

Business Transformation with Digital—Transforming Our Business with Digital Technology— Digital Transformation Strategy

Our vision is to become a corporate group centered on specialty chemicals that contributes to the global environment, human health, and an enriched future society. We have accordingly committed ourselves to collaborating with stakeholders to create new value by leveraging technology and innovation to digitize and overhaul business processes.

Yuki Nishida
Senior Managing Executive Officer
Assistant to the President, General Manager,
Production & Technology Div. and DX Promotion
Office, with responsibility for Information
Systems Dept. and C1 Chemicals Project



Our Digital Transformation Approach

In fiscal 2022, we launched the first stage of UBE Vision 2030 Transformation to focus on growth in specialty chemicals and contribution to the global environment. One of our basic policies and priority measures is to enhance corporate value and create customer value through such a transformation. It is important to emphasize that our digital transformation push goes well beyond conventional approaches. Our strategy is to deploy digital transformation so our businesses can accelerate our specialty chemicals growth and environmental

contributions. We will enlist all employees and operational domains in transforming our business. It is against this backdrop that we are refining our digital transformation strategy by establishing roadmaps for eight themes while sharing insights and knowledge in boldly and swiftly executing these strategies.

Our Eight Digital Transformation Themes

We formulated these themes to drive digital transformation advances.

1. Smart Factory

We will use AI to harness the massive data resources of our factories. We will work to make these facilities smarter in several ways. This could include tapping AI to stabilize and streamline operations and managing facility data to predict and avoid equipment failures.

2. Digital Marketing

We are supporting sales and marketing with customer relationship management and salesforce automation platforms. We will clarify customer relationships and information across all businesses to drive cross-selling. We will draw on the data we

acquire in these processes for marketing and production planning.

3. Velocity R&D

One development goal is to digitize data from experiment notes and other paper data and incorporate it in materials informatics, which uses information science techniques to accelerate efforts to enhance development efficiency. A second objective is to build an IP landscape to bolster our strategy in that area. We will draw on that setup to pursue acquisitions and explore new businesses beyond current divisional boundaries.

4. Digital Management

We will manage performance by digitizing processes to streamline settlements and make budgeting more precise. We plan to deploy the SAP S/4 HANA enterprise resource planning platform in 2024 so management can become more data-driven, using real-time information dashboards to make decisions.

5. Digital SCM

We will link our supply chain to our smart factory and digital marketing themes. We will digitally manage our supply chain in everything from raw materials procurement planning through production and sales planning and later stages. Such an integrated and systematic approach would enable us to reinforce our supply chain as a specialty chemicals company.

6. Digital ESG

We will use digital processes to develop environmentally friendly products and manage information on GHG emissions including Scope 3 to safeguard the environment.

7. Digital Back Office

We will enhance back-office operations by adopting standard business processes based on total quality management, a companywide unified quality control initiative to improve quality.

8. Digital HR

We will do much more than simply develop digital talent. We will clearly identify the technology innovators, marketers, and other individuals we need to drive our specialty chemicals growth. We will also present career paths to young people and help older employees to reskill.

perspectives. We established a program that partially links executive compensation to progress in those themes to help make our digital drive more effective.

Attracting and Developing Digital Talent

We employ the Innovator Theory model in seeking to secure and develop individuals, of whom 2.5% are innovators and 13.5% are early adopters. We currently have approximately 60 innovators and 300 early adopters, which is basically on target in view of the size of our workforce. We additionally develop digital talent by offering learning about digital transformation at the Plant Operation Technology Training Center, which is part of the Production & Technology Division. Through such efforts, we believe that innovators and early adopters can systematically cultivate digital technology experts who can help us progress in specialty chemicals while spreading knowledge Company-wide about digital processes.

Business Division-Led DX Promotion Office

In April 2022, we established the DX Promotion Office. I head that entity, which spearheads UBE's digital transformation strategy, including through initiatives described earlier. IT departments oversee digital transformation efforts at most companies. In contrast, this office comprises more than 60 employees in their 20s to 40s whom it secured from business divisions, factories, laboratories, and headquarters departments.

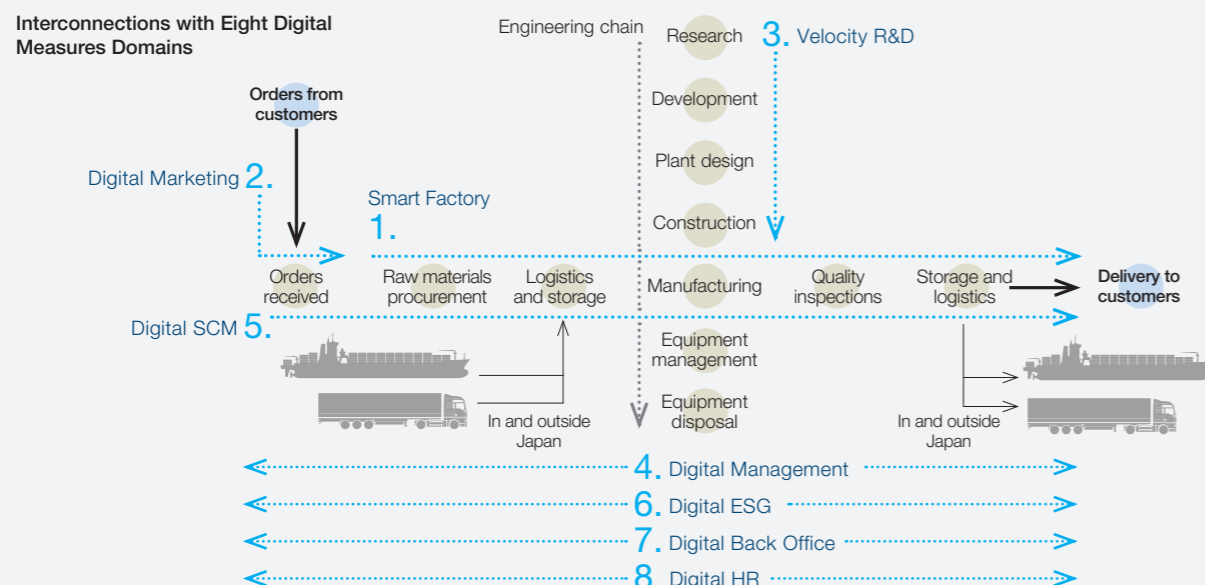
Although the office has only operated for around a year, it has underlined President & Representative Director Masato Izumihara's confidence that UBE will become a specialty chemicals company. He is keen to leverage digital transformation to foster a new business model for UBE. We have progressed significantly in the past year, doubling the number of digital transformation themes to eight and bringing more digital natives to the fore.

While frankly a late-starter in digital transformation efforts, UBE has learned much from the experiences of many other companies, fueling its fast progress in this respect over the past year. We have pledged to all stakeholders that we will keep pressing ahead in digitizing our business processes until we reach our goal of transforming our organization. We will draw on the digital literacy of all employees and overhaul their capabilities in a drive to deliver new value for customers and the economy.

Basic Digital Transformation Policy under the Medium-Term Management Plan

Enhance corporate value and create customer value by pursuing digital transformation

- Develop digital talent
- Improve operational efficiency and productivity by using digital technology
- More swiftly create new customer value and businesses



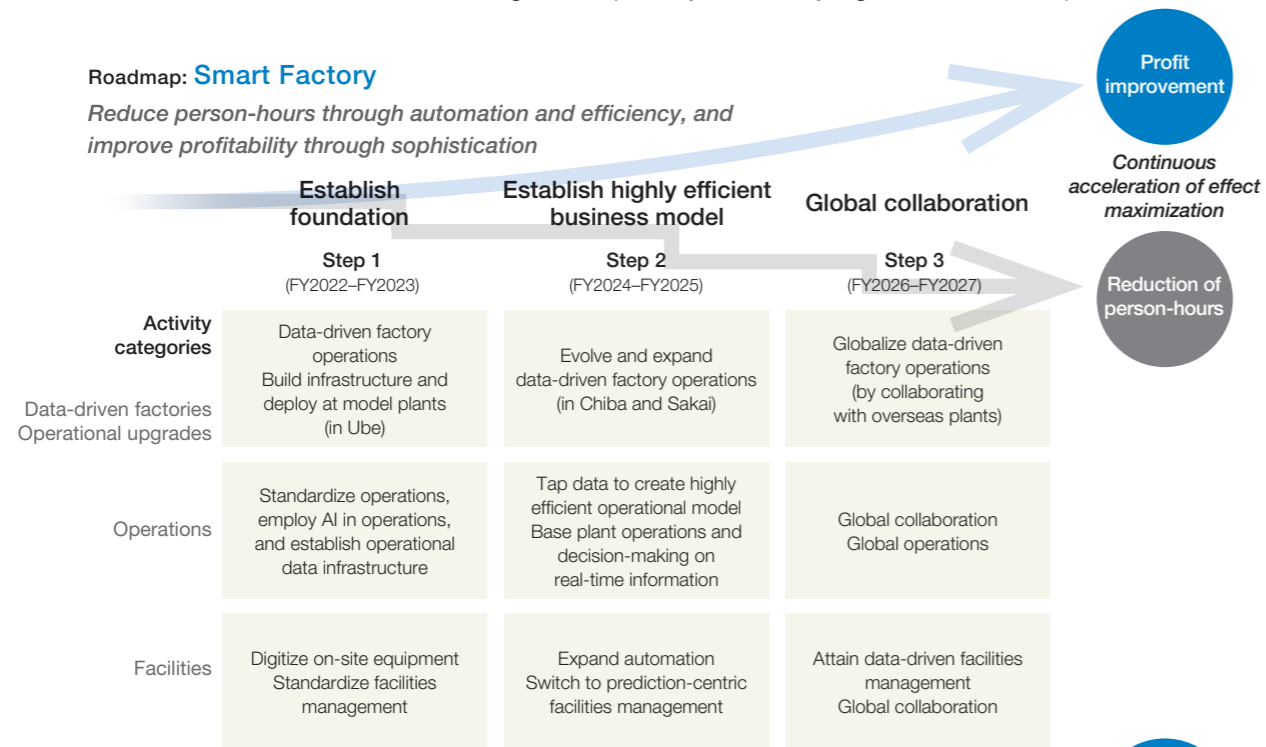
We have assigned executives to oversee these themes to digitize operations from management

Excerpt from Theme Roadmaps

For all themes, we created the following roadmaps to systematically digitize our business processes.

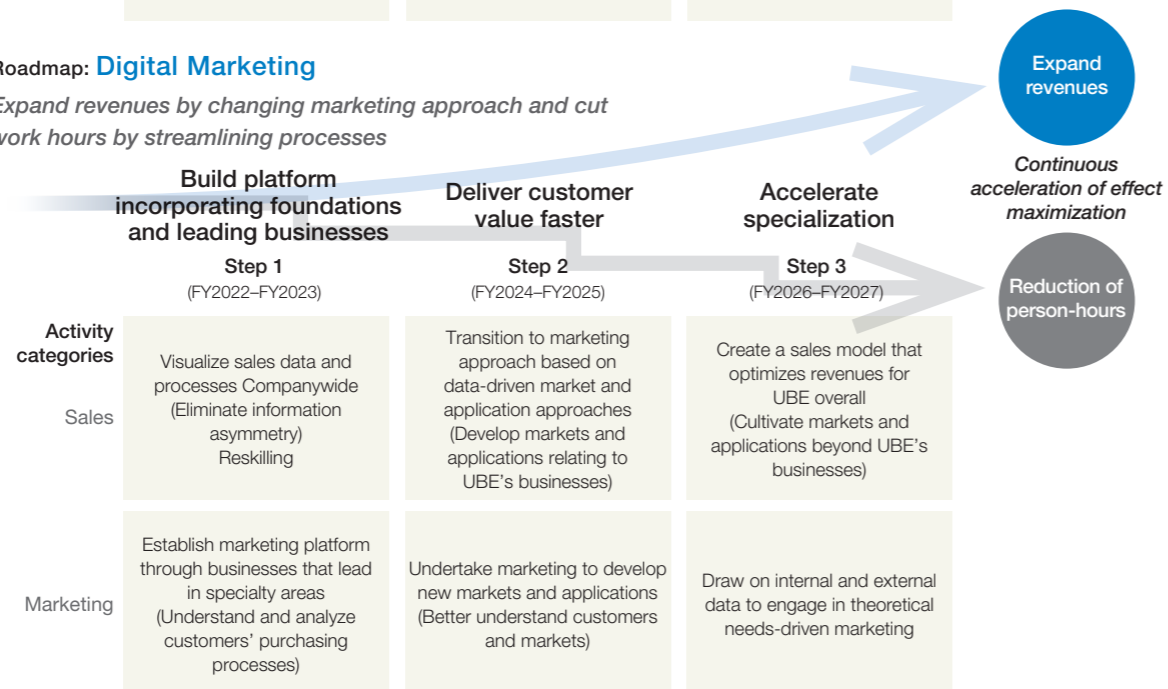
Roadmap: Smart Factory

Reduce person-hours through automation and efficiency, and improve profitability through sophistication



Roadmap: Digital Marketing

Expand revenues by changing marketing approach and cut work hours by streamlining processes



Digital Transformation Investments and Returns

Investments in fiscal 2022 through fiscal 2030
Approx. ¥20 billion

(Under current medium-term management plan, approx. ¥10 billion, including to deploy S/4 HANA platform)

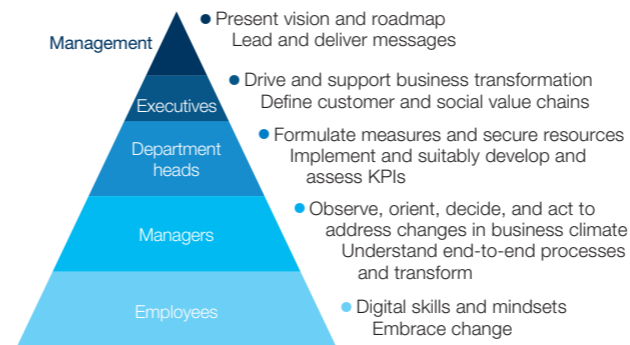
Returns: Estimated profit contributions of digital transformation

Gradually accruing from fiscal 2024, reaching approx. ¥30 billion in fiscal 2030

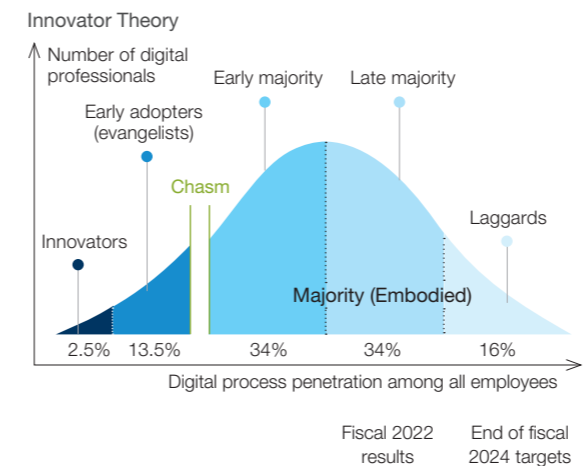
Developing Digital Talent

We offer group and practical training, e-learning, correspondence courses, and assistance for securing qualifications by job level in line with the digital talent profiles that we have defined.

Encouraging All Employees to Acquire Digital Literacy Skills and Mindsets



Digital Talent Development (Workforce percentages)



	Fiscal 2022 results	End of fiscal 2024 targets
● Innovators	2.7%	2.7%
● Early adopters (Evangelists)	10.5%	13.5%
●●● Majority (Embodied)	—	83.8%

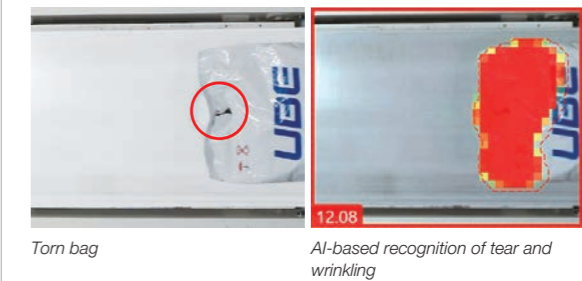
Success Story

Leveraging AI to Detect Anomalies: Smart Factory Theme

Distributed Control Systems centrally monitor chemical plants. They constantly track more than 1,000 instruments at some larger facilities. The number of instruments that operators monitor has increased in recent years, but human monitoring is reaching its limits. UBE has accordingly harnessed machine learning and AI image recognition technologies to make anomaly detection more accurate.

In one case, we deployed this recognition technology to automatically detect abnormalities in product packaging. One internal strength that we can leverage here is that we employ general-purpose software to collect images for recognition and program applications in-house. We have thus been able to eliminate all abnormalities without incurring outsourcing expenses.

Results of Abnormal Packaging Detection Testing with AI Image Recognition



Data Monitoring-Based Predictive Detection: Smart Factory Theme

Detecting abnormalities at plants prevents problems from occurring. We deployed our Plant Information Management System for that reason in the late 1990s. The system generates huge volumes of empirical, quality, and other digital data related to manufacturing at each plant. In monitoring impurity concentration of plant's wastewater, we adopted trend monitoring, which statistically processes data for the past 10 years and factors in abnormality probabilities. This setup has enabled us to detect these issues at early stages, even where such situations would not have normally triggered alarms, when concentrations of abnormalities gradually increase. The system notifies the person in charge by email and warning lights as soon as it detects an aberration.

Predictive Detection Concept

