

Feature on Sustainability Article No. 2

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Response to DX

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# Taisei Corporation's Digital Transformation

In our Medium-Term Business Plan (2021–2023), we at Taisei Corporation recognize that we are heading “Towards an era where digital transformation determines competitiveness.” As one of the key issues, we set the target of “To innovate production systems, and reform workstyles through digital transformation (DX).” In this way, we are implementing company-wide DX initiatives. Since the activity satisfied the certification standards set by the Ministry of Economy, Trade and Industry, we obtained DX certification.

We will continue to working to achieve the medium- to long term vision TAISEI VISION 2030 “The Ever-Evolving CDE<sup>3</sup> (cubed) Company: A pioneering corporate group contributing to the development of a resilient society where people can live affluent and cultural lives,” and accelerating activities.

## DX Promotion System

- In October 2020, Taisei Corporation established a company-wide organization, the DX Promotion Committee, to accelerate digitization, and assigned the Chief Digital Officer (CDO) for the first time in the construction industry.
- The DX Promotion Committee formulates plans and follows up on the implementation status. After appointing external human resources including the IT manager of each department to the cross-departmental subcommittees established under the committee, we will make effective use of digital technology and conduct effective problem-solving in construction work.



We shall build a system to work on DX as a whole company. A subcommittee in each area will discuss the necessary issues, take countermeasures, and promote DX. Information-sharing and liaison among subcommittees shall be arranged by the secretariat.

## DX Policy

- To promote DX, we have established the DX Policy. Its basic stance sets three kinds of DX as pillars, aiming to reform the production system and work styles with DX.
- With “DX of production process,” by utilizing BIM/T-CIM®, AI, IoT, robots, etc., we ensure quality and lower costs, shorten construction periods, predict hazards, and reduce environmental load to achieve a drastic improvement in productivity.
- With “DX of management infrastructure,” we build a platform that connects digital technology and data within the Company and Group companies to accelerate decision-making.
- With “DX of service solution,” we utilize facility data, etc. after completion to provide new services and expand business domains such as facility O&M\*1.

### 1. DX for production process

↳ Transform production systems to dramatically improve productivity and reduce costs

### 2. DX for management infrastructure

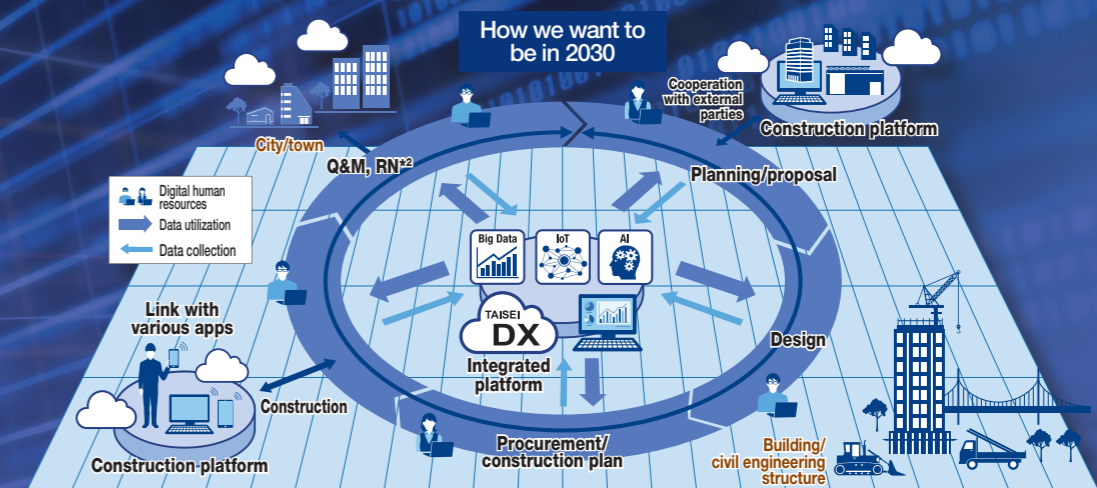
↳ Transform the organization, processes, and corporate culture with data-driven management and accelerate decision-making

### 3. DX for service solutions

↳ Create new service solutions and increase competitiveness in the construction business and surrounding areas

By using “information (digital technology and data utilization)” as our new management resource, we aim to improve the corporate value of the Group.

## Taisei Group's construction life cycle and the future of DX



2023

In 2023, by aggregating and visualizing the data stored in our existing platforms (Worksite Net, green site<sup>3</sup>, etc.), we will build an integrated platform that allows each department and worksite to retrieve and utilize the data as needed.

2026

In 2026, starting from the integrated platform, we will promote collaboration between digital technology, data, and people involving each department, worksite, and even external parties. In addition, we will try to reform a vertically divided working culture to execute business across the construction life cycle.

2030

In 2030, we will realize high-quality and highly efficient construction by strengthening and expanding internal and external connections. At the same time, we will aim to create new value that contributes to and drives the entire construction industry, such as the operation of a smart city business at the city/town level.

### DX of production process + DX of management infrastructure

On-site management system that utilizes video and IoT data, “T-i Digital Field,” was developed

We developed an on-site management system, T-i Digital Field, that visualizes the completion status of a construction site using images and data obtained with cameras and IoT devices connected to a network. It enables real-time information-sharing among the people concerned with the construction who are at remote locations.

### DX of production process + DX of management infrastructure

Remote patrol system for construction sites using a quadruped walking robot, “T-iRemote Inspection,” was developed

With TechShare Inc., we have developed T-iRemote Inspection, a system that allows you to remotely check the quality and safety at construction sites. It has become possible to improve the efficiency of on-site management.

### DX of Service solution + DX of management infrastructure

Started collaboration to transform facility operation and maintenance business utilizing AI/IoT

We started collaboration with Microsoft Japan Company, Limited to transform the facility operation and maintenance business utilizing AI/IoT (preservation of properties' value, maximization of user satisfaction and improvement of the efficiency of building operation and management business). It allows us to visualize the soundness of a building immediately after an earthquake and the work status of employees at a production facility.

\*1 O&M: Operation & maintenance (with DX, we shall effectively utilize digital technology including the IoT)

\*2 RN: Renewal work

\*3 A system to standardize worksite operations and promote collaboration among the people concerned by utilizing IT and providing a condition where “If I access the portal, I can process work for the construction site.”