

Bolster Competitiveness Leveraging DX

The Corporate Business Plan launched in FY2025 establishes “strengthen management base supporting new growth strategy” as one of its basic directions. The plan positions the strengthening of competitiveness and the creation of new value through digital transformation (DX) as key initiatives.

DX has an extreme importance in our management strategy, then DX will not only help us to improve operational efficiency and accelerate technological development, but also support flexible responses to rapid environmental changes and new challenges. In anticipation of these benefits, we aim to transition to the next stage of DX initiatives, “DX NEXT,” by integrating AI technologies, including the rapidly advancing field of generative AI, into our business processes. From FY2025 onward, we will begin to review our organization to drive DX and enhance its functions in order to achieve sustainable transformation.

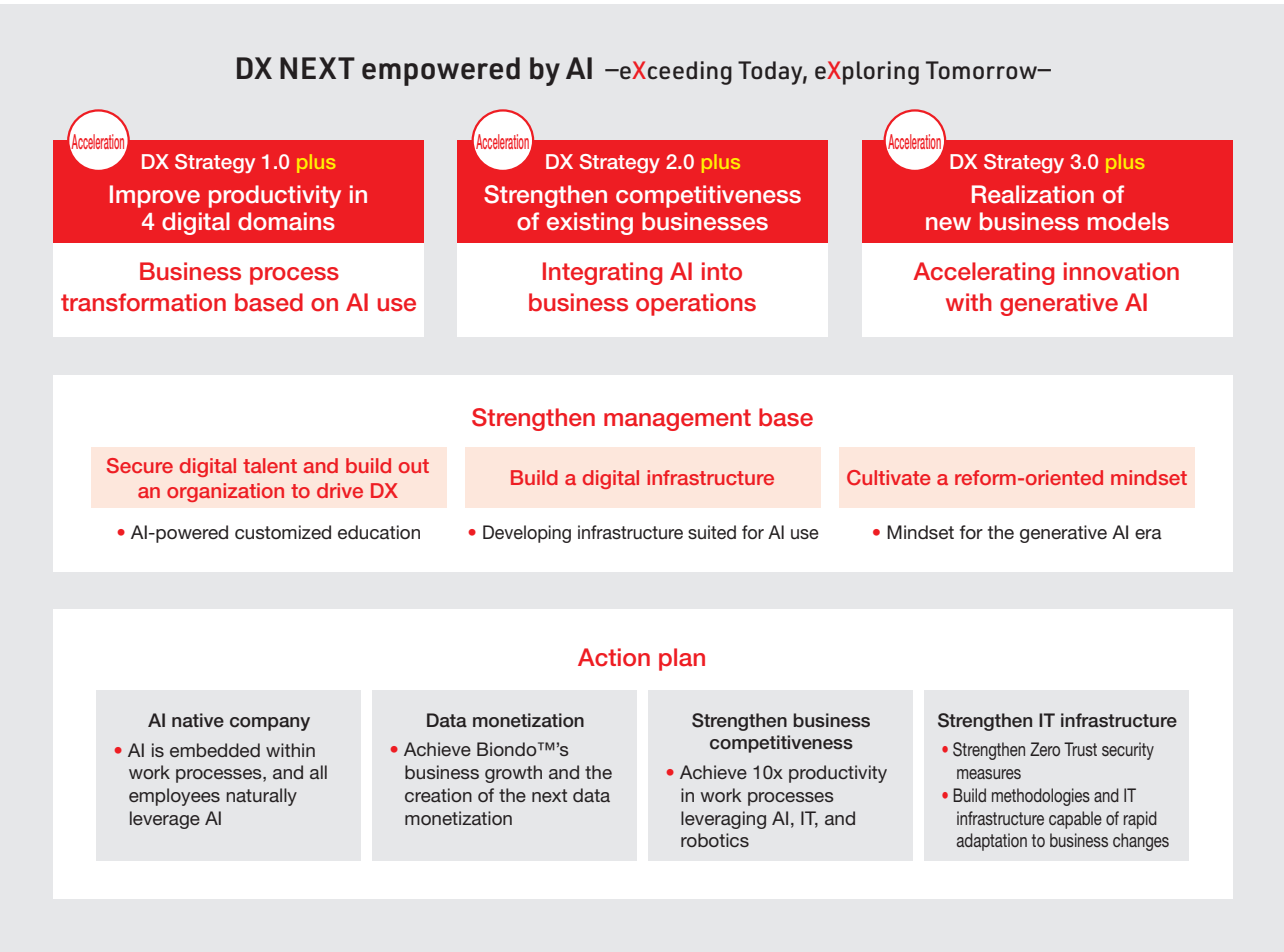
DX Strategy

In a rapidly changing business environment, we position DX as the engine that drives our transformation and growth. By strengthening this engine, we aim to achieve the reinforcement of our management base that support the new growth strategy, enhance our business competitiveness, and accelerate the creation of new value.

We have formulated three DX strategies: DX Strategy 1.0 focused on improving productivity in manufacturing, R&D, supply chain, and back-office operations, which has already yielded significant results. DX Strategy 2.0 aims to enhance the competitive advantage of our business, and DX Strategy 3.0 focuses on creating value through new business models.

In recent years, alongside changes in the business environment, there has been remarkable progress in AI technology. Using AI in our DX Strategies 1.0, 2.0, and 3.0 will help us to evolve each strategy and further accelerate our DX initiatives.

Overview of the DX Strategy



Strengthen competitiveness of existing businesses

We will achieve the strengthening of business competitiveness by continuously implementing the initiatives outlined in DX Strategy 1.0 and 2.0. To develop and supply products that focus on what our customers value most, we are concentrating on strengthening the “engineering chain” and the “supply chain,” which are the core components of the manufacturing industry, through the power of DX.

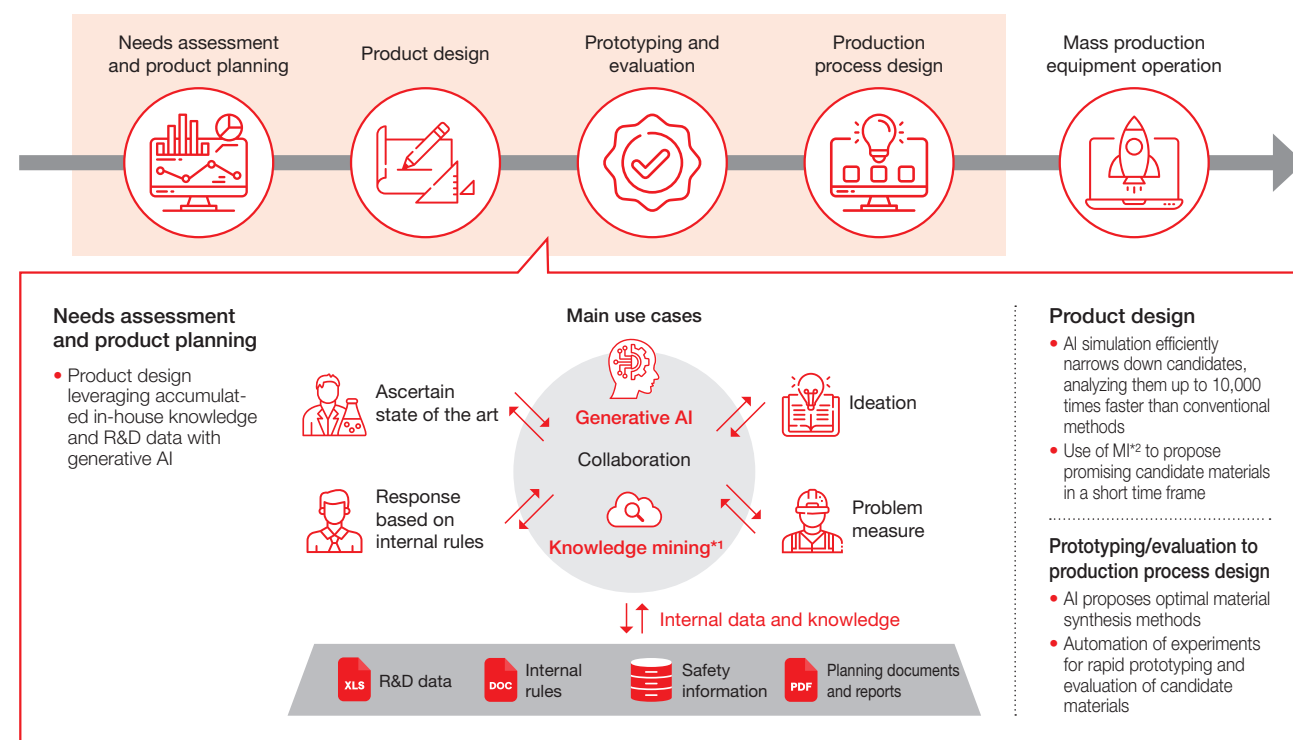
Accelerating engineering chain

By integrating AI technology into every stage of the R&D process, we have increased efficiency and improved the quality of our manufacturing processes. For instance, we use AI-driven simulations and data analysis. This allows us to swiftly select optimal materials and structures from the initial product design stage. During the prototyping and testing process, AI analyzes vast amounts of data to detect defects at an early stage and propose improvements, thereby shortening development cycles and reducing costs.

Furthermore, AI can analyze the market and customer feedback in real time, enabling us to quickly capture changing needs. We have established a system that provides products which better align with customer needs in a timely manner, thanks to these capabilities.

We will continue to evolve the entire manufacturing process through DX to create new value.

Engineering chain



*1 Knowledge mining: The process of discovering and extracting valuable information and knowledge from vast volumes of data

*2 MI: Materials Informatics

Optimization of supply chain

We are advancing the visualization of product inventory status and theoretical inventory values in order to reduce inventory levels. This initiative is being implemented through collaboration between our trained business DX core personnel and data scientists. Going forward, we will also promote the use of AI technology for demand forecasting and production planning.



Dashboard for inventory visualization (for illustration purposes)

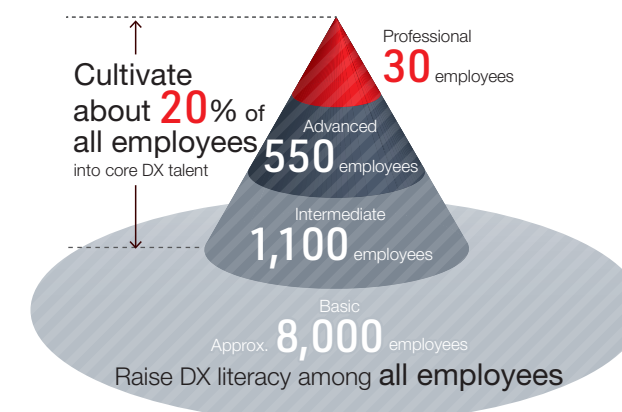
Strengthen management base

In strengthening our management base, we are particularly focused on “developing digital talent” and “enhancing our data infrastructure,” which serve as the foundation for promoting DX. By developing digital talent, we aim to establish a framework where employees themselves can accurately define operational challenges and drive the advancement and efficiency of operations through DX, as well as transform business processes. Also, by strengthening our data infrastructure, we aim to use the data necessary for decision-making and service enhancement.

The development of digital talent

To realize business process transformation through DX, we are focusing on developing core DX personnel and enhancing DX literacy among all employees. With the aim of training approximately 20% of all employees as core DX personnel, we are assigning personnel specialized in each department’s operations to lead company-wide transformation.

Furthermore, we launched an e-learning educational program for all employees, starting in June 2022. This program enables employees to learn at any time and in any location, supporting the improvement of DX literacy.



*As of the end of FY2024. Further increases are expected in FY2025

Enhancement of data infrastructure

To maximize the use of AI, the data fed into it is critically important. We therefore accumulate data through various methods, such as organizing and digitizing past performance and internal knowledge, as well as creating new data through experiments and simulations. In particular, our initiatives using the supercomputer “Fugaku” generate data for solubility prediction, which is indispensable to materials development. By feeding the data obtained from large-scale simulations using Fugaku into AI, we can improve prediction accuracy and open up new possibilities for materials development. Strengthening our data infrastructure in this way will improve the quality of our products and services and contribute to future technological innovation.

Realization of new business models

We aim to create new business models through DX. Leveraging our core technologies and data accumulated over many years, we are promoting the launch of new businesses through data monetization.

The first theme of DX Strategy 3.0, Biondo™, was released to the general public in July 2024. We are working to increase the number of service users while incorporating user feedback to improve and expand the service.

Preparations and discussions are also underway for the second phase—a data monetization business theme following Biondo™—in preparation for its launch. We are also inviting submissions for themes for the third phase and beyond, as we fully begin our efforts towards the Corporate Business Plan target of launching five digital products.

Biondo

Leverage Sumitomo Chemical's advanced chemical analysis technology and wealth of data to identify excellent functional ingredients included in natural materials and build out a database of materials identified to have new value. This is a platform where materials sellers and buyers can easily connect with each other.