Special Feature:

The Digital Transformation Strategy of the Haseko Group

Digitalization progressing across the entire Group. Promoting bold reforms to achieve genuine transformation

Three key figures who oversee the digital transformation (DX) across Haseko Corporation's design and construction divisions and service-related business have come together to discuss the issues. Looking back on four years of pursuing the goals set out in Plan NS, they freely discuss what kind of DX the Haseko Group ought to pursue in the future.

After joining the Company, Kurematsu worked at constructions sites for three years before embarking for the United States to study construction engineering. Upon his return to Japan, he moved into corporate planning at Haseko Corporation. He is responsible for the Service-related Business as a General Manager of the Haseko Anesis Corporation. He was been involved in the Value Creation Division since its establishment as the head of the division's operations. He serves as Vice Chair of the DX Promotion Committee launched in 2021.

Yukio Kurematsu,
Director and Executive Operating Officer (Haseko Anesis Corporation)

Having gained experience on construction sites for three years after joining the Company, Horii worked in design in the Engineering Division. From 2012, in addition to his design duties, he was involved in building the "HASEKO-version BIM" as the person responsible for the introduction of BIM.

Norio Horii, Operating Officer (Engineering Division, Haseko Corporation)

Hara has been working at the frontline of construction sites since joining the Company. He took the initiative in introducing CAD at a time when design work on site was predominantly done by hand. When the Construction BIM Promotion Department was established, demand for his hands-on experience led to his transfer to his current position.

Hidefumi Hara, General Manager (Construction BIM Promotion Department, DX Promotion Department, Construction IT Promotion Department, Haseko Corporation)

The fruits of the four years of DX work undertaken under Plan NS

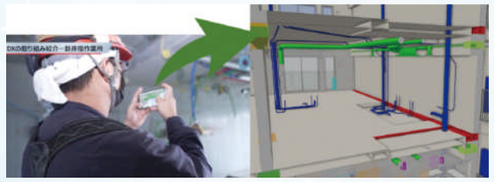
Kurematsu: Thinking back to the first year of Plan NS, I remember how difficult it was to immediately move forward with DX, because many of the operations, such as reporting and record-keeping, were still done in an analog way in each Group company. So, we had to start by digitalizing these operations first. I think all of the companies made serious efforts at digitalization during these four years.

Within the Haseko Group, the three companies that manage rental condominiums, for-sale condominiums, and the senior business have begun to fundamentally review their business processes, including their management approaches. We are currently at the stage of developing a new core system, and we should be able to see the benefits of this in another year or two. In addition, the Haseko Group is aiming to build and operate a group information coordination platform that enables the mutual use of data across the entire Group.

Furthermore, the two companies that sell newly built for-sale condominiums and that act as real estate brokers are also working on projects to renew their core systems or fundamentally digitalize and make better use of data. In that sense, I think we have entered a phase where we are progressing from basic digitalization to full-scale DX.

Horii: Our architecture & engineering divisions were working on using BIM for design documents already before the term DX became popular. Now we design all of our projects using BIM.

The majority of our construction projects concern condominiums, and of these, over 90% are undertaken as single contracts covering both design and construction. Unlike typical design firms, we prepare the construction drawings required at construction sites in our own architecture & engineering divisions, and we have also put in place a system that incorporates the knowledge gained at the construction site into all of our design drawings. This is called "front loading," and although it adds a slight burden on the architecture & engineering divisions in the current stage, it also makes the construction site more efficient, so the productivity of the company as a whole has improved significantly. Over the past four years, we have been able to experience the benefits of switching to BIM first-hand.

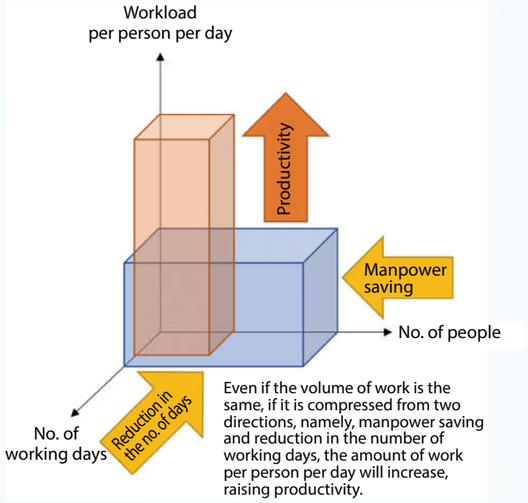


Hara: Restrictions on overtime work have been implemented in the construction industry since April 2024 in accordance with the "Work Style Reform Act." In our construction divisions, we have digitalized the information related to employee working hours. Collecting and analyzing the data on various conditions at worksites and processes has enabled us to identify the characteristics of work that tends to involve a lot of overtime, and what kind of work tends to take time at any particular timing. Based on this information, we are taking more effective, personalized measures rather than applying one-size-fits-all solutions. Going forward, we believe that we will be able to use our data-driven approach to provide the optimal combination of personnel and an environment that enables our staff to achieve their highest performance.

Business reform as the essence of DX

Kurematsu: Although we have made progress in digitalizing the basic aspects of our operations through our efforts thus far, this alone does not constitute DX in its true sense. If you want to improve productivity through digitalization, you first need to identify specific areas in the current workflows where you can improve efficiency. Unless you make major changes to existing workflows, you probably shouldn't expect significant productivity improvements through digitalization alone. Therefore, when promoting DX, we believe that simply completing new core and business systems is not enough. It is also necessary to change the way we do things. These things go hand-in-hand. This kind of business reform comprises the essence of the DX that we are aiming for.

Hara: At construction sites, the digitalization of production information has progressed, with the introduction of BIM for design drawings. For example, one such result of this is the "aluminum sash production system" for condominiums that we developed in collaboration with four sash producers in 2023. Until then, we had provided design drawings with information such as the width and height of the sash and the mounting position, and each producer had manually entered the information required for production into their own systems. However, by linking data with the HASEKO-version BIM, it is now possible for sash producers to directly import the information required for production into their own systems, which has not only reduced the time required for inputting and drawing, but also prevented human errors such as mistakes made when inputting or transmitting data, thereby greatly improving productivity.



As mentioned earlier when discussing system construction, Haseko alone cannot achieve effective DX. In addition to its integrated design and construction system, Haseko has continued to manufacture products centered on condominiums in collaboration with various cooperating companies in its supply chain. We have been promoting the standardization of specifications in such a context, so we are good at sharing and utilizing various types of information. Haseko has been working closely with its design, construction and cooperation companies since the days of analog technology. I think that it is because of this close collaboration that we have been able to communicate information

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more smoothly than before with the adoption of BIM. I therefore think it would be difficult for other companies to imitate initiatives like the HASEKO-version BIM.

Horii: Haseko has been evolving since the analog days by constantly applying customer requests and construction improvements to the design stage. It's been doing this so-called "analog transformation" this whole time. The Company continuously implements the PDCA cycle with cooperating companies, making improvements every day. That is how it has grown. By replacing this process with digital technology, I think we can continue to transform at a speed that other companies cannot keep up with.

Developing DX human resources through various challenges

Kurematsu: In service-related businesses, the most important thing by far is to satisfy customers. By increasing efficiencies through the use of DX, we will use the surplus time and budget to offer housing, renovation and management services that will bring even greater satisfaction to our customers, and make them feel that they made the right choice in buying their condominium. It is important to create value that contributes to customer satisfaction.

It is extremely important to make use of digital tools for these reasons, and the Haseko Group has been holding the DX Academy for three years now to continue developing DX human resources. With the education slogan of "continuously produce autonomous human resources and nurture a diverse workforce that will shape the future of Haseko," we have pressed forward with a variety of educational plans. In the first phase, we ran the "DX Mindset Changing Program" for all officers and employees—approximately 8,000 people. In the second phase, we had the "Innovation Leader Development Program" for mid-level and young employees. As a third phase, we then held the "DX Literacy Course" for management-level employees.

Recent technological progress has been remarkable, and while early generative AI was text-only, today it can create images, videos, and even music. In light of these rapid changes, we launched the next phase this fiscal year, holding the fourth DX Academy for all officers and employees of the Group. The aim was for participants to acquire and improve on their DX literacy and knowledge, including the latest information.

At the same time as developing DX, we must nurture the parts that only humans can do. It is important to do both.

Furthermore, in order to utilize and develop generative AI and metaverse in the Group, we have launched the DX Challenge Project within the Value, Technology and Innovation Division of Haseko Anesis, and are working diligently on it. We also held a contest with the theme of "beautiful living rooms in the future" so that more employees could experience generative AI. Evaluations were based not only on the final image, but also on the prompts (instructions/orders) that generated them. The winner used a unique prompt, incorporating the name of a famous Western sculptor to have the AI generate an image of a living room designed in the style of that sculptor. Sharing such ideas is important for the effective use of AI. In addition, regarding the "metaverse", we are taking on the challenge of creating and operating metaverse spaces that can be used in place of model rooms. We hope to provide our customers with experiences that they have never had before.

Horii: When people hear about DX human resources, they may imagine someone who is good with computers, but we are not looking for people who can build programs. Generative AI can build programs, but what is more important are the transformations that AI cannot produce. In light of the fact that digitalization is changing our lives and society, we can say that there is a need for people with a perspective that can bring about change.

Hara: I think that digital is a means to an end, and that the key to transformation is how much people can change. We are currently working to carefully nurture people with new ideas and creative thinking, as well as those who are not satisfied with the status quo and are proactively pursuing change.

The future that emerges when you combine information about housing and living

Kurematsu: Combining and analyzing the different types of data gathered by each company in the Group to create valuable data. That is a significant asset that can be obtained through DX.

At present, the Haseko Group manages around 470,000 condominiums. Some of these were built by Haseko Corporations, while others were built by other companies. There are also some condominiums that underwent large-scale repairs at the hands of the Group, after some time had passed since the delivery of property. By recognizing the information related to these diverse condominiums as data and linking it to the lifestyle information of our customers, we believe we will be able to provide new services that are different from those we have offered in the past.

In addition, the Haseko Group is also piloting the introduction of ICT technology in 12 properties, including rental condominiums and facilities for seniors. For example, we are constantly analyzing data collected through sensing, such as verifying security systems that use facial recognition systems and AI, and drainage systems that incorporate countermeasures for sudden heavy rains. In the future, we are considering integrating the data related to day-to-day living that is collected on properties where the Haseko Group is involved, so that we can provide a living environment that is comfortable for our customers.

Digitalization will make it possible to use construction-related information, which has been used as production information, to envision the lifestyle that customers desire. This is going to be a useful source of information.

Hara: The amount of information gathered in the construction divisions is enormous, and it cannot be handled in its analog form. However, digitalization makes it possible to analyze it even in a short amount of time. Besides design drawings, other information required for the construction of a for-sale condominium includes the customer's chosen floor plan, the color of the wallpaper, heights of the kitchen and washbasins, and more. Constructing divisions gather this kind of valuable data.

The for-sale condominiums we build occupy a share of roughly 30% in the Tokyo metropolitan area. From a statistical perspective, they offer insights into the "trends for the entire Tokyo metropolitan area." For example, if we have information on what colors and floor plans tend to be chosen within a certain area and which options are in demand, then we can make assumptions on what kind of lifestyle the customers want. This allows us to offer attractive condominiums with features that set them apart from those of other companies, such as the type of housing, storage capacity, and standard items installed.

In this day and age, family structures are changing due to the declining birthrate and aging population, and lifestyles themselves are becoming extremely diverse. If you have 100 condominiums, there will be 100 different ways of living, and you will need to respond to 100 different types of needs. Until now, time and cost issues have limited us to providing a uniform service for all customers, but in the future, DX will allow us to provide personalized services that meet the specific needs of our customers. As society's needs change from high volumes to small volumes and large variety, we believe this is important for the Haseko Group to survive.

Leveraging AI to provide housing and living; the outlook for DX and the Haseko Group

Horii: The architecture & engineering divisions are taking on the challenge of automated design using AI. To start with, they trained an AI on the data of the floor plans of condominiums designed by the Company over the past five years to create an AI that automatically generates floor plans. It is nowhere near the level where AI alone can complete the job from start to finish, but it is at the stage where it can help designers make their considerations. Increasing the accuracy of the machine learning in the future could make it possible to implement various checks and automatic design using AI.

My research into AI thus far has made me aware of how important it is to provide the AI with an environment in which it can learn effectively. We are currently working on constructing an environment where AI can effectively learn the data of the HASEKO-version BIM. Training an AI is surprisingly difficult. You need to translate the meaning of the data into language that the AI can understand and create a database. If this process of verbalization could also be automated, then we could have AI learn 24 hours a day, 365 days a year. The HASEKO-version BIM is a collection of insights (knowledge) that we have gained through our work to date. After training on this material, the AI can provide suggestions for new property designs. Such is the system we are aiming to create.

In the condominium-related business, design and construction are B-to-B, while services are B-to-C activities. Up to this point, each company has been working to digitalize and digitally transform their operations separately, but in the end, it is necessary to merge them, and I believe that this will further enhance the Haseko Group's competitive advantage.

To make both sets of data mutually usable, we are moving forward with the concept of a "housing and living information platform (HASEKO BIM&LIM Cloud)." This is quite a large system, so it will take some time to build, but I'm confident that it will become a highly unique platform in the future.

The on-site experience we have gained from our many years of analog transformation is also being put to use in DX.

Kurematsu: We will continue to carry out a variety of activities in the future, but what will remain fundamentally unchanged is that we are a member of the "corporate group for housing to create great living" and that we will continue to work toward the future achievement of our corporate philosophy: "to contribute to society by creating an optimal environment for cities and people."

We will continue to improve and refine our services, always bearing in mind how to better serve our customers in line with the times. For this purpose, at the same time as promoting DX, we will be cognizant of the importance of the areas where only humans can contribute, and we will nurture them. To keep both of these wheels turning is essential for future corporate activities.