# **Sources of Value Creation**

Kajima regards quality, safety and health, and the environment (QSE) as three priority issues in its construction businesses. Under the Quality Assurance, Safety and Health, and Environmental Policies, organizations in both the civil engineering and building construction businesses have been deploying integrated management systems since April 2003. Since quality, safety, and the environment are all interconnected, improving one area yields synergies in the others. Kajima incorporates these three perspectives into construction plans and daily operations at each site.

#### Quality Assurance, Safety and Health, and Environmental Policies

#### **Basic Policy**

Quality assurance, safety and health, and environmental management are fundamental to production and corporate survival. By establishing and continuously improving management systems to comply with relevant laws, ordinances, and other societal requirements, Kajima works to produce efficiently while earning the trust of clients and society.

#### **Quality Assurance Policy**

Kajima provides products and services that satisfy clients, from marketing to follow-up services, allowing them to place orders with a sense of reassurance and trust.

- 1 We ensure product quality by heeding and addressing client requirements and responding while thoroughly implementing the plan-do-check-act cycle.
- 2 We enhance research and development and plan ways to improve quality and increase operational efficiency.

#### **Safety and Health Policy**

Safety is the barometer of a company's capabilities and ethics. We therefore collaborate with partner companies with strong management to eliminate construction-related accidents and injuries so we can maintain public trust in the construction industry while pursuing sustainable corporate progress.

- 1 We work to prevent accidents and incidents stemming from human error by focusing on the workplace, equipment, and site conditions and by using point-call-and-response practices as routine workplace procedures.
- 2 We strive to create safe and comfortable working environments by facilitating close communication between Kajima and partner companies and by ensuring close coordination between people, machinery, and equipment.

#### **Environmental Policy**

Kajima, as the company "Building for the Next 100 Years," pursues a unique long-term environmental vision, doing its part in the broader social efforts to preserve the environment and ensure economic sustainability.

- 1 We work to reduce the environmental impact of our business and take into consideration the entire lifecycle of the structures we construct. We thereby seek to help build societies which use materials responsibly, have a low carbon footprint, and harmonize with nature.
- 2 As a standard for achieving these goals, Kajima:
- Creates innovative technologies that help safeguard the environment and use resources sustainably;
- Engages in construction management processes to prevent environmental damage caused by hazardous materials used in construction projects; and
- Cooperates with the public, including by proactively disclosing information.

#### Hanten Jacket with the Kajima Crest

In traditional Japan, it was the custom for construction firms to bestow *hanten* jackets on their workers in summer and winter. *Hanten* with the employer's crest were considered the most authoritative and desirable. The craftsmen who wore them were seen as having outstanding skills.



## **Safety and Health**

Safety and health management is the responsibility of everyone involved with Kajima worksites. Kajima's role as prime contractor is to carry out planning and risk management so that the partner companies' workers and supervisors can perform their work with confidence, using safe equipment in a safe environment.

In fiscal 2017 at Kajima construction sites in Japan, there were 70 accidents resulting in at least four days off work, including four fatalities. The frequency rate for accidents resulting in at least four days off work was 0.78, and the rate for accidents resulting in one to three days off work was 1.41. The accident severity rate was 0.36. Kajima sincerely regrets the loss of life, and will do its utmost to ensure everyone on site puts safety first, using the slogan, "Think Safety! Make today accident free!"

#### Safety Results

		2013	2014	2015	2016	2017
Accident	at least 4 days off work	0.78	0.93	0.80	0.66	0.78
frequency rate	at least 1 day off work	1.67	1.99	1.37	1.14	1.41
Accident severity rate		0.10	0.16	0.28	0.18	0.36
No. of accidents		80	102	83	64	70
No. of fatalities		1	2	3	2	4
Cumulative working hours (millions of hours)		104.51	109.32	104.25	97.15	89.65

Frequency rate: The number of fatalities and injuries at worksites per one million cumulative working hours

Severity rate: The severity of illnesses and injuries represented by the number of workdays lost over one thousand cumulative working hours

Kajima performs safety and health management in accordance with a Construction Occupational Health and Safety Management System (COHSMS).

Based on the results and circumstances of the previous fiscal year, Kajima reviews its safety and health policies as needed, and then prepares the company-wide safety and health targets and the plan for the current fiscal year. Using the company-wide policies formulated in this Plan-Do-Check-Act cycle, priority measures are set for each construction project office, as well as the head and branch offices that support them, and partner companies.

Using this infrastructure, construction safety and health policies, targets and plans are established for each site. They are shared by Kajima with partner companies and construction work proceeds accordingly. In addition, by focusing on the workplace, equipment, and site conditions in regular patrols, Kajima aims to keep improving safety and health.

#### **Cycle diagram of PDCA**





Minister of Health, Labour and Welfare excellence awards received for two workplaces with outstanding safety and health records

Construction joint venture involving Kajima, Tokyu, Tsuchiya, and Keikyu Musashino Forest Sports Plaza (tentative name) sub-arena / pool building construction Construction joint venture involving Kajima, Maeda, and Keikyu Crossing construction for the Yokohama Loop North Line



President Oshimi conducts an onsite patrol during National Safety Week

## **Human Resources**

Kajima considers its human resources indispensable stakeholders and key assets for its activities. Kajima people are the key to the mission of contributing to society by developing and supplying high-quality infrastructure, buildings, and services.

Kajima embraces diversity and individuality, seeking to create a dynamic work environment where employees can display their individual skills as proud members of the Kajima Group.

### **Developing Human Resources**

Human resources development at Kajima uses on-the-job training and off-the-job training, including job-specific training and management training. Kajima develops employees under two strategies: (1) strengthening the development of young and mid-career employees; and (2) continuously developing management personnel.

### (1) Strengthening the Development of Young and Mid-Career Employees

Kajima seeks to build an independent workforce by providing systematic opportunities to young employees to challenge themselves to raise their skills. The Company implements age-based training extending to mid-career employees and gives specialist personnel and non-managerial track employees various opportunities for training and education.

The Company also conducts training for overseas assignments, provides training at subsidiaries outside Japan and offers opportunities for overseas study. These programs foster global human resources with a broad perspective, specialized skills, and the strong communication skills needed in international markets.

### (2) Continuously Developing Management Personnel

To develop a strong management core that will drive the Kajima Group's business, managerial track employees are given opportunities to acquire management experience and skills through personnel exchanges and intra-group training, both in and outside of Japan.

Kajima is also systematically expanding its entry-level, mid-level, and high-level management leadership training to ensure leaders acquire essential management skills.

To develop its leaders, Kajima employs personnel exchanges among Group companies and on-the-job training, for instance by rotating personnel between Group companies in and outside of Japan. It also brings engineers from overseas to train in Japan.

### Improving Personnel Systems to Encourage Work-Style Reform

In 2018, Kajima began implementing work-style reforms for all employees, building on the reforms of its construction site operations. The Company is expanding its personnel systems to offer employees greater flexibility in work styles, while recognizing that these reforms require a mindset shift, improved productivity and motivation, and a work environment that enables each employee to make a dynamic contribution. Reform efforts include the following:

- Give supervisors more discretion over work schedules
- Calculate annual paid leave hourly
- Institute minimum break time between consecutive work shifts
- Improve flex-time hours for parents
- Improve program for balancing work and medical treatment
- Establish telecommuting program
- Institute rehiring program for retired employees

### **Enhancing Diversity**

Kajima aims to double the numbers of its female engineers and managers by 2019, and then triple the numbers by 2024, both compared to 2014. Under the Kajima Corporation First Action Plan Based on Japan's Act to Promote Women in the Workplace, adopted in 2016, the goal is to hire at least 20% women in managerial track recruitment, and to double the number of women in managerial positions.

### **Promoting Work-Life Balance**

Kajima believes that the work-life balance of each and every employee is essential to raising work motivation and improving overall productivity. The Company is improving work environments and personnel systems to ensure all employees can enjoy better worklife balance and job security while fulfilling non-work duties such as raising children and caring for family members.



Number of Women among

18

2015

2016

2017

#### Number of Women in Managerial Positions



\*45 women were newly hired at Kajima Corporation on April 1, 2018, accounting for 19.7% of new graduate hires.

To support work-life balance, Kajima is enhancing its initiatives in areas such as supporting volunteer work, expanding provisions for parenting and caregiving, encouraging employees to take vacations, and recommending no overtime work on designated days.

In June 2018, Kajima distributed a handbook to all employees with information to help employees balance work and family caregiving responsibilities. To raise awareness, a total of 13 caregiving seminars were held for employees of the Head Office and branch offices in Japan.

Parenting is the job of both spouses, and men are increasingly taking advantage of parenting provisions for shorter hours and flexible scheduling to get more involved in raising their children.

Kajima is committed to establishing dynamic work environments that enable employees to keep working at different life stages, including raising children and caring for family members.

### **Supporting Employee Health**

Kajima's Head Office has a medical clinic to facilitate employee access to medical care. The Company works closely with its business locations all over Japan on employee health initiatives. It strongly encourages employees to receive regular medical exams and treatment, and offers health advice from health nurses. Kajima is also addressing mental health by emphasizing preemptive care and early identification. In accordance with the Industrial Safety and Health Act of Japan, employees take regular stress checks online to encourage greater self-care, and the aggregate data is used to improve the work environment.

Kajima has established an overseas health support hotline operated by a third party to support the mental health of employees working overseas and their families.

In fiscal 2018, Kajima received recognition as one of the 2018 Certified Health & Productivity Management Outstanding Organizations, a recognition established by the Ministry of Economy, Trade and Industry of Japan, for its outstanding record in practicing employee health management as a major corporation.



The recognition mark of the 2018 Certified Health & Productivity Management Outstanding Organizations

(As of March 31 of the fiscal year)

uman Resources Data (Non-consolidated)				
(Fiscal Year)	2014	2015	2016	2017
Employees	7,546	7,527	7,611	7,686
Re-employed personnel	908	921	1,102	919
Employees with disabilities (%)	2.2	2.2	2.1	2.2
Turnover rate within three years (%)	3.7	3.7	3.0	3.5
Child birth/parenting				
Employees taking extended parenting leave	28	34	39	35
Employees taking leave for spouse's childbirth	100	115	112	117
Employees taking leave for caregiving	96	86	93	90
Male employees taking shortened work hours	23	33	41	64
Caregiving				
Employees taking extended caregiving leave	1	0	0	4
Employees taking caregiving leave	24	22	22	33
Employees using leave system for volunteering	10	12	17	21
Employees taking paid leave (%)	42.5	39.6	49.5	49.6

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## Environment

### **Management Systems**

Kajima operates environmental management systems (EMS) that are compliant with ISO 14001. The Groupwide Environment Committee is headed by the President and implements initiatives in each of five sectors: civil engineering, building construction, environmental engineering, engineering, and research and development. Four subcommittees address environmental management, construction environments, sustainable procurement, and biodiversity as cross-sector issues.

Environmental initiatives for Group companies in Japan are firstly focused on construction companies, due to their high environmental impact.

### Previous Three Years' Performance, and the Next Three Years

Fiscal 2017 marked the final year in Kajima's three-year plan from fiscal 2015–2017. The Company largely achieved its targets under the "Triple Zero 2050" Environmental Vision, the main objectives of which are reducing carbon emissions, recycling resources, and co-existing harmoniously with nature. However, the Company identified three instances of nonconformance with regulatory procedures for waste. To prevent recurrence, Kajima conducted intensive training for branch environmental managers and strengthened support for work sites.

Under the current three-year plan that started in fiscal 2018, Kajima revised its carbon emissions reduction target under "Triple Zero 2050" to an 8% reduction compared with fiscal 2013 levels by fiscal 2020. Whereas the Company had previously excluded sludge from its resource recycling target, it has now set a target, including sludge, of generating less than 3% landfill waste, and is looking to promote sludge recycling.

### **Environmental Priorities under Environmental, Social and Governance Policy**

Kajima actively implements initiatives at construction sites, works with customers to propose initiatives, and develops new technologies to pursue environmental and energy opportunities for the business activities of the Kajima Group and its customers.

### **Reducing Energy Consumption at Work Sites**

Kajima is accelerating its initiatives to reduce carbon dioxide (CO<sub>2</sub>) emissions at work sites, in an effort to achieve its reduction targets under "Triple Zero 2050."

Construction sites account for approximately 90% of Kajima's  $CO_2$  emissions. Electricity accounts for roughly 30% of the total energy consumption at work sites, with the remaining 70% originating from the consumption of diesel oil used to operate heavy machinery at work sites.

Kajima is accelerating its initiatives to reduce CO<sub>2</sub> emissions at work sites by newly incorporating data visualization techniques starting in fiscal 2018, adding to ongoing energy conservation practices and energy-efficient operations. During the next three years, Kajima will endeavor to track actual energy (electricity and diesel oil) consumption at all work sites and implement initiatives to reduce CO<sub>2</sub> emissions.

### Reducing CO<sub>2</sub> Emissions in Supply Chains

In addition to reducing emissions from construction sites that it directly supervises, Kajima is also working to reduce the environmental impact caused by the manufacturing and disposal of construction materials, recognizing that the construction sector constitutes part of the supply chain of its customers.

### Feature

### Kajima Develops Ecocrete<sup>®</sup> R<sup>3</sup> Ultra-Low Carbon Concrete Made from Fresh Ready-Mixed Concrete Waste

Roughly 1-2% of all concrete ordered in Japan (or four million tons annually) is unused for various reasons such as not meeting acceptance inspections at work sites. Most of this returned cement is disposed of without being recycled. It has become imperative to find ways of reducing and recycling this returned cement due to its environmental impact, which has led to measures such as levying fees for the handling and disposal of returned concrete in certain areas such as the Tokyo Metropolitan area.

Using a grant from the Environment Research and Technology Development Fund operated by the Ministry of the Environment, Kajima Corporation, in partnership with Sanwasekisan Corporation and Professor Tetsuro Kasai of Tokai University, developed CemR<sup>3</sup> cement made from concrete waste and Ecocrete<sup>®</sup> R<sup>3</sup> ultra-low carbon concrete based on CemR<sup>3</sup>. CemR<sup>3</sup> is made by dehydrating returned concrete waste (solids in wastewater). This raw material is sieved, dried, and ground to a powder to make a cement that has one-eighth the CO<sub>2</sub> impact of regular Portland cement.

The technology was singled out for a 2017 Global Warming Prevention Activity Commendation from the Minister for the Environment. It is the third time for Kajima to receive this honor, following previous commendations for CO<sub>2</sub>-SUICOM<sup>®</sup> in 2014 and ECM<sup>®</sup> (Energy, CO<sub>2</sub> Minimum) in 2015.

### FY2015-2017 Results

		Three-Year Targets (FY2015–2017)	Results	Evaluation
Lower CO <sub>2</sub> Emissions	Construction	Reduce $CO_2$ intensity from construction by 17% compared with fiscal 1990 levels (excluding impact of electricity intensity)	16.9% reduction	0
	Design	Enhance and improve efforts to respond to enforcement of the revised Act on Rational Use of Energy in fiscal 2015 CO <sub>2</sub> emissions in operating stage: Achieve corporate energy efficiency target (20% reduction)	FY2015: 25.5% reduction FY2016: 29.2% reduction FY2017: 20.7% reduction	0
Recycle Resources	Construction	Achieve final disposal rate of less than 3% Reduce construction sludge and promote its effective use	Percentage of landfill waste generated: 2.08% (excluding sludge) 2.42% (including sludge)	0
	Design	Promote green procurement at the design phase Out of 17 standard construction materials/supplies, propose at least 4 to clients in each design	4.8 items proposed	0
Harmoniously Co-exist with Nature		Implement 6 or more outstanding biodiversity projects per year	6 outstanding biodiversity projects promoted	0
		Public relations, education, awareness-raising	Ikimachi Tsushin website, Kajima Kids Academy website, etc.	0
Common Foundation Initiative Areas		Implement research and technology development that contributes to conservation of the environment and sustainable use More than 6 examples of deploying research or technology results to on- site operations over a three-year period	6 examples of research or technology results deployed over three years	0
		Manage hazardous substances Implement preventative measures (especially for soil contamination and asbestos)	No accidents involving toxic substances 3 cases of nonconformance with procedures outlined in Waste Management and Public Cleansing Act	×
		Manage chemical substances	Verification of and guidance for chemical substance response in engineering projects	0

### New Three-Year Targets and FY2018 Targets

		Three-Year (FY2018–2020) Targets	FY2018 Targets
Lower CO <sub>2</sub> Emissions	Construction	Reduce $\mbox{CO}_2$ emissions per unit of sales during construction by 8% compared to the fiscal 2013 level	Reduce $CO_2$ emissions intensity by 4% compared with FY2013 levels
	Design	Secure conformance with QCDSE (Quality, Cost, Design, Safety, Environment) obligatory standards in Building Energy Efficiency Act	Implement action plans that conform with obligatory standards in Building Energy Efficiency Act
		Develop industry-leading CO <sub>2</sub> emissions targets	Actively utilize labeling programs such as the Building Energy-efficiency Labeling System (BELS) Achieve corporate targets for energy efficiency
	Construction	Less than 3% landfill waste including sludge	Less than 3% landfill waste including sludge
Recycle Resources	Design	Implement green procurement	Propose more than four items, indicate them on working design drawings, and verify whether or not the proposed items were ultimately adopted
		Design buildings with a longer life	Attain a score of at least 3.6 for evaluations based on in-house check sheet
Harmoniously		Implement outstanding biodiversity projects	Implement more than 6 outstanding biodiversity projects
Co-exist with Nature		Reduce the environmental impact of construction (particularly through management of toxic substances and polluted water management, etc.)	Limit the environmental impact of construction (particularly through management of toxic substances and polluted water management, etc.)
Common Foundation Initiative Areas		Implement R&D and promote technologies and services that support "Triple Zero 2050" objectives	Implement R&D and promote technologies and services that support "Triple Zero 2050" objectives

Material F	low			
	INPUT		OUTPUT	
	Electricity	108,310,000 kWh	CO <sub>2</sub> emissions	274,000 t
Project sites		100,010,000 KWII	Construction surplus soil	837,000 m <sup>3</sup>
	Diesel oil	67,234 kl	Hazardous materials received	
		3,823 kl	Materials containing asbestos	17,490.1 t
	Kerosene		CFCs and halon received	2.9 t
	Water	865,000 m <sup>3</sup>	Fluorescent tubes	41.8 t
			Construction waste	1,988,000 t
	Main construction materials	2,233,000 t	Final disposal volume	48,000 t
	Electricity	26,220,000 kWh		
Offices	Heavy Oil	12 kl	CO <sub>2</sub> emissions (construction)	14,000 t
	Kerosene	0 kl		
	Gas	172,000 m <sup>3</sup>	<b>v</b>	
	Heating/Steam/Cooling	15,077 GJ	Volume of waste	1,942.4 t
	Water	148,000 m <sup>3</sup>		

Note: Third party verification performed by the Japan Quality Assurance Organization (JQA) for greenhouse gas emissions (Scope 1, 2, and 3), energy consumption, hazardous materials received, water usage, and waste discharge.

### **History of the Kajima Technical Research Institute**

Kajima established the first technical research institute in the Japanese construction industry in 1949. In 1956, the Kajima Technical Research Institute (KaTRI) moved to its present location in Tobitakyu, Chofu-shi (Tokyo). Sites for different types of research were also established: the Nishi-Chofu Complex, the Hayama Marine Science Laboratory, and the Kemigawa Revegetation Experiment Site. Over the decades, KaTRI has taken on the challenge of leading-edge research and next-generation technology development.

In 2013, KaTRI opened a base for technology marketing in Singapore, and in 2017 it established the Seisho Experiment Site on the outskirts of Odawara (Kanagawa Prefecture) as a place for demonstration of automated construction. In addition, for the revitalization of the Tobitakyu Complex, conducted between 2009 and 2011, the Institute set up an experimentation building along with a demonstration research building, aiming to improve intellectual productivity as well as energy-conservation and environmentally friendly technologies.

Kajima Technical Research Institute

## The Foundation of Kajima's Technical Capabilities



KaTRI main building received the highest CASBEE rating for built environmental efficiency KaTRI is moving ahead with maintenance and upgrades of the various experimental equipment and facilities indispensable for research and development, according to its own needs and the needs of society. Recently, KaTRI set up W-DECKER, the world's largest high-performance three-dimensional shaking table system, which can reproduce the long-period ground motion of major earthquakes. It also built a multi-wave flume, which enables experiments reproducing the effect of a tsunami like the one generated by the Great East Japan Earthquake. These facilities are contributing to the construction of buildings that are safer and more secure, as well as technology to withstand tsunami disasters.

### Embracing the Challenge of Open Innovation by Incorporating Technologies from Different Industries around the World

The Japanese construction industry is proud to have many general contractors with technical research laboratories and to have developed many world-leading technologies. However, the role played by new technologies is rapidly changing. The role of AI, IoT and robotics technologies is rapidly expanding, as these become fundamental technologies supporting society and industry. Accordingly, if a company limits itself to the construction industry or to a single country, it will be left out of the global technological progress.

Given this situation, KaTRI is implementing R&D with an emphasis on environmental, social and governance (ESG) measures, as well as the promotion of a sustainable society,

### Highlight

digital technology, open innovation, overseas development, and group management.

The Kajima Group's Medium-Term Business Plan (2018– 2020) calls for the creation of next-generation construction systems that enhance productivity by efficiently allocating roles to people and machines. It also aims to help create a sustainable society with both economic strength and healthy, happy citizens. The latter is a social issue and an objective of ESG initiatives. Consequently, KaTRI is focusing on research and development that utilizes external resources from overseas and diverse industries. It is also targeting R&D that combines construction technology with new technologies such as AI and IoT at a high level.

For example, A<sup>4</sup>CSEL<sup>®</sup>, a technology Kajima is developing to turn construction sites into the equivalent of an automated factory, is characterized by autonomous construction machinery operation rather than remote control. This technology is also expected to be useful for unmanned construction of bases on the moon and Mars, and KaTRI is pursuing joint research with the Japan Aerospace Exploration Agency (JAXA).

Furthermore, in fiscal 2017, KaTRI began joint research with Riken, Japan's largest comprehensive research institution. The aims are to accelerate human resource development and the promotion of AI research for the optimization of construction planning and management in ever-changing construction situations, as well as to accelerate advanced autonomous functions that adapt to environmental changes.

In addition to AI and IoT, there are many technologies created overseas based on completely different perspectives than those used in Japan. In September 2013, as part of the Singapore government's Smart Nation initiative, the Kajima Technical Research Institute Singapore (KaTRIS) was established in that country to gather advanced technology information from around the world. KaTRIS has been promoting joint research and PR activities concerning Kajima's technical capabilities. Going forward, as a foundation for the Kajima Group's technology marketing, KaTRIS will promote Kajima technology to the world. The Institute aims to become an advanced consulting organization that offers both technologies and solution capabilities to meet customer needs outside Japan.

#### miniGeo®

### Development of miniGeo<sup>®</sup> Compact Soil Exploring Vehicle

When building on soft ground, it is necessary to ensure that the piles extend down to the hard underground support layer. To design and construct a high-quality, efficient building foundation, the underground situation at the site must first be accurately ascertained. Kajima has developed and has been operating a soil exploring system called Geo-Explorer. Equipped with proprietary technology, Geo-Explorer has been used to quickly and accurately determine underground support layers at low cost since 1994, for almost a quarter century. In recent years, there has been a growing demand for accurately determining support layer distribution, as a result of social scandals with pile data falsification, and there is also an increasing need to survey tight spaces, such as those in downtown districts, and unprepared land before land formation. To meet these needs, a compact soil exploring vehicle, miniGeo<sup>®</sup>, was developed, and it went into operation in 2017.



#### **Ecore Kumamoto**

### Demonstrating Biotope Creation to Protect and Foster a Local Ecosystem

The Kumamoto Prefecture Public Participation Industrial Waste Management Landfill project (Ecore Kumamoto) in Nankan-machi, Kumamoto Prefecture, created a firefly biotope. This facility contributes to the local community and serves as a place for environmental education in northern Kumamoto. It allows people to learn not only about local ecosystem conservation, but also about resource recycling and biodiversity conservation. Since its completion in October 2015, there has been an increase in the number of fireflies and other scarce species. In addition to serving as a natural environmental base, Ecore Kumamoto is a useful facility for the community. This is thanks to the creation of green infrastructure and the ongoing surveys and management performed using Ikimono Note<sup>®</sup>, a Kajima environmental system for monitoring flora and fauna. The achievements of Ecore Kumamoto have been well received, and Kajima was recognized with an Environmental Award for the project from the Japan Society of Civil Engineers in 2016.



## Social Responsibility at the Kajima Group

Kajima's management philosophy is to contribute to society by advancing its business operations. Under the CSR Framework of the Kajima Group, Kajima is taking a group-wide approach to social responsibility.

Since buildings can be used for decades by successive generations, providing high-quality construction is a great contributor to the sustainable development of a society. Another way Kajima adds social value is by undertaking — and ensuring sufficient medium- and long-term consideration in—the entire process through construction completion and the subsequent building maintenance and management. Kajima is doing its utmost to make a contribution in these two areas.



### **Social Contribution Activities**

Through business activities focusing on building construction and real estate development, each Kajima site and workplace has great involvement with the local community; these activities are an important form of communication with society. Under its CSR Framework, Kajima is proactively making social contributions, taking advantage of its own business operations, technologies, human resources, and site network.

Kajima supports activities for disaster recovery, community support, environmental conservation, and education for the next-generation, while promoting cultural and artistic activities through its foundations. The Company also supports the volunteer activities of its employees.

### **Environmental Conservation**

## Official Supporter of the International Year of the Reef 2018

The International Year of the Reef 2018 is a worldwide campaign sponsored by Japan's Ministry of the Environment. Its goal is to raise awareness of the value of coral reef ecosystems and the threats facing them, in order to

encourage people to take action.

Kajima has been supporting activities to regenerate coral communities using a biodegradable product it has developed. CORAL NET<sup>®</sup> has been utilized in the Kerama Islands National Park in Okinawa Prefecture since 2010. As a result of this activity, Kajima was recognized as an official supporter of the Interna-



Logo of the International Year of the Reef 2018



Coral community being regenerated using CORAL NET<sup>®</sup> (Kerama Islands National Park in Okinawa Prefecture)

tional Year of the Reef 2018. The Company will continue to focus on the development of conservation technologies and strive to raise awareness in local communities.

### Support for Cultural and Artistic Activities Kajima Sculpture Competition

The Kajima Sculpture Competition is carried out with support from the Kajima Foundation for the Arts, and the Kajima Foundation. Since its establishment in 1989 as a part of the Company's 150th anniversary commemoration project, the competition has been held every other year under the theme of Sculpture, Architecture & Space. It has become an important stepping stone for young sculptors, as the only indoor sculpture exhibition in Japan



The works of all the past winners can be seen on the Kajima website. https://www.kajima.co.jp/csr/culture/sculpture/index.html

emphasizing a close connection between sculpture and architectural space.

The judges include art critic Tadayasu Sakai, sculptors Kiichi Sumikawa and Kan Yasuda, architects Fumihiko Maki and Yoshio Taniguchi, as well as Kajima Director and Senior Advisor Shoichi Kajima.

### **Education for the Next Generation**

### Kajima Summer School

As an initial pilot project, "Kajima Summer School 2017: Experience an Actual Construction Site," was implemented in July and August 2017. Tours were provided to young people at Kajima construction sites across Japan during the summer vacation. They were delivered as an educational activity for the next generation, as part of Kajima's social contribution activities.

Publicity and participant recruitment was carried out via the Kajima website. Information was also directly provided to residents near the host construction sites and to students at technical high schools. For some sites, the families of construction-related employees at Kajima and its partner companies participated as well. The summer school tours were tailored to the situations at each host worksite, and 37 tours were provided to a total of 767 participants at 33 sites across Japan.

The tours were provided at a wide range of construction sites such as those for tunnels, bridges, skyscrapers, and hospitals. Many participants remarked that their impression of the construction industry had changed after the tour.

One technical high school student said, "I was really impressed by those people working hard in this hot summer weather. I didn't think it would be so cool." Another remarked, "I thought the measures to ensure the safety and health of workers were very good."

Kajima hopes that creating opportunities for young people to walk through an actual construction site and come in contact with the process of construction will help to attract future employees by showing them the appeal of the industry.



### Kajima Foundations Promote Science, Culture and Art

As a good corporate citizen, Kajima actively supports academic, cultural and artistic activities. In particular, it has promoted academic and cultural activities for many years through five foundations.

#### The Kajima Foundation

Since 1976, the Kajima Foundation has been improving living environments by enhancing urban and residential neighborhoods and promoting effective use of national land and resources. It also works to promote academic and cultural development in Japan, offering research grants and supporting researcher exchanges. In fiscal 2017, 56 projects were funded, with grants and assistance totaling ¥68.85 million.

#### The Kajima Foundation for the Arts

The Kajima Foundation for the Arts, established in 1982, provides grants for research in the arts, related publications, international exchange, and projects to foster art dissemination, aiming to foster the arts and enrich Japanese culture. In fiscal 2017, a total of 75 projects were funded, with a total of ¥62.24 million. Every year, the Kajima Foundation for the Arts Awards are held to recognize those who have produced outstanding results from their funded research, and to give them an opportunity to present their achievements.

#### Kajima Institute of International Peace

Established in 1966, the Kajima Institute of International Peace

promotes international peace and strives to contribute to Japan's security. It studies and provides funding for research on international peace and security, economic matters, and issues concerning Japan's foreign relations, and then publishes the research findings.

#### **Atsumi International Scholarship Foundation**

The Atsumi International Foundation has been providing student scholarships and developing international exchange programs since 1994. It has granted scholarships to 278 students, including 13 in fiscal 2017, from 49 countries and regions. To build long-lasting networks among recipients, it also sponsors forums, workshops, and study tours led by former program scholars, who now teach at universities worldwide. These events have been held in Beijing, Manila, Seoul, Taipei and elsewhere.

#### Kajima Ikueikai Foundation

The Kajima Ikueikai Foundation, established in 1956, provides scholarships and financial assistance to university students in Japan, including students from other countries. In fiscal 2017, the Foundation provided scholarships to a total of 62 students, including four foreign students, with a total value of ¥39.60 million.