# Fujitec's DX Report

#### Message from the President on DX

#### Fujitec Group's DX

The Company's highest priority mission is ensuring the safety and security of its elevators and escalators. We not only provide safe and secure products and services to all our users, we emphasize the safety and security of all our employees and partners related to our elevator and escalator business, such as production, maintenance, and installation.

Digital transformation (DX) is being more widely adopted in actual worksite operations as indispensable to the pursuit of safety and security.

For example, we are taking measures to enhance the quality of

maintenance through remote monitoring systems for elevators using AI and machine learning

In addition, to make elevators and escalators resilient to disasters, we devise designs that use IT to minimize damage and create mechanisms for rapid recovery.

Strengthening data security has steadily become more important recently. To prepare for an unforeseeable cyber-attack, we will, of course, enhance the resilience of our systems and strive to further raise security awareness among employees.

To implement the strategies in our medium-term management plan Vision 24, we will focus on expanding new business and improving profitability by pursuing process innovation and cost reductions, growing aftermarket business by expanding product and service lineups, and using IT to enhance profitability.



Takao Okada Representative Director, President and CEO



#### **Business Environment Analysis**

**Global Megatrends Impacting the Business Environment** 

Developing a long-term strategy that takes into account projections for the rise of Asian economies, environmental, regulations, and technological advancements



### Management Philosophy and Vision 24

As a manufacturer specializing in escalators and elevators, the Fujitec Group's vertically integrated production structure meets the needs of its customers around the world. With the safety and security of our stakeholders as the utmost priority, leveraging our accumulated technological capabilities, trusted quality, and flexible responsiveness, we will boost productivity and efficiency on a global scale,

Management

Management

Philosophy

extend the reach of the Fujitec brand, and contribute to the development of functional cities worldwide. Based on its mission statement, Fujitec has formulated its management vision and identified material issues-the most important issues for sustainability—and drew up the Vision 24 medium-term management plan that began in the fiscal year ended March 31, 2022.

Respecting people, technologies and products, We collaborate with people from nations around the world to develop beautiful and functional cities that meet the needs of a new age.

Meet the expectations of stakeholders by providing safe, secure, comfortable mobility for all, and by solving social issues in next-generation cities.



Improve technology and product capabilities



Reduce environmental impact



Coexist with society and local communities



Establish management base to support corporate value

### Accelerate market share expansion to provide value to all people

Product and echnology Strateg

Manufacturing and **Operations Strategy** 

Corporate Strategy

Encouraging the use of IT: Expanding remote monitoring devices

(Percentage of crowd funding: 40%)

### Material Issues and Major Topics

Materialities	SDGs	Major Topics	Initiatives
Pursuing Safety and Reliability	9 END OF THE SHORE	Safety and security for users	<ul><li>Prevent serious accidents involving users</li><li>Pursue educational activities</li></ul>
		Safety and security of products and services	<ul> <li>Technical development of disaster-resistant elevators</li> <li>Technical development of escalators with advanced safety features</li> <li>Stable products and services enabled by advanced technical skills of field engineers</li> </ul>
		Safety and security of employees	<ul> <li>Implement safety and health management guidelines consistently and thoroughly</li> <li>Provide safe and secure work environments for and promote the health of our employees</li> </ul>
Encourage diverse human resources	4 source carse 10 reactions 10 reactions	Respect basic human rights	<ul> <li>Communicate the Corporate Code of Conduct throughout the organization</li> <li>Implement human rights policies consistently and thoroughly through supplier vetting</li> </ul>
		Foster a corporate culture that recognizes diverse values	<ul> <li>Establish workplace environments and systems that recognize employee diversity</li> <li>Strengthen organizational capabilities through personnel exchange, across organizational boundaries</li> <li>Offer diverse work styles through the application of digital technologies</li> </ul>
		Nurture open-minded and energetic human resources	<ul> <li>Encourage skills transfer on a global level</li> <li>Cultivate global human resources to foster an open organizational climate</li> <li>Evolve our organization through comprehensive human resource development that encourages individual growth</li> </ul>
Improve technology and product capabilities	9 Microsoftwards Second Second Secon	Offer beautiful urban functions	Develop designs that highlight Fujitec uniqueness
		Technological innovation for a new era	<ul> <li>Develop environmentally-friendly products tailored to new lifestyles and diverse societies</li> <li>Develop modernization packages that enhance safety and environmental performance</li> </ul>
		Provide a robust social infrastructure	<ul> <li>Develop technologies that enable predictive maintenance and early recovery from disasters through the use of Al and IoT</li> <li>Strengthen global deployment of remote monitoring systems</li> <li>Improve service quality through elevator and escalator operation diagnosis systems</li> </ul>
Efforts to reduce environmental impact	7 HEBBANG OF THE REPORT OF THE REP	Contribute to a low- carbon society in response to climate change	<ul> <li>Pursue management and reduction measures for energy consumption, GHG emissions, and waste based on ISO 14001</li> <li>Enhance awareness of the importance of global warming counter measures and decarbonization through consistent in-house education</li> <li>Save resources, reduce waste materials, and recycle by improving products and construction methods</li> </ul>
		Strengthen our ability to conserve energy	Expand environmentally-friendly products and services
		Implement product life cycle management	<ul> <li>Improve eco-efficiency through improved operational efficiencies in collaboration with partner companies</li> </ul>
Coexist with society and local communities	6 menone wearen € menone € menon	Work in harmony with society	Provide opportunities for mutual understanding and cultural development among diverse people
		Seek co-prosperity with local communities	<ul> <li>Offer educational support for children in local communities</li> <li>Engage in activities to preserve the natural environment and landscape in local communities</li> </ul>
Build a management infrastructure to support corporate value	16 national interaction	Strengthen corporate governance	<ul> <li>Improve the effectiveness of Board of Director operations</li> <li>Strengthen support systems for information sharing to outside directors</li> </ul>
		Effective stakeholder communications	Expand stakeholder communication
		Conduct risk management to preserve corporate value	<ul> <li>Share risk management policies on a global level and establish a centralized management system</li> <li>Reduce information security risks by shifting data centers to cloud computing</li> </ul>
		Rigorously enforce compliance	<ul> <li>Establish compliance promotion guidelines, communicate guidelines internally, and continue training</li> </ul>

### **DX Officer Message**

## DX for Safety, Security, and **Creating Digital Twins**

General Manager.

#### Fujitec's DX

The aim of digital transformation (DX) at Fujitec is to improve safety and security for its customers. The Digital Innovation Division is in charge of advancing DX at Fujitec. This division consists of a technology research section in charge of R&D functions, a system management section that oversees core systems development and operations, and a process management section that advances business reforms.

One of Fujitec's strengths is that it makes its own core

#### Aiming to Create Digital Twins as Next Step Beyond DX

Fujitec's DX vision entails the creation of "digital twins."\* For example, the work process of field engineers is simulated in a digital environment, and AI determines the most optimal work process, which is then applied on-site. Basically, our aim is to have systems make quantitative decisions that

#### **Realization of Digital Twins**

Based on the Vision 24 medium-term management plan, having already rolled out remote monitoring in Japan, Fujitec is strengthening the overseas development of remote monitoring systems that remotely monitor the status of elevators. During pandemic lockdowns around the world, people were unable to travel to work, even within their region. Fujitec is currently aggressively developing overseas business for systems able to remotely monitor elevators in real time by sending data over communications modems from elevators to Amazon Web Services (AWS) in the cloud.

In addition, Fujitec further evolved its "All on Maps" system\* that integrates status updates on Google Maps in order to better visualize the current state of elevator operations. We released a new version that helps keep



systems. To extend this strength further, the Company is enhancing the skills of its in-house engineers. However, work in non-core domains is proactively moved to external cloud-based services, and we now use 35 cloud services. We aim to increase the value we provide to customers by reforming on-site work styles, honing the skills of in-house engineers for in-house production, and adroitly utilizing external services.

anyone with the same experiences and data can reach, and increase the time people spend on qualitative decisionmaking with their innate abilities to create a future where the correct answer is not quantifiable.

\* "Digital twin" refers to creating a digital duplicate of something in reality.

overall downtime to a minimum in the event that a large number of elevators and escalators stop working in a widearea natural disaster. Specifically, this Al-driven system can recommend an optimized route for each field engineer to visit each site and repair elevators and escalators.

The digital twin concept being pursued by Fujitec entails bringing together products, services and customers on a digital platform with the aim of increasing the value it provides to customers. By connecting the platforms of our customers to our own platform via an application programming interface (API), we aim to create new value for customers in both the digital and real worlds.

<sup>\*</sup> This service gives field engineers situational awareness by showing on a map data for each elevator, such as its operational status and repair history, and color-coding its maintenance status.

#### Main Uses of Digital Technologies

#### Further Evolution of the Integrated Map System "All on Maps"

In 2015, we began running the "All on Maps" system, which enables easy access to data about various internal systems using maps. Linking Google Maps' API with existing internal systems and disaster data enables our employees to securely reference a wide range of information from anywhere. This information encompasses elevator and escalator specifications, maintenance history, illustrations, and technical materials, and is accessible from icons indicating Company-owned properties displayed on the map.

In 2017, we began offering a smartphone app to make the service easier to use for on-site operations. Then in 2019, when a large number of elevators stopped working due partly to wide-area natural disasters, we built the Recovery Support System, which utilizes AI to provide advice and notifications regarding optimal worker deployments. We support first responders' efforts after disasters and help shorten the time for overall recovery.

This initiative garnered acclaim and received a FY2020 (38th) IT Award (customer and business function category)

presented by the Japan Institute of Information Technology (IT Association).

Our systems to ensure customer safety and security will continue to evolve, for example by more thoroughly automating the deployment of maintenance workers during wide-area natural disasters.



We use differently colored icons to indicate elevators in disaster-hit regions on maps and note whether they need to be restored to service. We use digital technology to enable the rapid dispatch of maintenance workers to worksites and regularly update the system in the aim of rapidly restoring elevators.

#### Launch of Elemori Web Service for Building Managers

Elemori is a new web service for building managers that enables the remote monitoring and settings control of elevator and escalator operations anywhere, anytime via PCs and smartphones.

Once a user logs into a special website, they can check operational status and other information, as well as examine and change settings for operation functions. The system can also request maintenance services for elevators and escalators, including remote monitoring, resulting in faster information provision and greater convenience.



Elemori Service Screen Mock Up

#### Introduction of Smart Glasses for Maintenance and Training with Elevators and Escalators

In order to pass along skills and improve productivity, Fujitec has introduced smart glasses (wearable devices in an eyeglass form) for field work maintaining elevators and escalators. Since 2015, with the aim of enhancing training with IT, Fujitec has worked on proof of concepts (PoC) with an eye to introducing smart glasses that allow field engineers to stream video of their work hands-free environment. In the past few years, advances in the functionality of hardware have made it practical to roll out these smart glasses after seven years of R&D.

By using the smart glasses while working in the field, veteran engineers can supervise some on-site maintenance work remotely in a "safety patrol" function. Engineers working on-site wear the smart glasses, and veteran engineers join via video chat from the office to provide real-time guidance. This reduces the amount of travel time for veteran engineers and increases the frequency of safety patrols.

With the rollout of the smart glasses, the Information System Division also provides introductory training and works on solutions for any on-site issues that may arise. Fujitec is steadily instilling DX with its tightly integrated structure that

facilitates collaboration across divisions, and the strengths of the Information System Division that brings in-house work support through IT.



### Corporate Governance Structure



#### Information Security Committee

The Company endeavors to protect information assets by maintaining and improving security. To this end, the Information Security Committee establishes security policies and response standards, and examines and deliberates on the use, handling, and management of information networks, systems, and equipment. The committee also provides guidance and education, and conducts awareness-raising activities based on its considerations and deliberations. Specifically, the committee provides information security education based on examples of security incidents and cyber-attacks from external sources. As part of this education, it sends mock emails to all employees to simulate attacks and engages in other activities to raise security awareness among employees. In addition, we have organized a Computer Security Incident Response Team (CSIRT) under the committee. Taking into account not only IT considerations, but also customer response, compliance, and dealing with the press, the CSIRT communicates security-related information during normal times, investigates incidents, analyzes their causes, conducts recovery operations, and responds to internal and external stakeholders.