DAI-DAN REPORT

DAI-DAN CO., LTD.

Dai-Dan's 115-year History Inspired by Light, Air & Water

As a comprehensive building services engineering and installation provider, Dai-Dan has continued to use its advanced technology to add comfort and vibrancy to interior spaces where people gather. For more than a century, we have been expanding the breadth of our expertise and securing the trust of our customers. At the same time, we are helping to achieve greater harmony with nature.





agoya City Library, Aichi (1923)



Sumitomo General Head Office Building, Osaka (1907)







Nippon Budokan, Tokyo (1964)



Februar

200



Mozo Wonder City, Aichi (2009) tional Airport Control Tower &

Kansai Inte







incorporated

March 1903

October 1933

Founded

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Editorial Policy

Since fiscal 2008, we have been publishing our CSR report as a means of informing our stakeholders of our business operations and CSR initiatives. In fiscal 2014, we renamed this publication the Dai-Dan Report, Compiled as an integrated corporate report, it contains both financial and non-financial data in addition to the conventional content

With this edition of our report, we have included feature articles on our efforts related to net-zero buildings (ZEB) and the field of regenerative medicine. Through these initiatives, we are pursuing continued growth in support of the UN's Sustainable Development Goals (SDGs).

Scope of This Report

Target organization

This report covers the operations of DAI-DAN CO., LTD. All financial information is reported on a consolidated basis.

Period

This report covers the fiscal year spanning April 1, 2017, to March 31, 2018. Some data refers to activities after April 1, 2018

Report Guideline References

Japanese Standards Association "ISO26000:2010" Ministry of the Environment Environmental Reporting Guidelines (2012) GRI Sustainability Reporting Guidelines, 4th edition (G4)

Seeking continuous value creation in order to contribute to a better environment and the development of society



Using our technological expertise to build the future

Since the founding of our company, we have always sought to develop and construct the environments our customers require. We have done this as part of our singular mission to contribute to the development of society through our business, whose scope encompasses the design and installation of building systems.

In fiscal 2016, we formulated a three-year Mid-Term Management Plan that represents our first step towards strengthening our technical foundation and expanding the scope of our business in order to realize the long-term vision we have developed in the lead-up to our company's 120th anniversary. Having implemented a variety of measures, including institutional reforms, to strengthen our engineering capabilities, we have succeeded in achieving favorable profitability in terms of operating income and net sales.

In addition, we have addressed various challenges in our new lines of business that go beyond the traditional scope of building systems, and consequently have begun to announce a steady stream of positive results.

Fiscal 2018 represents the final year of this Mid-Term Management Plan. We have formulated this new plan, titled "Dai-Dan — challenging ourselves and creating the future with our technologies -," as a means of transforming ourselves into a company that creates a variety of environments by incorporating new strategies and measures. However, in addition to representing a milestone in the introduction of this new system, this plan requires that we respond rapidly to changes in the

business environment that accompany rapid technological innovation.

The environments our customers and society as a whole are demanding have evolved significantly over time, and the technologies we are expected to provide have become significantly more sophisticated and specialized. In order to survive in the increasingly competitive business environment that is currently taking shape, we must fully implement the strategies and measures outlined in our current Mid-Term Management Plan.

Contributing to the emergence of a sustainable society

As a company that has earned the trust of society, we provide building systems that contribute to a reduced environmental impact and the efficient use of resources. We also support the objectives of the Sustainable Development Goals adopted by the UN General Assembly in September 2015, while further promoting efforts that fully marshal our strengths as a building services engineering and installation provider to achieve sustainable economic growth and resolve various social issues.

We are currently taking steps to strengthen our ability to propose solutions incorporating advanced technologies by "sending the ZEB¹ message." In order to continue demonstrating and experimenting with ZEB technology, we have constructed a new wing at our Technical Research Laboratory, retrofitted the remaining labs with smart energy technologies, and built enefice

Kyushu, a Smart Energy Lab at our Kyushu Branch; moreover, we have begun to construct "enefice Shikoku" at our Shikoku Branch. We are committed to further developing our expertise in the ZEB technology we have cultivated to date. Our goal is to create next-generation buildings offering improved comfort and efficiency while expanding ZEB technology and formulating a business continuity plan.

As a ZEB Leading Owner² and ZEB Planner³, we propose and provide the optimum environments our customers require from two perspectives: that of the building owner and that of the designer and builder who are implementing ZEB. We continue to take steps to promote the ZEB concept for building systems by adopting energy efficiency and renewable energy. Thus, we are continuing to support the transition to a low-carbon society.

Moreover, to meet the emerging challenge of regenerative medicine, we are promoting R&D through open innovation by making use of existing installation, research and development results in the medical and pharmaceutical fields.

In addition, we are promoting collaboration among various industries by hosting facility tours and information exchange meetings through Cellab Tonomachi, which incorporates a cell processing facility (CPF); promoting technological development; and disseminating information through our associations with various affiliated companies.

In an effort to expand the scope of our new businesses to encompass peripheral industries around regenerative medicine and to increase the accessibility of regenerative medicine, Dai-Dan will continue to promote the development and clinical applications of this field.

1 ZEB (Net-Zero Energy Building) is a state-of-the-art building technology combining photovoltaic power generation with highly energy-efficient designs aiming at a Net-Zero energy balance throughout the year.





Ichiro Fujisawa Representative Director, President DAI-DAN CO I TD

Our employees are our greatest asset.

We believe that people represent our most valuable asset.

Although we are contending with a shortage of engineers and technicians at present, we continue to promote realistic reforms to our company's work style in order to establish a management foundation capable of responding to change.

In addition to enhancing our workplace environment to ease work requirements while improving treatment of non-regular employees, we remain focused on devising work environments and evaluation systems that can respond to varied work requirements and increasingly diverse social environments free from barriers of gender, age, or other factors. We are dedicated to becoming a company that enables employees to fully demonstrate their abilities while experiencing the joy of work.

Working with stakeholders

Throughout our company's 115-year history, we have always supported our stakeholders, who comprise our customers, subcontractors, local communities, employees, and shareholders and other investors

In order to respond to their expectations, we remain focused on further enhancing our corporate value through continued growth while positively addressing issues related to the environment, society, and governance.

We look forward to your ongoing support as Dai-Dan continues to pursue its corporate interests.

² A widely publicized program for registering businesses that are proactive in promoting energy-efficient buildings as "ZEB Leading Owners." 3 The ZEB Planner registration system is a widely publicized program for registering design, installation, and consulting companies as "ZEB Planners" who proactively promote the ZEB concept among building owners.

Dai-Dan's Businesses



Vest Japan Are

(in million ven)

Financial Highlights

Accounting Year					(in million yen)
	FY2013	FY2014	FY2015	FY2016	FY2017
Orders received	127,394	131,633	143,503	144,007	147,335
Net sales	124,445	121,780	138,346	125,253	143,448
Selling, general and administrative expenses	9,966	10,016	10,176	11,038	11,400
Operating income	4,171	4,547	6,537	6,750	7,385
Ordinary income	4,471	4,875	6,770	6,939	7,674
Net income	1,670	2,921	4,248	4,638	5,109
Return on assets (ROA) (%)	4.1	4.3	5.7	5.8	6.1
Return on equity (ROE) (%)	3.7	5.9	7.9	8.3	8.4
Cash flows from operating activities	3,117	2,427	611	5,395	3,320
Cash flows from investing activities	(172)	(401)	(493)	(1,442)	(315)
Cash flows from financing activities	(892)	(2,344)	(894)	(925)	(1,711)
Cash and equivalents at end of period	24,598	24,358	23,536	26,549	27,858

Fiscal Year-End

					(
	FY2013	FY2014	FY2015	FY2016	FY2017
Total assets	111,347	113,440	122,312	118,454	131,326
Net assets	46,609	53,462	54,583	58,004	64,417
Equity capital ratio (%)	41.7	46.9	44.5	48.8	48.9

Fiscal 2017 Orders Received and Net Sales Ratios by Segment



Orders Received/Net Sales (Millions of yen) 143,503 150,000 131,633 127,394 124,445 121,780 120,000 90,000 60,000 30,000 2013 2014 2015



Total Assets/Net Assets/Equity Capital Ratio



Operational Highlights

Non-Financial Data

	FY2013	FY2014	FY2015	FY2016	FY2017
Number of employees (consolidated)	1,472	1,498	1,493	1,505	1,540
Number of workplace accidents	38	36	26	18	36
Frequency rate of workplace accidents ¹	0.536	0.461	0.173	0.190	0.168
Severity rate of workplace accidents ²	0.077	0.021	0.017	0.004	0.024
CO ₂ emissions from offices (tonnes) ³	1,428	1,745	1,618	1,732	1,749









1 Number of workplace accidents per million work hours 2 Number of workdays lost per thousand work hours 3 Beginning in fiscal 2014, the target was changed to reflect the new CO_2 equivalent.

Our Services

Electricity and the electrical equipment through which it flows are the lifeblood of a building. They supply the power to the equipment and services that enable a building to function as intended. Electrical installations encompass high-voltage transformers, distribution panels, and the wiring that supplies electricity to lighting, outlets, pumps and fans and the like.

Electrical installations

Electrical equipment is crucial to a building's energy efficiency and to its capacity to generate and store energy. Dai-Dan provides the equipment required to convert a building to a ZEB, or net-zero building by, for example, reducing power consumption through the installation of LED lighting, generating electricity by installing solar panels, and enabling the energy storage required for the efficient use of electricity generated by the sun.

Dai-Dan's electrical equipment technologies are not limited to energy-efficiency applications; they also extend to diverse areas such as supporting the business continuity plans that take effect during times of disaster.

Air conditioning installations

The temperature, humidity, flow and purity of air are indispensable to maintaining a comfortable interior environment in a building. Air conditioners help to create and maintain this environment. Air conditioners vary from general-purpose types for office buildings to precision models used in semiconductor fabrication plants. At Dai-Dan, we respond to the needs of our customers by

technologies at our Technical Research Laboratory. Our air conditioning systems have been installed in many advanced facilities, including energy-efficient green data centers, hybrid operating rooms, and cell-processing facilities (CPF) required for regenerative medicine.

applying expertise gained through long experience and developing advanced air conditioning

We also can turn to our advanced technologies and vast experience in order to assist customers with planning, design and installation services required for ZEB conversions.

Plumbing installations

Water is a precious resource. Plumbing components are used to supply safe, clean water and facilitate appropriate drainage of wastewater. In addition to providing plumbing installations, we offer plumbing systems that harvest rainwater and reuse wastewater as an important step toward preserving the natural environment.

We also strive to ensure safety and protect our customers' building assets by installing sprinkler systems as well as indoor and outdoor fire hydrant systems, all of which help to reduce the risk of fire.

Renovations

The renovation of building systems enhances their functioning in addition to improving performance and upgrading the interior environment. In addition, renovations enhance the value of the customer's asset while extending its service life and improving the building's energy efficiency. We formulate a renovation plan to meet the various needs of the customer by leveraging our own equipment diagnostic technology developed through the construction expertise we have gained from dealing with building systems through our comprehensive building services business. We provide installations that accommodate existing needs as well as follow-up service to address any issues that might arise.

Overseas operations

Dai-Dan has operations in Singapore and other countries where we provide services to factories and research centers that can fully utilize our expertise.

We have completed a number of contracts overseas, primarily in our field of expertise. We have built cleanrooms and installed energy saving systems that have been very well regarded by our customers.

Dai-Dan provides high quality systems and strives to establish a strong presence in each of the respective countries.

Major Projects Completed in FY2016 and FY2017

Projects completed in FY2017



Agricultural Research Building, Ito Campus, Kyushu University (air conditioning installation)





Building D, Toyama Murata Manufacturing (air conditioning and plumbing installations)

Kurashiki Municipal Hospital, Kojima (air conditioning and plumbing installations

Projects completed in FY2016





Kakogawa City Hospital (air conditioning installation)

Miyota Saku Factory, Citizen Watch Manufacturing (air conditioning and plumbing installations)



CP-B3 Project Kao Odawara Research Laboratories (air conditioning and plumbing installations)



GINZA SIX (electrical installation)





Wakavama Regional Joint Government Building (air conditioning and plumbing installations



JA Niigata Kouseiren Ojiya General Hospital (air conditioning and plumbing installations)



Toyosu Smart Energy Center (electrical and air conditioning installations)

Mid-Term Management Plan Fiscal 2018-2020

Dai-Dan — challenging ourselves and creating the future with our technologies —

Principles



① We maintain focus on our customers as the business environment changes so that we can meet all their needs

2 We operate the business in compliance with all legal and regulatory requirements (3) We ensure that our corporate activities assure the safety and quality of products and services and contribute to environmental preservation (4) We attain our corporate targets by pursuing both our strategies and policies

Vision of 3-year plan for the commemoration of our 120th anniversary

Establish the hopeful and attractive Dai-Dan with

"Aggressive Strength" and "Supportive Strength"

For the year ending

Consolidated

151 billion yen

151 billion yen

8 billion yen

Targeted

Earnings

Orders received

Operating profit

Net sales

March 31, 2021 (Term 92)

Individual

150 billion ven

150 billion ven

8 billion ven





Operating profit ratio: 5.3%



Strengthening sales force

(1) Reinforced skills to respond to customers Promotion of organizational sales activities



Strategy 3 Utilization of capital and financial bases

- (1) Building relationship with stakeholders according to capital policies
- (2) Consideration on investment in growing businesses



Achievement of the sustainable society

- 1) Promotion of environmental management in view of SDGs
- 2 Information disclosure to be evaluated through ESG investment

Dai-Dan's Corporate Social Responsibility

We strive to provide comfort that is friendly to both people and the environment.

Dai-Dan believes that we play our part in the sustainable development of society by delivering safety, security and comfort to people's lives through our building services engineering and installation work. CSR at Dai-Dan is about encouraging each employee to pursue the realization of a better environment and the development of society as they perform their tasks in keeping with the five Action Principles of our Corporate Code of Ethics (p. 35).



Stakeholder Relations

subcontractors and local communities collectively, our stakeholders - are always the focus of any action we take when conducting our corporate activities. We believe that it is imperative that we accurately identify the expectations and requirements of our stakeholders through communication and respond to these needs, in order for us to grow as a company.

shareholders,

Customers,

We therefore hold semiannual briefings on earnings for analysts in addition to communicating with stakeholders by offering tours of our facilities, issuing press releases, and disseminating information through our corporate website.



What We Are Doing to Ensure **Continued Growth** Feature Initiatives Supporting Sustainable Development Goals

In September 2015, the UN General Assembly adopted the Sustainable Development Goals (SDGs) for implementation by the entire international community. Additionally, in November 2017, the Japan Business Federation revised its Charter of Corporate Behavior to encourage companies to contribute to efforts to resolve social issues while pursuing sustainable economic growth.



As a company that has earned the trust of society, Dai-Dan is committed to the development of management with full awareness of the SDGs as a means of contributing to the emergence of a sustainable society. In this feature, we introduce two examples of our efforts in support of the SDGs



Affordable and Clean Energy

Goal 13 Climate Action

In order to contribute to the emergence of a low-carbon society from the perspective of building equipment, we are promoting the development and diffusion of our net-zero buildings by utilizing advanced energy-efficiency technologies and renewable energy.



Contributing to the development and clinical application of regenerative medicine that introduces innovative medical treatments for previously difficult-to-treat diseases. In order to solve this issue. we established a base for open innovation and are promoting technological development and information dissemination through collaboration with various participating businesses

Feature What Dai-Dan Is Doing with ZEB

Our take on ZEB as a building services engineering and installation provider

Buildings account for 20% of all energy consumption in Japan's business sector; therefore, the importance of energy-efficient buildings has returned to the forefront.



As a result of their considerable energy efficiency, our net-zero buildings are renowned as state-of-the-art structures designed to achieve zero net energy consumption annually by generating energy from solar radiation.

13 CLIMATE ACTION E.

Dai-Dan's focus on "smart" technologies



Assessment of enefice Kyushu (Kyushu Branch)

● LEED¹ Platinum Certification

Enefice Kyushu was awarded the highest rating of "platinum" in the category of EBO+M (operation and maintenance of existing buildings) of the LEED certification system. This rating system comprehensively assesses buildings in terms of energy efficiency, water consumption, indoor environment, and other factors.

● BELS³ 5☆

ZEB Ready

BELS



LEED rank: Platinum



At the Sustainable Architecture Awards, which present prizes intended to highlight buildings exhibiting excellent sustainability, enefice Kyushu was highly evaluated for its efforts toward operation improvements and comfort in the usage phase, as well as its remarkable record for reducing environmental impacts and increasing energy efficiency.





- 1 Leadership in Energy and Environmental Design, a green building certification system
- 2 An award sponsored by the Institute for Building Environment and Energy Conservation
- 3 Building-Housing Energy-efficiency Labeling System
- 4 Comprehensive Assessment System for Built Environment Efficiency
- 5 An award sponsored by the Institute of Electrical Installation Engineers of Japan
- 6 An award sponsored by the Japanese Association of Building Mechanical and Electrical Engineers
- 7 A widely publicized program for registering businesses that are proactive in promoting energy-efficient buildings as "ZEB Leading Owners"
- 8 A widely publicized program for registering design, installation, and consulting companies as "ZEB Planners" who proactively promote the ZEB concept among building owners

The knowledge and expertise obtained from construction of the enefice Kyushu ZEB structure inspired the start of construction of enefice Shikoku at the Shikoku Branch of Dai-Dan.

Building on the concept of next-generation building with enhanced comfort and efficiency by refining the ZEB technology we have cultivated to date





Performance of enefice Kyushu

Achieved ZEB requirements



Enefice Shikoku was certified as a ZEB design and earned a BELS 5☆/ZEB rating.

Criteria for determining ZEB standards (quantitative definition)

· ZEB Ready

The energy consumption rate is reduced by at least 50% from the set standard value, excluding energy generated; and is reduced by 50% to less than 75%, including energy generated.

· Nearly ZEB

The energy consumption rate is reduced by at least 50% from the set standard value, excluding energy generated; and is reduced by 75% to less than 100%, including energy generated. ·ZEB

The energy consumption rate is reduced by at least 50% from the set standard value, excluding energy generated; and is reduced by 100% or more, including energy generated.

ZEB Leading Owner⁷



Dai-Dan has been registered as a ZEB Leading Owner, an advanced building owner that has constructed a net-zero building. We contribute to the adoption of ZEB by disseminating information through tours and by encouraging customers to experience the benefits of net-zero construction.

Construction record

Number of ZEB assets

1 unit

Isumed

Energy

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Refinement of ZEB technology

For this project, designs and technologies were adopted that fully expanded on the achievements at enefice Kvushu. In consideration of the post feed-in-tariff system, the structure independently generates renewable energy through power generation equipment and the like.

Improved comfor

In addition to achieving high performance in environmental terms, this building aims to contribute to reforms in work style and wellness (specifically in terms of improved intellectual productivity and better health), improved comfort, and greater occupant satisfaction.

Improved economic efficiency Costs have been reduced by at least 10% compared with the cost of constructing a conventional ZEB facility.



Set standard primary energy consumption

ZEB Planner⁴



Having been registered as a ZEB Planner, we offer potential customers consulting services such as proposal and planning for ZEB conversions as well as design. installation, and operation services.

Planning record ZEB

Others

1 unit 13 units



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Facing Challenges in the Regenerative Medicine Business Refining regenerative medicine into a commonplace medical treatment

Accommodating Open Innovation

Feature 2

"Requirements for the clinical application and popularization of regenerative medicine." presented at the Co-hosted Academic Seminar 21 of the 17th Congress of the Japanese Society for Regenerative Medicine

In Japan, government, research institutes, and private enterprises have been collaborating on the research and clinical application of regenerative medicine. Dai-Dan has undertaken much research and development in the medical and pharmaceutical fields, posting a proven track record in the process. Building upon these technologies, we have entered the field of regenerative medicine, an area requiring knowledge of both medicine and pharmaceuticals.

Making regenerative medicine more familiar and commonplace requires technological innovations and clinical applications from peripheral industries. The industry is facing a current issue regarding the high cost of

providing and maintaining a cell processing facility (CPF), which renders regenerative medicine fairly costly.

We have introduced a CPF incorporating revolutionary concepts that meet the needs of safety, economy, and ease of use; in fact, we developed and validated the technologies that have made this innovation possible. In April 2017, we established our Regenerative Medicine Division, and we have undertaken a variety of initiatives to spark further innovation, with a special focus on Cellab Tonomachi, our open innovation lab, which we opened at the same time.

Initiatives of Cellab Tonomachi

We are able to offer facility tours and information exchange meetings that take advantage of our CPF-equipped open innovation lab. We also ask our users to collaborate in conducting various verification tests.







Address: R407 Life Innovation Center, 3-25-22 Tonomachi, Kawasaki-ku, Kawasaki City, Kanagawa 210-0821 JAPAN Phone: 044-276-5010 Fax: 044-280-0036

Facility tours

For users and individuals from academia and participating businesses, we have conducted about 100 tours of our facilities (inside and outside the company) in which we exchange a variety of information and opinions. We also organize tours for our own employees with a focus on employee training



Information exchange meetings We hold interviews and information exchange meetings with users in order to examine issues related to operation and maintenance control of a CPF.



Open Innovation

We collaborate with participating businesses in order to provide products and services that meet user needs. As our first step, we proposed an innovative CPF with a Smart CP Unit combining programmable culturing equipment and our Air Barrier Booth.

Collaboration with participating businesses



Sharing of Information

We aim to promote the adoption of regenerative medicine by sharing knowledge gained from examination and verification of CPF hardware and software; engaging in exchanges of information and opinions with users; and showcasing CPFs and related equipment at conferences and trade shows.

Conference presentations

We made the following presentations at the 17th Congress of the Japanese Society for Regenerative Medicine.

• Eriko Matsuo et al: Research on clothing specifications and entry methods for a cell processing facility · Mitsuteru Tada et al: Development of a semi-open air barrier booth to reduce

cross-contamination and lower CPF construction costs

Academic seminars

We co-hosted the following seminars at the 59th Annual Meeting of the Japanese Association for Oral Biology.

 Construction and operation of a cell preparation system for use in alveolar bone regeneration medicine Lecture 1

Cell culturing and its processes using a programmable closed circuit cell culture system at a university hospital

Hideaki Kagami, Department of Oral and Maxillofacial Surgery, School of Dentistry, Matsumoto Dental University

Lecture 2

Introduction of air barrier clean booth at a university hospital and its effects

Yu Kogawa, Regenerative Medicine Division, Dai-Dan Co., Ltd.

Verification (of systems, operation and maintenance control, and performance of the CPF

We acquire environmental data during actual use and when the CPF is rented to users performing cell culturing and processing. We verify the performance of the entire CPF as well as each system in addition to conducting operation and maintenance control



Air flow analy



What is a Smart CP Unit?

We have combined our proprietary Air Barrier Booth, which supports clean rooms by providing a high degree of cleanliness, with programmable culturing equipment by Kaneka Corporation and Terumo BCT. Inc. This has resulted in a low-cost. space-saving cell culturing and processing environment with a short construction period.

First Smart CP Unit is shipped Matsumoto Dental University

Hospital adopted a CPF for its Cell/Regenerative Medicine Center.



Configuration example of Smart CP Unit



Presentation

We co-hosted the following seminars at the 17th Congress of the Japanese Society for Regenerative Medicine.

 Co-hosted Academic Seminar 21, Requirements for commercialization and popularization of regenerative medicine

Lecture 1 Retinal regenerative medicine, from theory to practice Masayo Takahashi, Riken Center for Biosystems Dynamics Research (formerly the Center for Developmental Biology) Lecture 2

Developing innovative cell processing facilities for advanced manufacturing

Yoji Sasaki, Regenerative Medicine Division, Dai-Dan Co., Ltd.

Creating the Environments that Meet Customer Requirements with

Dai-Dan's Developmental Technologies

To meet the increasingly diverse needs of our customers and contribute to the emergence of a sustainable society, we employ light, air and water more organically and with greater functionality. With our technological capabilities, we create the environments our customers require.

CO₂ Reduction

- Outdoor air cooling systems
- Dehumidification systems
- Flow Smart

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Engineering

- Ceiling Free
- Barrier Smart Series
- Immunocompromised patient room
- ion-Drop

Longer Equipment Life

- Open Degasifier
- Air filter regeneration technology utilizing supercritical CO₂

Technical Research Laboratory

- Smart buildings based on IoT
- Efforts to improve installation efficiency
- Engineering by thermal flow dynamics





Outdoor air cooling systems

Air conditioning systems that utilize outdoor air as a cooling medium are an innovative way to reduce the energy load of new data centers. The idea here is to cool ICT* equipment by directly drawing outside air into computer rooms during winter and bordering seasons.

We are conducting research and development into air-conditioning that utilizes outdoor-air with the goal of offering a server room environment of even greater stability and energy efficiency.



Dehumidification systems

Manufacturing the lithium-ion batteries used to power electric vehicles and other moisture-sensitive parts requires a room with very dry air (low dew point). The dehumidifiers used to dry the air consume a great deal of energy, so minimizing energy consumption has proven to be a major challenge in this field.

We are making progress toward the

development of an energy-efficient



Flow Smart

dehumidification system.

Flow Smart (a pump flow control system for use with refrigeration units) is used by many types of facilities as an energy-efficiency technology to reduce the energy consumed by the pumps in the air conditioning units.

This system reduces the running cost of equipment by providing inverter control of the pumps for refrigeration units, which conventionally have been operated at a constant speed. It enables a 60% reduction in the energy required to run the pump in refrigeration units.





Bypass airflow control technology developed by Dai-Dan Reduces energy consumption of water and coolant pumps in refrigeration units Highly energy-efficient as demonstrated by strong demand

CO₂ Reduction

Data centers Illustrated view of an outdoor air cooling system Outdoor air/exhaust fan interlock control techno ation control tech

* Information and Communication Technology

lectronic and precision device plants, etc

Factories, hospitals, shopping malls, etc

Illustrated view of the Flow Smart system

Engineering

Ceiling Free

Ceiling Free is an integrated systems package for office buildings that neatly bundles lighting, air conditioning and fire prevention features into an easy-to-install ceiling unit. The lighting design and air conditioning system balances comfort and energy efficiency by taking into account the perceived brightness¹ and by providing an active chilled beam².

- 1 The level of brightness perceived by the occupant from the amount of light entering the eye not only from the desk surface, but also from the entire room
- 2 The air conditioner that incorporates cool and warm water coils

Barrier Smart Series

Biological clean rooms such as Illustrated view of Barrier Smart Series those found in pharmaceutical manufacturing facilities require room air pressure (and air pressure in each individual room) to be closely controlled in order to prevent dust from getting mixed in with the pharmaceuticals, as well as to prevent hazardous materials

from leaking out of the room. The Barrier Smart Series is our proprietary pressure control technology that makes it possible to inhibit the effect of various external disturbances* which could disrupt room air pressure.

* The main causes of changes in chamber pressure are the opening and closing of doors, fluctuations in the outside air pressure, and changes and mode switching of air intake and exhausts.

Immunocompromised patient room Hospitals

These rooms have been designed to protect patients with weakened immune systems due to, for example, hematopoietic stem cell transplant (bone-marrow transplant) or acute leukaemia, from pathogens. We have successfully created sterile environments in rooms that appear almost identical to typical patient rooms. The rooms have been designed with consideration given to comfort for patients and accessibility for healthcare practitioners.

Private hospital room for immunocompromised patients



Dust and other particulate matter that clings to surfaces because of static electricity can degrade manufacturing environments, which can in turn impact product quality and cause any number of other problems. Focusing on the electrical force of ions, we developed technology that prevents particles from adhering by removing the electrostatic charge from surfaces. By blowing ionized air* into target areas, our ion-Drop technology is helping to enhance both the clean factor of manufacturing rooms and the quality of products made there.

* Through ionization, a high voltage is applied to the air to create positive and negative ions, which can eliminate static electricity.

The principle of ion-Drop





Open Degasifier

An open degasifier serves to reduce corrosion in the copper piping of centralized hot water systems." It separates and removes residual chlorine, dissolved oxygen and free carbon dioxide by spraying hot water inside a degasifying tank that connects to the hot water supply pipe. The hot water spray magnifies the surface area that is in contact with the air, which enhances the efficiency of separation.

* Hot water systems equipped with a return pipe and supply circulating pump



Air filter regeneration technology utilizing supercritical CO₂

Manufacturing plants use air filters to adsorb VOC and other airborne substances, but end up discarding the used filters in droves. Dai-Dan has developed and successfully implemented a regeneration technology intended to reduce this environmental load.

We have developed a recycling business that uses supercritical CO₂^{*} to wash and regenerate these air filters before returning them to customers.

* CO2 at a temperature (31.1°C) and pressure (7.4 MPa) above the critical points that behaves as a fluid exhibiting both the diffusibility of gas and solubility of a liquid.

ARAPAC

The manufacturing processes at bread factories, flour mills, and other food processing plants result in large amounts of powders becoming scattered and dispersed in the air, which then end up adhering to the inside of air conditioning equipment. Powder adhering to heat exchange coils can cause such problems as reduced air conditioning function, early equipment wear, and mold. Accordingly, it is necessary to clean these coils frequently, requiring extra time and work from customers.

We developed ARAPAC, a package air conditioner able to clean its own coils automatically, extending equipment life and reducing customer burden.









ion-Drop Pharmaceutical plants, research labs, etc.

Office buildings, etc

n-n

level of pressure in the chamber.

Illustrated view of Ceiling Free installation

Pharmaceutical plants, research labs, etc.

Longer Equipment Life



ARAPAC vs. Conventional air conditioners

Food processing plants

Technical Research Laboratory

At Dai-Dan, research and development activities are organized and managed on the following three pillar concepts in order that the "controlled environments we offer are friendly to people, things and the planet."

Basic research to ensure quality

In our basic research operations, we obviously develop technologies for making buildings comfortable and energy efficient, but we also research measures against noise, vibrations and pipe corrosion, conduct preinstallation studies using thermal fluid dynamics, and perform duct and piping tests using mockups.

Technological development that offers customers new value

Our development work is promoted to offer growth areas such as the pharmaceutical and medical care field, electronic devices industry and green products and services market technologies for reducing environmental load, efficiently controlling indoor spaces and more in a timely manner.

Innovation that reaches beyond the building systems industry

We collaborate with universities and businesses from other industries to develop and apply new technologies. A good example of a cooperative project that has been loudly applauded both in Japan and abroad is the air filter cleaning business that we created through joint research with academia and government into regeneration technology using supercritical CO₂.



erial view of our Technical Research Laboratory in Mivosh



Outside view of the new wind



Research into biophilic design



Entrance to the new wing



Supercritical CO₂ plant

Smart buildings based on IoT

Comfortable and healthy work environments are looked at today as an effective pathway to improving productivity, but because the way people perceive comfort differs from person to person, we are working on new automatic systems so that each person can control comfort to their liking. In one such case, we successfully developed the industry's first cloud-based system for directly controlling building systems and are currently conducting verification tests for an eventual roll-out in cohort with IT solution innovator Information Services International-Dentsu, Ltd. We are also working on AI with a goal of creating wellness offices and enhancing convenience in the future.

Efforts to improve installation efficiency

To improve installation productivity without sacrificing quality, we are promoting research and development into using ICT to increase work efficiency. As a part of that, we developed technology for automatically verifying work progress and quality by recording the situation at a project site via a lightweight wearable camera and analyzing the images with AI. Moreover, we are utilizing BIM* and VR (Virtual Reality) to quickly gain approval of concerned persons and improve the productivity and quality of our work. These efforts to improve installation efficiency are helping us to innovate how work is done and make job sites more interesting.

* Building Information Modeling. A computer system for managing projects that includes parts and materials selection, work planning and pricing in addition to building design and structural calculations. By centrally managing all of the information regarding a building project, the architect, builder and owner can communicate more effectively and work can proceed more efficiently

Engineering by thermal flow dynamics

One of the most important components of any air conditioning job is to ensure the adequacy of designs and installation quality. Whether a typical office building, industrial plant or some other environment that requires high-tech engineering, we use thermal flow dynamics for verifications in order to provide the customer with the best possible climate-controlled space.







Exceeding customer expectations with knowledge, experience and action

Dai-Dan's Practical Competence

Every building system we deal with is unique and different, which requires us to employ flexibility and creativity when challenged to accommodate a variety of building structures, usage patterns and customer needs.
As a building services engineering and installation provider, we are committed to exceeding the expectations of our customers by applying the knowledge and experience we have gained throughout our history. Moreover, since our establishment, we have exhibited the ability to provide design solutions and installation expertise with inherent skill.
This is Dai-Dan's practical competence in the field.

Introducing Our Installations



Hotel Dream Gate Maihama Annex



The University of Tokyo General Library Annex



Kobe Eye Center

Enhancing Our Installation Expertise and Ability to Provide Design Solutions

Continuously Improving Health and Safety Initiatives with the Goal of Eradicating Industrial Accidents

Application of the Meister Program and Establishment of Partnerships with Our Subcontractors across Japan



Hotel Dream Gate Maihama Annex BIM used in design and site management

Owned by the East Japan Railway Company and Nippon Hotel Co., Ltd., the Hotel Dream Gate Maihama Annex is an urban resort for families and groups, directly connected to Maihama Station (actually located underneath the tracks) — the gateway to Tokyo Disney Resort, hence the name. The hotel was built by Takenaka Corporation. We installed the air conditioning and plumbing systems. Because the building itself is underneath the railway tracks, there were obviously height restrictions, so we anticipated installation constraints. Therefore, we used BIM from the design stage to know in exact detail how much space we were working with.

Building outline

Type of project	Air conditioning and plumbing installations
Location	Urayasu City, Chiba Prefecture
Gross floor area	Approx. 3,660 m ² (2 stories aboveground)
Building use	Hotel (80 rooms)
Completed	October 31, 2017

Use of BIM in the design stage

- Building and equipment details were verified in the design stage, which reduced the number of verifications that had to be done at the site.
- Over 90% of the steel sleeves were included in drawings for steel orders.



Duct routing verification by BIM



Use of BIM in the installation stage

- Drafting work was shortened because designs did not have to be converted into installation drawings.
- Dangerous lifting work had to be done at night because equipment had to cross the bridge. The work deck and transport route were studied in 3D to find the safest and most economically advantageous approach.



Equipment transport plan/instructions

VOICE Straight from the frontline

We went to great lengths repeatedly reworking the details, but we learned how to use BIM. Seeing how it reduces



labor, I hope we will introduce new BIM methods in the future so that we can apply those benefits across entire projects from design to calculations and installation.

Shun Harada Chief of Design Section 2, Design Department, Tokyo Head Office



The University of Tokyo General Library Annex

Mildew prevention for automated stack-rooms

The University of Tokyo is moving ahead with a new learning center that includes a new annex underneath the plaza in front of the main library and completely renovated interiors behind the library's traditional facade. The project itself entails building automated stack-rooms and a plaza underground with underground connections to the existing library. The books in the new stack-rooms must endure the underground environment for long periods of time, which makes mildew a concern because of the moisture contained in concrete. Under commission from Shimizu Corporation, we installed the air conditioning and plumbing, and took measures against mildew.





Illustrated view of plan (Source: Website of The University of Tokyo Foundation)

Building outline

Type of project Air conditioning and plumbing installation				
Location	Bunkyo-ku, Tokyo Prefecture			
Gross floor area	Approx. 5,700 m ²			
Building use	Automated stack-rooms for university library Level B1: Library Plaza Levels B2 – B4: Automated stack-rooms			
Completed	May 31, 2017			

Mildew prevention

- (1) Automated stack-rooms (Capacity: 3 million books) The number of air vents was determined by design simulation. Each floor Air blow outlets Air intakes 25 (Upper part of book shelves) 45 (15 rows at 3 heights along walls)
- (2) Pit (Buffer zone around automated stacks)
- Humidifier capacity and air blow outlet locations were verified from mildew proliferation simulations (blue area in the illustration) during installation.



West exterior wall

South exterior wall

(3) Library Plaza

We adopted for the project the Clean Humidification Element Passing Air System (Chepas) we developed. By continuously supplying slightly acidic electrolyzed water to the air conditioner, the system kills bacteria in the evaporative humidifier and drain pan below it.



Clean Humidification Element Passing Air System (Chepas)

VOICE Straight from the frontline

This project was special in that the automated stack-rooms were built underground, so temperature and humidity control were the main features of the air conditioning system. With the help of the Technical Research Lab, we



verified and proposed mildew prevention measures that were important for the stack-rooms, which were adopted for the project and installed without a hitch.

Satoshi Inoue Project Master of Engineering Section 1, Engineering Department 4, Tokyo Head Office



Kobe Eye Center Air conditioning and plumbing installations for new construction

The Kobe Eye Center was built to provide total ophthalmological support from basic research to clinical application, treatment, rehabilitation and job support including the world's first clinical trials in retinal treatment using iPS cells. It is a state-of-the-art facility that operates as a tightly coordinated research institute, cell processing center, hospital and low-vision care center. It was built by Maywa Komuten, Ltd. We installed the air conditioning and plumbing.

Building outline

Type of project	Air conditioning and plumbing installations
Location	Kobe City, Hyogo Prefecture
Gross floor area	Approx. 8,787.66 m ² (7 stories aboveground)
Building use	Hospital, research institute, cell culture facility
Completed	March 31, 2018

Equipment

(1) Heat source and air conditioning equipment

Heat source: Standalone heat pump chiller Cooling capacity: 2,450 kW AC:

Packaged building air-conditioner







(2) Sanitation system

Water supply:

Separate pumping systems for tap water and recycled water (for miscellaneous use)

Hot water supply:

Central hot water system (water heater) + Standalone hot water system Drainage: Wastewater, non-fecal drainage, rainwater Fire-fighting:

Sprinkler fire extinguishing system, foam fire extinguishing system, connected water supply system, point-specific automatic fire extinguishers for hoods, etc.

Medical gas:

Oxygen, treatment air, suction, nitrogen, service air for other uses than treatment

Specialty gases: Carbonic acid (piping only)

VOICE User's story

The Kobe Eye Center provides the kind of treatment you would expect from a central hospital, but also because we link research with treatment and treatment with welfare services, we provide patients with a variety of solutions that improve their quality of life.

Masayo Takahashi

Project Leader, RIKEN Center for Biosystems Dynamics Research Research Center Director, Kobe City Eye Hospital

VOICE Straight from the frontline

Because this was to be a state-of-the-art facility in the field of regenerative medicine, the project drew attention within and outside the company. As a building where you find

medical treatment, research and welfare services, you can expect not only a comfortable environment but also the best environment.

Koki Kaiden

Project Master of Engineering Section 1, Engineering Department 3, Osaka Head Office



Enhancing Our Installation Expertise and Ability to Provide Design Solutions

Sharing and utilizing the enhanced value generated by our on-site expertise

Case study presentations for sharing expertise and integrity throughout Dai-Dan

We held our "10th Case Study Presentations" in November 2017. This event gives our employees an opportunity to present the achievements they have made through expertise and integrity in the course of their day-to-day work. Awards are also presented. A video conferencing system is used so that employees across the country can participate. We also use a web conferencing system to broadcast the presentation live to employees.

Some 161 entries were submitted this year from across the country and covered a wide variety of content including one case where operational efficiency improvements led to lower costs and a report on the experiences gained from a very challenging project to establish advanced equipment technologies. From these entries, one was selected for the Chairman's Award, two

for the President's Award, two for the Head of Technical Construction Division Award, five for the Outstanding Performance Award, 10 for the Good Effort Award and seven for the Encouragement Award, totaling 27 awards in all (20 group awards and seven individual). The winners were recognized with their awards and presented their case studies. The Chairman's Award — the highest honor — went to the Tokyo Head Office for their "Mildew Prevention Measures for a University Library."

By taking lessons and ideas presented through the case studies at the presentations and bringing these remarkable achievements into our offices and work sites to share and utilize them in in-house education, we are contributing to the further enhancement of Dai-Dan's technical capabilities, safety, and quality.



VOICE Comment from the winner of the Chairman's Award



It is truly an honor to have been chosen for the Chairman's Award from amongst the numerous examples of design and installation achievements, proposals and improvements submitted from across the country.

The project we presented began with a national university wanting to store books from their library underground for long periods of time in automated stacks. We were asked to build an air conditioning system that would keep mildew from growing over the mid- to long-term, so we ran simulations of the air flows, temperatures and humidities, and proposed preventative measures. Our proposal, which was adopted, included using the Clean Humidification Element Passing Air System "Chepas" we developed to condition the outside air. To meet the customer's request, our Technical Development Group teamed up with other business units of ours to come up with a workable solution, which the customer rated highly and eventually contributed to our winning the Chairman's Award.

As Dai-Dan engineers, this honor has encouraged us to carefully listen to future customer requests, better understand the technical issues at hand and provide the best engineering solution possible

Satoshi Inoue

Project Master of Engineering Section 1, Engineering Department 4, Tokyo Head Office

Publication of the DAI-DAN Technical Current News

With the objective of publicizing the technology we develop and our research initiatives, we publish the DAI-DAN Technical Current News every September. The publication gives comprehensive explanations of experiments, assessment methods and analysis results using charts and images. The 112th edition was published in September 2018. Copies of these publications are donated to the National Diet Library.

Feature articles

- Introduction to research into regenerative medicine at Dai-Dan
- Performance results of regenerated VOC adsorbent
- · Research into highly controllable humidification by drip osmotic evaporation
- enefice Kyushu evaluation report 3
- cloud control

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Technical Reports

Our engineering prowess has been underscored by the various efforts, hardships, failures and successes in our design rooms and job sites. So that these personal experiences translate into corporate assets and technologies, we report them within the company as essays in our "Technical Reports." The most recent edition includes detailed reports of the top 3 winning presentations from our Case Study Presentations and 17 completed projects that were selected from our offices across the country. Besides reports about industrial and medical facilities that speak to our efforts to establish advanced equipment technologies, the journal introduces BIM, 3D scanners, renewable energy, unit construction methods and other examples of the advances coming out of Dai-Dan.

New Information Hour

The New Information Hour is held as a part of the workshops primarily for engineering employees with the aim of giving them fundamental knowledge in the fields of hospitals, pharmaceutical plants, device plants, ZEB and energy-savings as well as ZEB and electricity where our advanced technologies play a significant role.

Eight years have passed since the Hour was first started, with 188 sessions being held and a total of 14,638 people participating. Theme selection and instruction is provided by the Technical Development Group and Technical Construction Group.

Moreover, for those who cannot attend the session, we are increasing the opportunities for self-study by creating videos for cloud services.

Training engineers and passing on skills applicable to work in the field

An innovative human resource system for appropriate appraisal of field specialist engineers

Since 2014, we have been using a personnel system that allows us to correctly evaluate and promote job site engineers. The positions open to job site engineers are Grand Project Master (GPM), Project Master (PM) and Technical Master (TM). Our thoughts here are that, by

- Corrosion mechanisms and countermeasures in heat exchanger copper tubing for multiple-tank hot water heaters
- Introduction to recording and reporting tools that improve installation efficiency
- Working verification of building systems operated by IoT and
- Verification of condensation prevention of double-layered duct



DAI-DAN

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properly evaluating engineers for their skills and attitude, we can increase their motivation, which will allow us to raise our technical prowess as a company and attract more engineers.

Continuously Improving Health and Safety Initiatives with the Goal of Eradicating Industrial Accidents

Our Policies for Health and Safety

— Health and Safety Philosophy –

"Ensuring Health and Safety" is our obligation to all the employees of our companies, their families and the society. Dai-Dan views the "health" and "safety" of all persons working for the company as a top priority. All employees from top management down are expected to cooperate towards improving productivity, building a motivating workplace environment, and earning and maintaining the trust of society.

– Action Statements –

• We shall utilize "Health and Safety Management Systems" to eradicate all industrial accidents. We shall endeavor to eliminate risk and hazards in all work activities, and continuously improve and enhance the health and safety of our workplace.

In compliance with workplace safety and health-related laws including our company's internal health and safety management systems regulations, we shall enhance health and safety standard of our employees and executives, preserve and improve their health, and create comfortable rewarding workplaces.

(6) We shall regularly communicate with subcontractors and encourage them to launch and promote self-directed health and safety activities with clear role assignments.

3 We shall educate all people working for Dai-Dan in our policies for health and safety and also disclose them to the public.



Initiatives for fiscal 2017

Targets ______ Elimination of accidents involving falls Reduction of long working hours

Target values Frequency rate: No more than 0.300 Severity rate: No more than 0.020

- Priority items -

Compliance with rules and code of conduct when working at height
Keeping track of working hours and encouraging employees to take holidays
Implementation of tool box meetings, the practice of "finger-pointing

and calling" for each worker and "awareness activities"

In fiscal 2017, there were 36 work related accidents at Dai-Dan, which is much higher than the 18 accidents reported the previous year. This put the frequency rate at 0.168 and the severity rate at 0.024, so we missed our numerical targets. There were also multiple fall-related accidents, which had been raised as an important target in management plans, so serious accidents did not decline as hoped.

Looking at accident trends on a monthly basis, the bulk of them concentrated in the first half of the fiscal year when the work environment is traditionally bad, but an increase was seen in the latter half of the fiscal year. Construction work being busy is



cause, but work is expected to only get busier this fiscal year, so the risk of an accident will only get greater. We will, therefore, continue to impart safety guidance and call for attention.

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2018 Industrial Injury Prevention Rally, Tokyo

As for those involved in accidents, there was an increase in supervisors including some Dai-Dan employees. Accidents involving inexperienced personnel stand out in particular, therefore we want to add more safety education to our training curriculum, especially for new recruits, and make sure that training is implemented.

In fiscal 2018, we are raising the below initiatives across the company to improve our safety performance.

- (1) Compliance with rules and code of conduct when working
- ② Keeping track of working hours and encouraging employees to take holidays

Application of the Meister Program and Establishment of Partnerships with Our Subcontractors across Japan

Maintaining quality assurance through strong partnerships with our subcontractors

Dai-Dan Meister Program

We have been offering our Dai-Dan Meister Program since 2011 in order to improve job safety, efficiency and quality, by providing a system for fairly evaluating and rewarding foremen from our subcontractors so that they can secure skilled human resources.

Within the program, financial aid for high-level certifications is given to test candidates to offset the associated costs and financial incentives are paid to Meisters and Excellent Foremen for the work they do at job sites of ours, as a way of developing more Excellent Foremen and High-Level Foremen, in addition to Meisters.

In July 2018, awards were presented to 92 certified foremen from 54 companies and cash rewards were presented to 138 Meisters and Excellent Foremen.

Meister Award Ceremony

The 7th Meister Award Ceremony was held in December 2017. 842 foremen serving at Dai-Dan sites were designated High-level Foremen, 27 of whom were named Excellent Foremen. Furthermore, the four best foremen were certified as Meisters.

A total of 32 Meisters have been certified to date, with 11 electrical workers, 11 plumbers, five duct installers, two refrigerant pipers, and three insulation workers by trade.



Meister Award Ceremon

VOICE Comment from a Meister

It is a great honor to have been certified as a Dai-Dan Meister last December, but the title also brings a lot of responsibility with it.

A few of the things I do everyday at the job site are to grasp the abilities of every one working, make sure that, as a team, everyone goes about work safely and that job site rules are observed, and to carefully manage quality.

Communication is a vital part of that. That includes creating an atmosphere where it is easy to open up by taking with everyone, young and old, as well as interacting with people doing other work in order to understand problems and work progress in real time, adjust installation methods, offer advice and so forth.

Before, I coordinated job site schedules between project leaders and foremen, checked the installation drawings against customer demands and procured materials as a Registered Essential Technician. But, now, as a Dai-Dan Meister, I go to the job site more determined and defiant to get the job done right, so I place a lot of



importance on teaching the younger workers who will shoulder the next generation and making sure that new materials and tools are used safely and efficiently.

Tomonari Mihara Daidenkouji Co., Ltd.

Dai-Dan's network of subcontractors

In the building installation services industry, the availability of human resources varies greatly from region to region, to the degree that labor pools can be considered unstable. Moreover, many of the available workers are getting older and retiring, which is making the labor shortage even worse.

In order to maintain flexibility in our installation schedules under these circumstances, we built a nationwide network of subcontractors that extends beyond the purview of individual offices. Through this network, we can send workers from around the country to offices where labor shortages are anticipated. We are effectively using this network to ensure every job site has the workers it needs and, by promoting interaction between subcontractors, we are creating in the process more opportunities for subcontractors to improve their skills. Moreover, the network helps us to safely provide customers with high quality building systems.

FY2017 CSR/ESG Performance and FY2018 Targets In order to enable continuous improvement of our CSR activities, we set targets for each fiscal year and complete the PDCA cycle

accordingly.

In this report, the FY2017 performance and the FY2018 targets are summarized according to the seven core themes of ISO 26000*. The information is also organized into ESG (Environmental, Social and Governance) categories.

	Theme	Items	Target/Task	FY2017 performance		Self evaluation	FY2018 targets
e (G)	Firm	Corporate governance	Build and maintain a system to ensure ethical execution of operations	 Manager on Dai-D Corporat Proactive 	nent conducted reasonably and efficiently based an's Corporate Governance Guidelines e law internal control system functioned appropriately ely disclosed information at the appropriate time	۲	Strengthen corporate governance to meet changes in social trends
vernance	Fair and Transparent Business Practices	Compliance	Strengthen the compliance system (compliance with the Antimonopoly Act and other relevant laws and regulations) and promote sound corporate management	 Group tra to familia with laws Publishe awarene 	aining sessions, briefings, and seminars were held irize attendees with the importance of compliance s and regulations d issue No. 19 of Compliance News to raise ss	۲	Perform ongoing awareness-raising activities regarding compliance and ensure our business activities comply with the Antimonopoly Act and other relevant laws and regulations
ğ		Risk management	Periodically review and revise the business continuity plan (BCP)	 Emerger Safety cl at four c 	cy drills were conducted neck system extended to include subcontractors f 11 offices in Japan		Conduct emergency drills Consider extending the safety check system to include subcontractors in the office
	ALC: NO.						
tal (E)				Solution proposal Planning Designing	Number of solutions that leverage Dai-Dan technology adopted CO ₂ emission reduction through design solutions CO ₂ emission reduction through adopted solutions	Ø	
Environment	Environmental Contribution	onmental ribution Environmental conservation initiatives	Achieve environmental management system plan targets * Refer to page 37 for FY2017 environmental targets and results.	Installation	Promoted sustainable procurement Promoted sorting and recycling of industrial waste Removed thermal insulation of drainpipes	۲	Achieve environmental management system plan targets * Refer to page 37 for FY2018 environmental targets.
				Office initiatives	Reduced the energy consumption Reduced the use of photocopy paper Introduced hybrid vehicles	R	
	Meeting Customer	Quality improvement initiatives	Achieve quality management system plan targets	Improve Reduced	d customer satisfaction quality issues	۲	Achieve quality management system plan targets
	Expectations	Initiatives with subcontractors	Continue the activities of the sectional committee	Implemented the activities of the sectional committee		۲	Continue the activities of the previous fiscal year
		"People" are our	Check and review the effectiveness of the Dai-Dan Mentor System	Monitored individual circumstances through additional interviews with each mentor.		۲	Continue the activities of the previous fiscal year
		greatest asset	Strengthen technical expertise	Improved training se	technical expertise through major reviews of ssion plans		Continue to strengthen technical expertise
	Valuing Our	Respect for human rights and individuality	Continue initiatives to raise awareness of human rights	Raised aw	rareness through new employee training session		Continue initiatives to raise awareness of human rights
(S)	Employees	mployees Work-life balance and	Work at the reference in initiations	Conduct Reviewe Conduct	 Conducted mental health seminars Reviewed childcare leave and reduced work hour systems Conducted stress checks for all employees 		Continue the activities of the previous fiscal year
Socia		the work environment	work style reformation initiatives	 Percenta a physici Percenta 	ge of persons working long hours who saw an (93.8%) ge of persons working long hours (0.31%)	Ø	Correct issues that cause long working hours
	Meeting Local Expectations	Dissemination of technical information to external parties	Contribution to the construction industry	 Delivered the Instit Delivered Air-Cond 	I three lectures at the nationwide meeting of ute of Electrical Installation Engineers of Japan I 14 lectures at meetings of the Society of Heating, litioning and Sanitary Engineers of Japan	۲	Continue the activities of the previous fiscal year
	·	Social contribution activities	Targeted number of activities: more than 440	Dai-Dan's 447 activit	offices across Japan voluntarily conducted ies	۲	Continue the activities of the previous fiscal year
		Sharing of technical information	Share information obtained at workshops	Held the Case Study Presentations		9	Continue the activities of the previous fiscal year Continue the activities of the previous fiscal year
	Dai-Dan's Practical Competence	Workplace health and safety management	Achieve workplace health and safety management system plan targets	Work-rel fiscal yea Safety re	ated accidents increased relative to the previous ar sults (frequency and severity rates)		Achieve workplace health and safety management system plan targets
		Partnerships with subcontractors	Ensure the Dai-Dan Meister System is implemented	Held the 7	th annual Dai-Dan Meister Award Ceremony	e	Improve and entrench the Dai-Dan Meister System



Fair and Transparent Business Practices

In order to ensure the sustainable creation of corporate value, we seek to improve and strengthen our corporate governance system in a sustainable manner. In addition, our executive officers and other employees uphold the highest ethical standards when conducting business.



Corporate Governance

Our approach to corporate governance

As a building services engineering and installation provider, we are committed to the management principles of always taking on the challenge of creating value for our customers while contributing to the development of a better environment and stronger communities. In justifying the trust placed in us by all stakeholders including shareholders, customers, business partners, employees, and local communities, we remain focused on continuously enhancing our corporate governance in order to maintain effective management practices. Our basic policy on corporate governance is as follows. • Ensure the rights and equality of shareholders

- To ensure transparency, fairness, speed, and decisive decision making, the Board of Directors will carry out its functions appropriately and efficiently
- Endeavor to disclose information appropriately and hold constructive dialogues with shareholders
- Work appropriately with stakeholders other than shareholders

Dai-Dan's Corporate Governance Guidelines

We have established the Dai-Dan Corporate Governance Guidelines, a policy that systematically expresses our views concerning such matters as the protection of shareholders' rights, running the Board of Directors, dialogue with shareholders, and issues relating to social and environmental problems and other sustainability issues. We will continue taking measures to strengthen and improve corporate governance to make it more effective.

Our corporate governance system

The objective of Dai-Dan's corporate governance system is to ensure appropriate and efficient management by maintaining discrete decision-making, oversight, and administrative functions, thereby enabling swift and appropriate deliberation and implementation of decisions. We adopted a corporate auditor system and effectively utilizes the following managerial structure.

Board of Directors

The Board of Directors comprises 10 directors, two of which are external directors. It convenes monthly and holds special meetings as necessary. In addition to overseeing business operations, the board deliberates on important matters related to corporate management, including subjects discussed in Executive Committee meetings. The articles of incorporation of Dai-Dan provide that the Board of Directors should consist of 12 people or less.

Board of Auditors

The Board of Auditors comprises four auditors (two of whom are external auditors). In principle, they meet prior to Board of Directors meetings. They thoroughly examine the issues discussed at Board of Directors meetings, attend the meetings in person, and contribute their views as necessary.

According to the audit policy and audit plan established by the Board of Auditors, the auditors monitor the directors' fulfillment of their duties by conducting audits of offices in cooperation with accounting auditors. Their responsibilities include attendance at Board of Directors meetings and other important gatherings as well as reading of important documents requiring approval.



Executive Committee meetings are held when necessary. The committee comprises regular members who are appointed by the Board of Directors and temporary members selected according to the subject of the agenda. The committee develops management policies and other policies for Dai-Dan and its group subsidiaries, and extensively examine the progress of goal achievement. In addition, the committee members discuss important matters concerning management strategy and management of the company itself. The committee then makes recommendations to the Board of Directors as needed.

Corporate Officers' Committee

The Corporate Officers' Committee, in principle, meets once a month. The committee members meet to discuss management policies, important operational policies and decisions made by the Board of Directors. The committee members also report on work carried out by corporate officers.

Corporate governance system



Internal control system

We have developed an internal control system that focuses on the improvement of internal rules. This is intended to ensure compliance across our entire company and subsidiaries and includes the execution of tasks by directors in compliance with laws and the articles of incorporation as well as appropriate performance of all tasks. In addition, we confirm the operational status of the company's internal control system each fiscal year and report our findings to our Board of Directors while continuing to revise and improve this system in order to improve efficiency and legal compliance.

General Managers' Meeting

General Managers' Meetings are, in principle, held once a month to ensure that tasks are being executed in an integrated manner. Management policies and measures are explained, and the state of business operation of each office and their respective issues are discussed, and prompt solutions sought.

Internal control system for financial reporting

In April 2008, we implemented an internal control system for financial reporting under the Financial Instruments and Exchange Act. The Internal Audit Office under the president examines and assesses the effectiveness of the system.

The fiscal 2017 assessment concluded that, as of the end of fiscal 2017, our internal control system for financial reporting is effective. An independent auditor also provided a similar opinion.

Compliance (Legal Compliance and Corporate Ethics)

Corporate Code of Ethics

We have developed five Action Principles and 14 Action Standards to guide our executives' and other employees' compliance with laws and regulations and support their demonstration of good social conscience. The Action Principles summarize the concepts to be kept top of mind during the performance of day-to-day tasks.

Action Standards

Excerpt from our Corporate Code of Ethics Our Action Standards serve as practical guidelines to the Action Principles on which they are based.

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Action Principles

- 1. Observe laws and social norms and conduct business activities in a sensible manner
- 2. Participate in the building of a society that can sustain its
- development. 3. Respect the fundamental human rights of all.
- 4. Maintain a fair and transparent relationship with
- stakeholders
- 5. Recognize our place in society and strive to contribute to the emergence of a better society.
- customers and users 2. Ensure safety and quality 3. Ensure fair and open competition 4. Engage in ethical business transactions . Fairly disclose corporate information

6. Ethically manage critical information

Protect and respect intellectual property

- 1. Maintain positive relationships with 8. Improve working conditions and work environments 9. Respect human rights and individuality 10. Address environmental issues
 - 11. Practice proper accounting and tax payment
 - 12. Maintain sound relationships with politicians and
 - the aovernment 13. Eliminate any dealings with antisocial forces
 - Avoid engaging in self-serving actions

The whistleblowing system and consultation system

Dai-Dan has established a whistleblowing system and consultation system with the purpose of swiftly identifying issues in the workplace, which are otherwise difficult to identify (behavior or actions that contravene laws, internal regulations or social ethics). We have implemented this by establishing a reporting route independent from the operational chain of command. Reports can be made internally through these systems, but they can also be made externally via our corporate solicitors.

Any individuals that file a report are guaranteed by the Corporate Code of Ethics that they will not be subjected to any unfair treatment. Reports can also be submitted anonymously to ensure the privacy of the whistleblower.



The Compliance Committee Secretariat acts as an internal point of contact

Compliance Committee

The Compliance Committee was established to ensure compliance with laws and internal regulations, and to strengthen fair and ethical company operations with strong compliance. The committee is chaired by the president, and is responsible for boosting executives' and other employees' compliance awareness, receiving and investigating reports of violations, and developing preventive measures. During fiscal 2017, the committee met on two occasions.

A system to ensure thorough, fair and appropriate business operations

Dai-Dan has strengthened its compliance promotion system with the recognition that "managing the company in conformity with the spirit of compliance" is part of our management foundation. We continue to improve awareness of compliance while ensuring thorough business operations in accordance with relevant laws and regulations.

Compliance Office

The Compliance Office is under the direct control of the chairman while ensuring it remains independent from the headquarters and offices. This office collaborates with the Compliance Committee in planning, drafting, and implementation to help ensure that our business activities comply with the Antimonopoly Act and other relevant laws and regulations.

In cooperation with the Internal Audit Office, this office continues to monitor the compliance activities in our offices.

Legal Compliance Support Committee

The Legal Compliance Support Committee is a professional organization supporting the Compliance Office. The Committee is composed of external experts and provides expert advice applicable to the initiatives carried out by the Compliance Office. It also holds seminars on legal compliance and conducts awareness-raising activities for all our offices.

Risk Management

Risk Management Regulations

Dai-Dan carries out risk management to prepare for potential risks such as natural disasters, the leaking of confidential information, or other incidents that could damage the company. We take measures to prevent damage from occurring associated with such risk, and in the event that an identified risk becomes reality, risk management regulations are in place to keep damages to a minimum and to try to prevent a reoccurrence through prompt response.

Initiatives to strengthen information security

The Information System User's Guidelines are available to employees and executives on the corporate intranet, providing cautions regarding the use of electronic equipment in everyday work.

Information security training is conducted via e-learning, and drills are conducted on how to handle targeted e-mail attacks to increase information security awareness and prevent the occurrence of accidents such as information leaks

To enhance information security in the field, we issue our Security Handbook not only to our employees but also to our subcontractors' staff.

Business Continuity Planning (BCP)

The Dai-Dan Co., Ltd. Business Continuity Plan was set up with several objectives - in the event of a major disaster it aims to preclude confusion, facilitate securing the safety of employees and executives and their families, mitigate damages, and expedite prompt support for customers to maintain the trust of society. The content of the plan is continuously reviewed and improved. We also carry out ongoing business continuity activities during normal times in preparation for disasters, such as preparing a chain of command for a disaster situation, and conducting drills and training.

Emergency drills under our business continuity plan

In September 2018, Dai-Dan completed an emergency drill in keeping with our business continuity plan (BCP) at all our workplaces throughout Japan. By following the action manual (specifying initial response) for each office, which outlines the delegation of roles, we completed an earthquake drill that included first aid, evacuation, safety check, posting of emergency stockpiles, and verification of our satellite-phone-based communications system. At the same time, we incorporated the lessons learned in previous years' drills.

We will continue to conduct drills and improve the chain of command required in a disaster during normal times. This is intended to support two priorities: ensuring the safety of executives, employees, and their families; and providing customer support in an earthquake or other large-scale disaster. We continue to promote employee awareness by providing training and drills and improve the effectiveness of our BCP.



First aid lesson

Implementation Date e-learning January 2018 Drill on how to handle targeted August 2018 e-mail attacks



Fire extinguishing drill

Environmental Contribution

We believe it is our mission to contribute to the emergence of a society committed to global environmental sustainability.



Environmental Conservation Initiatives

Our environmental stance

We can best contribute to the emergence of a society committed to global environmental sustainability by providing building systems and services with low environmental impact; therefore, we promote the adoption of these systems by recommending them to our customers. Moreover, it is paramount that we continue to reduce the environmental impact associated with our business operations and that we raise the environmental awareness of our employees as well as others with whom we work.

Equally important is the need to conduct conclusive leak-prevention and suitable waste management beginning with fluorocarbons, which can contribute to global warming, as well as toxic substances. This applies to both systems under installation and our own facilities. Consequently, we remain committed to stringent observance of all environmental laws and regulations.

We believe that our activities will help to achieve the Sustainable Development Goals and preserve biodiversity.

Our Environmental Management System: FY2017 environmental targets and results/FY2018 environmental targets

					○: Targe	et achieved $ riangle$: In progress
Activities and responsible departments		Main target or item to be monitored	FY2017 target	FY2017 result	Assessment	FY2018 target
	Sales	Number of solutions that leverage Dai-Dan technology adopted	More than 70	86	0	More than 90
Proposal, planning, designing	Design	CO ₂ emission reduction through design solutions	More than 40,000 tonnes	28,003 tonnes		More than 35,000 tonnes
0 0	department	CO ₂ emission reduction through adopted solutions	More than 20,000 tonnes	13,785 tonnes		More than 15,000 tonnes
		Energy consumption converted to CO ₂ emissions	_	1,301 tonnes	_	_
	Installation	Promotion of sustainable procurement	More than 45%	44.8%		More than 45%
Installation	department Procurement department	Promotion of sorting of industrial waste Quantity sorted in the field	More than 3.5/workplace	3.7/workplace	0	More than 3.8/workplace
		Promotion of recycling Recycling sales proceeds	More than 60 million yen	61.313 million yen	0	More than 60 million yen
		Reduction of thermal insulation used for drainpipes	More than 95,000 m	87,250 m		More than 90,000 m
		Energy consumption converted to CO2 emissions	Less than 1,600 tonnes	1,749 tonnes	\bigtriangleup	Less than 1,600 tonnes
		Water consumption	—	13,940 m³	—	_
Office activities	All employees	Copy paper usage	Less than 58 tonnes	59.3 tonnes		Less than 58 tonnes
		Increasing adoption of hybrid vehicles and other next-generation vehicles	70%	76%	0	80%
		Improvement of sorting rate of general waste	_	61.2%	—	_

Initiatives to promote sustainable procurement

Dai-Dan promotes sustainable procurement to our customers, and has designated items that are applicable to sustainable procurement in the following five areas: introduction of energy saving, high efficiency equipment; use of environmentally friendly material; introduction of highly durable equipment; introduction of low emission devices; and introduction of water saving equipment. Sustainable procurement rate during fiscal 2017 was 44.8%.



Initiatives to sort industrial waste

At Dai-Dan, we promote the sorting of waste at all our installation sites. Throughout fiscal 2017, we produced 10.916 tonnes of industrial waste, of which 89% was sorted. Furthermore, we promote awareness of

reducing industrial waste at our offices and encourage sorting. In fiscal 2017, our offices produced 109 tonnes of general waste, of which 61% was sorted.



Quality and Environmental Management System

Our environmental management system was integrated with our quality management system for more effective implementation.

Our Policies Regarding Quality and Environmental Protection

"As a building services engineering and installation provider, we continually take on the challenge of creating value for our clients while contributing to the development of a better environment and stronger communities"; in keeping with these management principles, we ensure our business practices contribute to quality and environmental preservation. Moreover, with the goal of improving customer satisfaction, we are contributing to the emergence of a society committed to a sustainable environment.

- 1. We strive to contribute to social development and environmental preservation by complying with laws and norms of society regarding quality and environmental standards as well as regulations established by our company.
- 2. While working to strengthen our field capabilities and improve productivity, we strive to improve the skills of our employees and strengthen our partnerships with subcontractors to provide assured quality.
- 3. We are dedicated to developing, proposing, and applying technologies that help to reduce environmental impact and promote the effective use of resources and energy
- 4. We, as a good corporate citizen, carry out environmental and social contribution activities as well as positive information disclosure, to enhance communications with society.
- 5. We publicize our quality and environmental targets internally and continue to strengthen them in order to improve the results of our initiatives.

Quality and Environmental Management System



Meeting Customer Expectations

We continue to work towards ever-higher levels of quality in order to further improve customer satisfaction.

Quality Improvement Initiatives

Our vision of quality

We aim to provide reliable quality that assures safe use. Toward that end we are working to improve our preliminary examination of installations, which includes risk assessments, and working to build the competency of employees and subcontractors. We also aim to further improve after-sales service through our Customer Consultation Office and in-house information system.

Customer evaluations

We conduct written customer satisfaction surveys after completing installations to obtain detailed evaluations and feedback from customers, which we use internally to improve future installations and proposals. A completed project evaluation meeting is held to analyze the survey responses,

organize the feedback, confirm technical problems, and determine how to make improvements. Additionally, we take the data from the time of installation and enter it into a "Building Chart System" for managing records of our proposals and to facilitate follow-up service.

The Customer

DAI-DAN CO., LTD.

Project evaluation meetings, sharing of points to improve on, improving technical levels, technological development

Design & installation to satisfy needs

High added value proposals

Achieving pleasant and safe spaces

Customer satisfaction survey results

4-point scale (4: Satisfied 3: Generally satisfied 2: Somewhat dissatisfied 1: Dissatisfied)

Item	FY2015	FY2016	FY2017
Installer capacity	3.47	3.50	3.54
Installation management	3.44	3.49	3.51
Creativity and solution proposals	3.42	3.46	3.48
Backup capacity	3.42	3.43	3.47
Overall evaluation	3.48	3.53	3.56

Number of surveys completed: FY2015; 622/FY2016; 736/FY2017; 613

Works Review Meetings

Throughout our long history we have provided building systems and services to customers in various industries with diverse building applications. In order to capitalize on our long track record of installations and our knowledge of customer systems, we hold Works Review Meetings for each project with the attendance of the sales, engineering and other specialized departments concerned. We strive to provide high-quality systems that best serve our customers from the perspectives of functionality, quality, cost and energy efficiency.

Building Chart System

Customer evaluations

Points made, details shared

We have been using a Building Chart System, an internal information system, in order to make the most of our installation experiences. The Building Chart System is used to record the details of the installation and recommendations, as well as customer requirements for each building. We enhance customer satisfaction by recommending detailed renovation options that contribute to comfortable use of a building.

Initiatives with Subcontractors

Activities with subcontractors

So that we can provide safe, high-quality, on-time installation of building systems we work with many skilled professionals who perform installations. We need to combine their skills with our technical capability to plan and manage those installations.

We have long-standing relationships with the subcontractor organizations Dai-Gen Kai and the Safety & Health Association whom we trust to hold Sectional Committee meetings and activities for different professions at our office locations. These initiatives address a variety of topics, notably increasing

Sectional Committee activities (details of initiatives)

FY2017 Tokyo Dai-Gen Kai Sectional Committee Activities

	Sectional committee	Principal activities
	Installation Efficiency Promotion Sectional Committee	Creation of proposal materials for reducing costs, accelerating processes and reducing person-hours • Study how to improve total installation efficiency, utilizing improved installation methods from multiple industries • Implement and verify installation efficiency improvement plan on site
	Quality Accident Prevention Sectional Committee	 Active prevention of quality accidents through the adoption of new technologies Have workers in different positions and companies suggest new installation methods, new technologies, and new materials to help prevent quality accidents, and discuss their effectiveness Make selections and use the selected items at a model site for field verification; when effective in preventing quality accidents, recommend and promote their wider use, and carry out activities to actively prevent quality accidents
	Installation Site Environment Improvement Sectional Committee	Create materials that can be proposed for improving the installation site environment • Of the 13 items in the Japanese government's Action Plan for the Realization of Work Style Reform, make proposals under the sections "Create an environment facilitating human resource development and other empowerment for women and young people" and "Promote the employment of senior citizens"
	Deliverables Utilization Promotion Sectional Committee	 Promote further utilization of excellent deliverables from past activities of the Dai-Gen Kai Sectional Committee Identify excellent deliverables from the activities of the Dai-Gen Kai Sectional Committee over the past 10 years and study and develop ways to make effective use of them at installation sites

Sectional Committee Activity Report

This report contains a summary of the results of the past year's Dai-Dan and the Dai-Gen Kai Sectional Committee activities by trade specialization. It contains the results of local activities in various districts and shares them nationwide.

installation efficiency and adopting labor-saving methods to cope with the aging of skilled workers and fewer young workers entering the workforce, factors that are causing a shortage of labor, which has become an important issue also in terms of cost.

We will continue to make improvements in safety, quality, and cost through our technical capacities. We remain committed to meeting requests and exceeding expectations in tandem with our subcontractors, focusing on craftsmanship.

VOICE Comment from a Subcontractor

The Tokyo Dai-Gen Kai recently celebrated its 20th anniversary and began taking new steps forward.

Our Sectional Committee is composed of specialized vendors in various fields. We set topics and engage in practical studies and research aimed at enabling flexible responses to rapidly changing social conditions and social trends. We present the results of our research and actively introduce them to the workplace as "deliverables." The committee is constantly working to develop practical technologies, installation methods, and techniques that can be implemented. When the committee efforts are introduced and verified in the field, new discoveries are made and new topics arise that need to be addressed.

In the near future, there will be many upcoming issues, such as a shortage of labor as the Tokyo Olympic Games approach, along with rising material costs, compliance with work style reforms, and more. The Tokyo Dai-Gen Kai will



continue to be a solid partner of Dai-Dan Co., Ltd. and we will respond in kind to the confidence placed in us.

Isamu Kajino Chairman of the Board SHINFUJI KUUCHOU CO., LTD. (HVAC) Chairperson of Tokyo Dai-Gen Kai



Sectional Committee Activity Report

Valuing **Our Employees**

Dai-Dan respects each of our employees and encourages them to take on the challenge of creating greater value, and also promotes positive work-life balance.



People are Our Greatest Asset

At Dai-Dan, we consider people to be our greatest asset, and it follows naturally that personnel training takes top priority. We thus offer plenty of education and training opportunities. Today, "work style reform" is a commonly heard phrase in Japan. Our own efforts are focused on restructuring our training system and taking measures to improve the workplace environment. The end goal is to bring out the full capabilities of each and every employee and make working at Dai-Dan a positive daily experience.

Employee training

Our training system begins with new employee training (technical, sales and administrative) and introduces various types of training to accompany the transition to higher positions to support the development of our employees.

New employee training is divided into introductory technical training (technical plus sales/clerical work) and fundamental technical training (technical). The introductory training takes place over one month and includes not only explanations to provide basic knowledge on the equipment and systems essential to our business, but facility tours and other hands-on experience. The fundamental training lasts for five months. We offer both lectures and opportunities to "observe, touch, and do," which facilitate the acquisition of knowledge and technical skills. We help new employees to improve their drawing skills - the basis of engineering work - and equip them with the ability to immediately contribute to the company. After the group training, new employees complete their technical training with six months' training in understanding the series of on-site actions (processes, safety and work content). While this training is going on, new employees develop a strong bond with the others in their "class," which will become an invaluable

asset in the future.

Our engineer training program provides additional training in stages for employees to improve their technical capabilities. After the many types of training for novice engineers, "Dai-Dan Standard" follow-up training is provided, followed by technical training in advanced building systems for middle-ranking engineers. For sales and clerical positions, we provide administrative training and practical on-the-job training based on understanding the basics of the technical aspects to promote greater work range and flexibility as well as a broader perspective.



Hands-on training about ducts

Work-Life Balance and the Work Environment

Initiatives to reform work styles

As part of an initiative aimed at work style reform, we established a committee in September 2017 that works on active measures based on the government's Action Plan for the Realization of Work Style Reform. These include improving the treatment of non-regular workers and redressing excessive working hours. As a remedy for excessive working hours, the committee recommends that employees add one extra day of

their annual paid leave to the consecutive days off they take during Golden Week in late April/early May, summer holidays, and the year-end/New Year holidays. Also, in August 2018 a Web-based time card system was introduced to objectively record the times when employees punch in and out, and to manage working hours properly.

'Eruboshi" company certification

On June 1, 2018, Dai-Dan received a Class 2 "Eruboshi" certification from the Minister of Health. Labour and Welfare in recognition of its efforts to promote the active involvement of female employees based on standards set in the Act on Promotion of Women's Participation and Advancement in the Workplace.



"Eruboshi" certification is designed for companies that have formulated and submitted an action plan based on the act mentioned above. Those that are making excellent progress in their efforts are able to receive the certification from the MHLW. Certification is given to companies with superior initiatives in the five areas of: hiring, continued employment, working hours, ratio of female managers, and diverse career paths. There are three ranks of certification based on the number of areas in which the evaluation standards are met. Dai-Dan fulfilled the criteria in three areas-working hours, ratio of female managers, and diverse career paths - earning the second rank of certification. In a social environment growing increasingly diverse, we want to enable our employees to take full advantage of their talents and abilities, regardless of sex, age, or other factors.



Supporting the balance between work and home

By creating an environment in which all employees can work with ease and employees can balance work with childcare, we are working towards our next goal by devising an action plan in line with the "Act on Advancement of Measures to Support Raising Next-Generation Children" so that all employees can exercise their abilities to the full.

Actio	Action Plan (April 1, 2015–March 31, 2020)					
Target 1	To improve the workplace environment to ensure that childcare leave is easy to take and the staff easy to return					
Target 2	To have at least one or more male employees take childcare leave while the action plan is in operation					
Target 3	To introduce a system of reduced working hours that exceeds the provisions of the Child Care and Family Care Leave Act					

Leave system

Dai-Dan has established various leave systems to allow our employees to make the most of holidays and refresh themselves

Since fiscal 2011, partly as a way to save energy, we have asked all employees to take the same days off for summer vacation. We also encourage them to combine their summer vacation with additional days off from their paid annual leave or to take "refresh leave" to allow the body and mind to become fully refreshed.

In fiscal 2016 we adjusted the system, asking employees to set their scheduled "refresh leave" dates at the beginning of the fiscal term to improve the chances they would be able to get requested dates approved for them to take the leave.

In addition to encouraging employees who have given many years of service to take paid vacation days, we give them travel coupons based on the number of years of their service.

(excluding statutory paid annual leave)				
Type of holiday	Details			
Summer holiday	Three consecutive days in summer			
Refresh leave	Within seven consecutive days (annual)			
Long service leave	10 years: 3 days 20 years: 5 days 30 years: 7 days 40 years: 5 days			
Congratulatory or condolence leave	Predetermined number of days for occasions such as weddings			

Major leave systems

"Refresh leave" take-up rate

Fiscal year	Rate
FY2015	32.7%
FY2016	86.6%
FY2017	89.9%

Initiatives to address mental health issues

Maintaining a healthy body and mind helps people to stay highly motivated for work and vitalizes the company.

To ensure the mental health of employees and establish an employee-friendly workplace, Dai-Dan offers mental health education.

New employee training teaches the basics of mental health to equip staff with the knowledge to allow them to identify and cope with their own stress. Furthermore, as part of our efforts to fulfill the company's duty of ensuring employee safety, during new deputy manager and managerial staff training sessions, participants have the chance to develop a better understanding of mental health from a legal perspective, and acquire the means to identify potential stressors for staff and address the issues

We offer an annual stress check based on the amended Industrial Safety and Health Act, and encourage those who experience a high degree of stress to undergo a medical interview with a physician. We also have physicians conduct follow-up interviews some time after the stress check to help improve the workplace environment.

Dai-Dan provides an environment where each employee is able to work with a healthy body and mind to ultimately build an energetic company.

Meeting Local Expectations

We undertake a variety of initiatives to make contributions to the industry and community in our position as a responsible corporate citizen.

Dissemination of technical information to external parties

In order to contribute to the development of Japan's building services industry, Dai-Dan supports the of academic running conferences and dispatches lecturers to external organizations. In particular, Dai-Dan's engineers are dispatched to external centers and trainina educational institutions across Japan as lecturers to provide classes on building service technologies.

External organization memberships and positions (as of August 2018)

Organization	Position
The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan	General Director
Institute of Electrical Installation Engineers of Japan	General Director
Air-conditioning & Plumbing Contractors Associations of Japan	General Director
Japan Electrical Construction Association	Advisory committee member
Association of Japan Instrumentation Industry	Administration council member
Japanese Association of Building Mechanical and Electrical Engineers	General Director
Association of Building Engineering and Equipment	General Director
Japan Architecture Facilities Inspection Association	General Director
Japan Electrical Engineer Association	General Director
Osaka Electrical Construction Association	General Director
Aichi Electrical Construction Association	General Director
Tokyo Electrical Construction Association	General Director

Organization	Position
Kanto Gakuin University	Part-time lecturer
Kogakuin University	Part-time lecturer
The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan	Lecturer
Japan Construction Training Center	Lecturer
Kanto Plumbing Contractors Cooperative Association	Lecturer
Osaka Piping Higher Training School	Lecturer

Organizations to which Dai-Dan employees are dispatched as lecturers

1 0310011
Part-time lecturer
Part-time lecturer
Lecturer
Lecturer
Lecturer
Lecturer

Social contribution activities (initiatives at offices across Japan)

Dai-Dan promotes social contribution activities. Our major activities are clean-up of the local community, which we encourage all employees to participate in. All the activities we run are published on the intranet notice board to raise awareness of social contribution activities.

Forest maintenance, tree planting, and flower planting Planting flowers amid shrubbery along Hokkaido Branch the sidewalk in front of the branch office Chiba Office Town Open Garden Operation Miyoshi Green Support Squad Technical Construction Division Mixed-tree forest rejuvenation Technical Development Division project Technical Research Laboratory Project to promote a healthy sawtooth oak forest





Mivoshi Green Support Squad

Company-wide activities

Activity	Details
Eco-cap Project	In fiscal 2017 we collected 237,000 caps, used as a source for reprocessed plastic that is converted to money and donated to causes that provide medical support, vaccines, assistance for people with disabilities, and children's environmental education.
Charity Calendar Market	In January 2018, 1,895 calendars and diaries were donated from throughout Japan.
Donation of used stamps	 We donated the used stamps collected by the offices to the following groups: Japan Overseas Christian Medical Cooperative Service Assists in improving the state of medical care covered by health insurance in Asia and Africa. Tanzania Pole Pole Club Assists in afforestation activities at Mount Kilimanjaro in Tanzania, East Africa.

Signing of the Disaster Prevention Agreement (cooperation with local communities)

If a large-scale disaster strikes, we are, as a member of the construction industry, required to aid the swift recovery of electricity, water and social infrastructure, while at the same time ensuring the continuation of our business and that of our customers.

Dai-Dan has, through its industrial associations, signed a Disaster Prevention Agreement with local governments concerning post-disaster emergency activities. We have also entered into agreements directly with some municipalities and industry organizations, and have established a system that allows for the swift provision of post-disaster emergency assistance.

We aim to assist with the swift recovery of the local community and local businesses by proactively participating in reconstruction efforts of the affected region.

Assistance through the Dai-Dan Society Activity Fund

In April 1993, as part of our social contribution activities for our 90th anniversary, the Dai-Dan Society Activity Fund was established in the Osaka Community Foundation. From returns on fund assets, we support social welfare enhancement activities especially for persons with physical disabilities, including human rights education.

Donations

Dai-Dan contributes financial support for various causes to help create and build a better community.

Our contributions include donations to organizations that protect the global environment, donations to university scholarship funds and art-related activities, and the sponsoring of community events in areas across the country where our sites are based. We continued to donate to the areas affected by the 2011 Great East Japan Earthquake --- Miyagi, Iwate, and Fukushima Prefectures --- to support children orphaned by the disaster. We also gave donations to Hiroshima, Okayama, and Ehime Prefectures, which experienced flooding due to torrential rains in July 2018.

In addition, we give donations to NEXT VISION, a public service corporation that runs the "isee! movement" which supports participation in society for people with visual impairments.



Other activities

Activity	Details
Traffic Safety Guard Activity	We posted traffic safety guards at the North intersection of Toyota-shi Tsuchihashi Station. (Toyota Branch)
Placement of Community Chest charity vending machines	With this project, a portion of each drink purchase is donated, going to approximately one thousand private welfare facilities in Osaka Prefecture, as well as to welfare organizations, and the social welfare councils of local governments. (General Administration Division, Osaka Head Office)
Donation of funds from charity vending machines	Drinks are sold at the regular price to consumers, with three to ten yen per drink donated to charity. The donations go to street children and their families for education and living costs. (Okayama Branch)
Nichiban Core Eco Project	We participated in Nichiban Core Eco Project involving "Collection of discarded tape cores to protect the green earth." The funds are used to plant mangrove trees. (Technical Construction Division, Technical Development Division, Technical Research Laboratory)
Blood Drive	A blood drive bus from the Japanese Red Cross Society is parked in front of the branch office and we call upon employees and subcontractors to give blood. (Hokkaido Branch) Many employees throughout Japan have given blood through these drives.





Traffic safety patrol activities

Third Party Opinion

This opinion statement is based on the Corporate Social Responsibility (CSR) Guideline published by the Japan Federation of Bar Associations. It was prepared with the cooperation of attorneys who are members of the Kinki Branch of the Association (Hideshi Okura, Koichiro Murotani, Koji Busujima) and presents opinions based on interviews with department managers who were sent 41 questions in advance and on reviews of relevant materials.



Attorney Former Deputy Chairman,

motion Association

Osaka Bar Association Deputy Branch Manager, Kinki Branch of the Japan CSR

This fiscal year, acknowledging that different stakeholders require different types of information, the number of pages was reduced, and the scope limited to the main points, making the integrated corporate report easier to read. URLs are listed to direct those interested to more detailed information on the company website. This new style is commendable. I would like the company to hear from stakeholders regarding what you think of this new way to present the report so that useful changes can be made in subsequent years.

Initiatives related to corporate governance and legal compliance

Efforts the company has actively pursued with regard to compliance include a dedicated office to handle compliance matters and compliance education through compliance training sessions and e-learning programs. In particular, with regard to the company's whistleblowing and consultation systems, the point of contact that had been set up functioned well in the last fiscal year, showing that compliance has spread within the company more than before, which deserves commendation. Regarding the publication of compliance news, an initiative was taken to make the news easier for more employees to read in content and style, a simplification that succeeded. It appears that these steady efforts are having the intended effect, getting the internal reporting system to be used more widely and fully.

With regard to corporate governance, we have observed the flexible sharing of information amongst outside officers and the effective functioning of the Executive Committee and Board of Directors through free and open-minded discussion. We hope to see further efforts and improvements made in terms of institutional provisions to ensure that an atmosphere of unrestrained discourse continues even if the officers change, elevating the current situation to the realm of corporate culture.

Initiatives related to environmental preservation

We highly commend the company's fresh perspective and conscious effort to reduce energy consumption by upgrading its Kyushu and Shikoku branches to meet net-zero building standards, and proposing that other buildings be similarly upgraded. We look forward to seeing further steps taken to achieve the SDGs through net-zero building conversions.

We also highly commend the company's ongoing efforts in adhering to the Plan-Do-Check-Act cycle in its environmental management system, along with its commitment to such efforts as new employee training with a focus on quality and the environment.

The company as a whole engages in a variety of activities that contribute to society, not only from the viewpoint of reducing environmental burden, but also by working in collaboration with local communities to actively rehabilitate and restore the environment. We hope to see the expansion of such undertakings.

Initiatives related to respect for human rights of employees, work-life balance and improving the work environment

With regard to work style reform efforts, under a committee set up to promote the government's Action Plan for the Realization of Work Style Reform, the company set up a special committee to work on improving the treatment of non-regular workers and redressing excessive working hours. This stance toward creating a roadmap for specific measures to resolve issues can be commended. But the point has not been reached yet where specific measures are being implemented for any of the issues. Although a slight reduction can be seen in the proportion of employees working long hours, almost no change has been observed in the total number of hours worked on average for all employees. From the perspective of reducing the total amount of work (improving operational efficiency, improving systems, etc.), increasing the number of personnel, and improving productivity, we would like to see the company continue to consider and implement effective efforts that are consistent with the actual situation to redress excessive working hours.

With regard to leave, although employee use of annual paid vacation days is still at low levels, an improvement over the previous fiscal year, along with the use of "refresh leave," is to be commended. While it is true that technical employees may find it difficult to take planned leave due to the nature of their duties, further efforts need to be made to encourage more workers to take their paid leave. This involves a change in thinking - a managerial capability among bosses to get their subordinates to take appropriate leave.

On the issue of promoting women's participation and advancement in the workplace, the company has taken measures that have earned it Class 2 "Eruboshi" certification, whereas only 41 companies in Osaka Prefecture have obtained Class 2 certification or higher (as of June 30, 2018). This is highly commendable.

And finally, in the area of mental health initiatives, the company conducts training for new recruits and newly appointed managers, and has physicians conduct interviews and follow-ups based on the results of regular stress checks. So a number of actions are being taken from various angles, which is to be commended.

Reflecting on the Third VOICE **Party Opinions**

I sincerely thank Mr. Hiroshi Tanaka for offering his invaluable third-party viewpoint on the 2018 Dai-Dan Report in cooperation with Messrs, Okura, Murotani and Busuiima,

Regarding the various issues pointed out by Mr. Tanaka, we intend to establish specific policies to resolve those issues and effect improvements.

In order to help create a better environment and stronger communities as outlined in our management principles, we will work together as a company on initiatives based on the strategies and policies outlined in our mid-term management plan set up in April of this year.

Yasuo Kamei

Director, Corporate Officer, Head of General Administration Division

Global Network

Headquarters Organizations							
Name	Zip Code	Address	Telephone Number	Name	Zip Code	Address	Telephone Number
General Administration Division	550-8520	1-9-25 Edobori, Nishi-ku, Osaka City	06-6447-8000	Technical Development Division	354-0044	390 Kita-Nagai, Miyoshimachi, Iruma-gun, Saitama Prefecture	049-258-1891
Sales Division	102-8175	2-15-10 Fujimi, Chiyoda-ku, Tokyo	03-3261-8231	Regenerative Medicine Division (Cellab Tonomachi)	210-0821	R407 Life Innovation Center, 3-25-22 Tonomachi, Kawasaki-ku, Kawasaki City, Kanagawa Prefecture	044-276-5010
Technical Construction Division	354-0044	390 Kita-Nagai, Miyoshimachi, Iruma-gun, Saitama Prefecture	049-258-1891	Regenerative Medicine Division (Kobe Office)	650-0047	Rm 654 Kobe International Business Center, 5-5-2 Minatojima-Minamimachi, Chuo-ku, Kobe City	078-302-9060
Advanced Technical Construction Division	354-0044	390 Kita-Nagai, Miyoshimachi, Iruma-gun, Saitama Prefecture	049-258-1891	Technical Research Laboratory	354-0044	390 Kita-Nagai, Miyoshimachi, Iruma-gun, Saitama Prefecture	049-258-5725
Internal Audit Office	550-8520	1-9-25 Edobori, Nishi-ku, Osaka City	06-6447-8065	Industrial Facilities Department	102-8175	2-15-10 Fujimi, Chiyoda-ku, Tokyo	03-5276-4710
Compliance Office	102-8175	2-15-10 Fujimi, Chiyoda-ku, Tokyo	03-3261-8231				

Branch/Office Organizations

Name	Zip Code	Address	Telephone Number	Name	Zip Code	Address	Telephone Number
Hokkaido Branch	001-0020	5-1-43 Nishi, Kita 20, Kita-ku, Sapporo City	011-716-9116	Osaka Head Office	550-8520	1-9-25 Edobori, Nishi-ku, Osaka City	06-6441-8231
Obihiro Office	080-0010	4F Aobatokachi Bldg., 12-20 Odoriminami Obihiro City, Hokkaido	0155-25-3559	Tenri Branch	632-0012	4-228 Toyoda-cho, Tenri City, Nara Prefecture	0743-63-1231
Hakodate Office	041-0851	4-17-40 Hondori, Hakodate City, Hokkaido	0138-55-7086	Kobe Branch	651-0088	7F Nihon Seimei Sannomiya Ekimae Bldg., 7-1-1 Onoe-dori, Chuo-ku, Kobe City	078-221-7777
Tohoku Branch	980-0811	1-15-17 Ichiban-cho, Aoba-ku, Sendai City	022-225-7901	Kyoto Branch	604-8186	2F Urbanex Oike Bldg. East Wing, 361-1 Umeya-cho, Kurumayaoike-sagaru, Nakagyo-ku, Kyoto City	075-251-6411
Aomori Office	030-0802	4F Tanuma Bldg., 2-4-10 Hon-cho, Aomori City	017-773-1582	Wakayama Office	640-8203	4F-408 Nankai Wakayamashi Station Bldg., 3-17 Higashikuramae-cho, Wakayama City	073-433-9431
Akita Office	010-0951	6F Sanno Piares Bldg., 2-2-17 Sanno, Akita City	018-824-6491	Shiga Office	527-0025	#11 Janty 21, 6-55 Yokaichi Higashihonmachi, Higashi-omi City, Shiga Prefecture	0748-25-5400
Morioka Office	020-0032	Hiramatsu Bldg., 2-16 Yugaose-cho, Morioka City	019-654-3023	Okayama Branch	700-0984	6-10 Kuwada-cho, Kita-ku, Okayama City	086-223-3106
Fukushima Office	960-8031	4F Fukushima Sakaemachi Bldg., 10-21 Sakaemachi, Fukushima City	024-521-4213	Chugoku Branch	730-0812	2-22 Kakomachi, Naka-ku, Hiroshima City	082-241-4171
Yamagata Office	990-0043	1F Honcho Bldg., 2-4-3 Hon-cho, Yamagata City	023-634-2620	Yamaguchi Office	754-0011	4F Sanyo Bldg. Ogori, 4-6 Ogorimiyukimachi, Yamaguchi City	083-976-0121
Niigata Branch	950-0088	2-4-3 Bandai, Chuo-ku, Niigata City	025-247-0201	San-in Office	690-0015	#103 Heights Shalom, 2-29-13 Agenogi, Matsue City	0852-27-5890
Tokyo Head Office	102-8175	2-15-10 Fujimi, Chiyoda-ku, Tokyo	03-3261-8231	Shikoku Branch	760-0028	2F Kagawa Sanyu Bldg., 3 Kajiyamachi, Takamatsu City	087-811-2301
Kanto Branch	330-0854	3F GINZA YAMATO 3 Bldg., 1-10-2 Sakuragi-cho, Omiya-ku, Saitama City	048-644-8468	Matsuyama Office	790-0065	2-208-1 Miyanishi, Matsuyama City	089-922-7161
Gunma Office	371-0805	7F Daidoseimei Maebashi Bldg., 3-9-5 Minami-cho, Maebashi City	027-226-7720	Kochi Office	780-0088	10-16 Kitakubo, Kochi City	088-884-8231
Tochigi Office	321-0953	6F Yamaguchi Bldg., 4-1-20 Higashishukugo, Utsunomiya City	028-637-3380	Tokushima Office	770-0872	4-1-10 Kitaokinosu, Tokushima City	088-664-8121
Ibaraki Office	300-0037	7F Regal Tsuchiura Bldg., 1-16-12 Sakuramachi, Tsuchiura City, Ibaraki Prefecture	029-825-6656	Kyushu Branch	810-0023	3-1-24 Kego, Chuo-ku, Fukuoka City	092-771-4361
Chiba Branch	261-0023	25F m BAY POINT Makuhari, 1-6 Nakase, Mihama-ku, Chiba City	043-211-8881	Kumamoto Branch	862-0941	1-7-6 Izumi, Chuo-ku, Kumamoto City	096-364-7134
Yokohama Branch	231-0062	24F Nisseki Yokohama Bldg., 1-1-8 Sakuragi-cho, Naka-ku, Yokohama City	045-683-1050	Miyata Office	823-0016	680-1 Shiromaru, Miyawaka City, Fukuoka Prefecture	0949-33-2602
Nagoya Branch	461-0005	16F Urbannet Nagoya Bldg., 1-1-10 Higashisakura, Higashi-ku, Nagoya City	052-973-4750	Saga Office	841-0031	#101 Sungarden Yarita, 436-1 Yaritamachi, Tosu City, Saga Prefecture	0942-84-2350
Toyota Branch	471-0835	1-20 Akebono-cho, Toyota City, Aichi Prefecture	0565-28-1841	Nagasaki Office	850-0027	#202 Grand Mansion, 31-3 Okeya-machi, Nagasaki City	095-828-0772
Mikawa Office	448-0011	5-6-4 Tsuiji-cho, Kariya City, Aichi Prefecture	0566-27-0324	Oita Office	870-0033	#402 Matsumoto Bldg., 1-3-22 Chiyomachi, Oita City	097-532-4350
Nagano Office	380-0824	5F Choeidaiichi Bldg., 1282-11 Minamiishido-cho, Nagano City	026-228-3820	Miyazaki Office	880-0933	#201 Inoue Bldg., 2189-2 Kusabazaki, Otsubo-cho, Miyazaki City	0985-54-6382
Matsumoto Office	390-0811	2F Orii Bldg., 1-1-2 Chuo, Matsumoto City, Nagano Prefecture	0263-33-7016	Kagoshima Office	890-0046	1F San Laqua Bldg., 2-25-12 Nishida, Kagoshima City	099-256-3662
Shizuoka Office	422-8067	17F-1704 South Pot Shizuoka, 18-1 Minami-cho, Suruga-ku, Shizuoka City	054-281-3501	Okinawa Office	900-0015	4F Arute Bldg. Naha, 3-15-9 Kumoji, Naha City	098-868-1700
Mie Office	514-0004	2F-B Kasama Bldg., 3-261 Sakaemachi, Tsu City	059-225-3840				
Gifu Office	500-8175	2F Daini-nagazumi Bldg., 1-9 Nagazumi-cho, Gifu City	058-265-8224				
Hokuriku Branch	920-0902	1-6-15 Owari-cho, Kanazawa City	076-261-6147	Singapore Branch	-	315 Outram Road #15-09, Tan Boon Liat Building, Singapore, 169074	010-65- 62218488
Toyama Office	930-0019	1-10-20 Yayoi-cho, Toyama City	076-441-3371	Hong Kong Branch	-	21F Edinburgh Tower, The Landmark, 15 Queen's Road Central, Hong Kong	010-852- 22898888
Fukui Office	910-0005	4F Fukui Hosokaikan, 3-4-1 Ote, Fukui City	0776-23-2166			The blue shading indicates region	onal headquarters

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