

Value Creation Process

With building construction as its core business, Kajima performs a variety of other value-chain activities such as planning, construction, building maintenance, and real estate development. It has also expanded these activities across the globe. The Kajima Group aims to continue developing and advancing for many centuries to come, by further enhancing each of these activities and by providing outstanding services.

Kajima Group Medium-Term Business Plan

Fiscal 2018-2020

The Kajima Group Medium-Term Business Plan (2018–2020) is designed to achieve sustainable growth in fiscal 2021 and beyond. It is based on the changing business environment and a medium- to long-term outlook with a focus on environmental, social and governance (ESG) measures. During the drafting process, the Board of Directors engaged in extensive discussions to identify

trends in social change in Japan and the rest of the world. It also sought to determine the material medium- and long-term social issues, as well as changes in the business environment that could affect the Group. By selecting and focusing on key issues for the medium- to long-term, the plan aims to deliver sustainable growth for both the Kajima Group and the broader society.

Trends in medium- to long-term change		
Changes being forecast worldwide	Progress of rapid urbanization in emerging countries	Intensified international competition among cities
		Growing corporate entry into new markets
	Quantum-leap innovation using innovative technologies	Substantial changes in industrial structure
		Advancement of social infrastructure through technological innovation
	Impact of changes in the natural environment	Further strengthening of environmental regulations and disaster prevention standards
		Changes in energy policies
Changes in Japan	Further demographic aging	Reduction in the working-age population
		Longer working lives and later retirement age
	Declining population	Increase in foreign workers
		Accelerated adoption of compact city policies
	Aging of social infrastructure	Increase in renovation and conversion
		Life cycle cost reduction, revision of development / ownership methods

Abrupt and discontinuous changes anticipated in the business environment	Key issues to be addressed in the medium to long term
<ul style="list-style-type: none"> Changes in economically prosperous areas Changes in business environment and rules Advancement and diversification of required standards Changes in quality and quantity of human resources Decline in construction investment Changes in investment quality 	<ul style="list-style-type: none"> Improve corporation's capacity for proper execution by raising individual capabilities and reinforcing organizational management Establish an effective method for developing and managing social infrastructure in an era of aging and population decline Further global expansion of the Group Strengthen core competence and seek out as well as establish new business model Propose forward-looking values that meet new societal and customer needs Develop technologies and accumulate knowledge to solve global issues (disaster reduction and mitigation, environment, energy)

Themes considered when drafting the new medium-term business plan

Preparing for a business environment of abrupt and discontinuous change			
Diversify revenue sources	Address new needs	Closely monitor the effects of technological innovation	Develop business platform
<ul style="list-style-type: none"> Real estate development Overseas operations Upstream/downstream construction work Operational management 	<ul style="list-style-type: none"> Promote R&D Building partnerships with society and customers 	<ul style="list-style-type: none"> Open innovation Pursue medium- to long-term business model 	<ul style="list-style-type: none"> Build Group-wide management structure Strengthen risk management Secure and develop human resources

Kajima Group Medium-Term Business Plan

Fiscal 2018-2020

Key Objectives

Create next-generation construction systems

Reform production at construction sites in Japan to build sustainable systems in terms of both technology and the people using it, in order to create next-generation construction systems.

Provide construction and services of high value to society and customers

By focusing on changes in the business environment over the medium and long term, enhance capabilities for proactively addressing social issues and customer expectations, and pursue effective building construction and services.

Establish a Group-wide business platform for growth

Develop the organizational and management framework centered on Kajima Corporation into an optimal system for group management.

Priority ESG measures



Business Strategies

Along with the establishment of highly competitive construction methods based on strategic R&D, Kajima will promote work-style reform with a focus on construction sites, seeking to create supportive workplace environments for both Kajima employees and skilled workers. The Company also aims to diversify revenue

sources by expanding into new business fields in order to meet the evolving and increasingly diverse needs of customers and the broader society. Kajima will proactively invest and implement measures to realize these goals while creating business execution frameworks and other platforms that facilitate group management.

Domestic construction business	Improve productivity and create an attractive work environment
Domestic/overseas construction businesses	Enhance efforts in promising markets and fields
Construction-related businesses	Ensure proper execution in upstream and downstream businesses and diversify revenue sources
Domestic/overseas real estate businesses	Increase profitability in the real estate business
Issues common to all businesses	Enhance efforts to address social issues, including the environment, energy, and disaster prevention and mitigation

Medium- to Long-Term Business Targets

FY2018–2020 targets

Consolidated net income

¥80 billion or more

ROE

10% or more

Maintain ROE exceeding shareholders' equity cost

Medium- to long-term target

Consolidated net income

¥100 billion or more

(¥ billion)

	FY2018		FY2020		Medium to long term
	Consolidated	Non-consolidated (parent company)	Consolidated	Non-consolidated (parent company)	Consolidated
Revenues	2,000	1,250	2,150	1,340	Approx. 2,500
Net income*	82	66	80 or more	60	100 or more
Interest-bearing debt	340	-	400 or lower	-	-

* Consolidated net income attributable to owners of the parent.

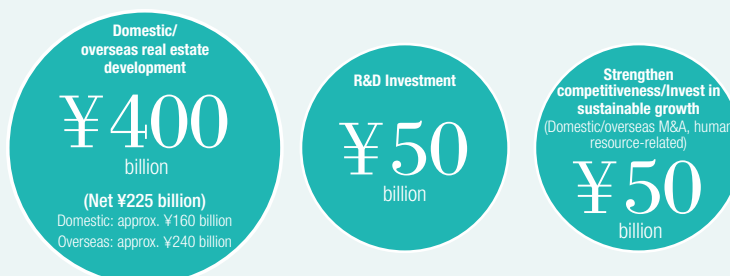
Investment Plan

Total investment value over three years

¥500 billion or more

Prioritize investment in domestic and overseas real estate development

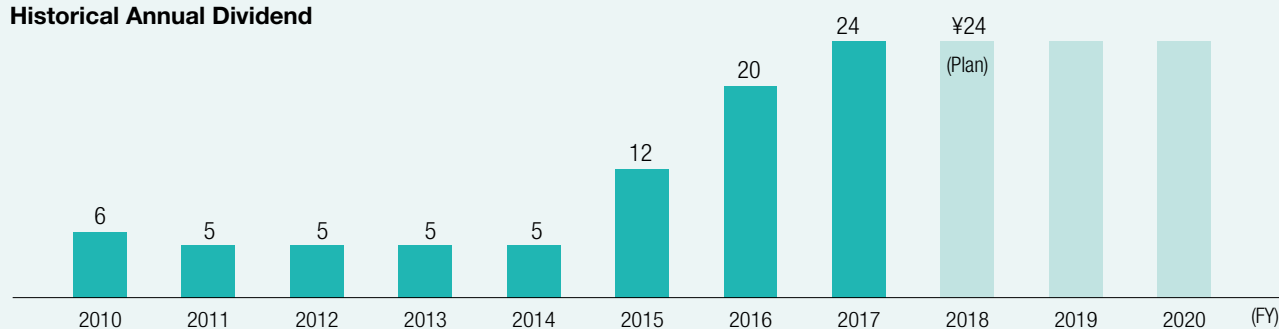
Rigorously measure investment efficiency and risk management with an awareness of capital costs



Policy on Shareholder Returns

Aim to distribute stable amounts of dividend with a target range of a 20 to 30% payout ratio, while securing adequate consolidated equity capital.

Historical Annual Dividend



*The Company plans to consolidate its shares on a one (1) for two (2) basis, with October 1, 2018 as the effective date.
*The above lists the annual dividend per share without considering the effects of the share consolidation.

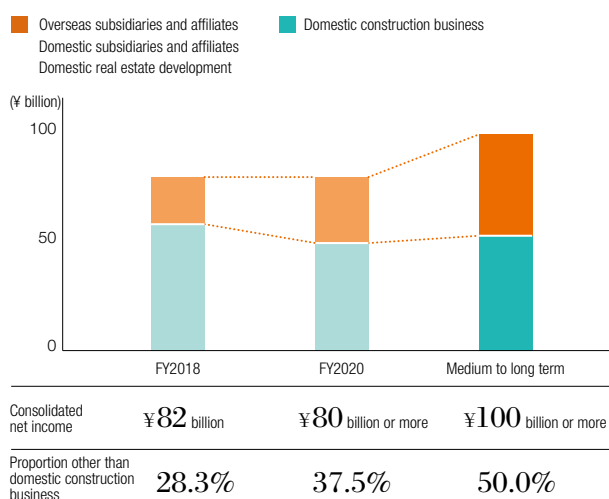
Diversifying Revenue Sources to Ensure Sustainable Growth in Fiscal 2021 and Beyond

Changes in the external environment can significantly affect the business of general contractors. Looking to the future, Kajima will strive to diversify its revenue sources through proactive investment and other measures, while redefining its core competencies and enhancing profitability. The Company will leverage the three-year period of the current plan to build a foundation that will deliver steady results in fiscal 2021 and beyond. The Company will implement the necessary investment and measures to increase revenues for each business area and to develop new businesses.

Medium- to Long-Term Business Targets

The consolidated net income target for fiscal 2020 of ¥80 billion or more is, in fact, lower than the fiscal 2017 actual. This is because the Company foresees a sharp rise in material and labor costs and intense competition for orders over the next three years.

Over the medium to long term, Kajima aims to secure annual consolidated net income of ¥100 billion or more. To achieve this, the Company will pursue investments in real estate development, group collaboration, and M&A in Japan and overseas. It is expected that half of the total target will come from business areas other than the construction business in Japan. For domestic construction, Kajima aims to create next-generation construction systems by investing in R&D, and to secure solid earnings in fiscal 2020 and beyond.



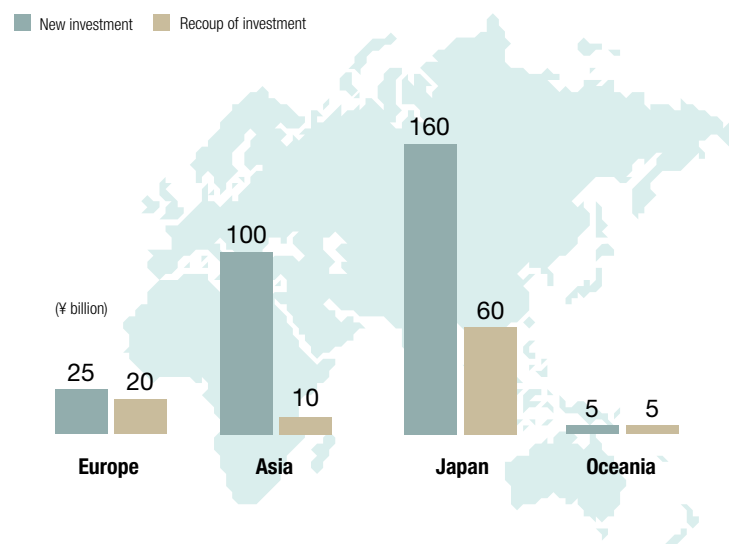
Investment Plan

The total investment of ¥500 billion is not expected to contribute greatly to performance during the period of the Medium-Term Business Plan. However, it is expected to make a significant contribution to Kajima's sustainable growth and corporate value in the long term. Determined to meet the expectations of its stakeholders, Kajima will conduct its business with thorough risk management, investment efficiency assessment, and an awareness of capital costs.

Real Estate Development in and outside of Japan

Kajima's strengths in planning and proposals for real estate development and the technical capabilities of its locally-rooted building construction business generate powerful synergies. To leverage these synergies, Kajima will invest ¥400 billion in real estate development projects worldwide, many of which are already underway or decided. Anticipating an investment recoup of ¥175 billion from property sales, the net investment will be ¥225 billion.

Increasing investment means rigorous risk management. Kajima only approves projects that meet criteria on business risk, compliance, profit levels by country and business, future growth potential, etc. For major strategic projects with a large price tag, or when entering new fields or markets, a special-purpose committee with head office representation examines the matter, and the investment decision is made by the Management Committee or the Board of Directors. Progress on investment and investment recoup is carefully and periodically monitored.



Calculating return on invested capital (ROIC), Kajima pursues optimal fund allocation by confirming if each department is obtaining returns in excess of cost of capital and has established a monitoring system to control downside risks for owned assets.

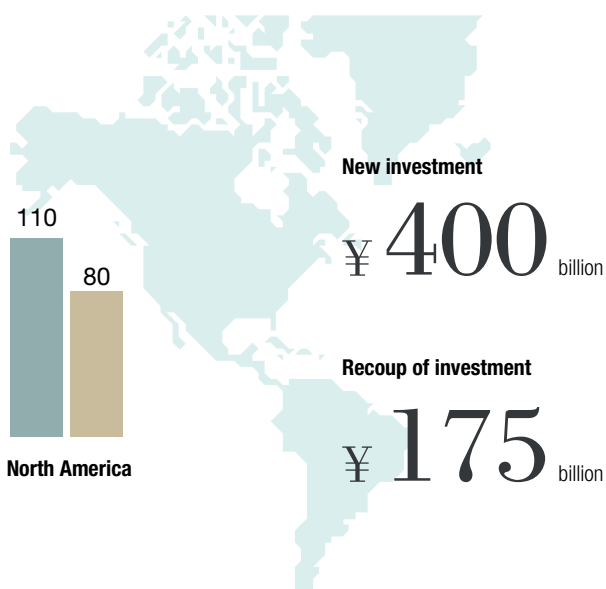
R&D and Human Resource Investment

Kajima plans to allocate ¥50 billion for R&D investment, and another ¥50 billion to enhance competitiveness and achieve sustainable growth. In addition to dramatically improving productivity by introducing advanced technology, the Company will search for new technology and business startups and perform incubation to develop technology applications.

In the medium to long term, Kajima will create new value by combining existing technologies with new businesses or technologies, while aiming to maintain and improve competitiveness. At the same time, the Company will proactively pursue M&A where synergies and complementary role division can be expected with existing businesses both in Japan and overseas. It will also invest in the IT and human resources necessary to promote forward-looking initiatives.

Strengthening Group Collaboration

A team including a Kajima Group company won first prize at the Jurong Lake Gardens International Competition sponsored by the National Parks Board under Singapore's Ministry of National Development. Landscape Design



Inc., a subsidiary of the Company, has an alliance with local design firm in Singapore. With the cooperation of the Environmental Engineering Division, Kajima Technical Research Institute, and Avant Associates Inc. as specialists, collaboration support was provided by Kajima Overseas Asia Pte. Ltd. (KOA) in Singapore. The combination of the Kajima Group's environmental engineering technology and area management expertise were the advantages in this competition. The Group will continue to improve earnings capacity by enhancing internal collaboration.



M&A Performance

Kajima has been acquiring and establishing companies in new fields and markets, especially outside Japan, as well as companies that complement the resources of the Group. Going forward, Kajima will further enhance profitability by expanding its business and leveraging synergies.

Main M&A and new entities established		
2015	U.S.A.	Core5 Industrial Partners established (distribution warehouse development)
	Australia	Icon Co. acquired (building construction and real estate development)
2016	Vietnam	Indochina Kajima Development Limited established (real estate development)
	Japan	Kajima Fit Co., Ltd. established
2017	Australia	Cockram Construction acquired (building construction)
	U.S.A.	Flournoy Construction Company acquired (development, construction and management of apartment communities)
	Japan	Global BIM Inc. (BIM) established Clima Works Co., Ltd. established
2018	Hong Kong	Additional acquisition of Scenario Cockram Ltd. (a company specializing in themed interiors and exteriors)
	Singapore	International Facility Engineering Pte. Ltd. (IFE) acquired
	Japan	Kajima Private REIT Inc. established

Providing Returns to Shareholders While Building a Sound Business Platform and Further Increasing Capital Efficiency



Ken Uchida

Director; Managing Executive Officer; General Manager, Treasury Division

Financial Challenges for the Medium-Term Business Plan (2018-2020)

We launched the new Medium-Term Business Plan this fiscal year. Results under the previous plan (2015-2017) were extremely favorable. In recent years, we were successful with efforts to stabilize the financial base and increase capital efficiency, and, significantly, also made progress in reducing interest-bearing debt and improving the balance sheet. With these results, we started to consider both the Medium-Term Business Plan (2018-2020) and the future for our financial structure in the medium to long term, beyond 2020.

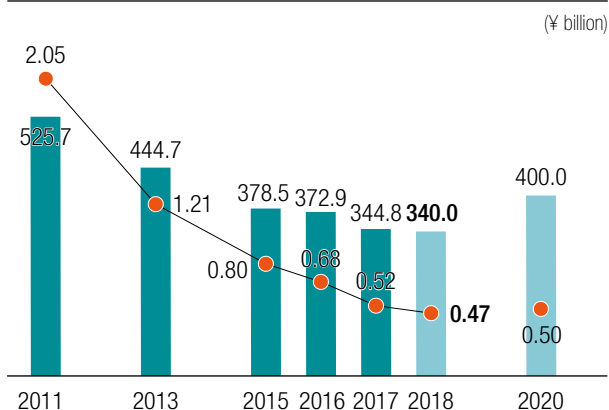
Specifically, we will seek to anticipate the future business environment, industry trends and business resources accurately and build a firm financial platform capable of

supporting steady progress on activities and investments in a variety of areas. These include efforts to further improve productivity in the resurgent construction industry, such as next-generation construction systems and transforming construction sites into the equivalent of an automated factory. We will work to respond to changes to frameworks and systems related to subcontracting and orders. In addition, we will ensure that we are prepared for the serious challenge in Japan of an insufficient number of skilled construction workers, while also expanding revenue sources in upstream and downstream sectors. Meanwhile, we will invest proactively in the domestic and overseas real estate development business, looking also to enhance synergies with the construction business.

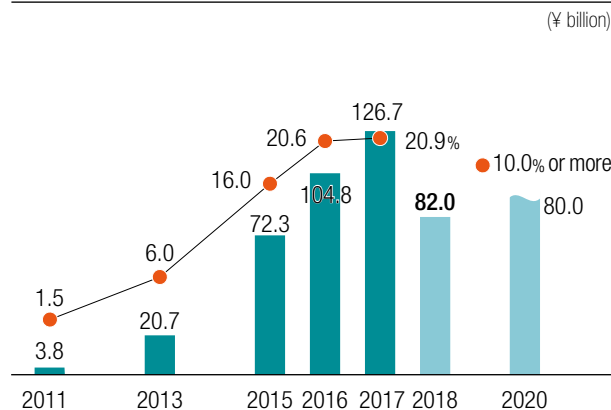
Over the medium to long term, we believe that change will sometimes be abrupt or discontinuous; it is currently difficult to predict factors that may affect all aspects of our business, from customer requirements and social needs to technological innovation and its practical applications and construction production systems. Nevertheless, we are determined to adeptly and accurately respond to changes like these with creative activities or investment in order to achieve outcomes with confidence. This is why we are examining our funding cycle—acquiring financing smoothly and at advantageous rates, measuring and assessing accurately the outcomes of this financing, and securing returns on investment.

Under current business conditions, it is important to increase the stability of the construction industry, and we are also engaged in efforts to improve payment conditions

Interest-Bearing Debt / Debt Equity Ratio



Net Income Attributable to Owners of the Parent / ROE



at partner companies. We believe that, while we source funds from cash flow from operating activities in our core business, increasing economic volume by accelerating outflow and inflow of funds (i.e., an improved capital turnover ratio) will help make the construction industry's financial position stronger.

The domestic and overseas real estate business bring with them asset impairment risk depending on business conditions. In overseas business, there are also risks associated with downturns in local economic conditions and foreign exchange rates. In order to take on a certain degree of risk for real estate development assets and expansion of overseas business, it is imperative to ensure that periodical profit and loss and balance sheets remain resilient. This is one of the reasons why we have identified "securing adequate consolidated equity capital" in the new Medium-Term Business Plan. Given that the Kajima Group aims to engage in both the construction business and also the real estate development business as a "gen-con developer" that combines the characteristics of a general contractor and a developer, we anticipate that our financial structure will also develop characteristics unique among general contractors, featuring aspects of both the flow-model construction business and the stock-model development business. One of the challenges for financial management will be to identify the advantages and disadvantages of each model and achieve a risk-resilient balance.

Ensuring Financial Soundness to Support Active Investment

Meanwhile, gaining a return on investment requires a certain amount of time. For example, take the real estate development business, where many stakeholders are involved in co-creation and the time required for the contribution to the balance sheet to become discernible is measured in years. Time is also needed in M&A—for post-merger processes to identify complementarity with the Kajima Group and accomplish the optimal role sharing. For technological development, the greater the technological leap forward that is sought, the longer the development lead time, coupled with the time and effort required to seek new knowledge in a broad range of fields. Efforts to develop skilled construction

workers and promote recruitment also take time for consideration of the necessary measures and a degree of trial and error.

Although we must press forward with all such measures with due speed, given that there are some challenges that are only likely to materialize after the three-year period of the current Medium-Term Business Plan, we recognize that we will need to persevere with structural reforms.

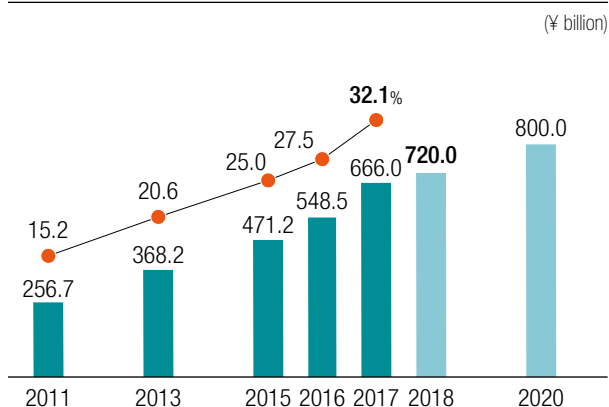
In our diverse investments going forward, we are committed to adhering to investment efficiency criteria and also to ensuring optimal allocation of funds and resources. We will implement financial controls to secure stable investment resources and avoid excessive dependence on interest-bearing debt, by utilizing cash flow from stable business revenue and achieving returns backed by investment efficiency criteria. Employing these various methods, we will assess the financial soundness of the Kajima Group based on indices such as owner's equity, owners' equity ratio, and debt-equity ratio.

Shareholder Returns

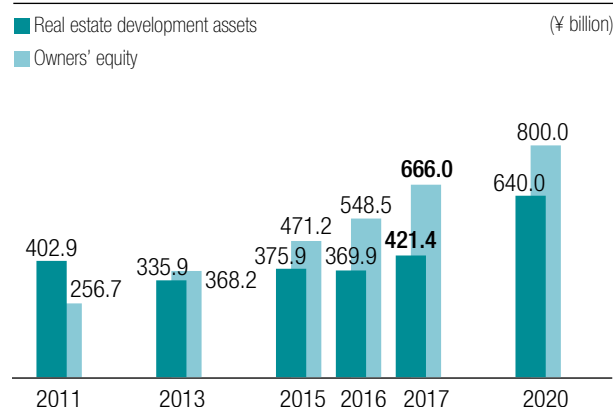
The Kajima Group's dividend policy is to "Aim to distribute stable amounts of dividend with a target range of a 20 to 30% payout ratio, while securing adequate consolidated equity capital." In terms of the utilization of earned funds, we will achieve a balance between proactive investment and returns to shareholders. We have set numerical targets for profitability in each fiscal year of the Medium-Term Business Plan, looking to achieve our target for adequate consolidated equity capital (approx. ¥800 billion) by 2020. In this process, ROE will settle into a steady pace, but in addition, by continually securing more than 10% above target levels, we aim to meet expectations for shareholder returns.

We remain committed to steadily and dependably working to deliver sustainable growth and improve corporate value, aiming to surmount any unpredictability caused by societal and environmental change as we advance toward our vision for the future described in the Medium-Term Business Plan.

Owners' Equity / Owners' Equity Ratio



Real Estate Development Assets / Owners' Equity



Long-Term Environmental and Energy Initiatives

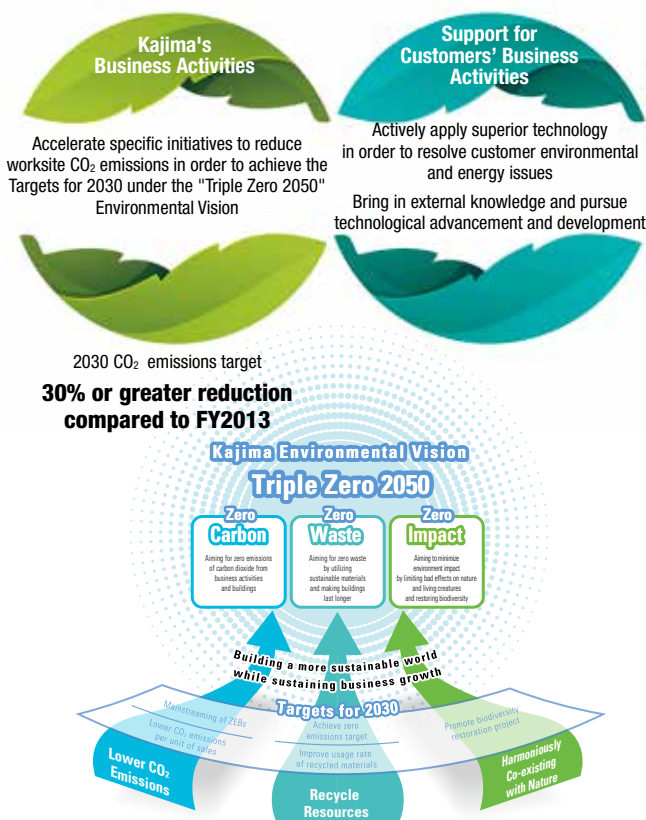
New Targets for the "Triple Zero 2050" Environmental Vision

In Kajima's Medium-Term Business Plan (2018–2020), the environmental priority is to "pursue environmental and energy opportunities for the business activities of the Kajima Group and its customers." In its own business activities, the Group will accelerate concrete efforts to reduce CO₂ emissions at worksites. Then, as part of its support for the business activities of its customers, it will utilize superior technologies to help customers address their environmental and energy issues.

Kajima's basic environmental approach is described by Kajima's "Triple Zero 2050" Environmental Vision, established in 2013. Three areas that the Group has been focused on, namely, lower CO₂ emissions, recycling resources, and harmoniously co-existing with nature, will continue to be the focus under the new Medium-Term Business Plan.

Regarding lower CO₂ emissions in particular, the targets were updated with the implementation of the Paris Agreement in 2016 and the growing ESG investment trend. Kajima is now aiming to achieve a 30% reduction in its CO₂ emissions per unit of sales (tons of CO₂ per million yen) by 2030 compared to fiscal 2013, and a reduction of 80% or more by 2050, in alignment with the Japanese government's national reduction targets.

Enhancing Long-Term Environmental and Energy Initiatives



Triple Zero 2050 (Revised May 2018)

	Social Goals	Triple Zero 2050	Targets for 2030
Building a More Sustainable World	Lower CO₂ Emissions Balancing greenhouse gas emissions from human activities with the Earth's capacity for CO ₂ absorption	Zero Carbon Aiming for a zero carbon footprint by reducing the Group's greenhouse gas emissions (Scope 1, 2, and 3 emissions) by at least 80% compared to fiscal 2013	Group-wide Reduce group-wide greenhouse gas emissions (Scope 1 and 2 emissions) per unit of sales to at least 30% of fiscal 2013 level (equivalent to a 30% reduction of total emissions with fixed construction amount) Contribute to the reduction of Scope 3 emissions as well, through supply chain cooperation Construction Operations Lower worksite greenhouse gas emissions per unit of sales to at least 30% of fiscal 2013 level Architectural Design Lower CO ₂ emissions in the operation stage of newly completed buildings by at least 30% compared to Japan's energy-saving standard Mainstream ZEB Ready buildings and pursue Net ZEB for flagship projects
	Recycle Resources Pursuing zero emissions by employing state-of-the-art infrastructure maintained and operated using sustainable resources	Zero Waste Aiming to eliminate waste from construction operations by ensuring zero landfill disposal of waste during construction, utilizing sustainable materials, and making buildings last longer	Completely eliminate final landfill waste disposed from construction operations Achieve a usage rate of recycled materials of at least 60% for principal construction materials (steel, cement, ready-mixed concrete, crushed stone, and asphalt)
	Harmoniously Co-existing with Nature Valuing the continuous benefits of ecosystem services by minimizing the impact of human activities on the environment and living creatures	Zero Impact Aiming to minimize the overall environmental impact of construction operations by limiting their effect on nature and living creatures while promoting the restoration of biodiversity and new ways to make use of its benefits	Promote biodiversity restoration projects Build up effective projects and make them hubs for biodiversity-related networking
	Common Foundation Initiative Areas	<ul style="list-style-type: none"> • Management of hazardous substances: Ensure preventative measures (especially for soil contamination and asbestos) and proper management of chemical substances • Perform research and technology development • Actively distribute information in and outside the Company 	

Helping to Solve Customers' Environmental and Energy Issues

Kajima provides technologies and services to support the business activities of its customers and help them solve their environmental and energy issues in the areas of lower CO₂ emissions, recycling resources, and harmoniously co-existing with nature.



Highlight
Lower CO₂
Emissions

Reducing Net Energy Consumption in the Building Operation Stage to Nearly Zero

Kajima is working not only to reduce CO₂ emissions from its construction work but also to reduce emissions in the building operation stage after completion and transfer to the customer. A zero energy building (ZEB) is based on the idea of lowering net energy consumption in the operation stage to as close to zero as possible, using both energy conservation techniques and renewable energy sources.

The KT Building in Minato-ku, Tokyo, completed in August 2016, is home to Kajima's Tokyo Civil Engineering Branch and Tokyo Architectural Construction Branch. Under the Building-housing Energy-efficiency Labeling System (BELS) established by the Japanese government, Kajima achieved a 54% energy conservation level, compared with a standard building. As a result, the KT Building was designated as ZEB Ready and has become a showcase for a medium-size urban office building with low CO₂ emissions.

**Building-housing Energy-efficiency Labeling System (BELS)*



Highlight
Recycling
Resources

Effectively Utilizing Previously Unused Local Biomass Waste

Located at a pre-existing sewage treatment plant, the Toyohashi City Biomass Utilization Center in Aichi Prefecture intensively processes biomass from the local area, including sewage sludge, human waste and septic tank sludge, and organic waste, and converts it entirely into energy. The center was created through a private finance initiative (PFI), based on the establishment of a special purpose company together with JFE Engineering Corporation and others. It is the largest facility in Japan for recycling mixed local biomass, and it began operation in October 2017.

The center's pre-treatment facility uses technologies developed by Kajima. These include the Ibutoron[®] crushing and smoothing machine that enhances methane fermentation efficiency by removing non-fermentable materials from organic waste, as well as the Karatoron[®] separator which removes inorganic matter including shells to avoid problems in subsequent processes. Kajima Environment Engineering maintains and manages the equipment.

By enabling regional biomass waste to be intensively processed and turned into energy, Kajima is helping to reduce the renovation and operating costs of this existing facility. It is also helping to build a recycling-oriented community while making a meaningful contribution to global warming prevention.



CIVIL ENGINEERING



A⁴CSEL[®] is a next-generation construction system (pronounced "quad axel") focused on automation of construction machinery.

Fiscal 2017 Review and the Future of the Civil Engineering Market

The Civil Engineering Division's goal in recent years has been twofold: improving productivity while at the same time addressing growing construction volume by flexibly deploying employees. In fiscal 2017, we made steady progress in our large-scale construction projects and achieved higher sales and profits. We were also able to secure new orders as forecast at the beginning of the year, due largely to our successes in the private sector energy markets as well as in the public sector in general.

Regarding future demand trends, public investment will remain stable for the time being, with a focus on road and rail infrastructure as well as disaster prevention and mitigation. We expect demand in the private energy sector to expand, including wind power generation and projects related to the restarting of nuclear power plants. In the medium to long term, maintenance and renovation work is expected to climb to counter the aging of infrastructure.

Meanwhile, the expected shortage of workers over the medium to long term is an industry-wide structural problem that needs to be addressed immediately. This is why we think we need to ensure that holidays and wages for skilled onsite workers are comparable to those in other industries, and to make construction sites attractive workplaces. Facing a decline in the number of highly skilled workers, we will take the necessary measures including major changes to the way production sites operate.



Masayasu Kayano

Director; Executive Vice President;
General Manager, Civil Engineering Management
Division, Responsible for International Civil
Engineering Operations

Aiming for Construction Site Automation

The Civil Engineering Division has been considering measures to deal with the problem of shortage of workers for a long time. One of our main emphases has been developing technology for turning construction sites into the equivalent of an automated factory.

Kajima has been developing automated construction using heavy machinery for more than ten years. This year, at the Koishiwaragawa Dam under construction in Fukuoka Prefecture, a new automated construction system will be put into use. The system will be the first of its kind in the world whereby construction work is performed autonomously by multiple pieces of heavy equipment. In addition, we are planning to apply this system on a wider scale at the Naruse Dam in Akita Prefecture, a project awarded to us this fiscal year. We are also developing automated construction technologies for other project types, such as NATM and TBM tunnels, using the results obtained from these dam projects.

We are also working to expand the use of precast materials for concrete structures in civil engineering projects, while bringing in ideas from the Building Construction Division, which already commonly uses precast in reinforced concrete buildings such as high-rise condominiums and has high construction productivity. Our ultimate goal will be to incorporate robotics technology in automating the assembly of precast materials.

In addition to the mechanization and automation of construction, we are also advancing onsite management. Unlike the manufacturing industry, where mass production occurs in factories, civil engineering projects involve unique orders and outdoor production sites. This poses difficulties in acquiring daily production data concerning these projects, which could be used to improve efficiency. However, with the remarkable advancement of information and communications technology (ICT) in recent years, it is now possible to collect various kinds of production process data from construction sites quite easily. The Productivity Promotion Department, newly established at the head office in April of this year, began using ICT to collect, share and analyze production data in a centralized manner. We will keep moving forward with widespread deployment of construction information modeling (CIM), a site management system linked with automated construction.

Open Innovation Initiatives in Japan and Overseas

The key to developing breakthrough technology is expanding our outlook beyond Japan to the rest of the world, exploring new cutting-edge technologies, and actively incorporating them. In particular, advanced technologies like AI and IoT that are critical to creating automated construction sites are concentrated at overseas venture companies and research centers.

Last year, we established a dedicated team at the head office to identify and promote collaboration with venture companies around the world. For example, one overseas venture company is developing and commercializing a system that constructs small diameter tunnels while detecting and avoiding buried objects. Japan has long been known as a leader in soft-ground tunneling using TBMs, but this overseas example shows how innovation—incorporating advanced technologies for probing and control—can create new businesses.

This summer, we are setting up a base in Silicon Valley, staffed with employees from Japan, who will engage in full-scale activities to find new technologies. We will strengthen initiatives for open innovation through collaboration with venture companies in different industries, and will create innovative technologies.

Furthermore, we expect that such automation and mechanization technologies will allow us to maintain the quality of overseas projects which are subjected to diverse local conditions. This should also help strengthen Kajima's competitiveness abroad.



Kajima utilized the Four-Boom Full Auto Computer Jumbo for the main boring of the Shinkuzakai Tunnel in Iwate Prefecture, a first in Japan. Going forward, the aim is to automate the entire series of operations related to tunnel construction.

BUILDING CONSTRUCTION



Fiscal 2017 Review and the Future of the Japanese Construction Market

During the three fiscal years from 2015 to 2017, our urgent challenge was to revitalize and reinforce the construction business. We used the first two years to restructure. Then, in fiscal 2017, we launched the Kajima Building Construction Total Management System (KTMS) 2017, part of our drive to improve productivity. We undertook further improvements with three initiatives: revising operational standards, leveraging ICT tools, and striving to reduce the need for labor by 30%. I am happy to report that all these efforts—buoyed by strong demand in the domestic market and stabilizing costs—raised productivity company-wide and reduced costs before order receipt and after construction start, enabling us to deliver on our performance targets and substantially improve our financial position.

During this time, we also sought to expand into new business fields by pursuing collaboration within the group. One such focus was the sale of technologies to support disaster preparedness and business continuity planning (BCP). Our q-NAVIGATOR®* building safety assessment support system has been installed in a total of over 300 buildings. We are focused on offering enhanced comprehensive solutions utilizing the expertise of Kajima Group companies.

In the Japanese construction market in fiscal 2018 and beyond, we expect construction investment to remain steady—mainly in the Tokyo metropolitan area, where there are many redevelopment plans. Yet this brings with it another concern that the intensifying slate of large-scale redevelopment projects in the Tokyo area will drive construction costs up. In the long term, we expect the environment affecting the domestic construction market to change, including a falling birthrate, aging population, and declining number of working-age people. We plan to address labor shortages and cost increases by using ICT tools to grasp and share information on those key factors.



Hiroyoshi Koizumi

Representative Director; Executive Vice President;
General Manager, Building Construction
Management Division

q-NAVIGATOR®

A system that supports disaster preparedness and business continuity planning by installing seismic sensors on several floors of a building. After an earthquake, the system can determine the safety of the building in a short period of time based on the magnitude of shaking measured on each floor.

Creating Next-Generation Construction Systems

KTMS 2017, which we launched last fiscal year, has reached the midpoint of our three-year roll-out plan. We are making steady progress from the introduction phase to the establishment and outcome-verification phases. Going forward, we will create next-generation construction systems so we can better meet customer needs and respond to anticipated changes in the environment affecting our ability to win contracts in 2020 and beyond.

We can further improve productivity while delivering stable quality by leveraging big data on processes from the initial project stage through construction, and on the post-completion stage, and building analysis, evaluation and feedback mechanisms. This will also help us anticipate any shortage of skilled workers for each operation type, and take the necessary measures in advance. Going forward, we hope to use AI to enable any of our personnel to prepare estimates and calculate appropriate construction periods, while also evaluating optimum construction plans.

Taking New Steps to Enhance Productivity

We are pursuing a 30% reduction in the need for labor on the construction site, and we are doing this with sensitivity to today's social expectations around work-style reform and the five-day work week. Technology development is still our key focus for improving productivity. We will develop technologies under themes such as construction automation and ICT utilization while collaborating with companies inside and outside the Kajima Group. For example, with new technologies such as welding robots and onsite position locators, we will proceed with construction site work and verification of our own development projects, and use the results as a foundation for further expansion.

We will also accelerate our utilization of building information modeling (BIM). We will select model sites from among our design and build projects, and then take on the challenge of applying advanced BIM from the design and construction stages to the operation and maintenance stage. BIM technology can serve as a key information infrastructure from building planning and design, to construction and building management/operation, and we expect to find applications for it in various areas. Going forward, a key factor will be deciding what kind of information to gather, and how it will be stored and utilized.

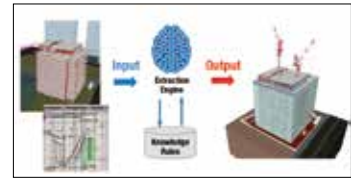
Direct Hiring of Skilled Workers by Group Companies and an Earnings System for Up/Downstream Businesses

In order to improve productivity, it is also critical that we develop multi-skilled workers. To address this challenge, the Kajima Group has begun to directly hire skilled workers. The new companies Kajima Fit Co., Ltd., the welding division of Kajima Kress Corporation, and Clima Works Co., Ltd. have become important forces on large construction sites in the Tokyo area. They are hard at work on certain sites that are difficult for existing partner companies to handle, and they also deal with additional modification work. Meanwhile, we are also expanding the scope of their activities to include the development of technologies, such as robotics.

As we pursue stable earnings for the Kajima Group over the medium to long term, we will take advantage of our core business, the construction business of Kajima Corporation, as well as the strengths of the group companies that are responsible for the upstream and downstream businesses. The Group will also expand its business portfolio and seek to leverage synergies to create new value. Specifically, in the upstream areas, we will engage in joint projects with customers and local governments, focusing on disaster preparedness and BCP, and in public real estate (PRE), while further strengthening services for renovation and building management downstream.

We are determined to remain competitive, so we are creating next-generation construction systems using our original Kajima approach. We seek to deliver sustainable growth by strengthening cooperation within the Kajima Group and by implementing work-style reform. The key to our success will be technology development—information, automation, and labor saving technologies using ICT.

AI-Based Construction Planning Support



By utilizing a myriad of building construction data and BIM data, AI can provide support for progress management, quality control, and construction management.

Virtual Completion Using BIM



Through computer modeling, the aim is to achieve exceptional productivity by integrating the architecture, structure, and equipment, and to thereby reduce inconsistencies to zero before actual construction begins.

Special Feature

Kajima Work-Style Reform

Instituting Five-Day Work Weeks at Construction Sites

In order to address customer needs and secure sustainable growth, Kajima is implementing corporate work-style reforms at its construction sites, after determining site conditions and getting input from partner companies. Kajima is incorporating new perspectives and approaching reform from various angles to identify issues and find solutions that will enable workers to enjoy a five-day work week.

If it is to succeed in instituting five-day work weeks at all sites, Kajima must also ensure that wages for construction workers are at the very least maintained. This is why, in addition to moving toward a five-day work week, the Company is also endeavoring to improve wages and employment conditions through work-style reform. Kajima is considering the specific conditions at each construction site as it studies and implements various measures to make a five-day work week possible. While working to maintain and where possible improve wages, Kajima is also integrating new work styles that will help it to secure the next generation of workers.

Implementing a Five-Day Work Week

Kajima is moving in phases to implement a five-day work week (104 days off annually*) at construction sites. The Company aims to implement a five-day work week 50% of the time by the end of fiscal 2019. This will be increased to 75% by the end of fiscal 2020, by implementing internal initiatives to improve productivity. In the last phase, Kajima will fully implement a five-day work week, every week, at every site, by the end of fiscal 2021.

* 104 days off annually is based on 52 weeks and a five-day work week (two days off each week)

2017	Medium-Term Management Plan			Next Medium-Term Management Plan		
	2018	2019	2020	2021	2022	2023
Target for implementing a five-day work week (104 days off annually)		50%	75%	100%		
Developing initiatives for new work styles	Establish new work styles in active dialogue with partner companies		Expand initiatives for new work styles in the lead-up to the next Medium-Term Management Plan			
	Improve productivity through comprehensive internal initiatives					
	Achieve targets with cooperation of all parties involved					

Implementing Work-Style Reform

Kajima will formulate yearly site closure plans that will minimize the impact on work while factoring in site conditions and limitations. Administrative departments will track the actual performance against the plan and support the construction sites.

The plans will be based on a five-day work week with Saturday and Sunday closures, aiming to secure 104 days off for workers each year. However, in some cases, snow accumulation and seasonal droughts can be limiting factors, making it necessary to concentrate the work within a specific time frame. Some projects may require working on weekends, such as to conduct repairs on running facilities. In that case, closures are scheduled on feasible weekdays as circumstances permit at the construction site, and extended closures are scheduled during Japan's Golden Week holidays in early May, summer, year-end, and the start of the year to secure 104 days closed annually.

Additionally, there are special projects that require the work to be completed in a very short time frame or involve public facilities that must stay open. For these projects, days off are scheduled to coincide with the facility closures and workers are scheduled to alternate days off to achieve 104 days off annually.

Kajima is having design and engineering teams work more closely with construction sites to realize these measures and using automation and mechanization to improve productivity in order to secure days off. The Company is striving to provide employees with regular work opportunities by standardizing the work and enhancing workers' skills in multiple areas. It is also working with partner companies to implement various measures that raise the efficiency of site operations. In the long term, Kajima will closely examine the measures being implemented at construction sites in order to develop a blueprint for core measures for each type of project.

Improving Public Perceptions of Construction Work

Kajima is working in various ways to improve public perceptions of the jobs done by skilled construction workers. The Company has prepared educational DVDs for young students, parents, and educators that introduce seven specialized types of construction work, describing each type of work in detail and explaining what modern construction work entails. Kajima also shows its construction sites to visitors and organizes experiential events. In order to secure the next generation of workers, the Company implements training and education for construction workers and actively strives to improve work conditions, while also pursuing various initiatives in cooperation with the Kajima Business Partners' Association.

MESSAGE



Atsuro Honda

General Manager, Safety and Environmental Affairs Department

Securing the Next Generation of Workers

To keep achieving sustainable growth, Kajima must establish a stable construction work system that encompasses its partner companies. This requires that Kajima urgently secure the next generation of workers. Construction work is not currently seen as a promising occupation because of wage standards, the difficulty with getting days off, and labor conditions.

Kajima is positioning its work-style reforms as a strategy for securing the next generation of workers and implementing the reforms under a corporate action plan while recruiting forward-thinking partner companies to support the reforms to the best of their ability. We are focusing on the things that matter most to young people today, which is gaining stable employment, employment conditions that suit the labor involved, days off, and rewarding work. Accordingly, we have developed strategies in five areas (recruitment, employment conditions, training/education, site environment, and business platform) that we will execute in close cooperation with business partners' associations.

REAL ESTATE DEVELOPMENT



Teruaki Yamaguchi

Executive Vice President;
General Manager, Real Estate
Development Division

Looking Back over 2015 to 2017

Kajima has built its real estate development business by balancing flow-model projects for short-term revenue and stock-model projects for medium- to long-term revenues. Especially in the latter projects, we have been increasing asset value by leveraging the expertise of group companies even after building completion, and this has helped drive the growth of the Kajima Group.

The aim of the Medium-Term Business Plan (2015–2017) was to create profits in a short period of time and build good long-term assets. Under the plan, we have created new projects worth a total of about ¥170 billion. The fact that our comprehensive proposals have been so well received in a competitive environment where more than just price is a factor is testimony to the expertise we have accumulated since the Akihabara redevelopment project in 2002. It is also a fruition of the planning and proposal abilities we have developed as a “gen-con developer” engaged in both general contracting and real estate development.

Business Development from a Medium- and Long-Term Perspective

The Real Estate Development Division has been expanding to fulfill its role as Kajima’s third core business area after civil engineering and building construction. Under the current Medium-Term Business Plan (2018–2020), we will steadily promote existing projects, mainly focusing on rental assets, in order to build a stable earnings base for 2021 and beyond. By investing about ¥160 billion over three years, we will increase our high-quality assets to about ¥300 billion, and we will also actively pursue short-term real estate turnover to drive company-wide profits higher.

Moreover, among the ¥570 trillion in public-private partnership (PPP) projects the Japanese government intends to actively develop to promote utilization of public real estate, we will undertake concession and public real estate utilization business opportunities where we can deploy our real estate expertise. We also aim to expand our business to encompass the operation and management areas, including comprehensive private consignment for public real estate serviced by group companies.

In Japan's current investment environment of ultra-low interest rates, we have begun managing a private real estate investment trust (private REIT),* and we expect it to provide stable dividend income. Through these efforts, we also believe we can expand our holding and management business with a focus on fee income, enabling companies such as Kajima Tatemono Sogo Kanri Co., Ltd. to boost revenues for the Kajima Group.

Development projects where Kajima advances the entire real estate value chain itself, including development, design, construction, and management, also play a role as opportunities for the introduction of advanced technologies. We are providing our own development assets, such as the Nagoya Fushimi Building and the Seisho Experimental Field, as sites for demonstrating the next-generation construction systems of the Building Construction Division. This includes Kajima's robotization technologies and ICT applications. Through these activities, we will contribute to the development of Kajima's construction technology.

Kajima's real estate development business makes the most of the strengths in building consensus on projects that we gained in redevelopment projects, our proposal capabilities for utilization of special districts and the acquisition of permits, and our business planning and execution abilities. It also benefits from our network capabilities as a general contractor covering all of Japan. In addition to engineering abilities for planning environmentally friendly buildings, we can also provide solutions for improving asset value such as area management, as well as optimal building and equipment maintenance, operation and management. Leveraging all of these strengths, we will continue to develop real estate in a way that is unique to Kajima, while pursuing businesses that are locally rooted and closely attuned to customers across Japan.

Private REIT

A real estate investment trust (REIT) operates real estate and distributes rental income and sales profit to investors. A private REIT refers to a REIT that is not listed on the stock exchange and that can be invested in for a long period of time with no fixed period of operation.

Highlight

Haneda Airport Unused Land Zone 1 Redevelopment Project (Phase I)



Haneda Mirai Development Co., Ltd., founded by nine investor companies including Kajima, signed a contract with Tokyo's Ota City for the promotion of the Haneda Airport Unused Land Zone 1 Redevelopment Project (Phase I). The company has undertaken the development and operation of a site to serve as a base for cutting-edge industry and Cool Japan promotion, on land with a

fixed-term lease of approximately 50 years (tentative). On a site of approximately 5.9 hectares located directly above Tenkubashi Station, one station away from Haneda Airport's international passenger terminal, the company will develop and operate a complex of facilities for various uses with a total floor space of over 120,000 square meters. There will be research and development

facilities, a cutting-edge medical research center, conference hall, event hall, a facility offering Japanese cultural experiences, restaurants and bars, training accommodation facilities, and a hydrogen filling station. The aim is to build a community for the creation of future-oriented value and new experiences for people coming from different parts of Japan and the rest of the world.

Minato Mirai 21 Central District Block 58

A consortium of three companies – Kajima Corporation, Sumitomo Life Insurance Company, and Mitsui Sumitomo Insurance Co., Ltd.– was selected by the City of Yokohama to undertake the Minato Mirai 21 Central District Block 58 project. Seeking to make the most of this very unique, convenient location, the consortium will construct a complex with a total floor space of approximately 86,000

square meters. It will contain highly functional rental office space that can also be used for R&D, as well as other facilities that are highly compatible with offices. The aim is to create a building with outstanding environmental and disaster prevention performance that will also be an attractive part of the cityscape, while contributing to safe, secure urban development.



OVERSEAS OPERATIONS



Keisuke Koshijima

Executive Vice President;
General Manager, Overseas Operations Division

Kajima provides construction and real estate development services in the United States, Europe, Asia, and Oceania. The overseas subsidiaries in charge of these operations form the global business platform for engaging in activities tailored to individual markets. In addition to the businesses that Kajima has built from the ground up, the platform has been expanded through M&A in certain markets and the Group is now active in 19 countries and regions.

Under the preceding Medium-Term Business Plan, the aim was to achieve ordinary income of ¥10 billion in each year of that term. We were able to achieve this goal by enhancing our business models and developing the human resources and organizations essential to execute them.

During that time, we expanded the existing platform vertically and horizontally, and increased the complexity of our business enterprise while also leveraging M&A. Now, however, we have advanced to a phase where the platform is to achieve sustainable growth. The coming three years will be used to plant the seeds for the next era as we look to grow profits in 2021 and beyond.

Kajima's M&A activities are not merely for investment purposes; we welcome overseas companies into the Kajima Group and build relationships that enable group companies to work together on shared goals. We are promoting cooperation and interaction in our expanding network, not only with group affiliates but also with external partners, in order to facilitate collaboration on both construction and real estate development. As we expand our network, we will also make the collaboration more substantial and concrete, thereby continuing to provide value-added services to our customers with global operations.

Short-Term Real Estate Projects in the United States

Over the past few years, we have sought out short-term real estate projects in the United States, focusing particularly on distribution warehouse development. We reaped the rewards of this effort in 2017 by selling the properties developed by Core5 Industrial Partners in the early stage of its establishment in 2015.

In December 2017, we acquired Flournoy Company, which develops, constructs and manages rental apartment buildings. With this acquisition, we added the residential sector to our platform which enabled us to diversify our revenue sources as well as to respond flexibly to economic fluctuations in the U.S. real estate market.

Engaging in New Development in Asia

In Vietnam, where the real estate market is expanding due to economic growth, Indochina Kajima Development Limited, established in 2016, is steadily advancing the platform in real estate development. In Singapore, a joint venture formed between Kajima Development and Singapore Press Holdings, the government-run media company, has won the bid to develop 2.54 hectares of land directly next to the underground Woodleigh MRT station in the Bidadari estate. The bid for this mixed-used development project was worth about ¥90 billion.

In Myanmar, Kajima Yankin PPP Co., Ltd., a subsidiary of Kajima Overseas Asia Pte Ltd (KOA), also began a mixed-use development project. Total value is expected to be one of the largest single overseas investments made by Kajima.

In addition, we recently acquired International Facility Engineering (IFE), a company which operates a fee-for-service business specializing in design, engineering, procurement, and construction management. It offers services to high-tech companies in fields such as pharmaceuticals, semiconductors, and electrical machinery. By collaborating with KOA, IFE will develop comprehensive services from upstream engineering to construction.

Total Market Capabilities Established in Australia

Founded in 2015, Kajima Australia Pty Ltd (KA) has been expanding its business portfolio with the acquisition of Icon Company in 2015, followed by the purchase of Cockram Construction in 2017. Icon's strength lies in the housing sector, while Cockram is competitive in the non-housing sector. This has made it possible for KA to access any field of the Australian construction market. Since Cockram also has extensive experience in engineering, procurement, and construction management for large pharmaceutical plants and laboratories in China owned by Western and Japanese companies, we expect to exhibit synergies with its existing construction business.

Highlight

Yankin Township Mixed-Use Development

Kajima brings its wealth of experience and expertise accumulated over the years in the development of large-scale mixed-use projects overseas to this project in Yangon Township of Myanmar. This mixed-use development features offices, hotels and commercial facilities spanning a total floor space of 170,000 square meters over a site area of 27,000 square meters. The project is being carried out by Kajima Yankin PPP, a subsidiary of KOA, Kajima's regional headquarters in Asia. The total value of this project is expected to be one of the largest in the past few decades. The duration of this build-operate-transfer (BOT) project will be 70 years (an initial 50 years is mandatory, with two 10-year extension options).

Under the key concept of "Garden for the People," the project will include a children's library and a transportation square designed to ease traffic congestion. Other community support functions will include disaster preparedness, such as emergency shelters, stockpiles of water, food, and blankets. This project will also contribute in the area of technology transfer and training of local construction companies, giving Myanmar's public and private sectors access to Kajima's advanced technologies, experience, and expertise relating to the environment, safety, and lifecycle cost management.

