

Promoting digital transformation (DX) at Mitsubishi Steel

April 6, 2023

 **MITSUBISHI STEEL MFG. CO., LTD.**

Contents

Foreword

- (1) Basic DX policy
- (2) DX business strategy
- (3) IT infrastructure development
- (4) Organization
- (5) HR development

Foreword

Our Medium-term Management Plan identifies the following basic policies: restructuring our overseas businesses; strengthening our product appeal further; and expanding our business model for seamless production from materials.

To implement these basic policies, achieve further growth, and enhance our competitive strengths, we will strive to reinforce our management foundations and energetically pursue digital transformation (DX) by enhancing our strategies and IT infrastructures and leveraging our organizational and human resources.

To move toward these goals, we formed the DX promotion project team in 2021, and we are currently promoting DX companywide. In a world of rapid societal change and digitalization, DX promotion is a key management strategy for Mitsubishi Steel. We will focus our management resources on DX promotion in the same way we do for growth fields, thereby responding so society's needs for decarbonization and resource recycling. By promoting DX, we aim to enhance contact points with customer needs through the use of digital technology, to improve customer satisfaction through centralized information management, and to innovatively increase productivity and corporate value by automating and streamlining operations to the extent possible.

Through companywide activities involving management, work in the field, and system engineering, we will promote DX to deliver services that provide new value to customers by making existing products more competitive and by creating value above and beyond operational improvements.

April 2023

Motoyuki Sato

Director / Chairman of the Board / Chief Digital Officer

Basic DX policy

Promoting business process reforms by sharing and using data

We will promote robotic process automation (RPA) activities to improve business efficiency.

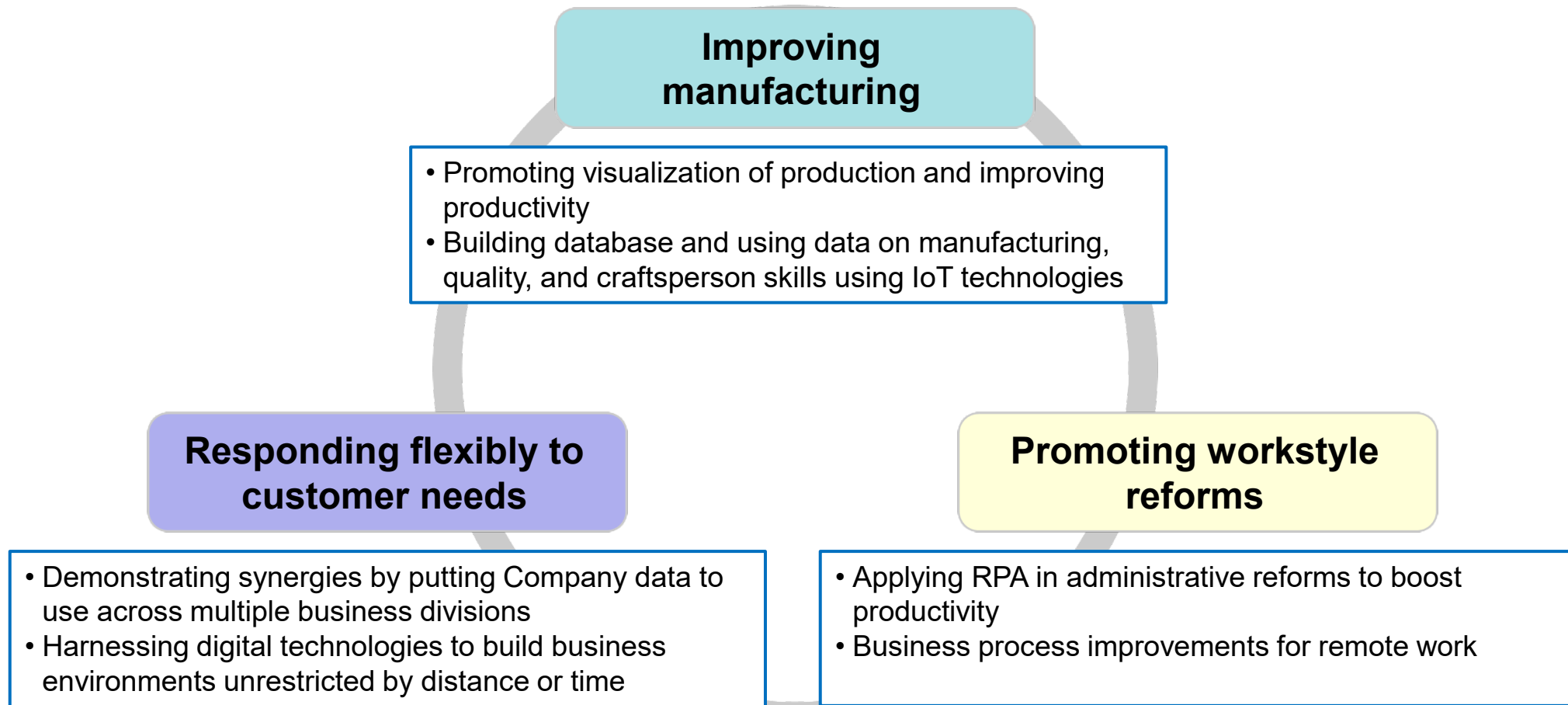
From this point forward, we will strive to increase customer satisfaction by applying digital technologies to strengthen contact with customers on various topics, involving order placement and customer needs.

We will reduce the time to market by integrating sales strategies and product development through the integrated management of information on customer needs from various internal sections.



DX business strategy

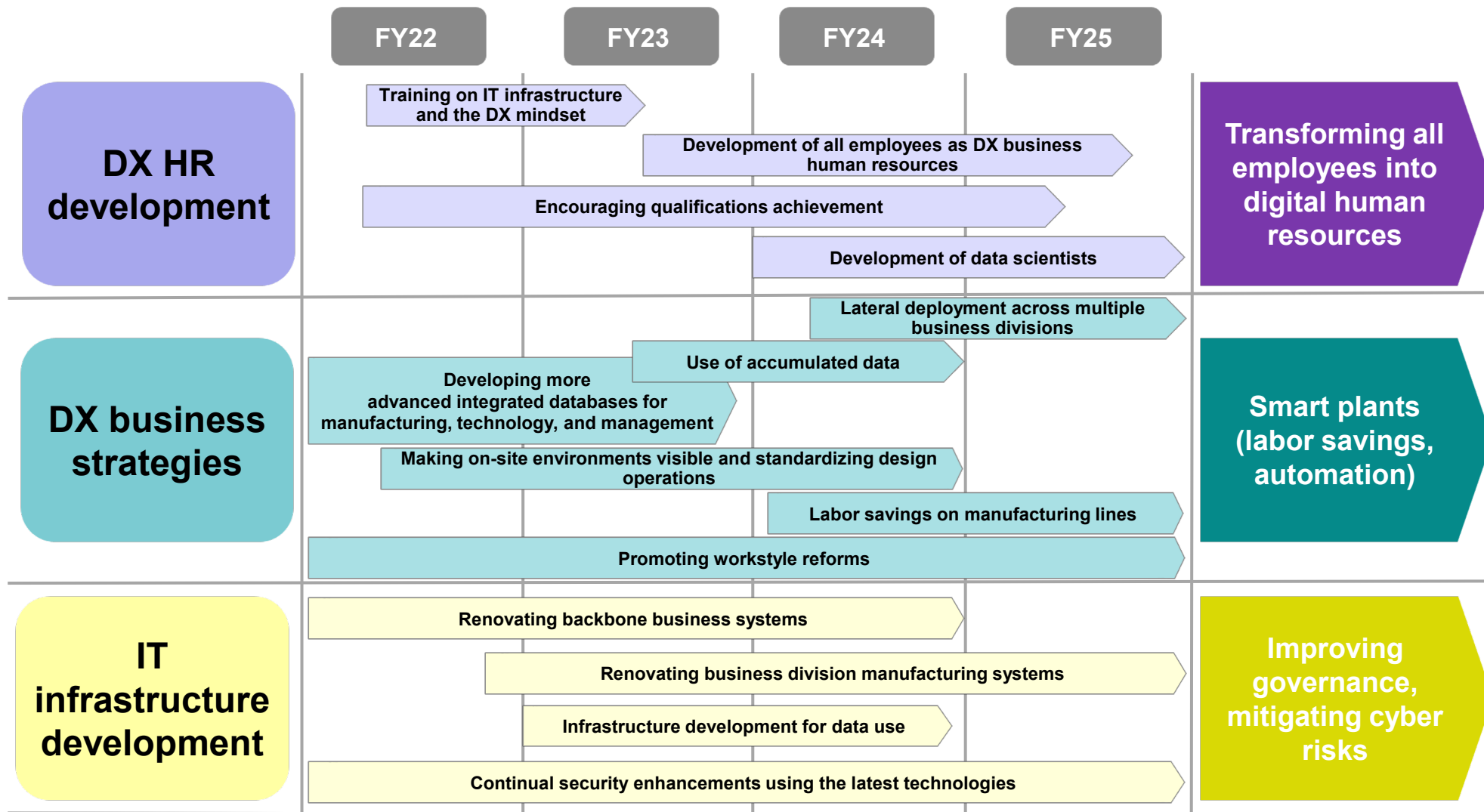
We will promote DX to deliver services that provide new value to customers by making existing products more competitive and by creating value above and beyond operational improvements, based on Medium-term Management Plan policies that call for restructuring our overseas businesses, strengthening our product appeal, and expanding our business model for seamless production from materials. We plan to target at least 5% of our investments on DX promotion.



Roadmap

We will implement the following key measures, grounded in the basic DX policy: DX human resource development, DX business strategies, and IT infrastructure development.

We will seek to boost corporate value by transforming all employees into digital human resources and by developing reformed business strategies and IT infrastructures.



Case studies of DX business strategy initiatives (1): Sales sections

Steel Sales Department

Improving customer service as an organization by reducing unnecessary work

Eliminating wasteful information



Eliminating dependency on individual workers

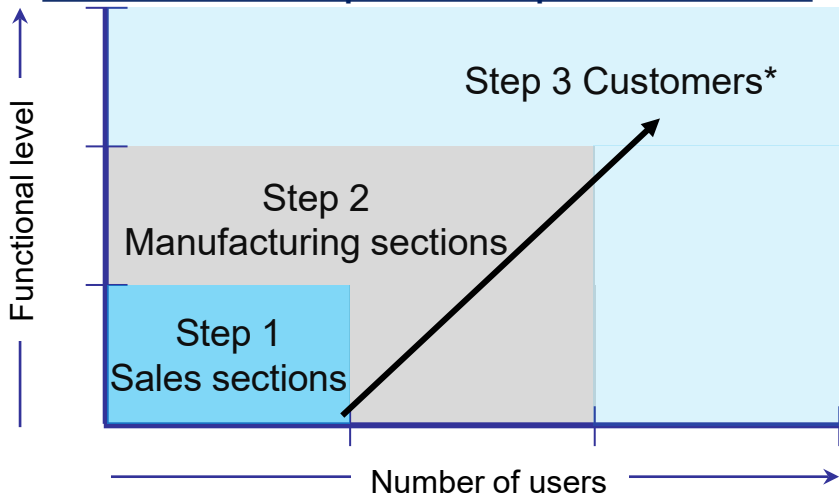


Eliminating opportunity loss



Steel sales sections are characterized by long-term transactions, in which building relations of trust, including personal relations, is a key point. However, one aspect of the intangible nature of such information is the difficulty of managing this information as an asset, since it tends to be embodied in specific individuals. Accordingly, we are adopting sales force automation (SFA) as a new initiative to integrate information concerning customers and derive appropriate strategies based on suggestions from customer analysis.

Dramatically improving business productivity and realizing a sales structure independent of specific individuals



* Organized so that the series of operations from ordering through billing can be undertaken on a single platform

Spring Sales Department

Heavy Duty Coil spring project overseas facility inquiry management initiative wins second RPA Award



While the robotic process automation (RPA) activities launched in April 2021 primarily concerned automation of the manual portions of routine tasks, they have recently evolved into activities related to the DX concept of transforming ways of work, rather than merely improving business efficiency. Activities in sections using RPA are continuing to advance, spreading to include global facilities.

Ascertaining sales status of global facilities
(Eliminating information asymmetries)

Specifications set by customers
Work with manufacturing sections

Analysis of orders received and orders lost
Deployment to sales expansion activities



Improving joint efforts by developing a shared platform for all facilities

Through this series of activities, promoting autonomous review and reforms of operations at each facility

Improving product development and customer satisfaction based on centrally managed customer information

Case studies of DX business strategy initiatives (2): Design sections

Design automation initiative for automotive suspension coils

Customer needs

Increasingly complex coil forms meeting diversifying customer needs

<Customer needs>

- Reduced weight (proposing the lightest possible weight)
- Durability
- Securing space between coils and surrounding parts
- Load axis control
- etc.



Before

- Considerable time required in designing each coil form, due to the trial and error required between form adjustments and analysis
- Variation in design time requirements and outputs depending on designer skill level

Details of initiative

- Interviewing designers on their approach to form adjustments and summarizing the findings
⇒ Verifying which approach is optimal
- Developing adjustment process workflows to lead to optimal solutions
⇒ Eliminating variation among designers
- Applying RPA to work related to form adjustments
⇒ Greatly reduces design time

After

- Capacity to propose optimal designs regardless of designer career experience and skill level
- RPA expected to save approx. 620 hours/year of labor



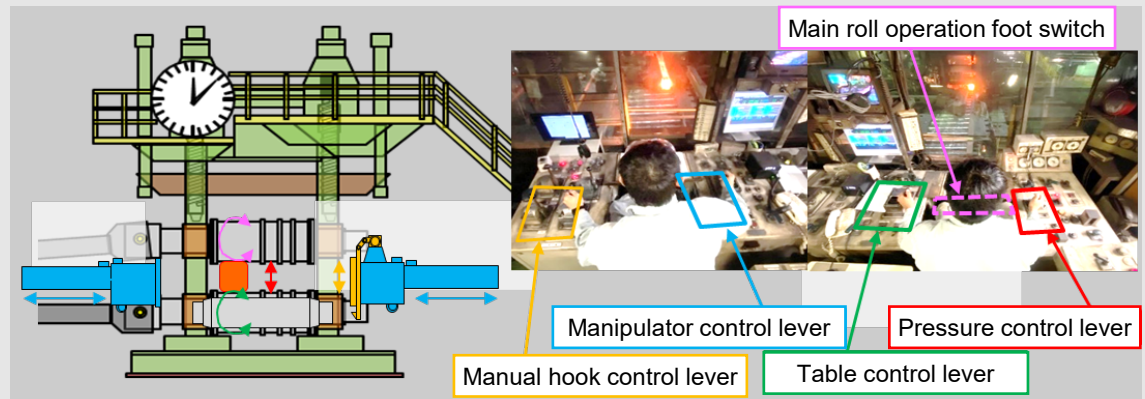
Releases time for customer service and technological development

Case studies of DX business strategy initiatives (3): Steel bar manufacturing sections

Labor-saving initiative in blooming rolling process

Before

- Blooming mills are operated manually, typically requiring two operators to control five types of levers and switches.
- Manual operation means productivity varies with operator skill, and also leads to frequent operational errors.
- No data is collected during manual operations.



Traditional blooming mill operations

Details of initiative

- Switching to control using a standard USB controller
⇒ Control switches, etc., consolidated on controller
- Automation of roll pressure control
⇒ Minimizing variations attributable to operators and preventing errors in pressure control



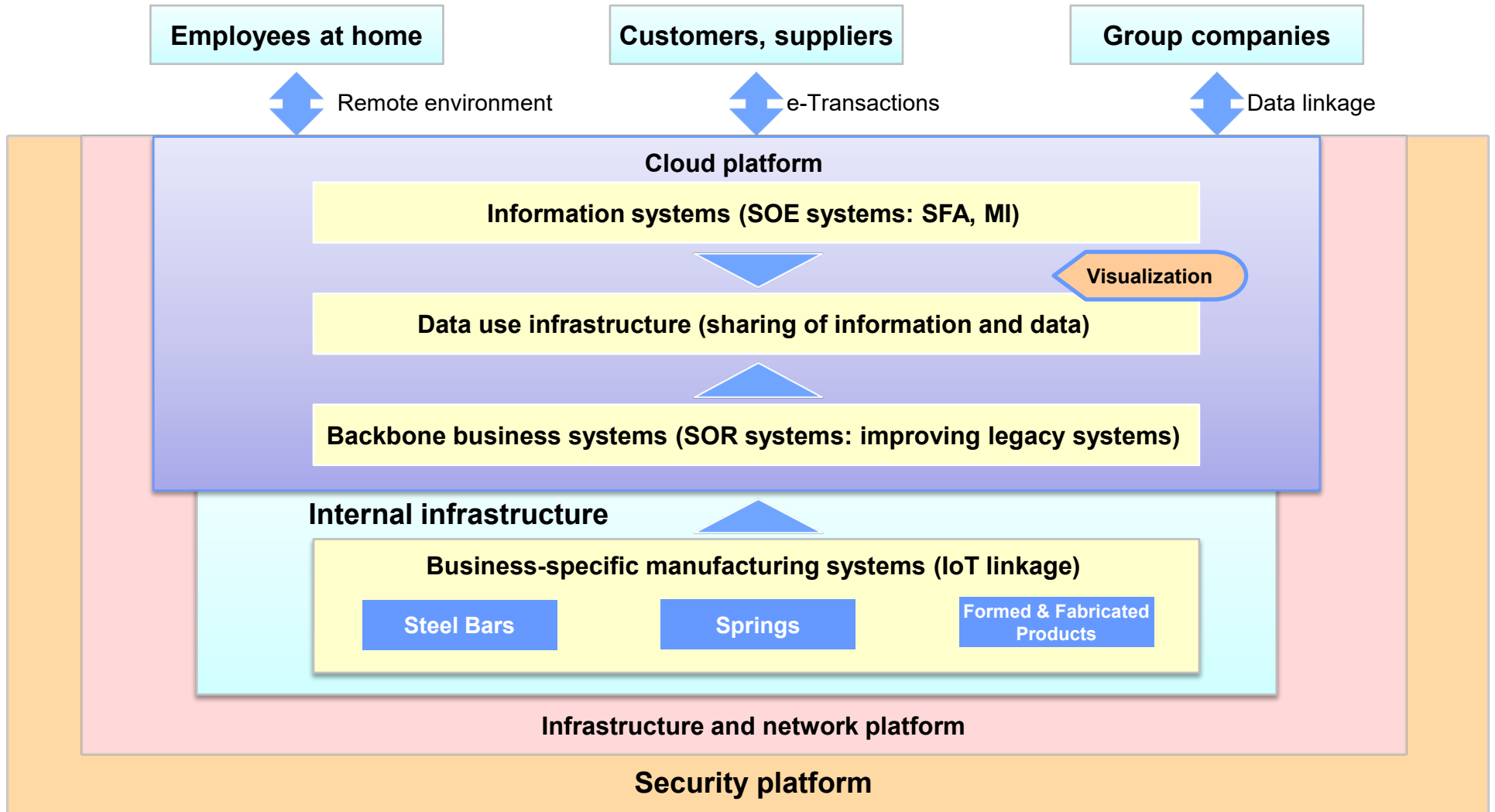
After

- Allows operation by single operator.
 - Partial automation reduces operational errors.
 - Allows collection of data from controller operations.
- ↓
- **Improves productivity by establishing optimal conditions based on data collection and analysis.**
 - **Working to achieve full automation through continuing adoption of sensing technologies and use of data collected**

IT infrastructure development

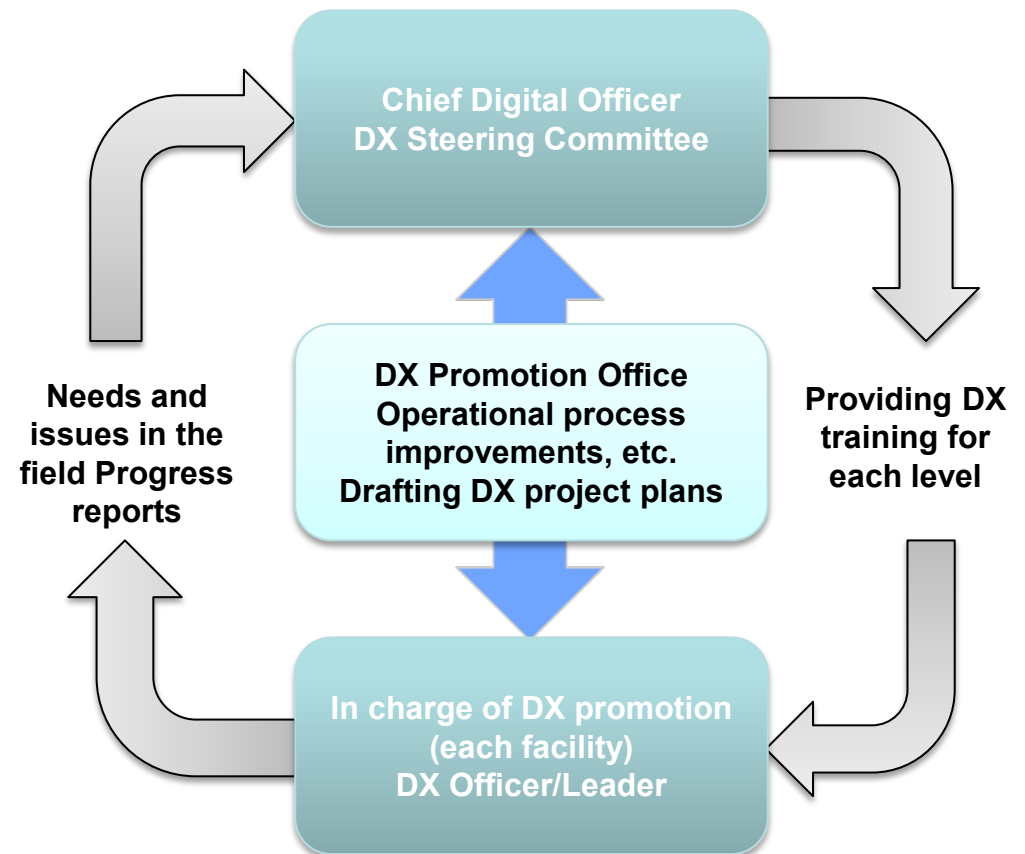
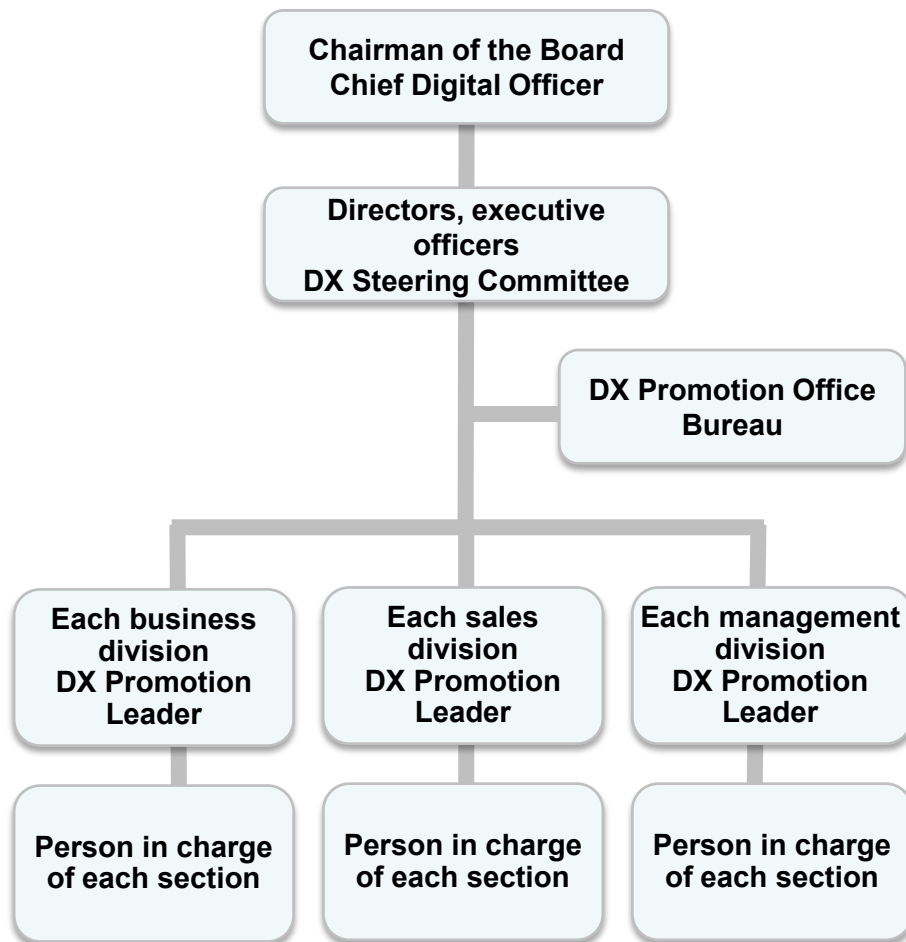
Collection, accumulation, and use of data are essential to DX promotion. This requires precise and fresh raw data, and it means that IT infrastructure (hardware and software) needs to be enhanced.

We will pursue upgrades for aged legacy systems, strengthen data links between equipment specific to business divisions and plant and production systems, and develop information sharing infrastructures for back office operations. We will also enhance the infrastructure networks and security required to support IT.



Organization

To maintain competitive advantages in an age of volatility, uncertainty, complexity, and ambiguity (VUCA) in an increasingly uncertain business environment, it is essential to communicate policies swiftly from the management team to those in the field. For this reason, we have assigned a DX promotion leader to each section and reviewed the organization to build a structure under which management's thinking can be conveyed swiftly and accurately to those in the field and management can receive reports from the field on the progress of DX promotion.



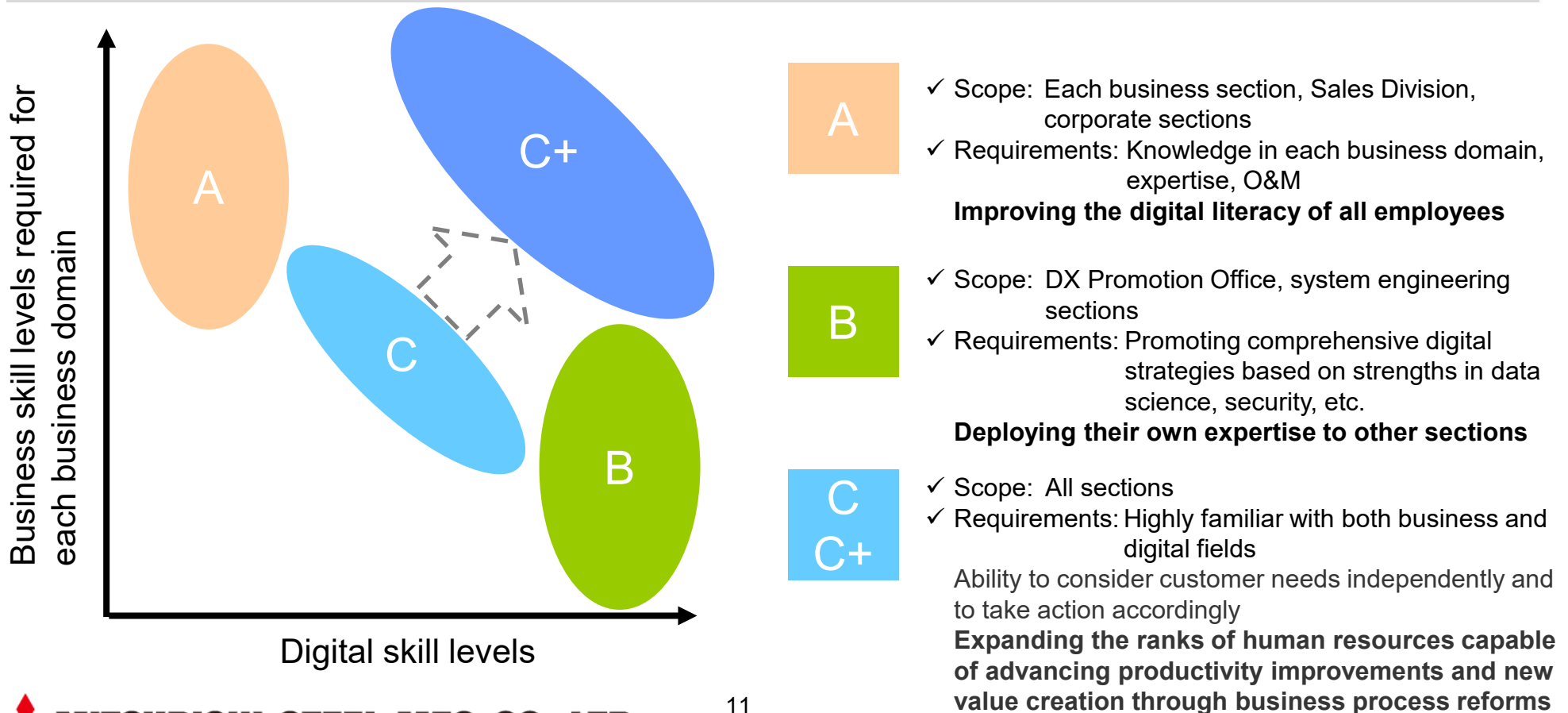
HR development

While the Company employs numerous and diverse human resources who are highly familiar with each business (product), most are business human resources (A).

At the same time, most members of the system engineering sections are DX technical human resources (B) who are highly digital literate.

Achieving our objectives will require DX business human resources (C, C+) who have a strong grasp of both business and digital domains. This understanding will make it possible to link business human resources (A) to DX technical human resources (B).

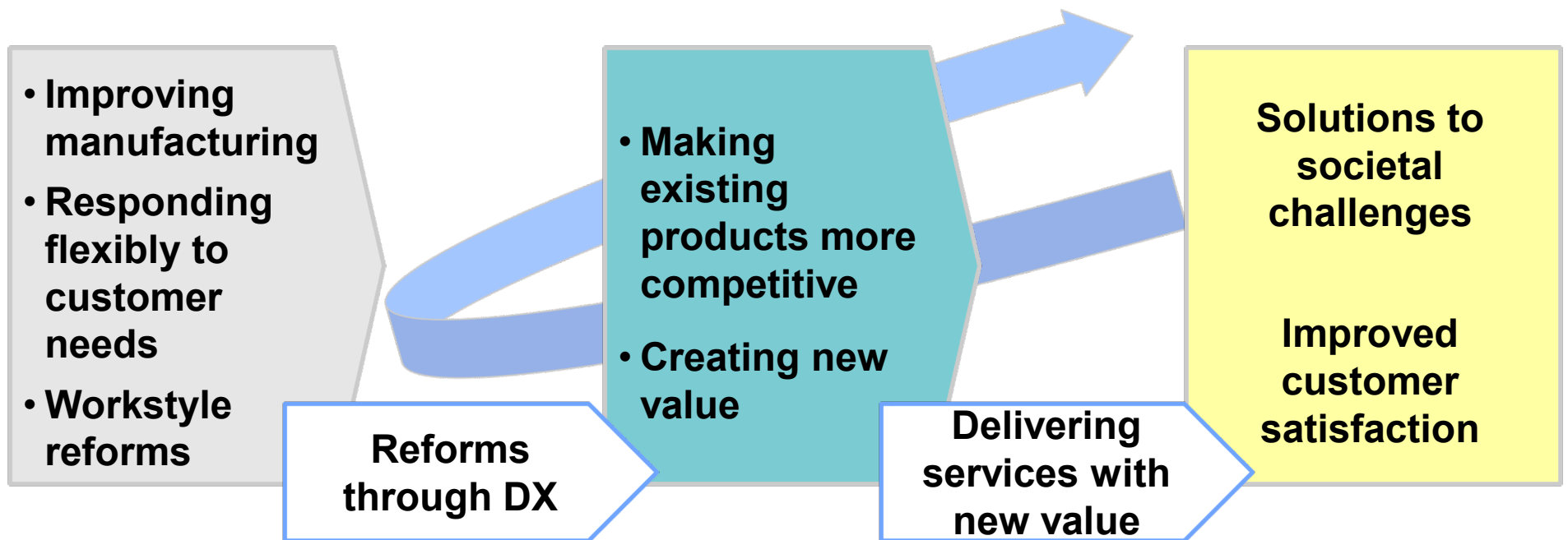
For this reason, we plan to proceed with the DX reskilling of all employees and to adopt digital solutions as standard. Our policy is to grow these DX business human resources (C+) companywide. We will develop 100 DX business human resources by FY2025.



Summary

By promoting DX, alongside our customers, we will deliver services that provide new value and realize solutions to societal challenges, including solutions to help achieve carbon neutrality.

Sharing topics and needs of society and customers



Infrastructure enhancement: HR development, IT infrastructure development



<Note on forward-looking statements>

These materials are intended solely to provide investors with information. They are not to be interpreted as solicitations. The forecasts provided in these materials are based on targets and projections and do not constitute promises or guarantees of future performance. The Company assumes no liability for these materials, regardless of the purpose for which they are used by investors. We encourage all investors to make their final investment decisions based on their own judgment.