving the Mitsubishi Electric Group's Growth with the Serendie™ Digital Platform



Satoshi Takeda

Executive Officer
CSO (in charge of Corporate Strategic Planning, Operations of Associated Companies and Three Key Reforms), and CDO (in charge of DX; Vice President, Business Innovation)

We will use our Serendie digital platform to facilitate unprecedented interactions between devices, systems and services in various fields, and the data and knowledge aggregated from these interactions, to create new value. With the portfolio of superior components, the Mitsubishi Electric Group has built over the years, we will accelerate co-creation to deliver high-value experiences for our customers.



Serendie logo

Serendie Digital Platform: Accelerating the Transformation into a "Circular Digital-Engineering Company"

The Mitsubishi Electric Group is striving to become a "Circular Digital-Engineering Company" that identifies the potential issues and needs of customers to create new value by consolidating and analyzing data obtained from the components and systems operating at our customers' sites in the digital space. Achieving this requires a digital platform that makes it possible to create value by analyzing and utilizing data across our businesses. This is why we built the Serendie digital platform, which forges connections across traditional organizational and business boundaries. It enables us more broadly utilize the knowledge that the Mitsubishi Electric Group has amassed in a wide range of fields. We will take advantage of Serendie to aggressively pursue co-creation, not only within the Group, but also with our customers and partners.

Technology Infrastructure: Speeding Up Value Creation Efforts Across Businesses

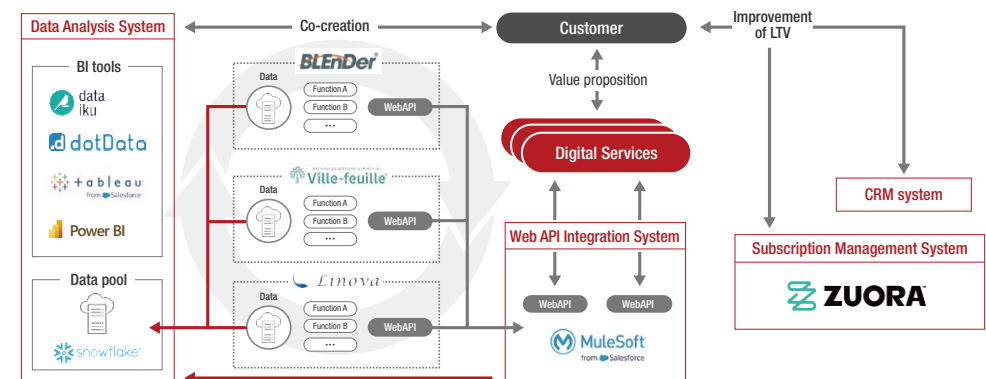
With Serendie, we have developed a technology infrastructure for accelerating value creation efforts that cut across our businesses. The infrastructure comprises a data analysis system, a Web API integration system, a CRM system, and a subscription management system.

The data analysis system is the core of the technology infrastructure and is a shared system that consolidates the data collected individually by each business and analyzes and utilizes it across businesses. In the past, data was stored separately in different formats within each system, such as BLENder in the energy systems business, Ville-feuille in the building systems business, and Linova in the air conditioning system & home products business. This data can now be consolidated into a single data pool and analyzed, allowing

it to be utilized to develop new solutions.

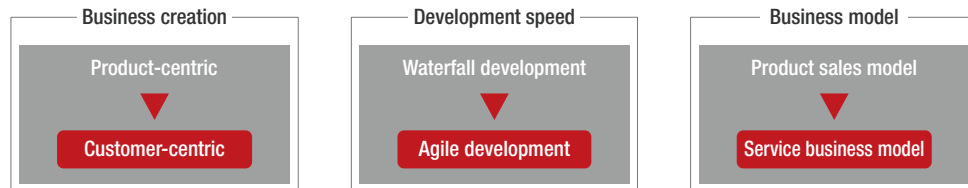
The Web API integration system enables smooth interoperability of the various functions developed in the systems of each business using a Web API. The data analysis system and the Web API integration system make it possible to create new value for customers at speed by supporting data analysis and matchmaking functions across business fields.

The CRM system enables the provision of cross-cutting proposals by centralizing customer information that was previously stored by each business within the Group. We will work to expand our digital services by linking the CRM system to the subscription management system. To develop these systems quickly, we will use software that is already in widespread use around the world as much as possible and promote collaboration with global partners.



Co-creation Infrastructure: Promoting Mindset Transformation

The realization of Circular Digital-Engineering requires a mindset transformation within the Group. Adopting customer-centric, agile development, and service business model patterns of behavior in addition to the product-centric, waterfall development, and product sales model patterns of behavior the Mitsubishi Electric Group has employed for many years will make it possible to create new businesses based on all-new ways of thinking. To promote this mindset transformation, we will establish Serendie Street, a DX innovation hub, to serve as a infrastructure for co-creation not only within the Group, but also with our customers and partners.

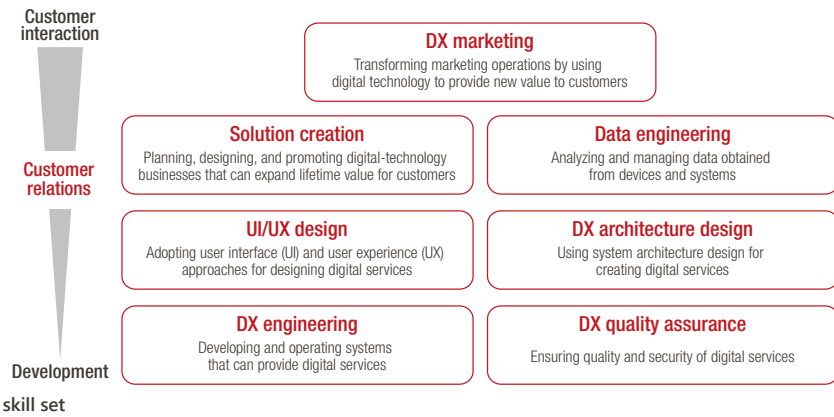


Transformation of our Technology Mindset

Serendie Street aims to be a space where diverse cultures interact, and new inspiration is created in unexpected encounters between people, data, and technology. In 2023, we began establishing Serendie Street Yokohama in Yokohama, Japan. From fiscal 2025, the co-creation space started operations with a human capital pool of approximately 500 DX engineers from the Mitsubishi Electric Group as well as customers and partners. In addition, we have also launched various cross-business projects and are developing innovative "internal special zones" in offices with different working arrangements than in our traditional works and offices. We plan to expand this activity not only in Japan, but overseas as well. We will also promote exchanges of personnel between global hubs as we implement projects with a global perspective.

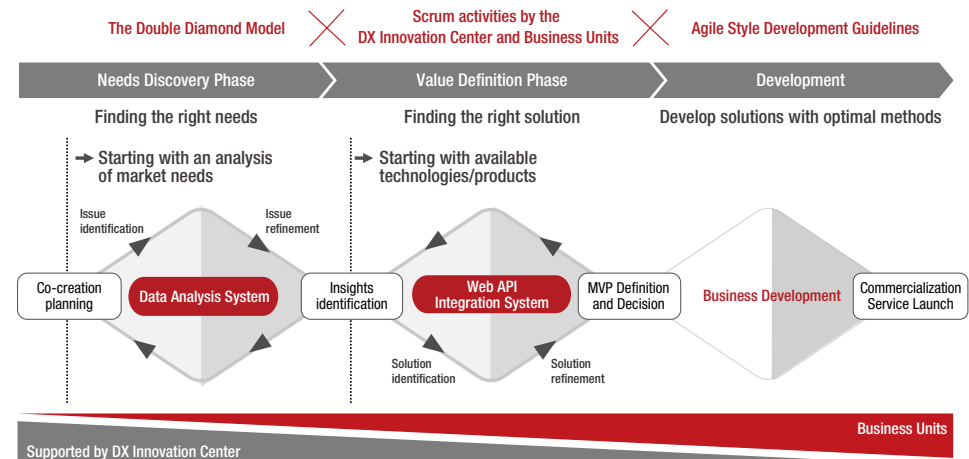
Human Capital Infrastructure: Strengthening DX Human Capital

Strengthening DX human capital is essential to realizing our transformation into a "Circular Digital-Engineering Company." To achieve our target sales of 1.1 trillion yen for Serendie-related businesses by fiscal 2031, we aim to expand the Mitsubishi Electric Group's DX pool of human capital, which currently stands at 6,500 employees, to 20,000 employees by fiscal 2031. To strengthen human capital development, we are defining a seven-point skill set required for creating solutions utilizing Serendie, providing DX education to all employees, reskilling technicians, actively hiring DX human capital, and conducting M&A of DX companies.



Infrastructure Promotion Project: Using Agile Scrum to Create Serendie Solutions

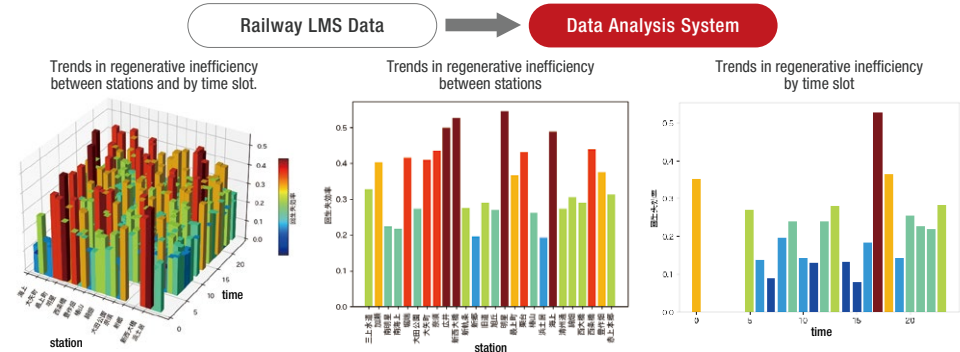
To create new value in collaboration with customers and partners, we use the scrum model, utilizing the four systems of our technology infrastructure. Based on the double diamond model, which is composed of the needs discovery phase utilizing the data analysis system and the value definition phase utilizing the Web API integration system, we will compile agile style development guidelines to ensure development quality in scrum activities and business development by the DX Innovation Center, established in April 2023, and business groups. Establishing these guidelines as the infrastructure promotion project will enable commercialization and service launch in a short period of time.



Scrum Project Case Studies

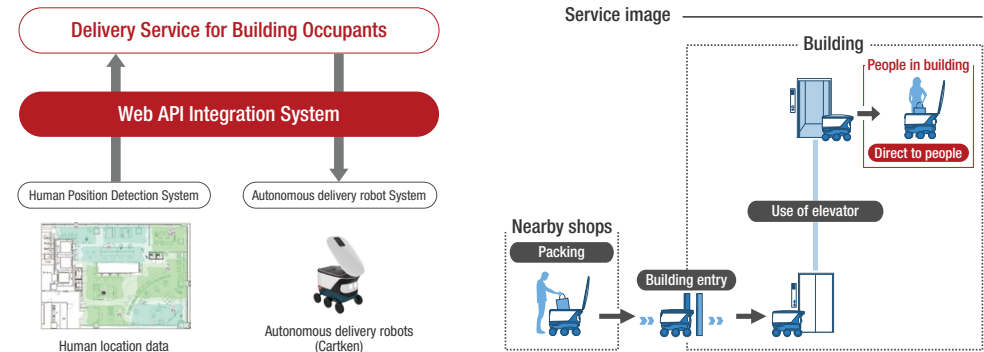
Designing a New Solution for Effective Energy Utilization for Transport Infrastructure

The Railway Lifecycle Management Solution (LMS) is a system that accumulates a variety of data on electric equipment for railway rolling stock (motors and brakes, etc.) delivered by the Mitsubishi Electric Group. The vast volume of this data has made it very difficult to use in detail until now. However, utilizing our data analysis system, we have initiated co-creation of integrated solutions including railway rollingstock maintenance, train operation, and power optimization with railway operators who are our customers. The example shown in the figure visualizes the regenerative power generated when a train stops between stations and by time slots with the aim of effectively utilizing regenerative power in station building shopping areas and other areas rather than wasting it.



Combining Human Location Data and Autonomous Delivery Robots

We initiated a project combining human location data inside buildings from our Life business area and Cartken autonomous delivery robot system from our Industry & Mobility business area. Using the Web API integration system makes it possible to integrate functions very easily, even in systems that have been developed by different organizations. Based on an actual working system, we have been studying a system in which autonomous delivery robots transport food and beverages from nearby shops to the people in the buildings and we are working to bring it to market at the earliest possible opportunity.



Verifying Air Conditioning Equipment Control Using Generative AI

In an initiative using generative AI, we confirmed the effectiveness of technology that balances comfort and energy efficiency by verifying the air conditioning equipment control. We conducted the verification with a partner company to test control of air conditioning equipment using generative AI, inputting various environmental data using our proprietary prompt generation software. As a result of the verification conducted in winter, we achieved significant improvements in comfort and energy efficiency. Although more detailed verification is required for practical deployment, the use of generative AI is gradually shifting from utilization in streamlining business operations by outputting language such as creating minutes for meetings to include the field of software creation and automated control, as well. In February 2024, we established the Corporate AI Strategy Division and began various studies on the use of the Mitsubishi Electric Group's unique generative AI.

