

MAKE BEYOND
TRANSCENDING THE ART AND SCIENCE OF MAKING OF THINGS

OBAYASHI
CORPORATE REPORT
2021

Making Things, Redefined.

MAKE BEYOND
TRANSCENDING THE ART AND SCIENCE OF MAKING OF THINGS

Human history is characterized by making things.
Despite all challenges, human ingenuity and hope for a better world prevail.

By making things,
humans have overcome countless obstacles.

In this era of rapid change,
we wish to transform the very concept of making things.
Must the things we make always have a physical dimension?

Are they of value only to human beings?

By continually asking ourselves these questions, we expand possibilities
in a world that is unpredictable and increasingly complex.

Our vast experience as a maker of things
should drive us to create wondrous new innovations.

Making new things is about surpassing all that came before,
transcending the boundaries of the construction industry,
accepting new challenges, expanding into new fields.

Obayashi looks forward to a future of going beyond expectations
and building a world that can be enjoyed by everyone!

OBAYASHI 



Representative Director
Chairman
Takeo Obayashi

Representative Director
President
Kenji Hasuwa

Greeting

Since its founding in 1892, the Obayashi Group has held to the spirit of the Obayashi Three Pledges: Quality, Value, and Efficiency. We have earned the trust of society and played our part in it by exercising honest craftsmanship and employing superior technologies.

This year, as we approach the 130th anniversary of our founding, we have adopted the new Brand Vision “MAKE BEYOND Transcending the art and science of making of things”. While we continue to draw on the technology and knowledge of craftsmanship we have cultivated over our history, we aim to achieve growth beyond the framework of our existing businesses.

Society is changing quickly in recent years, and people’s needs are becoming radically more diverse. Obayashi will take the changes in the business environment as an opportunity for growth. Through earnest effort to solve social challenges, we will enhance our corporate value and contribute to realizing a sustainable society.

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Editorial Policy

Purpose of Publication

The Obayashi Corporate Report is published for readers to understand the overall business activities of Obayashi and the Obayashi Group. In this report, we disclose our management strategy, financial information, and non-financial information in an integrated format.

Reporting Period

Fiscal year ended March 31, 2021 (FY2021.3) and including some activities in FY2022.3

Guidelines Used as References

“The International Integrated Reporting Framework,” International Integrated Reporting Council (IIRC)
“GRI Sustainability Reporting Standards,” Global Reporting Initiative (GRI)

Date Issued

September 2021

Notes Regarding Forward-Looking Statements

Where the Obayashi Corporate Report contains predictions and forecasts regarding the future plans, strategies, and performance of Obayashi and the Obayashi Group, these are forward-looking statements based on assumptions and opinions made in light of information available to Obayashi Corporation at the time of writing. Such statements are subject to risk and uncertainties related to economic trends, market demand, currency exchange rates, taxation, and various other systems. Actual results may therefore differ materially from forecasts.

Information Disclosure System

The Obayashi Corporate Report concentrates on the key information needed to understand Obayashi and the Obayashi Group. More detailed information is available on our website.

OBAYASHI CORPORATE REPORT

Financial Information

Investor Relations Website

<https://www.obayashi.co.jp/en/ir/>

Securities Reports (Japanese only)
https://www.obayashi.co.jp/ir/data/fsa_disclosure.html

Financial Results
https://www.obayashi.co.jp/en/ir/kessan_siryo.html

Medium-Term Business Plan
https://www.obayashi.co.jp/en/company/mid_term_plan.html

Non-Financial Information

Sustainability Website

<https://www.obayashi.co.jp/en/sustainability/>

ESG DATA BOOK
https://www.obayashi.co.jp/en/sustainability/esg_data_e.html

Corporate Governance Report (Japanese only)
<https://www.obayashi.co.jp/company/upload/img/corporategovernance20210625.pdf>

Obayashi Sustainability Vision 2050
<https://www.obayashi.co.jp/en/sustainability/vision.html>

President's Message



In a time of big change in existing values, we will constantly transform and achieve sustainable growth.

Kenji Hasuwa

Representative Director
President

Building the Future as a Craftsmanship-Based Company

In January 2021, we at Obayashi began our 130th year in business. The fact that the Obayashi Group overcame so many difficulties to persist this long is a credit to our predecessors. They were also able to accurately grasp and flexibly respond to changes in the social currents and the business environment. As a craftsmanship-based company supporting society's infrastructure, moreover, they were committed to dealing sincerely with their stakeholders' expectations.

Now, to ensure further sustained development into the future, we must try to solve global social challenges. These include responding to climate change, promoting digital transformation (DX), and making the best use of diverse personnel. We also face an uncertain future, which includes learning to coexist with COVID-19. Persistent transformation is critical to responding to a drastically changing world.

It was against this backdrop that the Obayashi Group adopted the new Brand Vision, "MAKE BEYOND

Transcending the art and science of making of things" to coincide with our 130th year in business. This vision tells everyone, in and beyond our Group, the type of business we aim to be. "MAKE BEYOND" is an expression of our desire to draw on the technology and knowledge of craftsmanship we have cultivated over our history. We are driven to use our diverse and expansive potential to open up new domains that go beyond the construction framework. This is the same spirit we inherited from our forebears. It does not mean we are trying to be a completely different Group than what came before. Instead, it reconfirms the meaning of our existence as a craftsmanship-based company as we have understood it since our founding. "MAKE BEYOND" declares that we are resolved to break new ground even if the times are uncertain.

Transforming from the Ground up for Further Growth

Thanks in part to favorable business conditions, the Group had enjoyed continued growth over the past 10 years,

including record business performance. That changed in FY2021.3, however, as both net sales and operating income declined, to ¥1,766.8 billion and ¥123.1 billion, respectively. Many large projects, which drive results in the domestic building construction business, had just recently begun, which lowered net sales that are counted as construction progresses. Another reason for the downturn is that many projects overseas were suspended because of COVID-19. The pandemic also changed the nature of construction demand, with enterprises' capital expenditure varying by industry sector. Going forward, our plan is to find the most promising markets and try marketing strategically to increase profitability. We also aim to increase profits by making productivity improvements that will raise the profitability of construction sites.

We have also been making steady progress on Medium-Term Business Plan 2017, which entered its final fiscal year in April 2021. Work is still incomplete, however, on the management issues named in the plan: focusing on safety and quality management, improving productivity, cross-organizationally deploying developed technologies, and expanding business domains. There is not much chance of dramatic leaps forward on these unless we step up the pace. Out of this sense of urgency, in 2020 we established the Corporate Transformation Program to bring Medium-Term Business Plan 2017 to its conclusion. The program provides guidelines on how to proceed in a focused way across the organization.

The Corporate Transformation Program names four priorities: refocusing on safety and quality management, strengthening our earning power and improving cash flow, responding to the revised Labor Standards Act of Japan, and building new relationships with our supply chains so that we can grow together. Another key part of the Corporate Transformation Program is reforming the management foundation that will support the Group's great strides forward in the next phase of growth.

Safety and quality are fundamental to management and are values common to all our businesses. We will work Group-wide to change awareness and cultivate a corporate culture that prioritizes safety and quality. Our efforts will also emphasize always generating a profit. All employees will be trained to work with a sense that their effort matters to the Group's continued growth. In respect to the revised Labor Standards Act, we are steadily enacting work style reform. We also aim to meet the act's limits on overtime work by achieving productivity gains at a faster rate. These efforts hinge primarily on the development of ICT and on construction DX. Then, strengthening our supply chains is critical to achieving the other three priorities that I just mentioned. We must practice stronger collaboration with our suppliers and subcontractors, working hand in hand with them. By helping our suppliers

and subcontractors to raise their technological capabilities and by supporting their establishment of ICT environments, we will deepen mutual understanding and trust and build solid relationships with them.

We will also thoroughly transform our management foundation consisting of our people, organizations, business processes, digital infrastructure, and technology. Of these, digital infrastructure will particularly impact our growth and relative advantage going forward. Thus, we will focus on transforming the digital infrastructure that supports our many business processes and business models. We will also be establishing an environment in which our diverse personnel can demonstrate their full capabilities and grow. By executing these programs, we aim to overcome each of the challenges in front of us and achieve further growth. We believe this is the surest way for our current Medium-Term Business Plan to develop into our next one.

Sustainability through ESG Management

The Japanese government released its 2050 Carbon Neutral Declaration in October 2020. At the Leaders Summit on Climate in April 2021, it set an ambitious new target of reducing greenhouse gas emissions 46% from FY2013 levels. The 26th United Nations Climate Change Conference (COP26) will happen later this year, Japan is working on its sixth Strategic Energy Plan, and the Corporate Governance Code has been revised. These are examples of how ESG initiatives have reached a big turning point. There are all types of other problems to deal with, from human rights to diversity. In light of the world currents and SDGs, the Obayashi Group is bolstering its system for the evolution of ESG management. For example, we established the Green Energy Division and Diversity & Inclusion Promotion Department in April 2021.

As more global social issues emerge, I believe that initiatives to achieve carbon neutrality and well-being are important management issues that can help realize sustainability of "the planet, society, and people," as called for in Obayashi Sustainability Vision 2050, our long-term vision. As a Group, we will treat these as key themes of our ESG management and incorporate them into concrete business strategies.

Even if the future is uncertain, I sense that the role we are to play will be more and more important. By building social infrastructure and supplying next-generation energy, we will make people's lives more prosperous and sustainable. The Obayashi Group will continue the steady practice of ESG management. And by working to find solutions to the wide range of social issues through our business activities, we aim to realize sustainability of "the planet, society, and people."

About Obayashi Group

Founded 1892

Abe Paper Mill

On January 18, 1892, founder Yoshigoro Obayashi won his first bid, to build the Abe Paper Mill (Kawakita Village, Nishinari District, Osaka Prefecture). He set up his business in the city of Osaka, founding his company on January 25, just seven days after the bid award.



1905

Osaka Harbor Construction

Yoshigoro bid on and won his first large-scale construction project, the construction of Osaka's harbor. The company dredged a water area of 5.18 million m² enclosed by a great breakwater, using the dredged earth and sand to reclaim land. It also constructed port facilities, including a large pier. Spending on the giant project was reportedly equivalent to 20 years of Osaka City's annual budget at that time. Obayashi was able to survive financial struggles resulting from an economic panic and completed the challenging project, which firmly established its foundation during its early era.

1904

Name Change to "Obayashi Gumi"

The company, known until then as "Obayashi Store" or "Yoshigoro Obayashi Store," officially takes the name "Obayashi Gumi."



1914

Ikoma Zuido Tunnel

The 3,388 m double-track broad gauge tunnel through Mt. Ikoma became the shortest route between Osaka and Nara. It was the first such tunnel in Japan at the time, as well as the largest and longest.



1931

Main Tower of Osaka Castle

The tower was reconstructed with help from generous citizen donations. It was built with steel-framed reinforced concrete, the most modern construction method available at the time. Rising 53 m above the ground, its height was unprecedented in Japan. A major improvement in 1997 used old parts supplemented with new materials. The project required the most recent technologies and high-precision construction.

1924

Hanshin Densha-Koshien Great Sports Ground (Today's Hanshin Koshien Stadium)

The first full-fledged baseball stadium in Japan was built to host the National High School Baseball Championship. It was the largest baseball stadium in Asia at the time, with room for 80,000 spectators.

Photo: Hanshin Electric Railway Co., Ltd.



OUR HISTORY

130 Years of Obayashi Craftsmanship

From Founding to End of World War II

1892-1945 >

Since its founding in 1892, the Obayashi Group's members have handed down its DNA of honest craftsmanship and technology. It has relied on that DNA to complete numerous projects emblematic of their era. We continue to take the challenge of creating new value by doing business in partnership with changing societies and going beyond the framework of our existing businesses as we build infrastructure, redevelop urban areas, join reconstruction projects after disasters, support overseas development, and enter the renewable energy business.



A decorative ridge-end tile from Obayashi Store at the time of founding

This decorative ridge-end tile, or *onigawara*, was placed on the roof of the Obayashi Store in Nishi Ward, Osaka when the company was founded. An exceptionally large tile, it measures 42 cm in height, 69 cm in width, and 20 cm in depth. The characters for "Obayashi" are formed deeply in the center. The tile reflects the passion with which Yoshigoro founded his company.

Founder Yoshigoro Obayashi (1864-1916)



Until then a kimono fabrics dealer, founder Yoshigoro Obayashi became a civil engineering and building construction contractor at age 19. In 1892, at age 28, he opened Obayashi Store. The 24 years that followed the company founding were a time of upheaval in the country. During these years, Yoshigoro established a modern construction business covering the entirety of Japan, laying the foundation for Obayashi today. This could only happen because of Yoshigoro's constant insight into the times, passion for his work, willingness to actively raise questions, and dynamism to take on the challenges with courage and resolve. Yoshigoro was able to accomplish much thanks to the many excellent partners who gathered around him, as well as his own creative, pioneering spirit.

1918

Obayashi Corporation Founded

Obayashi Corporation was founded in December 1918.

1933

Midosuji Subway Line (Yodoyabashi – Kita-Kyutaromachi)

The subway was planned to move people quickly between Osaka and the surrounding area at a time of rapid population growth in the first half of the 20th century. The construction of today's Midosuji Line, the first subway line in Osaka, was a challenge that is still talked about today. It included digging through soft ground and passing under a river.



1914

Tokyo Central Station (Today's Tokyo Station)

The Renaissance-style station building made of red bricks has a total site area of 23,940 m² and a front that is 335 m long. It was Japan's largest structure made with steel beams at the time. When it was built, the station became a symbol of Tokyo. Completing the major construction project instantly established Obayashi as an all-Japan contractor, not just a local Kansai business.





1956

Nukabira Dam Power Generation Development on the Tokachi River System in Hokkaido

Japan's electric power system lay devastated at the end of the war. In 1953, the government set out a five-year electric power plan. The Nukabira Dam, one of the major hydroelectric power stations constructed by Obayashi during that period, was Japan's fifth-largest dam at the time. It was a big bet on the Company's fortunes.

1964

Yoyogi National Stadium 2nd Gymnasium

The gymnasium was built to host basketball games for the 1964 Tokyo Olympics. The roof, suspended from one main column, creates a curving exterior appearance that people never get tired of looking at.



1970

Japan World Exposition (Theme Pavilion)

The Japan World Exposition was the first world's fair to be held in Asia. Its theme was "Progress and Harmony for Mankind." The great roof of the Theme Pavilion, held together by cast iron pipes, was 292 m long and 108 m wide with a total weight of 8,189 tons. The pavilion was completed by assembling the roof on the ground and lifting it into place in one piece. The feat drew interest from around the world as the first attempt anywhere to lift such a heavy object.



1997

Tokyo Bay Aqua-Line

There were very few examples of such long underwater tunnels when the Tokyo Bay Aqua-Line was constructed. It stretches from an artificial island on the Kisarazu side to Kawasaki. The shield machines measured 14.14 m in diameter and weighed 3,200 tons. They were the world's largest at the time and built to withstand enormous water pressure. The machines dug tunnels of approximately 2.8 km, reaching a maximum water depth of 28 m with a maximum earth covering of 16 m.



2012

TOKYO SKYTREE®

The freestanding broadcasting tower, built primarily to transmit TV and radio waves to the entire Kanto region, is the world's tallest structure of its kind. To reach the unprecedented height of 634 m, Obayashi drew on many unique technologies for the foundation and framework structure construction and for the machinery, instruments, and temporary equipment.

Post-World War II - 100th anniversary

1946-1990 >

100th anniversary and beyond

1991-2021 >



1966

AIA Building (Bangkok, Thailand)

Obayashi opened its first branch outside Japan, a representative office in Bangkok, Thailand, in 1964. At that time, we took the order for the new construction of the AIA (American International Assurance) Building. It became our first sizable overseas project. We have since expanded our business widely in Thailand, Singapore, Indonesia, and Malaysia.

1970

Tokyo Head Office Established

Because Tokyo was now the political, economic, and information hub of Japan, Obayashi Corporation established the Tokyo Head Office in December 1970. It began performing head office functions together with the Osaka Head Office.



1982

San Francisco Sewer Construction

When Obayashi took the order for this project in August 1979, we became the first Japanese construction contractor to win an order for public civil engineering works in the continental U.S. We used the earth pressure balance shield construction method, which had never been used previously in the U.S., winning a good reputation for Obayashi's technological capabilities. The project helped to solidify Obayashi's position in the American public civil engineering works field.



2010

Hoover Dam Bypass Project— Colorado River Bridge (U.S.A.)

The bridge was the world's first to use a twin-arch construction with steel struts. The 323-m arch span is the longest in North America for a concrete arch bridge and was the fourth longest in the world when it was built.

2003

Roppongi Hills Mori Tower

The tower has 54 floors above ground and six below. With total floor space of about 380,000 m², it is one of the largest buildings in Japan. The project took 36 months, including demolishing the previous structures and developing the site.

2017

AKASAKA INTERCITY AIR

The super-high-rise mixed-use building has 38 floors above ground and three basement floors. It contains a mix of offices, condominiums, shops, and more. There are more than 5,000 m² of gardens at the center of the premises, offering a place to rest and rejuvenate. Highly regarded, it has received the BCS Prize and the Ministry of Land, Infrastructure, Transport and Tourism's Prize at the Rooftop-Green Wall Technology Competition.



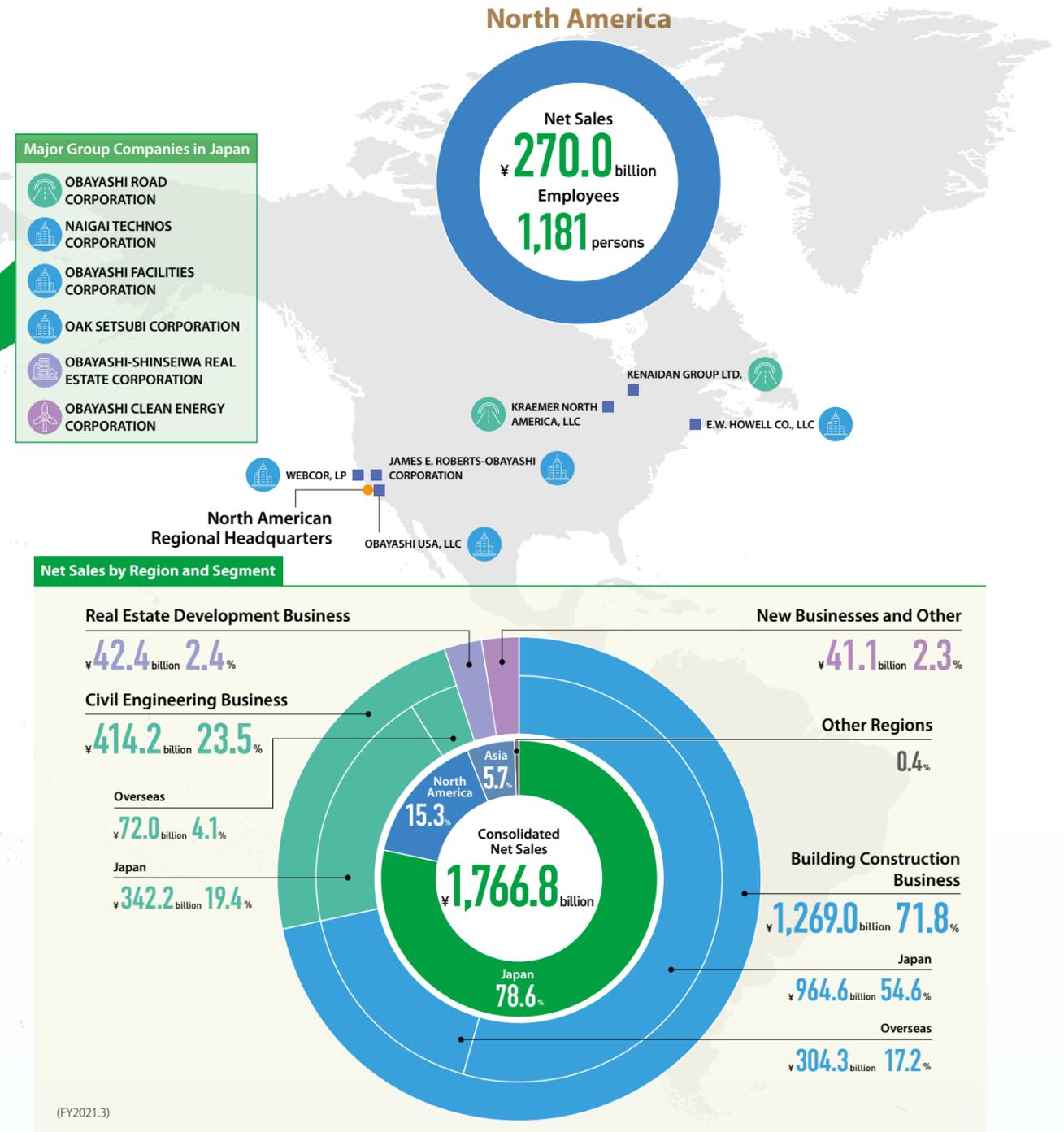
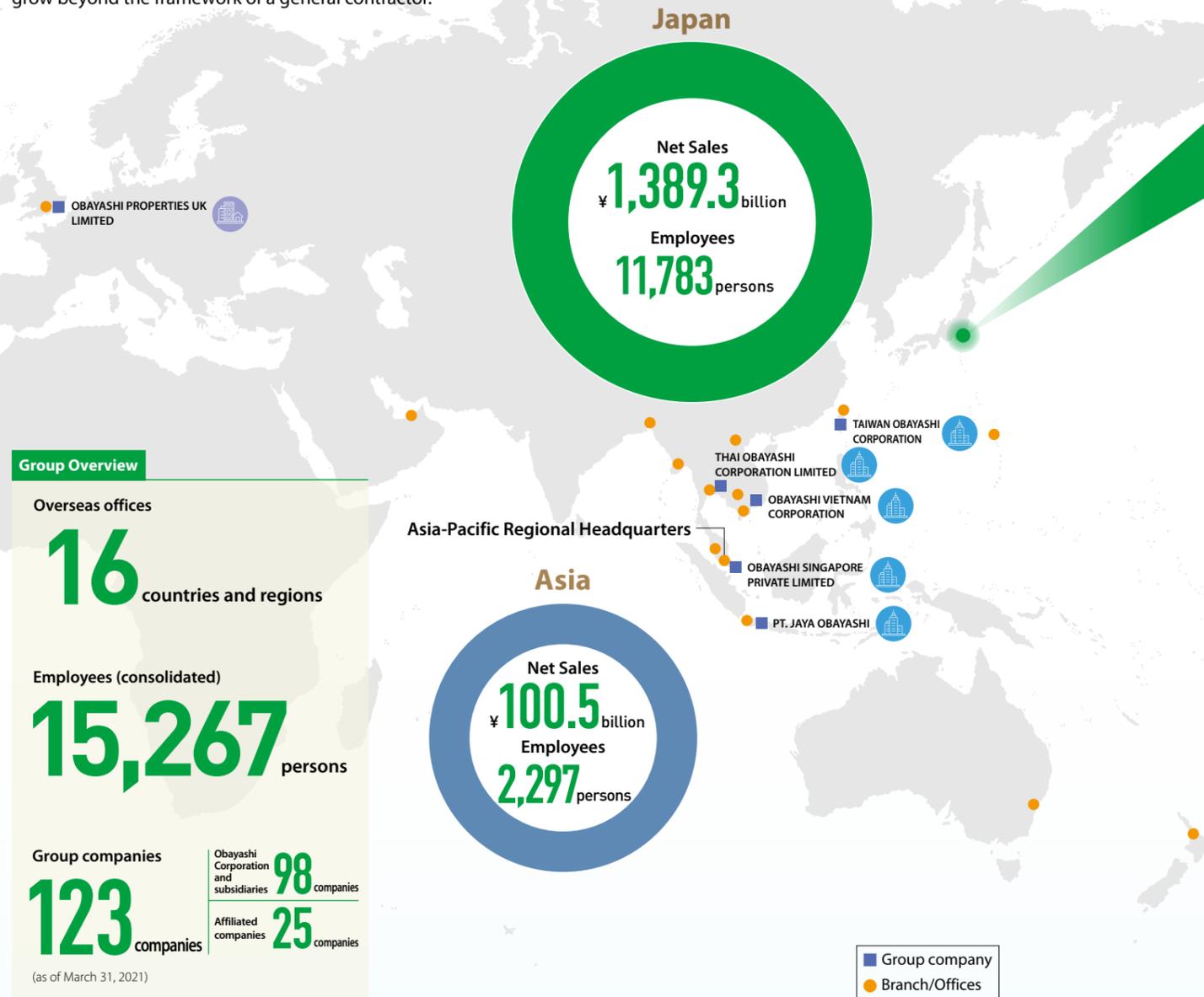
2021

Establishment of the New Brand Vision

MAKE BEYOND
TRANSCENDING THE ART AND SCIENCE OF MAKING OF THINGS

Our Business

With building construction, civil engineering, real estate development, and new businesses as four pillars of business, the Obayashi Group is deepening and expanding its business domains and accelerating its globalization as we continue to grow beyond the framework of a general contractor.



Building Construction Business

We provide all kinds of buildings—offices, condominiums, commercial facilities, factories, hospitals, schools, and more—for all kinds of needs: reducing environmental impact, energy savings, seismic resistance and disaster prevention to ensure business continuity, and increased comfort and convenience. We have completed many projects emblematic of their era and culture. Outside Japan, we are developing a community-rooted business. This business is conducted primarily through our overseas affiliates and mainly in Southeast Asia and North America.



Civil Engineering Business

We contribute to a safer, more secure, and more abundant society by constructing the infrastructure our lives depend on: tunnels, bridges, dams, river works, urban civil engineering structures, railroads, expressways, and more. In recent years, we are expanding our business domain to maintenance, including repairs, and upgrades as we actively endeavor to extend the lives and functionality of existing infrastructure. We are also actively expanding to Southeast Asia, North America, and Oceania, contributing to the development of local communities.



Real Estate Development Business

We continue to develop and hold excellent properties for lease in favorable locations, primarily in urban areas. We use energy-saving and environmentally friendly technologies to meet the Japanese government's 2050 Carbon Neutral Declaration and we provide safe and secure spaces that support the business continuity of business tenants. Moreover, as a business partner and specified agent for urban redevelopment projects, we support large-scale development and we work actively to participate in projects as a business. In recent years we are expanding our overseas real estate business in places such as England and Thailand.



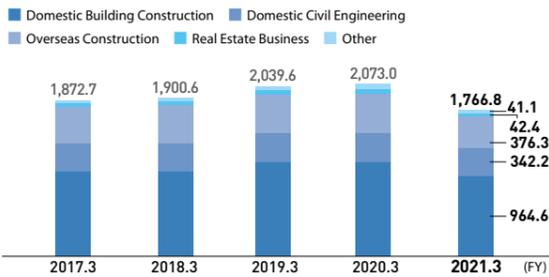
New Businesses

We are taking green energy solution initiatives and promoting the PPP Business to realize carbon neutral status, including hydrogen-related businesses and renewable energy like onshore and offshore wind power, geothermal power, small-scale hydroelectric power, biomass power, and solar power. We also aim to diversify our earnings sources by creating new businesses that establish breakthroughs for the Obayashi Group, targeting markets expected to grow in future, such as construction digitalization and agri- and bio-businesses.

Performance at a Glance

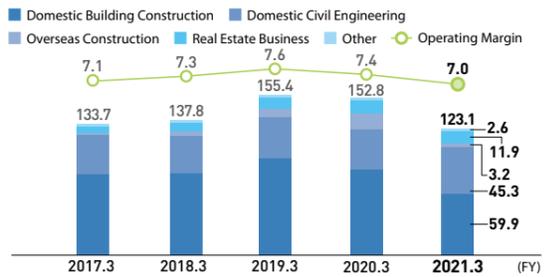
Consolidated Financial Highlights

Net Sales
¥ **1,766.8** billion



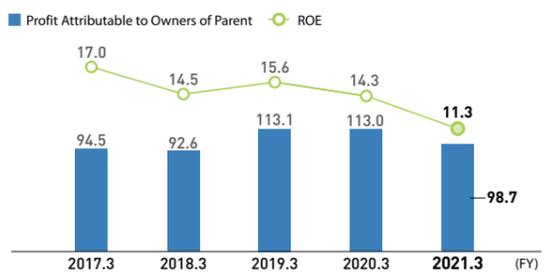
Net sales were down overall. In the domestic building construction business, the decline was mainly caused by the fact that many construction projects had just started, so sales posted for progress on construction declined. In the overseas building construction business, the decline mainly resulted from a temporary suspension of construction work due to COVID-19.

Operating Income / Operating Margin
¥ **123.1** billion **7.0** %



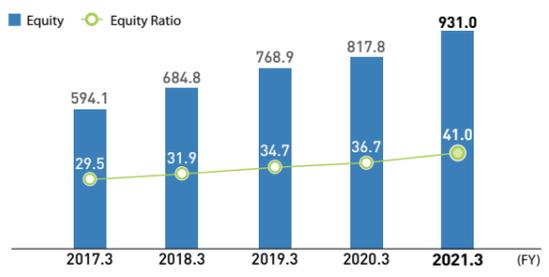
In the domestic building construction business, profits were down because of a drop in net sales. Profits were also down in the overseas building construction business because of a rebound decline, since large projects that contributed to the previous fiscal year's results had reached completion.

Profit Attributable to Owners of Parent / ROE
¥ **98.7** billion **11.3** %



Profit was down because of such factors as lower operating income in the domestic and overseas building construction businesses. ROE was down 3.0 points to 11.3%, in part because of an increase in equity.

Equity / Equity Ratio
¥ **931.0** billion **41.0** %



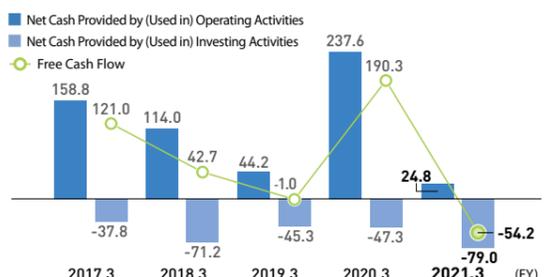
Equity increased because of a rise in retained earnings and valuation difference on available-for-sale securities. The equity ratio was up 4.3 points to 41.0%.

Interest-Bearing Debt (Including Nonrecourse Loans) / Debt-Equity Ratio
¥ **265.9** billion **0.29** times



Interest-bearing debt rose because of factors that include procurement of working capital and capital expenditure. The debt-equity ratio declined 0.01 points to 0.29 times.

Cash Flow
Net Cash Provided by (Used in) Operating Activities ¥ **24.8** billion

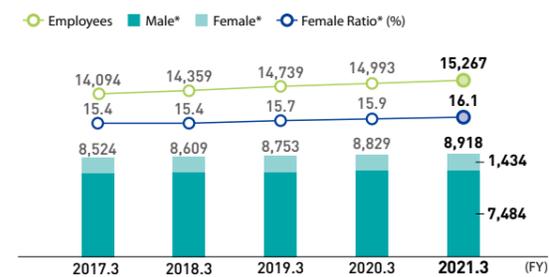


Net cash provided by (used in) operating activities declined because net cash inflow in the domestic construction business was low. Net cash provided by (used in) investing activities showed an increase in outlays because of factors like acquisition of commercial real estate.

Non-Financial Highlights

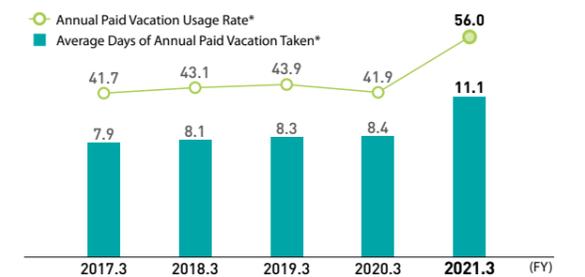
Data marked with an asterisk (*) is non-consolidated data. All others are consolidated data.

Employee Headcount
15,267 persons



There was no big change in employee headcount. The number of persons employed continues as planned. The ratio of females employed is rising. It was 16.1% in FY2021.3 and is growing year by year.

Annual Paid Vacation Usage Rate* / Average Days of Annual Paid Vacation Taken*
56.0 % **11.1** days



In FY2021.3, the paid vacation usage rate was up 14.1 points and average days taken rose 2.7 over the previous fiscal year. One factor, besides our active promotion of work style reform, was that Obayashi as a whole suspended operations during the government's declaration of a state of emergency over COVID-19.

CO₂ Emissions / CO₂ Emissions per Value of Completed Work*
256 thousand t-CO₂ **140** t-CO₂/billion yen



CO₂ emissions per value of completed work in FY2021.3 did not change, but total CO₂ emissions were down about 11% compared to the previous fiscal year.

Waste Emission Volume
2.21 million t



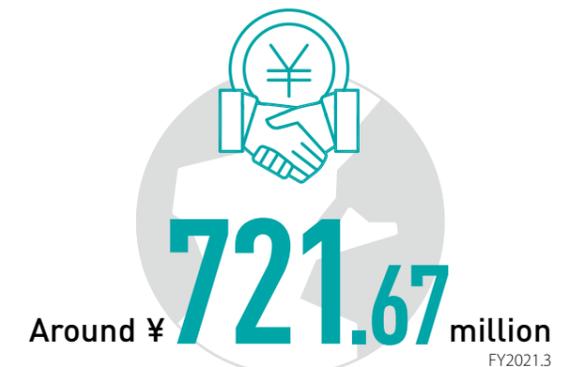
The waste emission volume in FY2021.3 rose about 50,000 tons over the previous fiscal year. The main factor was an increase in demolition work, which produces a large amount of concrete rubble and other waste.

Occupational Accidents on Construction Sites*、†
Number of Accidents Resulting in Four or More Lost Workdays **29** Accident Frequency Rate **0.32** Accident Severity Rate **0.23**



The number of accidents resulting in four or more lost workdays and the accident frequency rate were both at record lows in FY2021.3. However, the accident severity rate rose over the previous year because of fatal accidents.

Costs of Social Initiatives*



A Direction Forward

Realizing Sustainability of “the Planet, Society, and People” and of the Obayashi Group

The Obayashi Philosophy calls on us to be “A Leading Sustainability Company.” Through ESG management that ties our own growth to solutions to social challenges, we aim to realize sustainability of “the planet, society, and people.”

Obayashi Sustainability Vision 2050

Our vision
Sustainability of “the planet, society, and people”

- Decarbonization
- Provide valuable spaces and services
- Co-creation of sustainable supply chains

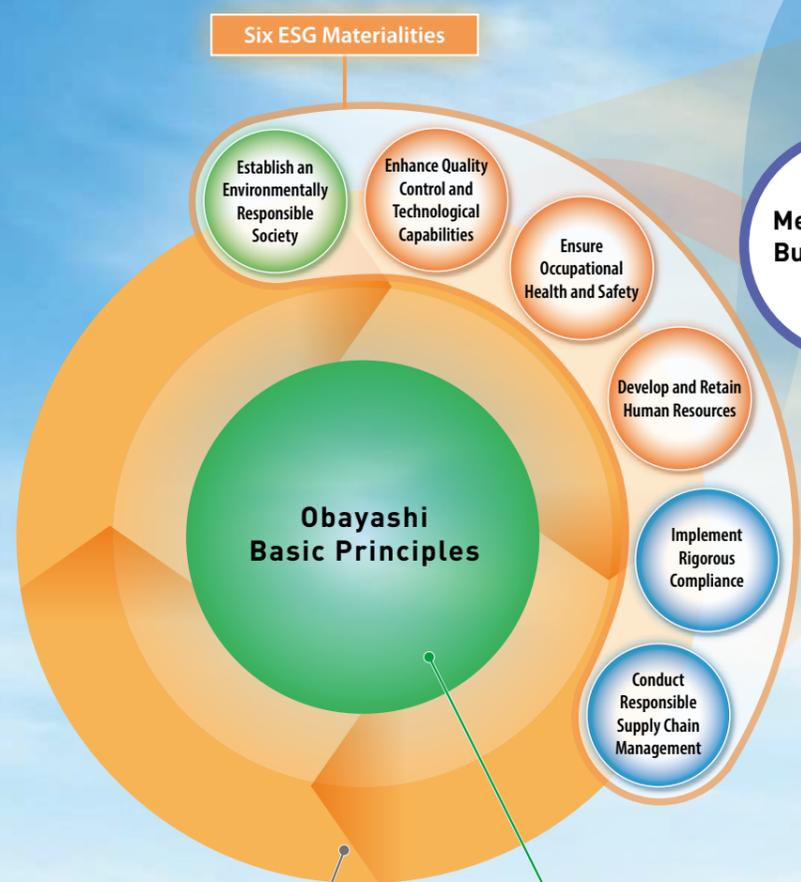
<https://www.obayashi.co.jp/en/sustainability/vision.html>

Vision for the Future

The leader at the forefront of technology and productivity
+
A corporate group advancing while creating diverse earnings sources



Contribution to achieving SDGs



Medium-Term Business Plan 2017

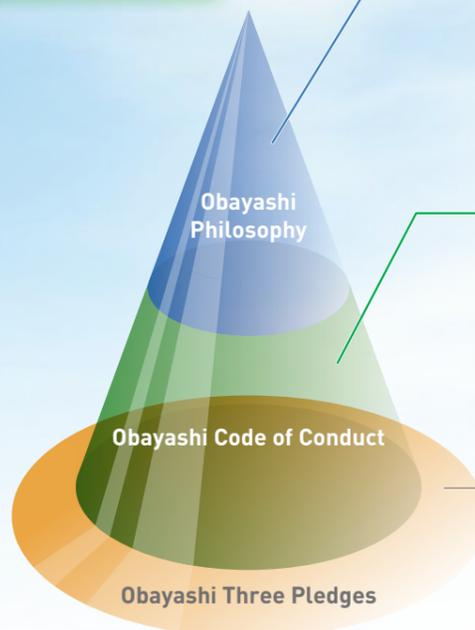
NEXT PLAN

Enhancing Our Corporate Value Solving Social Challenges

Our Value Creation P17

By working to both enhance our corporate value and solve social challenges, we will create value for society as a whole and help realize a sustainable society.

Obayashi Basic Principles



Obayashi Philosophy

Obayashi's Vision and Mission in Society
A Leading Sustainability Company

- Exercise honest craftsmanship with superior technologies and create new value in every space.
- Care for the global environment and create solutions to social challenges as a good corporate citizen.
- Value each person with a stake in our business.

By keeping these promises, Obayashi Corporation contributes to realizing a sustainable society.

Obayashi Code of Conduct

These guidelines help us realize the Obayashi Philosophy and continue being an enterprise trusted by all stakeholders

<p>1 Fulfill our social mission</p> <ol style="list-style-type: none"> Provide high-quality buildings, infrastructure, and services Foster an environmentally responsible society Value every one of our associates Build stronger mutual trust with suppliers Build good relationships with communities 	<p>2 Ensure strict adherence to corporate ethics</p> <ol style="list-style-type: none"> Comply with laws and regulations and take a sensible course of action Promote fair and free competition Maintain appropriate relationships with stakeholders Avoid all contact with antisocial forces Ensure appropriate information disclosure and transparency of management
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Obayashi Three Pledges

The spirit that has guided us since our founding
Quality, Value, and Efficiency

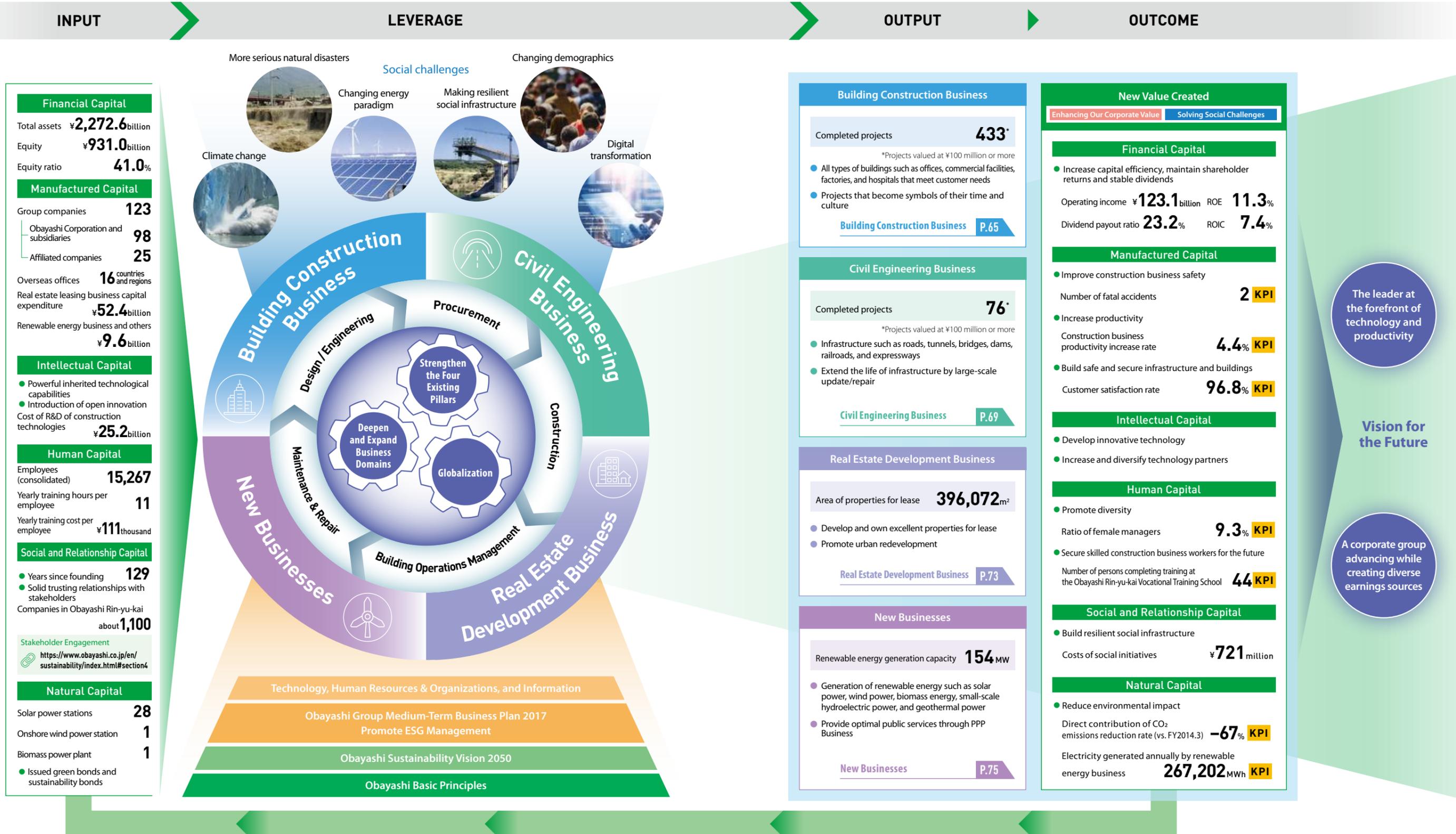
Promoting ESG Management

Our Value Creation

— Value Creation Story —

The Obayashi Group faces social challenges head on so that we can realize sustainability of “the planet, society, and people.” With ESG management as our foundation, the Group can work as a whole to increase corporate value and solve social challenges through our business. Through this value creation process cycle, we will realize sustained growth while working constantly with society to create new value.

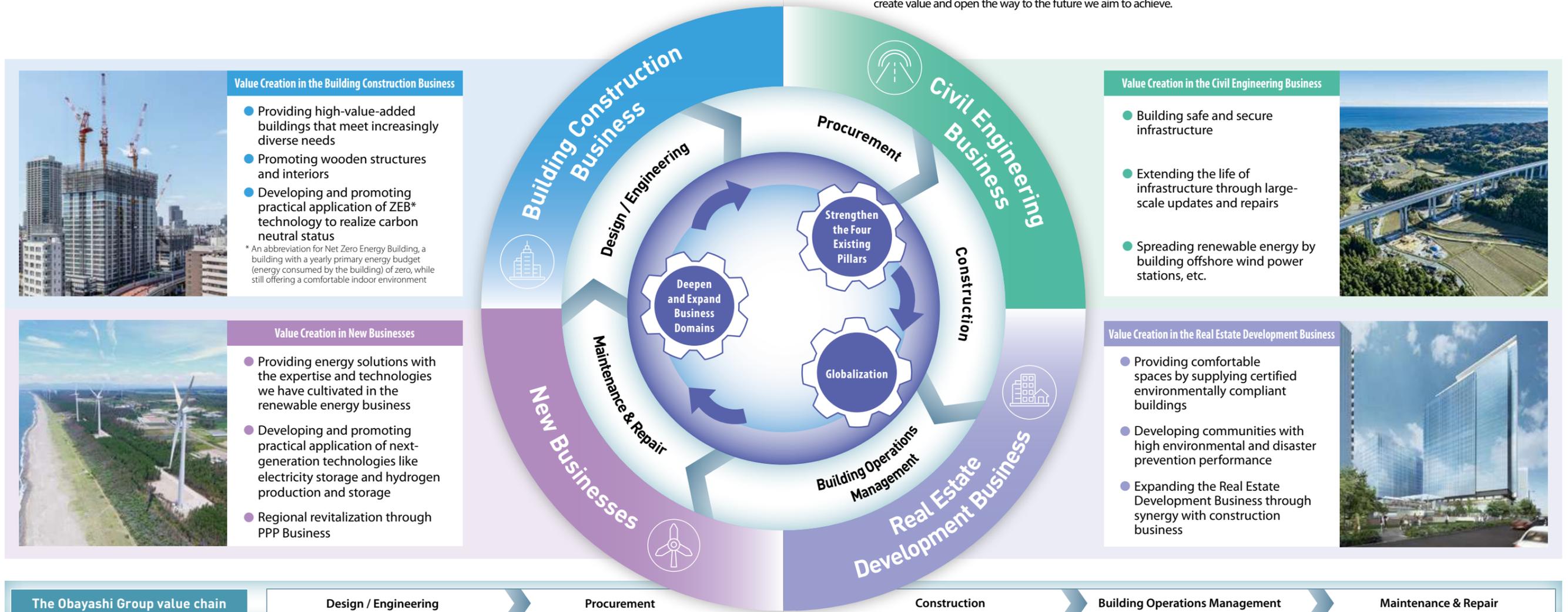
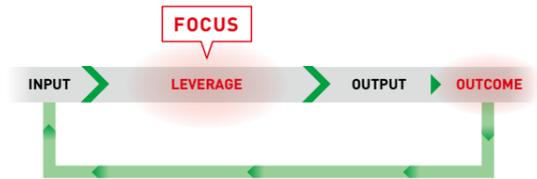
Numbers shown are FY2021.3 results or values as of March 31, 2021



Our Value Fundamentals

— How We Create Value through Our Business —

The Obayashi Group has enjoyed continued growth using reliable technological strength backed up by history and tradition as a wellspring of value creation. At a time of increasingly varied ESG risks in the value chain, the Obayashi Group will build on the strengths of its individual businesses so that each business, especially the four primary ones, will continue to create value and open the way to the future we aim to achieve.



Value Creation in the Building Construction Business

- Providing high-value-added buildings that meet increasingly diverse needs
- Promoting wooden structures and interiors
- Developing and promoting practical application of ZEB* technology to realize carbon neutral status

* An abbreviation for Net Zero Energy Building, a building with a yearly primary energy budget (energy consumed by the building) of zero, while still offering a comfortable indoor environment

Value Creation in New Businesses

- Providing energy solutions with the expertise and technologies we have cultivated in the renewable energy business
- Developing and promoting practical application of next-generation technologies like electricity storage and hydrogen production and storage
- Regional revitalization through PPP Business

Value Creation in the Civil Engineering Business

- Building safe and secure infrastructure
- Extending the life of infrastructure through large-scale updates and repairs
- Spreading renewable energy by building offshore wind power stations, etc.

Value Creation in the Real Estate Development Business

- Providing comfortable spaces by supplying certified environmentally compliant buildings
- Developing communities with high environmental and disaster prevention performance
- Expanding the Real Estate Development Business through synergy with construction business



Obayashi Group strengths	Design / Engineering	Procurement	Construction	Building Operations Management	Maintenance & Repair
	<ul style="list-style-type: none"> ● Increasing added value at the design stage by frontloading ● Internal and external collaborations to win orders for renovation projects ● All-Group development projects and building management ● Providing collective engineering strength and optimal solutions based on project characteristics 	<ul style="list-style-type: none"> ● Supply chains that realize quality assurance and stable supply ● Price competitiveness through collaboration with manufacturers ● Procurement expertise gained through our long track record in the renewable energy business 	<ul style="list-style-type: none"> ● Safety and quality management through use of ICT ● Securing and supporting the development of a stable labor force ● Powerfully advancing construction DX and increasing productivity by developing technology that contributes to construction efficiency ● Supplying eco-friendly, sustainable office buildings ● Making active use of older workers and passing down technical skills to the next generation of workers, including those at suppliers ● Expertise and technological capabilities to accomplish difficult construction 	<ul style="list-style-type: none"> ● Taking combined orders for construction and building management through collaboration with Group companies ● Facility management that leverages innovation like IoT and AI ● Many years of experience and expertise in PPP Business ● Contributing to reaching carbon neutral status through the renewable energy business 	<ul style="list-style-type: none"> ● Capacity to propose long-term repair plans based on life cycle costs ● Maintaining and enhancing building property value by enabling buildings to support business continuity, enhancing value, renovating for energy efficiency, etc. ● Expertise and technological capabilities that enable buildings and infrastructure to last longer

ESG risks on the value chain	Design / Engineering	Procurement	Construction	Building Operations Management	Maintenance & Repair
	<ul style="list-style-type: none"> ● Quality problems resulting from design defects ● Obsolescence of current technologies and expertise because of changes in regulations and standards and technological innovation 	<ul style="list-style-type: none"> ● Quality losses and delayed deliveries caused by insufficient labor force in supply chains ● Human rights violations in supply chains ● Disruption of supply chains resulting from disaster, pandemic, or other force majeure 	<ul style="list-style-type: none"> ● Decline in construction quality and longer construction periods resulting from insufficient labor force and the resulting disruption to passing down technical skills ● Loss of trust, poorer business results resulting from serious safety or quality incidents ● Increasing health risks to employees and skilled workers because of long work hours ● Quality problems resulting from construction defects 	<ul style="list-style-type: none"> ● Insufficient staff to carry on building management business ● Rising vacancy rates, falling rents because of oversupply of office space, work style reform 	<ul style="list-style-type: none"> ● Damage to facilities during operation and loss of trust because of accidents during maintenance ● Disruption of electric power generation facilities operation because of insufficient maintenance

COVID-19

Financial Review

Obayashi will transform its business model and management foundation in this time of uncertainty

Yasuo Kotera

Director, Executive Vice President



FY2021.3 Performance and FY2022.3 Business Environment Outlook

In FY2021.3 (the fiscal year ended March 31, 2021), Obayashi's net sales and measures of profitability including operating income were lower than the previous fiscal year. Among the reasons why, in the domestic building construction business, there was a lull in large projects in urban areas. In North America and Singapore, COVID-19 interrupted construction projects. We believe that the key going forward will be responding to the changing construction demand and how long it takes for stagnant capital expenditure to recover. Another challenge will be ensuring the profitability of large redevelopment projects in urban areas. Although the demand for such projects remains strong, the competition is intense. As for our business overseas, there is some concern that COVID-19 will cause economic stagnation, leading to a drop in construction investment.

Cash flow from operating activities in FY2021.3 only reached ¥24.8 billion. Among the reasons why, there were many large projects in the domestic building construction business that had just begun, so progress claims received were not very great. Moreover, as COVID-19 continued to spread, we maintained higher than normal levels of liquidity in case of emergency. We prepared a system that could provide funds to Group companies in Japan and overseas to adapt to the needs of the moment. For that reason, some funds procurement was moved forward. As for how

much Obayashi can borrow from financial institutions, we remained able to secure means for sufficient procurement, for example expanding our committed credit line. Our policy is to procure funds appropriately at the right time.

Progress on Medium-Term Business Plan 2017 and Investment for Achieving the Vision for the Future

FY2022.3 is the final year under Medium-Term Business Plan 2017. Under this plan, the Group aims to achieve growth beyond the framework of our existing businesses by taking the changes in the business environment as an opportunity for growth and using them to prepare the way for the future.

Our efforts for further enhancement of our financial base

Medium-Term Business Plan 2017 Major Management Indicator Targets

Targets for March 31, 2022		Results as of March 31, 2021
Equity	¥900 billion	¥931.0 billion
Equity ratio	40%	41.0%
Net interest-bearing debt (Interest-bearing debt)	0 (¥250 billion)	¥7.4 billion (¥265.9 billion)
Targets for FY2022.3		Results for FY2021.3
Net sales	Around ¥2,000 billion	¥1,766.8 billion
Operating income	Around ¥150 billion	¥123.1 billion
Profit attributable to owners of parent	Around ¥100 billion	¥98.7 billion
Profit attributable to owners of parent per share (EPS)	Around ¥150	¥137
Return on equity (ROE)	Over 10%	11.3%

and reinforcement of our equity capital to build a strong management foundation achieved the target management indicators we had set for the end of FY2021.3: equity of ¥900 billion and an equity ratio of 40%. On the other hand, we were not able to stably maintain sales and profit targets in FY2021.3. Net sales and profit/loss indicators like operating income fell below management indicator targets for the first time in three years.

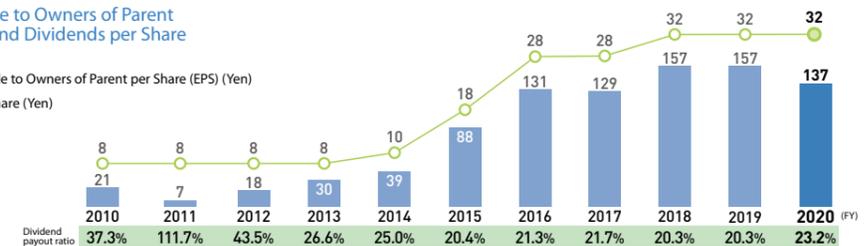
As for investment, our plan is to invest ¥400 billion over five years as a means of preparing the way for the future, and as of the end of FY2021.3, we have invested ¥371.0 billion cumulatively. We are using these funds to strengthen the four existing pillars and create new business domains for the realization of our Vision for the Future. Examples include investments in the real estate leasing business and renewable energy business. We are also building next-generation production systems utilizing IoT, AI, and robotics, which include automation, autonomization, and remote control of construction machinery. We are developing construction DX technology, offshore wind power technology, and technology for large-scale updates of infrastructure. Furthermore, we are making strategic investments in startups that are creating innovation. For major investments, our Investment Committee reviews and evaluates the Obayashi Group's investing activities as a whole. For example, the committee considers the appropriate scale of investment given the Group's current financial status and assets and the consistency of individual investments with the Group's investment policy and their significance in terms of business strategy. It also seeks to find a proper balance of risk and return and monitor businesses after we decide to launch them.

Progress on Capital Expenditure Plan (FY2018.3–FY2022.3) of Medium-Term Business Plan 2017

	Five-year plan	Results through FY2021.3	Outlook for FY2022.3	Five-year total
R&D of construction technologies	¥100 billion	¥90.7 billion	¥25 billion	¥115.8 billion
Construction machinery and business facilities	¥50 billion	¥44.3 billion	¥20 billion	¥64.4 billion
Real estate leasing business	¥100 billion	¥153.0 billion	¥50 billion	¥203.0 billion
Renewable energy business and others	¥100 billion	¥50.5 billion	¥10 billion	¥60.6 billion
M&As and others	¥50 billion	¥32.2 billion	¥5 billion	¥37.3 billion
Total capital expenditure	¥400 billion	¥371.0 billion	¥110 billion	¥481.0 billion

Profit Attributable to Owners of Parent per Share (EPS) and Dividends per Share

■ Profit Attributable to Owners of Parent per Share (EPS) (Yen)
○ Dividends per Share (Yen)



Policy on Shareholder Returns and Shares That We Own in Our Customers' Businesses

Our basic policy on shareholder returns is first to try to sustain stable dividend payouts over the long term. We consider the need to further enhance our financial base and build up internal reserves so that we can develop technologies and make capital expenditures for the future. Then, we aim for a consolidated dividend payout ratio of 20% to 30%. Our annual dividend in FY2021.3 was ¥32 per share for a consolidated dividend payout ratio of 23.2%. We will continue the practice of dialogue and robust disclosure for shareholders and institutional investors to heighten mutual understanding and will endeavor to increase shareholder returns as we work to ensure that current growth investment boosts future profits.

The shares that we own in our customers' businesses are meant to maintain and strengthen our trade relationships with them. However, the Obayashi Board of Directors periodically assesses the valuation profit or loss of these shares and comprehensively considers our capital costs and the profitability from the business returns that result from maintaining and strengthening trade relationships. If the shares we own in our customers' businesses are no longer so meaningful for marketing purposes, we sell them as appropriate. In the past 10 years, Obayashi has sold 92 issues (26%) of the total for ¥80.1 billion and we aim to reduce these holdings further.

Achieving the Vision for the Future

The COVID-19 pandemic has accelerated the great changes happening in the world's societies and economies. Facing a crisis unlike anything before, enterprises are under pressure to significantly overhaul their business strategies. The Group's business environment is undergoing massive change too. It is precisely because the times are so uncertain and complex that we aim to create diverse sources of revenue and further enhance our corporate value. This we will do through the development of innovative technology, the advancement of digitalization, and other transformations of our management foundation and business models in ways that go beyond established concepts.

Management Structure

Basic Policy

Obayashi believes that transparency and sound management, along with a strong corporate governance framework, are critical to maintaining society's trust. We enhance corporate governance also to achieve sustainable growth and greater corporate value over the medium to long term. Specific initiatives include transparent, fair, rapid, and resolute decision-making. Such decision-making is always based on the principles of Japan's Corporate Governance Code set out by the Tokyo Stock Exchange, laws and regulations, and society's expectations.

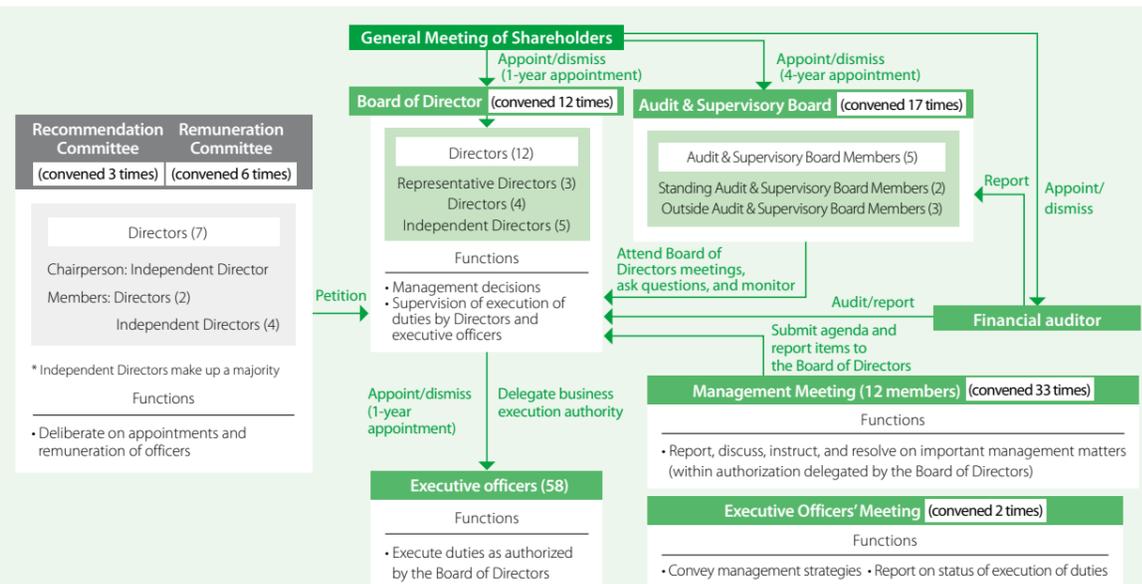
Corporate Governance Framework

Obayashi has a General Meeting of Shareholders, Board of Directors, Audit & Supervisory Board, financial auditor, and other statutory bodies. Additionally, we have established systems for making management decisions and conducting appropriate audits. We practice precise and swift decision-making through our executive officer system and Management Meeting. The latter is composed of members appointed from among the Directors and executive officers.

Obayashi has appointed five Independent Directors and three Outside Audit & Supervisory Board Members. There is no risk that these individuals will have interests that conflict with those of ordinary shareholders. Independent Directors provide advice on improving management efficiency and supervise all aspects of management from a position independent of the Company. Outside Audit & Supervisory Board Members are responsible for ensuring effective corporate governance by conducting third-party checks independent of management.

Corporate Management Structure (As of June 24, 2021)

*"Convened" shows the number of times convened during FY2021.3



Overview of the Corporate Governance Framework

- Form of organization: Company with Audit & Supervisory Board
- Members of the Board:
 - Number in Articles of Incorporation: Up to 15 persons
 - Actual number: 12 persons
 - Of which, Independent Directors: 5 persons
 - Appointment term: 1 year
 - Remuneration: Basic remuneration and performance-linked monetary and stock remuneration
- Audit & Supervisory Board Members:
 - Actual number: 5 persons
 - Of which, Outside Audit & Supervisory Board Members: 3 persons
 - Number of independent officers: 8 persons
 - Executive officer system: Yes
 - Financial auditor: Ernst & Young ShinNihon LLC
 - Discretionary committees: Recommendation Committee regarding officers' affairs, Remuneration Committee regarding officers' remuneration

Corporate Governance Report (Japanese only)

<https://www.obayashi.co.jp/company/upload/img/corporategovernance20210625.pdf>

Requirements for Selection as an Independent Officer Candidate

<https://www.obayashi.co.jp/en/company/governance/statement.html>

Main Recent Initiatives to Enhance Corporate Governance

	2005.3	2006.3	2008.3	2014.3	2016.3	2019.3	2021.3	2022.3 (FY)
Members of the Board	Directors	Up to 50 members → Up to 15 members						
	Appointment term	2 years → 1 year						
	Independent Directors	0 → 1 person, 1 → 2 persons, 2 → 3 persons, 3 → 5 persons						
Separation of supervision and business execution	Introduction of the executive officer system							
Outside Audit & Supervisory Board Members	2 → 3 persons							
Officers' remuneration						Introduction of performance-linked stock remuneration system		Review of system in general
Committee establishment						Recommendation Committee and Remuneration Committee established		Recommendation Committee and Remuneration Committee reconfigured to make an Independent Director the chairperson and make Independent Directors a majority of membership

Evaluating Effectiveness of Board of Directors

Analysis and evaluation of the effectiveness of the Board of Directors as a whole takes account of the assessments and opinions of individual Directors and Audit & Supervisory Board Members on the Board of Directors' size, composition, management methods, state of deliberation, support systems, and more. An external legal office also provides advice for the process. In concrete terms, each Director and Audit & Supervisory Board Member fills out a questionnaire once a year on the Board of Directors' management. The results are reported to the Board of Directors and reflected in subsequent operations and more. An evaluation was done again in FY2021.3, and we judged that the Board of Directors continued to be effective. Periodically providing opportunities to visit Obayashi offices in Japan and abroad to enhance the Independent Directors' understanding of our business is one example of an improvement made based on results of the effectiveness evaluation. We will continue considering the opinions of individual Directors and Audit & Supervisory Board Members and making improvements as appropriate to the Board of Directors and its management methods.

Training of Members of the Board and Audit & Supervisory Board Members

The Directors make important management decisions and supervise management of the business. Audit & Supervisory Board Members audit the execution of duties by the Board of Directors, executive officers, and employees. Members of both bodies continually update their knowledge and skills relevant to these roles.

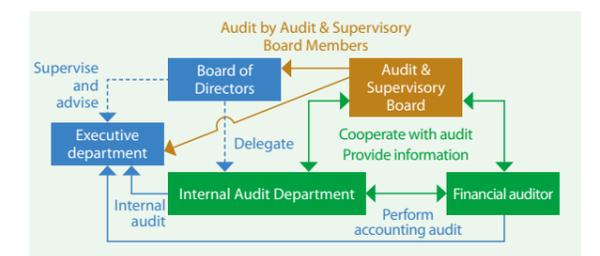
All Directors, Audit & Supervisory Board Members, and executive officers take a training course each year led by external instructors. The course covers corporate governance, business risk management, sustainability, and other topics. As necessary, we also provide other training opportunities for Directors and Audit & Supervisory Board Members. Such trainings may, for example, include external seminars. Audit & Supervisory Board Members regularly participate in external workshops to increase their understanding of their role and duties and learn the knowledge they need to perform them.

Audits by Audit & Supervisory Board Members, Financial Auditor, and Internal Audit Arm (Three-Party Auditing)

The Audit & Supervisory Board Members and financial auditor each conduct audits from their independent standpoints. Audit & Supervisory Board Members receive reports and briefings as required from the financial auditor. The two parties also cooperate to raise the effectiveness of audits by sharing information and opinions. Meanwhile, the Internal Audit Department is responsible for all audits conducted separately from the Audit & Supervisory Board Members and financial auditor. Such audits are performed according to Obayashi's Internal Audit Regulations. The purpose of these audits is to monitor the effectiveness of internal control and the execution of duties by each

Company department. The Audit & Supervisory Board Members and Internal Audit Department also share information and opinions to raise the effectiveness of audits.

Three-Party Auditing



Management Structure

Directors' and Officers' Remuneration

The basic policy on remuneration for each Director and executive officer is to provide basic remuneration, a fixed amount that is determined in advance commensurate to the responsibilities of each position, and in addition determine the amount of performance-linked cash remuneration (bonus) and performance-linked stock remuneration for each fiscal year in accordance with actual contribution to business performance. The purpose is to secure outstanding human resources and provide incentive to each Director and executive officer to improve earnings and enhance corporate value.

Specifically, for basic remuneration (fixed cash remuneration), the Board of Directors, following deliberation by the Remuneration Committee (chaired by an Independent Director, and of which Independent Directors make up a majority of the membership), has set a remuneration table in accordance with position. At the end of each business year, the Remuneration Committee determines the remuneration of each Director and executive officer for the next fiscal year according to the table.

The goal of performance-linked cash remuneration (bonus) is to incentivize contributions to improving business performance each business year and to enhancing corporate value. Individuals are appraised based on pre-determined Group-wide performance indicators and targets for each individual. Cash bonuses are paid once a year to Directors and executive officers (excluding Independent Directors) based on the performance indicators and the degree of achievement of the individual's targets.

The cash remuneration given to Directors (i.e., the combined amount of basic remuneration and bonuses) is capped at ¥720 million per year in keeping with a resolution made at the 117th Ordinary General Meeting of Shareholders

on June 24, 2021.

The performance-linked stock remuneration system is intended to incentivize contributions to improving business performance mainly over the medium to long term and to enhancing corporate and shareholder value. The system distributes Obayashi shares to Directors and executive officers (excluding Independent Directors and individuals residing overseas) based on the duties associated with each position and the degree of achievement of pre-established performance indicators. There is both fixed provision stock remuneration, meaning that the individual receives a pre-determined number of shares commensurate to the duties associated with their position, and variable stock remuneration, wherein the number of shares received depends on the degree of achievement of performance indicators. Variable stock remuneration is itself divided into two parts: short-term performance-linked stock remuneration (number of shares based on degree of achievement of short-term performance indicators) and medium- to long-term performance-linked stock remuneration (based on degree of achievement of medium- to long-term performance indicators).

The basic policy on Audit & Supervisory Board Member remuneration is to set an amount required to secure outstanding personnel. The ultimate aim thereby is to ensure that corporate governance functions effectively. Remuneration standards are established in advance through discussions by Audit & Supervisory Board Members. They are set separately for full-time and part-time members. Remuneration is determined in line with those standards, capped at ¥10 million per month in keeping with a resolution made at the 101st Ordinary General Meeting of Shareholders on June 29, 2005.

Officers' Remuneration (Example: President)

Fixed remuneration		Performance-linked remuneration		
Capped at ¥720 million per year				
Monthly basic remuneration (only fixed remuneration for Independent Directors)	Short-term performance-linked cash remuneration (bonus)	Short-term performance-linked stock remuneration	Medium- to long-term performance-linked stock remuneration	Fixed provision stock remuneration*
About 60%		About 25%		About 15%

* Stock remuneration is delivered at retirement. Fixed provision stock remuneration is positioned as performance-linked remuneration because the share price fluctuates in accordance with medium-to long-term performance, and therefore, the value received at retirement increases or decreases.

Total Remuneration of Members of the Board of Directors and Audit & Supervisory Board (FY2021.3)

Position	Total remuneration and other compensation (millions of yen)	Total remuneration and other compensation, by category (millions of yen)		Number of officers in category
		Basic remuneration (cash remuneration)	Performance-linked stock remuneration (non-cash remuneration)	
Directors (of which, Independent Directors)	497 (50)	497 (50)	— (—)	12 (5)
Audit & Supervisory Board Members (of which, Outside Audit & Supervisory Board Members)	90 (31)	90 (31)	— (—)	6 (3)

Note: The above includes the amount received by one Audit & Supervisory Board Member who stepped down upon the conclusion of the 116th Ordinary General Meeting of Shareholders on June 24, 2020.

Remuneration for Financial Auditor (FY2021.3)

Category	Compensation paid for audit certification activities (millions of yen)	Compensation paid for non-audit activities (millions of yen)
Obayashi Corporation	107	0
Consolidated subsidiaries	82	—
Total	190	0

Name of the financial auditor: Ernst & Young ShinNihon LLC

Establishment and Implementation of Internal Control System

Obayashi has established and implemented an internal control system per the Companies Act and Ordinance for Enforcement of the Companies Act. The purpose of the system is to ensure appropriate business operations throughout the Group.

Recommendation Committee and Remuneration Committee

The Recommendation Committee and Remuneration Committee are both chaired by an Independent Director. There are seven members in each, including two Directors and five Independent Directors. The committees discuss appointments and remuneration of Directors and officers and report their results to the Board of Directors. This helps ensure that the process of appointing officers and deciding their remuneration is clear, transparent, and objective. In particular, the Board of Directors periodically oversees appointments and dismissals of the President to make sure they are being conducted appropriately and in keeping with a succession plan (which includes appointment and dismissal standards, successor candidate standards, successor development policy, and the like). The Board of Directors consists of Executive Directors who are thoroughly familiar with Obayashi's business fields and Independent Directors who have abundant experience and insight related to corporate management. When selecting Directors, Obayashi reviews candidates to ensure they have outstanding character, discernment, and capabilities and can make significant contributions to the development of

the Company's business. Selection of individual candidates also considers diversity, including gender and international background.

Recommendation Committee

At its meetings, it recommends individuals who are thoroughly familiar with business fields as candidates to be Executive Directors and individuals with diverse knowledge as candidates for Independent Directors and Outside Audit & Supervisory Board Members. The committee also establishes Director dismissal procedures and standards to use as its own operating guidelines. If for example it has been determined that there is a problem with a Director's fitness for the job, it follows those guidelines to deliberate whether that Director should be dismissed.

Remuneration Committee

At its meetings, it assesses each Director and executive officer on the degree to which performance indicators have been achieved and determines their remuneration for the next fiscal year.

Stakeholder Engagement

Obayashi conducts its business activities within the framework of various relationships with stakeholders. To continue being an enterprise trusted by its stakeholders, we will put their opinions and requests to work in our corporate management to ensure we are responding to the expectations and demands of society.

Stakeholders	Means of communication	Issues/hopes
Customers	Operating activities, Regular inspection of structures, Satisfaction questionnaires, Website	Provide high-quality buildings, infrastructure and services Develop advanced technologies meeting diverse needs
Shareholders and investors	General Meeting of Shareholders, Corporate Report, Individual meetings, Construction site tours, Business briefings, Financial results briefings, Overseas IR	Disclose information in a fair and timely manner Provide returns commensurate with the Group's performance
Employees	Labor-management initiatives, Various consultation desks, Training programs, Employee satisfaction surveys, Health and safety meetings	Establish comfortable working environments Establish and improve systems Develop talent and treat people appropriately
Suppliers	Procurement activities, CSR procurement Guidelines questionnaire, Collaboration with Obayashi Rin-yu-kai, Accident prevention meetings	Build fair business relationships Improve working environments Build co-creative relationships
Local communities	Construction site tours, Participation in events, Obayashi Foundation scholarships program, Matching Gift Program	Conduct social initiatives to realize a sustainable society

Directors and Officers

Members of the Board

(As of June 24, 2021)



Takeo Obayashi
Chairman,
Representative Director

Apr. 1977 Joined the Corporation
Jun. 1983 Director
Jun. 1985 Managing Director
Jun. 1987 Senior Managing Director
Jun. 1989 Executive Vice President
Jun. 1997 Vice Chairman
Jun. 2003 Chairman
Jun. 2007 Director
Jun. 2009 Chairman (incumbent)
Representative Director (incumbent)



Kenji Hasuwa
Representative Director

Apr. 1977 Joined the Corporation
Apr. 2010 Executive Officer
Oct. 2012 Managing Executive Officer
Oct. 2014 Head of Technology Business Development Division
Jun. 2015 Director
Apr. 2016 Senior Managing Executive Officer
Mar. 2018 Representative Director (incumbent)
President (incumbent)



Takehito Sato
Representative Director

Apr. 1975 Joined the Corporation
Apr. 2011 Executive Officer
Senior General Manager-in-Charge of Civil Engineering Construction Division at Tokyo Main Office
Apr. 2015 Head of Shikoku Branch Office
Apr. 2016 Managing Executive Officer
Mar. 2018 Senior Managing Executive Officer
Head of Civil Engineering Construction Division
Jun. 2018 Director
Apr. 2019 Representative Director (incumbent)
Executive Vice President (incumbent)
Apr. 2020 Head of Safety, Quality & Environment Division (incumbent)



Masako Orii
Independent Director*1

Apr. 1983 Joined Suntory Limited
Apr. 2012 Executive Officer of Suntory Holdings Limited
Apr. 2016 Senior Managing Director, Member of the Board of Suntory Wellness Limited
Apr. 2019 Advisor of Suntory Holdings Limited (incumbent)
Executive Director of Suntory Hall, Suntory Foundation for the Arts (incumbent)
Jun. 2020 Independent Director of the Corporation (incumbent)
May 2021 Outside Director, Audit and Supervisory Committee Member of TOHO CO., LTD. (incumbent)

Significant concurrent positions:
Executive Director of Suntory Hall, Suntory Foundation for the Arts
Outside Director, Audit and Supervisory Committee Member of TOHO CO., LTD.



Hiroyuki Kato
Independent Director*1

Apr. 1979 Joined Mitsui & Co., Ltd.
Apr. 2010 Managing Officer of Mitsui & Co., Ltd.
Apr. 2012 Executive Managing Officer of Mitsui & Co., Ltd.
Jun. 2014 Representative Director, Senior Executive Managing Officer of Mitsui & Co., Ltd.
Apr. 2016 Representative Director, Executive Vice President of Mitsui & Co., Ltd.
Apr. 2018 Director of Mitsui & Co., Ltd.
Jun. 2018 Counselor of Mitsui & Co., Ltd.
Jul. 2020 Advisor of Mitsui & Co., Ltd. (incumbent)
Jun. 2021 Independent Director of the Corporation (incumbent)

Significant concurrent position:
Non-Executive Director of Sims Limited (Australia)

*1 An Outside Director as per Article 2, Section 15 of the Companies Act



Yasuo Kotera
Director

Apr. 1977 Joined the Corporation
Apr. 2010 Executive Officer
General Manager of Accounting Department at Head Office
Apr. 2012 Managing Executive Officer
Apr. 2015 Senior Managing Executive Officer
Apr. 2017 Head of Real Estate Development Division
Jun. 2018 Director (incumbent)
Apr. 2020 Executive Vice President (incumbent)



Toshihiko Murata
Director

Apr. 1977 Joined the Corporation
Apr. 2012 Executive Officer
Senior General Manager-in-Charge of Building Construction Division at Osaka Main Office
Apr. 2015 Managing Executive Officer
Senior General Manager of Building Construction Division at Osaka Main Office
Apr. 2017 Head of Building Construction Division
Mar. 2018 Senior Managing Executive Officer
Jun. 2018 Director (incumbent)
Apr. 2019 Head of Tokyo Main Office
Apr. 2021 Executive Vice President (incumbent)
Head of Osaka Main Office (incumbent)



Atsushi Sasagawa
Director

Apr. 1980 Joined the Corporation
Apr. 2015 Executive Officer
Head of Yokohama Branch Office
Mar. 2018 Managing Executive Officer
Head of Building Construction Division at Osaka Main Office
Apr. 2019 Senior Managing Executive Officer
Jan. 2021 Head of Marketing Division (incumbent)
Apr. 2021 Executive Vice President (incumbent)
Head of Tokyo Main Office (incumbent)
Jun. 2021 Director (incumbent)



Toshimi Sato
Director

Apr. 1985 Joined the Corporation
Jan. 2011 Senior General Manager of North American Regional Headquarters at Overseas Business Division
Apr. 2013 General Manager of Finance Department at Head Office
May 2015 General Manager of Corporate Management Planning Department at Head Office
Apr. 2017 Executive Officer
Jun. 2018 Director (incumbent)
Apr. 2019 Managing Executive Officer (incumbent)



Shinichi Koizumi
Independent Director*1

Apr. 1971 Joined Toray Industries, Inc.
Jun. 2004 Vice President (Member of the Board) of Toray Industries, Inc.
Jun. 2006 Senior Vice President (Member of the Board) of Toray Industries, Inc.
Jun. 2007 Senior Vice President (Member of the Board & Member of the Executive Committee) of Toray Industries, Inc.
Jun. 2008 Executive Vice President and Representative Member of the Board of Toray Industries, Inc.



Yoko Kobayashi
Independent Director*1

Jun. 2013 Senior Advisor of Toray Industries, Inc.
Chairman of the Board of Toray Corporate Business Research, Inc.
Jun. 2015 Advisor of Toray Industries, Inc.
Independent Director of the Corporation (incumbent)
Jun. 2017 Standing Corporate Auditor of DeNA Co., Ltd. (incumbent)
Significant concurrent positions:
Standing Corporate Auditor of DeNA Co., Ltd.
Managing Director (Outside Director) of Japan Bank for International Cooperation
Outside Director of Preferred Networks, Inc.



Naoki Izumiya
Independent Director*1

Apr. 1972 Joined ASAHI BREWERIES, LTD.
Mar. 2000 Corporate Officer of ASAHI BREWERIES, LTD.
Mar. 2003 Director of ASAHI BREWERIES, LTD.
Mar. 2004 Managing Director of ASAHI BREWERIES, LTD.
Mar. 2006 Managing Director, Managing Corporate Officer of ASAHI BREWERIES, LTD.
Mar. 2009 Senior Managing Director, Senior Managing Corporate Officer of ASAHI BREWERIES, LTD.
Mar. 2010 President and Representative Director of ASAHI BREWERIES, LTD.
Jul. 2011 President and Representative Director, COO of Asahi Group Holdings, Ltd.
Mar. 2014 President and Representative Director, CEO of Asahi Group Holdings, Ltd.

Mar. 2016 Chairman and Representative Director, CEO of Asahi Group Holdings, Ltd.
Mar. 2018 Chairman and Representative Director of Asahi Group Holdings, Ltd.
Jun. 2018 Independent Director of the Corporation (incumbent)
Mar. 2019 Chairman of the Board of Asahi Group Holdings, Ltd.
Mar. 2021 Special Advisor of Asahi Group Holdings, Ltd. (incumbent)
Significant concurrent positions:
Outside Director of New Otani Co., Ltd.
External Board Director of Recruit Holdings Co., Ltd.

Apr. 1978 Joined Nippon Telegraph and Telephone Public Corporation (the predecessor of NTT)
Jun. 2008 Member of the Board of Directors of NTT Communications Corporation
Jun. 2010 President and CEO of NTT Com CHEO CORPORATION
Jun. 2014 Audit & Supervisory Board Member of NTT Communications Corporation
Jun. 2018 Outside Director, Audit & Supervisory Committee Member of Mitsubishi UFJ Trust and Banking Corporation (incumbent)
Sep. 2018 General Auditor of Japan Aerospace Exploration Agency (incumbent)
Jun. 2020 Independent Director of the Corporation (incumbent)
Significant concurrent positions:
Outside Director, Audit and Supervisory Committee Member of Mitsubishi UFJ Trust and Banking Corporation
General Auditor of Japan Aerospace Exploration Agency

Members of the Audit & Supervisory Board



Hikaru Ueno
Standing Audit &
Supervisory Board
Member

Apr. 1977 Joined the Corporation
Apr. 2010 Executive Officer
General Manager of Personnel Department at Head Office
Apr. 2012 Managing Executive Officer
Apr. 2015 Head of Sapporo Branch Office
Mar. 2018 Advisor
Jun. 2018 Standing Audit & Supervisory Board Member (incumbent)



Masahiro Saito
Standing Audit &
Supervisory Board
Member

Apr. 1981 Joined the Corporation
Apr. 2014 Senior General Manager of Building Construction Division at Tokyo Main Office (responsible for marketing)
Apr. 2016 Executive Officer
Senior General Manager of Real Estate Development Division
Mar. 2018 Representative Director and President of OBAYASHI-SHINSEIWA REAL ESTATE CORPORATION
Apr. 2020 Advisor at the Corporation
Jun. 2020 Standing Audit & Supervisory Board Member (incumbent)



Hiroshi Yokokawa
Outside Audit &
Supervisory Board
Member*2

Apr. 1970 Joined the Ministry of International Trade and Industry
Sep. 1999 Director General of Consumer Goods Industries Bureau
Jun. 2000 Retired from the Ministry of International Trade and Industry
Jul. 2000 Executive Vice President of Japan External Trade Organization
Jul. 2002 Retired from Japan External Trade Organization
Aug. 2002 Advisor of Osaka Gas Co., Ltd.
Jun. 2003 Managing Director of Osaka Gas Co., Ltd.
Jun. 2005 Representative Director and Senior Managing Director of Osaka Gas Co., Ltd.
Jun. 2008 Representative Director and Executive Vice President of Osaka Gas Co., Ltd.
Jun. 2009 Representative Director, Executive Vice President of Osaka Gas Co., Ltd.
Apr. 2011 Director of Osaka Gas Co., Ltd.
Jun. 2011 Retired from Osaka Gas Co., Ltd.
Jul. 2011 President of the Japan Commercial Arbitration Association
Jun. 2015 Retired from the Japan Commercial Arbitration Association
Outside Audit & Supervisory Board Member of the Corporation (incumbent)

Significant concurrent position:
Chairman of Foundation of Global Life Learning Center



Tetsuo Nakakita
Outside Audit &
Supervisory Board
Member*2

Apr. 1976 Joined the Ministry of Construction
Jul. 2006 Deputy Director-General, Railway Bureau, the Ministry of Land, Infrastructure and Transport
Jul. 2007 Retired from the Ministry of Land, Infrastructure and Transport
Vice Chairperson, Funenkousha
President, West Japan Housing Industry Credit Guarantee Inc.
Jun. 2018 Outside Audit & Supervisory Board Member of the Corporation (incumbent)



Akihiko Nakamura
Outside Audit &
Supervisory Board
Member*2

Mar. 1982 Joined Price Waterhouse Certified Public Accountants Office
Sep. 1986 Registered as a Certified Public Accountant
Jul. 1998 Representative Partner, Aoyama Audit Corporation
Partner, PricewaterhouseCoopers Co., Ltd. (PwC)
Apr. 2000 Representative Partner, ChuoAoyama Audit Corporation
Sep. 2006 Representative Partner of Aarata Kansu Hojin (currently PricewaterhouseCoopers Aarata LLC)
Jul. 2017 Retired from PricewaterhouseCoopers Aarata LLC and PwC
President of Akihiko Nakamura CPA Office (incumbent)
Jun. 2018 Outside Audit & Supervisory Board Member of the Corporation (incumbent)

Significant concurrent position:
President of Akihiko Nakamura CPA Office

*2 An Outside Company Auditor as per Article 2, Section 16 of the Companies Act

Directors and Officers

(As of June 24, 2021)

Executive Officers

President				
Kenji Hasuwa				
Executive Vice Presidents				
Takehito Sato Responsible for overall civil engineering construction Head of Safety, Quality & Environment Division	Yasuo Kotera Responsible for overall administration	Toshihiko Murata Head of Osaka Main Office Head of Yumeshima Development Division	Atsushi Sasagawa Responsible for overall building construction Head of Marketing Division, Head of Tokyo Main Office, and Head of Building Construction Division at Tokyo Main Office	
Senior Managing Executive Officers				
Jiro Otsuka Head of Real Estate Development Division	Akinobu Nohira Head of Civil Engineering Construction Division	Makoto Hidetaka Head of Building Construction Division at Osaka Main Office, Senior General Manager of Marketing Division, and Senior General Manager of Yumeshima Development Division	Katsuyoshi Okawa Head of Building Construction Division	
Managing Executive Officers				
Mamoru Hikida Head of Kyushu Branch Office	Naoki Kajita Head of Technology Division	Koji Murakami Head of Nagoya Branch Office	Hirokazu Onozaki Head of North American Regional Headquarters	Shin Matsumoto Head of Civil Engineering Technology Division
Yoshimi Sekoguchi Head of Yokohama Branch Office	Yuichi Yamamoto Head of Green Energy Division Responsible for PPP Division	Hitoshi Hasegawa Senior General Manager of Marketing Division	Toshiro Kiyomi Senior General Manager of Marketing Division	
Toshimi Sato Responsible for Corporate Strategy, Digital Integration, and Business Innovation Divisions, Human Resources, Finance, and Accounting Departments General Manager of Corporate Strategy Division, Senior General Manager at Tokyo Main Office (responsible for project administration)			Nozomu Taoda Head of Kanto Branch Office	
Kazunari Nomura Head of Civil Engineering Construction Division at Tokyo Main Office	Seiji Nagai Head of Hiroshima Branch Office	Goichi Kamochi Head of Architectural Design & Engineering Division		
Executive Officers				
Hitoshi Tomoto	Susumu Kawaguchi	Nobuyuki Wakuni	Hideo Katsumata	Hironobu Kawakami
Yoshihito Sasaki	Akihiro Higashide	Kyoji Ikeda	Hiromitsu Kato	Kazuyuki Goto
Kimihiko Sato	Isao Sano	Futoshi Takahashi	Yutaka Taneda	Kojiro Nitta
Yasuo Morita	Motoi Yano	Yoshikatsu Imazuka	Shigeru Edatsune	Hitoshi Shibuya
Atsushi Takeuchi	Katsuhiko Matsuda	Masaaki Yasui	Eiichiro Okano	Toshiro Kito
Shinobu Yamanaka	Koji Kohirata	Osamu Yoshizaki	Kenichi Ando	Hajime Onojima
Ryuji Kitaoka	Hiroshi Kondo	Mitsuaki Sadatoshi	Kazutoshi Mitsui	Ryuichi Yanagawa

Director Skill Matrix

Name	Building construction	Civil engineering construction	Real estate development	New businesses	ICT/Digital	Business development	Public relations	Finance and accounting	Legal affairs, Compliance, Risk management	Global knowledge	Corporate management
Takeo Obayashi										○	○
Kenji Hasuwa		○		○		○					○
Takehito Sato		○				○					○
Yasuo Kotera			○				○	○	○		○
Toshihiko Murata	○					○					○
Atsushi Sasagawa	○					○				○	
Toshimi Sato				○	○		○	○		○	○
Shinichi Koizumi				○	○	○		○		○	○
Naoki Izumiya				○			○				○
Yoko Kobayashi				○	○	○					○
Masako Orii				○			○				○
Hiroyuki Kato				○						○	○

Risk Management

Risk Management System

Important decisions are referred to the Board of Directors and Management Meeting for discussion. These bodies determine and evaluate the risks of each agenda item. They discuss whether Obayashi has found a response that would be appropriate in case a risk is manifested, and then a decision is made on the item.

Moreover, each department assesses the risks inherent to its business processes. It builds the necessary avoidance and mitigation measures into those processes before performing them. Meanwhile, the Internal Audit Department audits each department's risk management efforts.

Risk Management System



Information Security

Obayashi established an information security policy in FY2002.3 and has put security measures in place since then, but with advances in digital technology and work style reform, the ways in which people use information systems are changing. Added to that, outside attacks on information systems are becoming more sophisticated. We revised our policy into the Obayashi Group Information Security Policy in March 2021 in response to the growing information security risk. The revision expanded the scope of application to the entire Obayashi Group and brings the policy into conformity with the unified standards of the National center of Incident readiness and Strategy for Cybersecurity (NISC). It adds measures to deal with new information technologies and devices that did not exist when the policy was first established.

Under this unified framework, we conform to Japanese and overseas laws, regulations, and standards on information security systems, training, auditing, and safety management measures. The new policy sets concrete measure standards with which Obayashi Group companies need to comply.

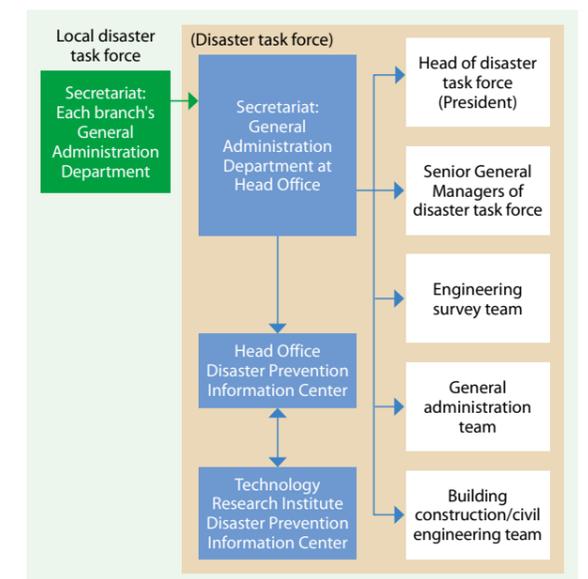


We will work to raise the level of information security throughout the Group by implementing these practices.

Business Continuity Plan (BCP)

We formulated our business continuity plan (BCP) to anticipate risks from disasters like large earthquakes. Under it, we draft and implement measures to prevent business interruptions and recover quickly in case they do occur. If an earthquake causes a disaster, for example, emails are automatically sent out to inquire on the damage at construction sites, as well as facilities of the Company and Group companies. Since we can learn the damage right away, we can take prompt recovery action. Because of the high risk of a major earthquake in the coming years, Obayashi has set up a disaster task force in accordance with the degree of damage. All officers and employees at all main offices and branches, moreover, take part in earthquake preparation drills that anticipate a variety of scenarios. In FY2021.3, we used an online meeting system to conduct an earthquake preparation drill that anticipated a major earthquake happening in the middle of a pandemic, such as a viral infectious disease.

Local Disaster Task Force Communication System





Independent Director **Shinichi Koizumi**



Independent Director **Yoko Kobayashi**

Dialogue with Independent Directors

Obayashi switched to a governance system with five Independent Directors in June 2020. Four of those Independent Directors who are still serving in FY2022.3 talked about their expectations for corporate governance and ESG management at the Obayashi Group.



Independent Director **Masako Orii**



Independent Director **Naoki Izumiya**

— What particular issues are you prioritizing as an Independent Director?

Izumiya I've been an Independent Director since June 2018. During this time, the Obayashi Group has been working on Medium-Term Business Plan 2017 as a way to realize the Vision for the Future in time for 2042, the 150th anniversary of Obayashi's founding. Then in early 2021 it announced the new Brand Vision, "MAKE BEYOND Transcending the art and science of making of things." Stakeholders are increasingly asking enterprises to make medium- to long-term contributions to increasing social value as expressed in ESG and the SDGs. From now on, decisive sustainability management, with an emphasis on the medium to long term, raising corporate value, dealing with the uncertainty of the future, and practicing sustainability, will be vital to corporate management. When I state my opinion, I consciously focus on what kind of management is necessary for Obayashi to continue co-creating with society.

Koizumi When I served at Toray previously, my role in corporate management included responsibility for management planning, overseas business, and M&As. Now too, I am fortunate to encounter some advanced knowledge from the industrial world through my work at a government-affiliated financial institution and a business on the cutting edge of DX in my role as outside director. I've also developed personal connections through international networking, at the World Economic Forum in Davos for example. I understand that I am expected to give advice by leveraging those connections. At meetings of the Board of Directors and during the President's interviews with divisions, I actively state my opinion on issues like the Medium-Term Business Plan, the future of overseas businesses, global partnerships, new business areas like green energy, and the Company's technological development strategy. My advice reflects the standpoint of Obayashi's various stakeholders.

Kobayashi I previously served with the NTT Group. As a person responsible for projects during the dawn of the Internet era, I helped to start their OCN business and develop it into the No. 1 Internet service provider in Japan. At Obayashi, I actively give my input to the Board of Directors on topics like technology and DX based on the ICT knowledge I gained at that telecommunications company. Moreover, I view the empowerment of women as my life work, beyond the company setting. I hope to help realize working environments that give rise to career female directors and further empower female employees in other ways. Plus, I will be using my experience as an auditor in my earlier posts to make sure I can give advice on the health of corporate management.

Orii I was involved in marketing and corporate communication at Suntory, where I was constantly coming in contact with changes in customers' tastes and what they thought of the company's products. What Obayashi makes is of a very different scale, but in terms of craftsmanship, I can tell they have much in common with Suntory: they're very particular about quality, they understand their customers' needs, and they create new value. In that sense, I hope to convey how important it is for enterprises to build and maintain trusting relationships with society. When I question Obayashi's management team, what I try to find out is how the Company is meeting the expectations of its external stakeholders. I also try to learn what their perspectives are when they are debating issues. Finally, I ask whether these things help to generate trust and promote growth.

— What are your expectations of the Obayashi Group's ESG management?

Koizumi In my opinion, the key to sustained growth for the construction industry is whether it can gradually transition from being a traditional contractor to being a producer. The contractor listens to what the client wants and then completes the building or structure on time, making sure that quality and cost targets are also met. A producer, on the other hand, actively proposes and realizes infrastructure that withstands disasters and spaces where people enjoy living. To make the shift from traditional contractor to producer, the important thing is engagement with external stakeholders. That includes people who use the building or structure and the surrounding area, and people living in the area. Obayashi's management team shares an awareness of this kind of issue. In my conversations with the Board of Directors, I will check the progress of their initiatives.

Orii As I see it, communication that "conveys" things from the stakeholder's perspective is more important than simply stating information from the enterprise's perspective. Obayashi builds and maintains society's infrastructure. As such, its efforts to respond more faithfully to expectations, based on appropriate communication, will allow it to enjoy sustained

growth while supporting the development of society. On another point, to strengthen its foundation of craftsmanship at a time of so much change in the environment, it must make sure that the Obayashi Philosophy becomes deeply rooted in its employees' awareness and that they are able to act accordingly. I would also expect it to cultivate a mindset of "seeing ourselves objectively" and "changing the status quo," anchored by the new Brand Vision, "MAKE BEYOND Transcending the art and science of making of things." If Obayashi does that, the challenges that each employee takes can lead to more value for the Group. Furthermore, the fact that Obayashi is promoting diversity in the organization will be a driver for reform and growth of Obayashi, I believe.

Kobayashi Look at the world today and you'll see national governments competing with each other to set higher CO₂ emissions reduction targets to get to a decarbonized society. Institutional investors have declared their intention to disinvest from fossil fuels. As we gradually enter the post-pandemic era, SX (sustainability transformation) and DX are starting to move, simultaneously and at an accelerating pace. With its mindset of sustainability in tandem with business, Obayashi is taking things to the next level. It is, for example, the first general contractor to establish a central organization built around green energy. Obayashi's characteristic compassionate governance, which treats people with such great care, is necessary for it to help achieve a sustainable society through its business as a leader in its industry. One immediate issue is to establish a system that lets Obayashi keep a close eye on its Group companies, including those outside Japan.

Izumiya When ESG management is working as it should, the contributions an enterprise makes to solving social challenges are like a compass that points the way to medium- to long-term business growth. The construction industry depends on winning orders and is easily impacted by how well or how poorly the economy is doing. To sustainably build up its corporate value, a construction business needs stable growth. For that to happen, it needs to maintain the building construction and civil engineering businesses at its core but with a business and profit structure that helps even out earnings. There are a number of concrete issues to address. Among them: how to increase productivity and change the profit structure through technological development; how to become better at proposing solutions and win more orders through marketing development; how to raise safety, quality, and construction site earning capacity through human resource development; how to achieve new growth and diversify earnings through business development; and how to contribute socially and culturally through new-value development. But Obayashi has many excellent employees, and I expect that with their combined talents, they can certainly build a sustainable Obayashi.

Building a Sustainable Future, Then Going Beyond

Through the practice of ESG management, the Obayashi Group aims to realize sustainability of “the planet, society, and people.” Yuko Nishida, Senior Manager of the Renewable Energy Institute, sat down with Obayashi President Hasuwa to talk about the issues Obayashi needs to address and to consider some guidelines for the future as a leader in the construction industry supporting society’s infrastructure.

The Thinking behind the Brand Vision

— What is the thinking behind the new Brand Vision, “MAKE BEYOND Transcending the art and science of making of things”?

Nishida I’ve seen the commercials. They really have an impact. That phrase “MAKE BEYOND Transcending the art and science of making of things” gave me the impression of a forward-thinking company with some bold dreams for the future, but at the same time, it brings some very severe situations to mind. If you think in terms of climate change, right now is a big turning point for human society. Many of the world’s nations will have to reach net zero greenhouse gas

emissions by 2050 just as they have pledged. To get there, they will have to pursue the 1.5°C scenario that is the aim of the Paris Agreement. No one has done this before. Everything you do has to happen within the great limitation that it must work toward a climate change solution. In October 2020, Japan made its 2050 Carbon Neutral Declaration. That’s an international pledge to try to realize a decarbonized society. Japan has assumed a great obligation as an industrialized nation. Japanese companies are compelled to pursue business activities within this severe limitation. I know we are not here just to talk about climate change solutions, but my understanding is that the Brand Vision embodies the

Obayashi Group’s determination to open new paths in the uncharted territory beyond construction in an age when the future is hard to read.

Hasuwa There are all sorts of global social challenges, including climate change, that are growing more acute today. I am keenly aware how important it has become for businesses to try to find solutions. We at the Obayashi Group are managing our business based on an understanding that we have an obligation to meet society’s expectations and contribute to solving challenges through the technological capabilities we’ve cultivated over the years. The core of our business is construction, which really is a local industry, because the work is community-based. It isn’t just our technological capabilities and track record, but also our brand image in the community that causes customers to choose us when there are many other construction companies available. Obayashi has a long history, but I don’t think the public really knows us well enough. The reason we shared this Brand Vision at this time was to make the world at large aware of our existence, our ways of thinking, and our direction forward so that our employees and even members of our supply chains could proceed with more confidence and pride. As you pointed out, Ms. Nishida, it really is necessary for

us to “open new paths.” We want people to feel the spirit of persistent challenge that is embodied in this expression.

Contributing to Sustainability with ESG Management

— Describe the sustainability that the Obayashi Group aims to achieve.

Hasuwa In 2011, we established Obayashi Green Vision 2050 and shifted to business activities conscious of fostering an environmentally responsible society, which included promoting the renewable energy business. In 2019, we developed that vision further so that it incorporates our efforts in ESG management and initiatives that will contribute to achieving the SDGs. It is now known as Obayashi Sustainability Vision 2050. This updated statement defined our vision for 2050. It set out targets, including decarbonization, and directions for developing our business. It was the changing energy paradigm, prompted by the Great East Japan Earthquake of 2011, that led to the update of the vision. Another decisive factor that led to the update was the change in global awareness of the

I have high hopes for Obayashi initiatives seeking to realize sustainability beyond the framework of construction

Yuko Nishida

Renewable Energy Institute
Senior Manager (Climate Change)

Profile

Ms. Nishida leads the Renewable Energy Institute’s climate change research and initiatives. She conducts research and offers recommendations on climate and energy policy with an eye on Japan in 2050 and 2030. She also supports climate change measures by local governments and enterprises. Also, in her role as Vice-Chair of the Green Buildings Promotion Forum, she has made the decarbonization of the construction sector her life’s work, endeavoring to popularize sustainable building construction and urban development.

The Obayashi Group works as one to promote ESG management and contribute to realizing a sustainable society through craftsmanship

Kenji Hasuwa

Representative Director
President

environmental problem since the adoption of the Paris Agreement in 2015. We are in the middle of a deep transformation. We have to recognize that environmental and other issues are challenges to the entire planet. This is vital to corporate management from the ESG perspective too.

Nishida So, you have set targets for the year 2050, which isn't such a long span of time for the construction industry. The buildings under construction and projects in planning now will certainly still be functioning in 2050. It seems that in your business activities, you need to be very aware of just how important your efforts today are. Obayashi was earlier than most other Japanese companies to formulate an environmental vision with an eye on 2050. It should also be commended for taking actions like getting into the renewable energy business. You also made your vision stronger. That's important. You didn't just keep your vision to show off but took the opportunity to revise it and take it to the next level. That willingness is essential in an era when society has to work towards decarbonization with urgency.

Hasuwa The Obayashi Philosophy and Vision have to change with the times, because they are critical guidelines at the core of management. The idea that buildings and infrastructure must be safe and secure never changes, but as we turn our eyes to the future, we see other issues that our communities and customers are dealing with. Those include renewing infrastructure and extending its life, saving energy and being eco-friendly, shortening construction periods, dealing with the declining birthrate and aging population, and figuring out what comfortable spaces will look like after the COVID-19 pandemic. Each of the initiatives we take



on these issues, using knowledge and technologies we've learned through steady research, will lead us to a new era. There is no way, for example, that TOKYO SKYTREE® could have been built with the technologies of a decade earlier. Things we are researching now, like the space elevator, may seem like a dream. At the very least, however, we always want to be attuned to society's needs and engage in all types of R&D so we are prepared for the times to come and can help produce solutions.

Nishida It may also be that limitations caused Obayashi to refine their technologies. A lot of disasters happen to Japan, so Japan creates technologies to deal with them. Eventually, those technologies get used globally. I expect more of that will happen going forward.

Promoting Renewable Energy Business as a Growth Field

— Working with climate change

Nishida The world is starting to take action to go carbon neutral by 2050. It is a thesis for our generation, which is already seeing climate change, to think about the present moment or the year 2030 with a view to the year 2050. It is also an important thing to do for a company like Obayashi since the construction business is the core of your operations. Within that business, I imagine that saving energy and creating energy in structures are two particularly big themes. You will need outstanding technological capabilities to achieve higher-level energy conservation in structures, especially to achieve ZEB status in large structures. For that reason, Obayashi's ZEB initiatives at your Technology Research Institute caught my eye from the start. I have given several tours of the Technology Research Institute to experts from overseas and to people working in the field of green buildings. Visitors from overseas have been extremely impressed. They say it is one of the best cases in the world of a facility that realized leading-edge environmental performance within such an outstanding design.

Hasuwa We have built up a considerable amount of ZEB technology. It's one of our company's strengths. So far, however, not many of our customers have demanded ZEB, so it will take some time to build a track record. We will have to work hard from the earliest stages of construction planning to impress our customers with ZEB's benefits. This could include profitability analysis over

the life cycle of the structure.

Nishida One way to popularize ZEB in private-sector architecture might be to let the public sector take the lead, for example if all public buildings were ZEB. I hope you will work to encourage public policy so that this technology gets put to effective use.

Hasuwa Popularizing ZEB is an issue for the entire construction industry. The Obayashi Group plans to take the lead and actively promote it. Trying to find new business opportunities in climate change solutions like this is a trend that I think is going to accelerate. The Obayashi Group got into the renewable energy business under the feed-in-tariff (FIT) system in 2012, before there was a Paris Agreement. The idea was to offset the electric power we consumed in our business activities by generating renewable energy. The reason we were able to move into this new business domain without hesitation was because we had a shared recognition of how significant this would be. The debate over the best energy mix for Japan has not been settled yet, but we have continued to research renewable energy technologies and accumulate expertise by following our own philosophy and vision. We started with the solar power generation business and are now also in the biomass and onshore wind power generation businesses. We have 30 power stations in operation across Japan at this time with a generating capacity of about 154 MW. Currently, work is underway to establish a large-scale offshore wind power business. We are also beginning field tests of small-scale hydroelectric power, geothermal power, and hydrogen with the aim of commercializing them as future growth fields.

Nishida The practical problem is that we cannot achieve carbon neutral status by 2050 unless we shift to renewable energy as our main source of electric power. The TCFD scenario analysis that Obayashi published says, "the increasing need for energy conservation / renewable energy technology" is an opportunity. It's an important point. On the other hand, the high cost of renewable energy in Japan is attributable in part to the cost of construction. The market is waiting for construction technologies to progress and become more streamlined, so I hope this will be a focus for Obayashi. With economic conditions stagnating globally, Europe and America are taking the lead in accelerating the movement to expand green investment for a sustainable society. It seems likely the



technological competition with non-Japanese firms will get more intense going forward. However, I hope Japan's construction industry will bring its potential to the field of renewable energy and grow this business field globally.

Every Employee to "MAKE BEYOND"

— How will Obayashi Group craftsmanship help realize a sustainable society?

Hasuwa At the Obayashi Group, we are happy when we feel we are contributing to the future as a member of society through the work of craftsmanship. Although we need to eliminate long work hours, I hope we continue to be an enterprise where the work is so satisfying that people forget the time because they are so engaged with their jobs. So I hope the entire Obayashi Group will feel the same way about "MAKE BEYOND" and each of us will put our whole selves into our day-to-day work. By doing this and offering society the deliverables we make together, we hope to realize a sustainable society.

Nishida That attitude of always trying to be sensitive to social trends, use craftsmanship to solve social challenges, and keep growing as a result truly resonates with me. The climate crisis makes things harder, but I hope the Obayashi Group will keep its fighting spirit that says, "We will give the world something even better for the future, based on our own guidelines and sense of mission."

Hasuwa Thank you for all the advice you gave us today. I hope you are as excited as I am about the future the Obayashi Group is building.

Materialities and KPIs

ESG Materialities of the Obayashi Group

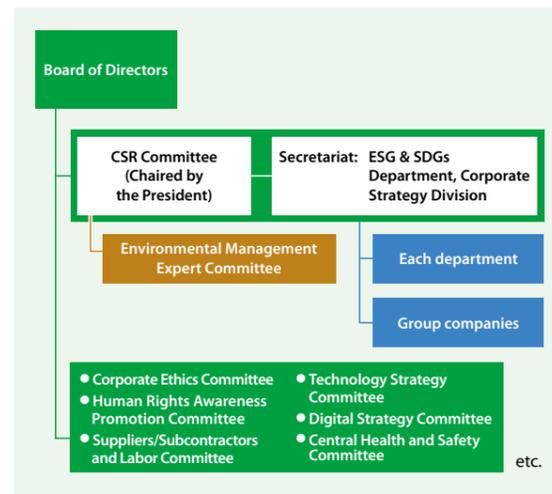
Grounded on the Obayashi Basic Principles, the Obayashi Group has identified six ESG materialities for promoting ESG management. We incorporate these materialities into our Medium-Term Business Plan measures and tie them in with the SDGs in our business initiatives. By so doing, we aim to reach our Obayashi Sustainability Vision 2050 targets, achieve medium- to long-term growth, and realize a sustainable society. We check progress each fiscal year on action plans and KPIs which we have set that connect to Obayashi's materialities. We then use the PDCA cycle for further initiatives.



Promotion Framework

The CSR Committee was put in place to promote business activities based on the Obayashi Basic Principles. It is headed up by the President and has a membership consisting of Heads of divisions and other executive officers.

Meeting once a year, the committee establishes basic policies and specific action plans to achieve sustainability and reviews achievements of initiatives. The ESG & SDGs Department of the Corporate Strategy Division drafts and promotes CSR measures, disseminates CSR and ESG information, and instills relevant practices within the Group. It also promotes Group-wide initiatives. Finally, it reports its deliberations to the Board of Directors and refers important matters to them for discussion.



Obayashi Sustainability Vision 2050

Obayashi Sustainability Vision 2050 is our long-term vision. It embraces the changes in various social trends and the business environment surrounding the Obayashi Group. It declares that we will make ESG our management foundation and contribute to meeting the social challenges as expressed in the Sustainable Development Goals (SDGs). It furthermore states that we will simultaneously pursue sustainability of "the planet, society, and people" and of the Obayashi Group. The Vision outlines the direction that our Group will take in developing our business. It was formulated by using the backcasting technique to set targets for realizing a sustainable society in the future. It sets business development directions for our Group to pursue.

The vision defines the Group we want to be in 2050, setting targets for the years between 2040 and 2050.

Obayashi will establish concrete action plans and KPIs and move forward to achieve those targets.

2040-2050 targets



Action Plan and KPIs

Action plan	KPI	Related SDGs			Pages with more information
		FY2021.3 results	FY2021.3 targets	FY2022.3 targets	
Promote environmentally friendly businesses	Ratio of design and construction projects (of 2,000 m ² and up) with CASBEE ranking of A or higher	64%	At least 70%		P.39-45
	Ratio of sustainability-related capital expenditure to real estate leasing business capital expenditure	93.6%	At least 90%		
Promote renewable energy business	Electricity generated annually as a result of renewable energy business	267,202 MWh	At least 288,000 MWh	At least 370,000 MWh	
Promote decarbonization	Direct contribution of CO ₂ emissions reduction rate (vs. FY2014.3)	-67%*	-85% by FY2031.3		
	Indirect contribution of CO ₂ emissions reduction rate (vs. FY2014.3)	-21%*	-25% by FY2031.3		
Contribute to realizing a recycling-oriented society	Emissions of construction waste material per unit value of completed construction work	127 t/billion yen	No more than 140 t/billion yen		

*Preliminary result prior to obtaining third-party certification

Action plan	KPI	Related SDGs			Pages with more information
		FY2021.3 results	FY2021.3 targets	FY2022.3 targets	
Pursue reliable quality	Customer satisfaction rate	96.8%	At least 90%	100%	P.47-48
Use technological capabilities to further enhance productivity	Construction business productivity increase rate (vs. FY2017.3)	4.4%	At least 10%		
Maintain good construction management system	Ratio of technical staff with important construction management credentials: professional engineer, registered first-class architect, and registered first-class construction management engineer (building construction, civil engineering, plumbing work, and electricity work)	80.5%	Maintain at 80%		

Action plan	KPI	Related SDGs			Pages with more information
		FY2021.3 results	FY2021.3 targets	FY2022.3 targets	
Rigorously apply the Occupational Health and Safety Management System	Number of fatal accidents	2	0		P.49-50
	Degree of achievement of the Occupational Health and Safety Management System evaluation items	85.3%	At least 90%		

Action plan	KPI	Related SDGs			Pages with more information
		FY2021.3 results	FY2021.3 targets	FY2022.3 targets	
Promote work style reform	Ratio of practice of closing construction sites eight days out of every four-week period	28.5%	At least 40%	100%	P.51-54
	Ratio of eligible male employees taking childcare leave or other leave for the purpose of childcare	12.8%	15% by FY2022.3	100% by FY2025.3	
Promote diversity	Ratio of employment of people with disabilities	2.3%	2.4%	At least 2.4%	
	Ratio of female managers	9.3%	10% by FY2025.3	About 12% by FY2025.3	
	Ratio of female engineers	9.8%			

Action plan	KPI	Related SDGs			Pages with more information
		FY2021.3 results	FY2021.3 targets	FY2022.3 targets	
Promote the Corporate Ethics Program	Ratio of employees taking corporate ethics training	100%	100%		P.59-60
Practice rigorous information security management	Ratio of employees taking information security training	100%	100%		

Action plan	KPI	Related SDGs			Pages with more information
		FY2021.3 results	FY2021.3 targets	FY2022.3 targets	
Promote CSR procurement	CSR procurement guidelines comprehension questionnaire response rate	96.3%	100%		P.61-62
	Construction materials green procurement rate	47.5%	At least 50%	At least 55%	
Train and support skilled workers	Number of Certified Excellent Site Supervisors / Excellent Operators	458	More than previous fiscal year		
	Number of persons completing training at the Obayashi Rinyu-kai Vocational Training School	44	More than previous fiscal year		



Establish an Environmentally Responsible Society

KPI Progress (FY2021.3 results)

Direct contribution of CO₂ emissions reduction rate (vs. FY2014.3)

-67%

Indirect contribution of CO₂ emissions reduction rate (vs. FY2014.3)

-21%

Related SDGs



Basic Policy

Obayashi fosters a sustainable society that is decarbonized, committed to recycling, and deeply respectful of the natural world.

Environmental Policy

Principles

As a good corporate citizen, Obayashi considers active efforts and continuous improvement of environmental issues to be integral components of business management. We envision our future society, seeking to contribute to the realization of a sustainable society through all our business activities.

Biodiversity Policy

Principles

Based on the Obayashi Environmental Policy, we will recognize the impact of our business activities on biodiversity and work to reduce the burden and preserve biodiversity through a variety of business activities.

Environmental Management

Promotion Framework

Obayashi established the CSR Committee to promote business activities based on the Obayashi Basic Principles. The committee is supervised by the Board of Directors and headed up by the President and has a membership consisting of Heads of divisions and other executive officers. Below the CSR Committee is an Environmental Management Expert Committee chaired by the executive officer responsible for the environment. It sets basic policies and works for continual improvement by reviewing targets and initiatives based on evaluations of Environmental Management System (EMS)* results. The environmental departments of the Head Office, main offices, branches, and Group companies are in charge of executing the plans and targets set by the Environmental Management Expert Committee and take specific actions to do so.

At Obayashi, environmental compliance is more than just following environmental laws and regulations. We set higher standards for ourselves and respond appropriately based on these. Environmental law and regulation supervisors are appointed at branches throughout Japan. We also give online courses and group trainings to raise knowledge and awareness of

environmental laws and regulations.

*The Obayashi EMS has obtained ISO 14001 certification for all domestic organizations.

Environmental Management Promotion Framework



<https://www.obayashi.co.jp/en/sustainability/environment.html>



Environmental Management Initiatives

Organization	Overview of organization	Overview of activities
Board of Directors	<ul style="list-style-type: none"> Comprised of individual Directors 	<ul style="list-style-type: none"> Meets about 15 times a year Supervises climate-related risks and opportunities
CSR Committee	<ul style="list-style-type: none"> Chair : President (Representative Director) Members : Heads of divisions and other executive officers Secretariat : ESG & SDGs Department, Corporate Strategy Division 	<ul style="list-style-type: none"> Meets once a year Sets basic policy, drafts other policies, and evaluates their implementation in order to promote CSR initiatives, including those related to climate issues
Environmental Management Expert Committee	<ul style="list-style-type: none"> Established within the CSR Committee Chair : Executive officer responsible for the environment Members : Environmental supervisors for individual departments of Head Office 	<ul style="list-style-type: none"> Meets twice a year As an organization under the CSR Committee, it follows the Obayashi Environmental Management System and reviews and promotes policies and action plans based on collected environmental data, sets targets, and monitors and reviews implementation status and results
Environmental departments	<ul style="list-style-type: none"> Head Office, main offices, branch offices (environmental departments) Group companies (environmental departments) 	<ul style="list-style-type: none"> Head Office, main offices, branch offices, and Group companies take specific actions based on the action plans and targets set by the Environmental Management Expert Committee

For a Decarbonized Society

At the Obayashi Group, we believe that realizing a decarbonized society will help ensure our own sustainability. For that reason, we are working to lower CO₂ emissions from our business activities, improve the energy efficiency of the buildings we provide, and expand our renewable energy business. Decarbonization KPIs that we set include direct contribution of CO₂ emissions reduction rate, indirect contribution of CO₂ emissions reduction rate, and electricity generated annually as a result of renewable energy business.

CO₂ Reduction Targets

Indicator	Base year	Target year	Target
Direct contribution*1 of CO ₂ emissions reduction rate	2013	2030	-85%
Indirect contribution*2 of CO ₂ emissions reduction rate	2013	2030	-25%

*1 Direct contribution = A + B - C
 A: Fuel usage and electric power purchases at construction sites and offices (Scope 1 + Scope 2)
 B: Transportation of construction materials and waste materials, employee and worker commuting (Categories 4, 7, and 9 of Scope 3)
 C: Emissions equivalent to electric power generated by renewable energy business
 *2 Indirect contribution = a + b - c
 a: Annual emissions during operation of buildings designed and constructed by Obayashi, assuming they are available for use for 35 years after completion
 b: Production of construction materials (Category 1 of Scope 3)
 c: Emissions reduction effect of making energy conservation upgrades and using low-carbon materials

Reducing CO₂ Emissions in Construction Business

Obayashi works to lower CO₂ emissions from our business activities and from the operation of buildings we design and construct after they have been delivered to the customer. Starting from the planning stage, we draw upon our technologies and expertise to propose solutions like ZEB and designing buildings for CASBEE* grade A or higher. At construction sites, we use low-carbon materials and heavy

equipment with low fuel consumption and are switching to LED lighting. We also work with our supply chains to lower CO₂ emissions. We require our suppliers and subcontractors to practice eco-friendly business activities and collaborate with them to develop low-carbon materials and energy-saving construction methods.

*A system that comprehensively rates the environmental performance of buildings

Renewable Energy Business

Obayashi Clean Energy Corporation has been in the renewable energy business since its founding in 2012. As of March 31, 2021, it has solar, onshore wind, and biomass power stations operating in 30 locations. The total generating capacity of these facilities is 154 MW. We are also working to start business in small-scale hydroelectric power and geothermal power but are particularly focusing on an

offshore wind power project that is currently in planning. These renewable energy projects are presently funded in part by green bonds and sustainability bonds issued by Obayashi.

Electricity generated in FY2021.3

267,202 MWh

New Businesses **P.75**

Establish an Environmentally Responsible Society

Hydrogen Project

Technological Development P.82

Hydrogen has the potential to be a clean energy, with zero CO₂ emissions during the usage stage, and to help achieve carbon neutrality by 2050. Surplus electric power, moreover, can be converted to hydrogen for easy energy storage and transportation. Hydrogen can therefore help solve the problems of how to use surplus power effectively and how to stabilize the electrical grid. However, many issues remain before hydrogen can be used at scale. Industry, government, and academia must work together to develop and field-test schemes for using hydrogen.

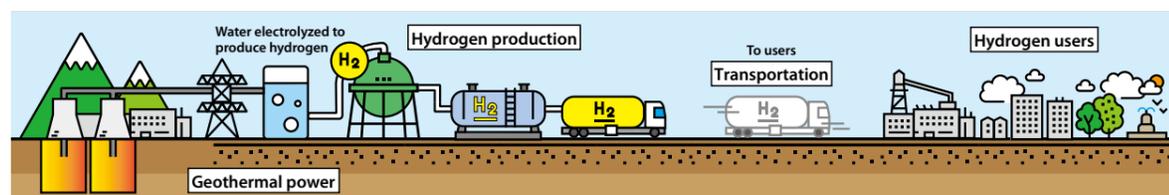
Obayashi is pursuing a project to produce green hydrogen* made with geothermal power. We are conducting field tests in Japan and abroad in which we set

up entire supply chains from hydrogen production to use. For one such test in Japan, Obayashi developed an optimal operations management system (hydrogen transportation management EMS) that efficiently transports hydrogen to multiple delivery points. It does so by monitoring how much hydrogen remains in the tank at each point and the delivery vehicle operating status.

We will investigate how to effectively use the hydrogen produced in the field test as a regional energy resource. In joint projects with our research partners and hydrogen users, moreover, we will consider various approaches to using the hydrogen.

* Hydrogen that is produced by using renewable energy to electrolyze water, therefore emitting no CO₂

A Green Hydrogen Supply Chain Using Geothermal Power



Conserving Biodiversity

At every phase of our business activities, including R&D, design, construction, and maintenance, Obayashi works to preserve ecosystems with rich diversity. We also endeavor to avoid or mitigate environmental impacts at construction sites and in their surrounding areas.

In response to a topic of interest in recent years, we are

actively working for “green infrastructure” that brings nature’s benefits to the places where people live. We are developing a variety of technologies that can mitigate or prevent disaster and restore and preserve land and waterside ecosystems.

[Obayashi Group Green Infrastructure \(Japanese only\)](https://www.obayashi.co.jp/green/)
<https://www.obayashi.co.jp/green/>

TOPIC Seawater Cleaning Technology Enables Land-Based Abalone Cultivation

Obayashi has many technologies for and expertise with protecting aquatic environments, which it uses to minimize impacts on living organisms during waterside construction. We are also developing seawater cleaning technology using the functions of natural ecosystems. Examples include tidal flat restoration and a seawater cleaning system using rubble mounds. Now Obayashi has successfully used the knowledge gained from those efforts to develop a recirculating land-based system to raise abalone.

The system purifies seawater with microorganisms and reuses it, which limits the environmental impact of effluent on the sea. The system is unaffected by environmental changes and can provide marine products safe for human consumption.



Related link
Eco-Friendly Circulating Land-Based Abalone Cultivation with Little Effluent Discharge (Japanese only)
https://www.obayashi.co.jp/news/detail/news20201209_1.html



Work on Recommendations of Task Force on Climate-related Financial Disclosures

In July 2020 we declared our support for the Task Force on Climate-related Financial Disclosures (TCFD). We are making efforts to realize a sustainable society—one of our stated targets for the years 2040 to 2050 is decarbonization. Moreover, we have set ESG materialities such as “establish an environmentally responsible society,” aiming to reduce CO₂ emissions. In sum, we are conducting business activities designed to prevent global warming. We conduct scenario analysis of our four main businesses in Japan* to identify and assess climate change-related risks and opportunities in keeping with the TCFD recommendations and understand

the medium- to long-term impacts that climate-related problems might have on our business. Going forward, we will incorporate countermeasures to the identified risks and opportunities into our Medium-Term Business Plan. We will enhance our ability to identify, evaluate, and manage medium- to long-term risks and opportunities, including climate change. Finally, we will further expand the Obayashi Group’s business opportunities and strengthen our organizational governance.

* Building Construction Business, Civil Engineering Business, Real Estate Development Business, and New Businesses

Governance

Environmental Management P.39

The CSR Committee is the highest-level decision-making body at Obayashi concerned with environmental management. It sets policies for responding to climate change, drafts concrete action plans, and periodically

reviews our activities track record, risks, and opportunities. The Board of Directors supervises the CSR Committee and receives reports about the climate change problem from it as appropriate.

Strategy

Identify Risks and Opportunities

Short-term risks and opportunities	Meeting every half-year, the Environmental Management Expert Committee reviews and revises our key environmental protection measures and amends our standards in respect to gradually emerging risks and opportunities.
Medium-term risks and opportunities	We conduct detailed analyses as appropriate following the Medium-Term Business Plan and rolling plans.
Long-term risks and opportunities	We review and revise our long-term vision Obayashi Sustainability Vision 2050 as necessary.

Scenario Analysis

Following the TCFD recommendations, we conduct analysis relating to transitions in government policy and market trends (transition risks and opportunities) and analysis relating to disasters and other physical changes (physical risks and opportunities). The typical scenarios we use for these analyses are shown on the right.

The risks that we ultimately identified with potentially big impacts to our business included “introduction of carbon taxes,” “higher summer temperatures,” and “more severe natural disasters.” We also identified opportunities: “increasing need for energy conservation/renewable energy technology” and “national resilience initiatives.”

Transition risks	4°C scenario (STEPS)*1	2°C scenario (SDS)*2
Physical risks	4°C scenario (RCP8.5)*3	2°C scenario (RCP2.6)*4

*1 A scenario established by the International Energy Agency (IEA), in which air temperatures at the end of this century will be about 4°C higher than before the Industrial Revolution

*2 A scenario established by the IEA, in which air temperatures at the end of this century will be at most 1.5°C higher than before the Industrial Revolution

*3 A scenario established by the Intergovernmental Panel on Climate Change (IPCC), in which air temperatures at the end of this century will be more than 4°C higher than before the Industrial Revolution

*4 A scenario established by the IPCC, in which air temperatures at the end of this century will be about 0.3°C to 1.7°C higher than before the Industrial Revolution

Establish an Environmentally Responsible Society

Summary of Scenario Analysis Results

*Impacts on our four main businesses are graded as Major, Medium, or Minor

Important risks and opportunities		Overview	4°C scenario	2°C scenario	Main countermeasures
Transition	Risk	Introduction of carbon taxes	Minor	Major	<ul style="list-style-type: none"> Promote energy conservation at the construction stage Use recycled materials, low-carbon materials Decarbonize construction machinery Establish design and construction technology for wooden mid- and high-rise construction
	Opportunity	Increasing need for energy conservation/renewable energy technology	Medium	Major	<ul style="list-style-type: none"> Develop and commercialize ZEB technology Strengthen marketing of energy conservation upgrades for existing facilities Promote renewable energy business
Physical	Risk	Higher summer temperatures	Major	Major	<ul style="list-style-type: none"> Further increase productivity and construction safety Develop innovative technology to improve working environments
	Risk	More severe natural disasters	Medium	Medium	<ul style="list-style-type: none"> Strengthen ability of BCP to respond during disaster Promote sustainable redevelopment business
	Opportunity	National resilience initiatives	Major	Major	<ul style="list-style-type: none"> Develop and commercialize disaster mitigation and prevention and resilience technology Strengthen marketing of infrastructure construction, maintenance, and repair



Climate-Related Information Disclosure (Disclosure Based on TCFD Recommendations)
<https://www.obayashi.co.jp/en/sustainability/environment/tcfd.html>

Risk Management

The CSR Committee deliberates on climate risks and reports to the Board of Directors. Bodies including the Board of Directors make important decisions, determining and assessing the risks of each agenda item. They discuss whether we have implemented appropriate measures to minimize the impact in case a risk is manifested and then a decision is made on the item.

Moreover, each department assesses the risks inherent to its business processes. It builds the necessary avoidance and mitigation measures into those processes before performing them. Meanwhile, the Internal Audit Department audits each department's risk management efforts.

Metrics and Targets

Aside from the KPIs we aim to achieve by 2030, Obayashi has set long-term targets for reducing CO₂ emissions (total and base unit) by 2050. We are taking initiatives to reduce CO₂ emissions in business activities accordingly. We plan to revise our long-term CO₂ reduction targets going forward to better achieve decarbonization.

CO₂ Reduction Targets

Metric	Base year	Target year	Target
Direct contribution*1 of CO ₂ emissions reduction rate	2013	2050	-85%
Indirect contribution*2 of CO ₂ emissions reduction rate	2013	2050	-45%

See P.40 for notes

Countermeasures to Climate Change Risks and Opportunities

Transition Risk Responding to carbon taxes ▶ Initiatives for Wooden Structures and Interiors **P.45**

Transition Opportunity Initiatives for the increasing need for energy conservation/renewable energy technology [Konan 2-Chome Project (tentative name)]

Designed and constructed by Obayashi, the outer wall structure of the building minimizes the heat load to its skin. The project further optimizes facilities and equipment by using operating data from properties where WellnessBOX**1 technology is being used. As such, it earned ZEB Ready**2 certification without implementing any special energy-conservation equipment. We will develop and commercialize ZEB technology to meet the needs of customers for whom the environment is a priority.



Rendering of completed building

*1 A building management system, developed by Obayashi, that uses energy conservation technology with IoT and AI to provide the optimal environment to each building user and control the building precisely
 *2 A designation that refers to an advanced building designed with ZEB in mind and which cuts energy consumption by at least 50%



Physical Risk Responding to higher summer temperatures ▶ Civil Engineering Business **P.69** Robotics Business **P.79**

Physical Opportunity National resilience initiatives [2018 Kinugawa River Left Bank Funadama-Isayama Section Maintenance Project]

The lower reaches of the Kinugawa River were particularly damaged by the Kanto-Tohoku Torrential Rain Disaster in September 2015. Obayashi performed levee maintenance here as part of the Kinugawa Emergency Response Project, an emergency and intensive flood control effort. During this work, we tested a drone-based surveying system that works without reference points. Testing took advantage of the Ministry of Land, Infrastructure, Transport and Tourism's "project for introducing and utilizing innovative technology to dramatically improve the productivity of construction sites." Our tests demonstrated that the drones could perform surveying with high precision.



Surveying by drone



Ground level raising by ICT-based machinery



ICT-based machine (backhoe)

Establish an Environmentally Responsible Society

TOPIC

Toward New Value Creation through Wooden Structures and Interiors for Large Architecture

The Obayashi Group promotes the Timber Construction Project to expand the use of wood in large-scale architecture as part of an effort to realize a sustainable society. Architecture that uses wood for major structural components like columns, beams, and floors sequesters atmospheric CO₂. Wooden construction also helps reduce environmental impact because less carbon is emitted to make the material compared to concrete or steel. Wooden interiors are also beautiful and keep humidity levels appropriate, so people inside can enjoy better health and comfort. Moreover, after trees are planted, raised to maturity, and used, new trees are planted. As a material, therefore, wood can help achieve the goal of a circular economy.

Obayashi develops new technologies and construction methods for wooden architecture. Our O-Mega Wood (FR) resists fire for up to three hours. Our Rigid Cross Joints require no metal plates. Both these technologies are being used in the OY Project, under construction now as a next-generation training facility for the Obayashi Group. Another development effort aims for practical use of the Modular system, which could save labor and costs. The OY Project will be Japan's first fully-wooden and fire-resistant high-rise structure, with wooden columns, beams, floors, and walls. It will use about 1,950 m³ of wood in its framework and interiors and will sequester about 1,330 t of CO₂. In terms of greenhouse gas emissions during construction, the fully-wooden structure will save about 1,700 t of CO₂ compared to reinforced concrete.*1 The underground framework uses about 410 m³ of Clean-Crete®,*2 which cuts CO₂ by about 70 t.

We will continue working with other businesses, ministries, agencies, and local governments to promote the use of wood in structures to achieve decarbonization, provide valuable spaces and services, and co-create a sustainable supply chain as hailed in Obayashi Sustainability Vision 2050, our long-term vision.

*1 Estimates by One Click LCA for LEED certification
*2 A low-carbon concrete developed by Obayashi



The Nara Prefectural Convention Center's large roof is a hybrid structure of laminated wood and steel beams. A column-free open area spans 26 m by 86 m (design: joint venture of Obayashi and Azusa Sekkei Co., Ltd.; construction: Obayashi). The facility won an "Excellence Award (Forestry Agency Director-General Award)" in the Heartful Design Category of the Architecture & Space Segment at Japan Wood Design Award 2020.



Related link
OBAYASHI WOOD VISION (Japanese only)
<https://www.youtube.com/watch?v=luDMjMwqCDw&feature=youtu.be>



Related link
OY Project
<http://www.oyproject.com/>

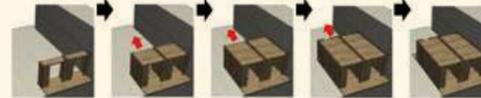
OY Project, Japan's First All-Timber High-Rise Fire-Resistant Building



Rendering of completed building

Modular System

Separate parts construction sequence

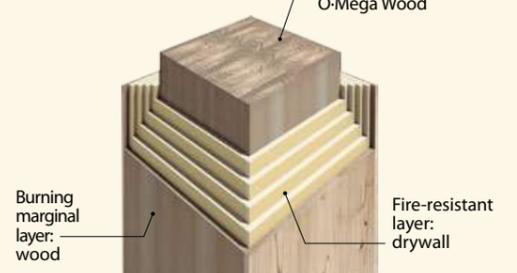


Premade unit construction sequence



A construction method frequently used in ordinary housing has been further developed for use in large-scale architecture. Factory-made units are assembled onsite, shortening construction periods and saving labor and costs.

O-Mega Wood (FR)



Three-layer structure, with a fire-resistant layer of drywall and burning marginal layer of wood, enhances fire resistance performance.

ESG Feature 1 Infectious Disease Countermeasures at Obayashi

What We Can Do to Protect People from Infectious Disease

Solutions for Infectious Disease

Sustaining Community Health Care Systems, Protecting Patients and Health Care Workers from Infection

With the growing need for solutions to infectious disease in recent years, Obayashi has been developing corresponding technology. At a time when the number of COVID-19 infections continues to rise, we have been working on three main solutions for the safety and security of patients and health care workers.

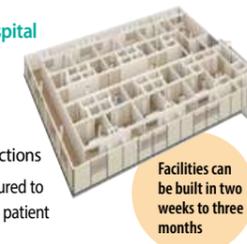
New infectious disease breaks out, pandemic occurs

Pandemic® Emergency Center (PEC)

Not enough infectious care beds to treat properly

Temporary emergency ward in hospital parking lot or adjacent vacant lot

- Use prefab construction to build facilities in a short period
- Plan zones to prevent spread of infections
- Use flexible design that can be reconfigured to meet the type of infectious disease and patient status



Facilities can be built in two weeks to three months

Infectious disease control solutions

Helping prevent in-hospital infections while ordinary treatment continues

Various solutions helping prevent infection within hospitals

- Controlling infection by area (outpatient, ward, etc.)
- Can be implemented during new construction or renovation
- Construction can proceed with minimal impact on ordinary treatment



Multi Mist® disinfecting system series

Less time spent wiping down to disinfect, less infection risk

Surface disinfecting system sprays chemical mist made with hypochlorous acid

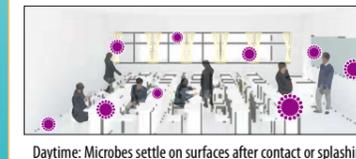
- Disinfects room interiors automatically when no one is there
- Simple to implement, low operating cost
- Lowers risk of infection in hospitals, schools, childcare centers
- Three types available for different conditions



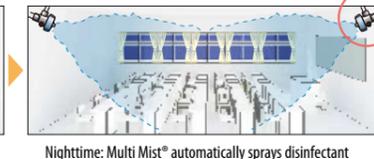
Cassette Mist®

Multi Mist® Cart

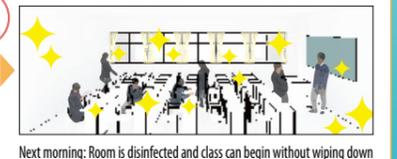
Multi Mist® built into a school



Daytime: Microbes settle on surfaces after contact or splashing



Nighttime: Multi Mist® automatically sprays disinfectant



Next morning: Room is disinfected and class can begin without wiping down

Prevents overwhelming hospitals and achieves a sustainable society

Infection Prevention Measures at Sites

Preventing Infection of Construction Site Workers

Obayashi formulated its Guideline of Action to Prevent the Spread of the Novel Coronavirus at Construction Sites as a measure to contain infections at sites. It covers basic practices like temperature measurement, mask wearing, hand washing, gargling, and good ventilation. It additionally stipulates that there should be multiple morning assemblies, meetings, and break times so not everyone crowds together at the same time, provides for social distancing and careful disinfection of shared tools and break rooms, and limits the number of workers in each zone during construction. Members use check sheets to self-check whether each step has been performed and results are reported to the construction department.



Only a limited number of persons attend morning assemblies to ensure social distancing.

Enhance Quality Control and Technological Capabilities

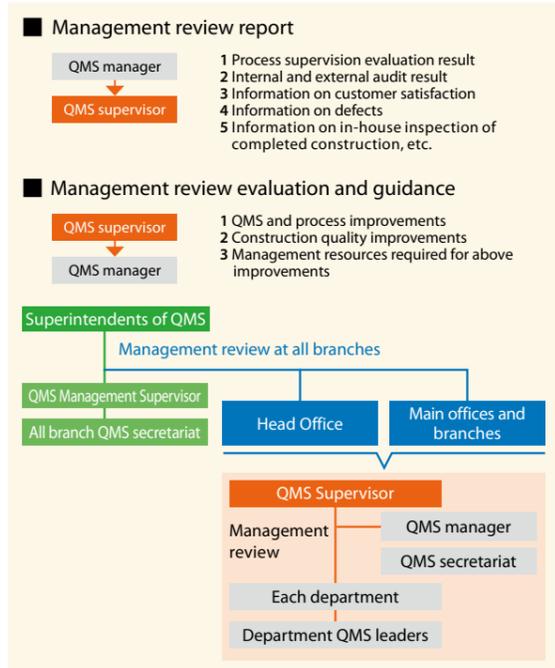


Basic Policy

Quality is the foundation that supports the Obayashi Group's business. Our quality policy is to provide buildings and infrastructure that customers feel confident, satisfied, and proud to use. To that end, we practice consistent quality control and continual improvement. We earn the trust of customers by providing safe, secure, high-quality buildings, infrastructure, and services, exercising honest craftsmanship, and employing innovative technologies.

Quality Management System

Following our quality policy, we have implemented a Quality Management System (QMS) conforming to ISO 9001. Under the QMS, we practice integrated quality management with a commitment to continuous quality improvement, at all stages from planning to design, construction, and after-sale services. Further, we are constantly sharing information and engaging in an array of training for higher quality and technology. Both our building construction and civil engineering businesses have management systems in which the executive officer responsible for quality (Director/Executive Vice President) is the superintendent of the QMS.



Ensuring Customer Satisfaction

To provide buildings and infrastructure that customers can use with security, comfort, and confidence, we strive to improve our quality technology.

Starting at the construction stage, various building data is shared by members at the construction site, clients, and architects. These include 3D design models, construction drawings, equipment specifications, and construction records. This data is exchanged over the cloud through a dedicated server.

Such data is centrally managed in a building records system, together with information on defects and performance verifications of completed buildings and post-delivery information like regular inspection records and long-term repair plans.

We also provide services in an integrated way from planning, design, and construction to post-delivery after-sale service. This helps customers maintain the value of their buildings and infrastructure throughout their life cycle.

Customer BCM (Business Continuity Management) Support

We are implementing a system to relay damage reports via portable devices during earthquakes. Thanks to a GPS function, nearby construction projects are displayed on the portable devices when there is an earthquake. Cameras can be used to record the damage status and immediately report to the disaster task force. Based on the reports, we put together a recovery support framework suited to the state of damage and we support customer BCM.

To offer recovery support, we need to cooperate with our suppliers and subcontractors. Thus, we periodically hold trainings with suppliers and subcontractors to

check that our systems are ready for an emergency. Our trainings in November 2020 drew participation from 1,033 companies.

Responding to Quality Requirements

Customers come to us with a variety of quality requirements that typically include shorter construction periods and greater safety. To meet these needs, the Obayashi Group uses the latest technologies to increase productivity in all processes including surveying, investigating, design, construction, and inspection. Technologies we are actively developing and implementing include ICT, AI, and robots. Examples include 3D surveying with Augmented Reality (AR) and drones, construction process visualization using BIM/CIM and Mixed Reality (MR), and remote operation of construction machinery so that no operator needs to be present.

Training and Awareness Raising to Improve Quality

We conduct training programs to increase our engineers' construction management capabilities so that buildings and infrastructure we provide to customers are of high quality. Our training facilities at the Robotics Centers give hands-on trainings using mockups so trainees can learn specialized knowledge relating to individual jobs and skills that concern construction planning. Aside from Obayashi employees, trainings are also given for employees of Group companies and suppliers and subcontractors. There

are also a variety of high-level training programs at the Technology Research Institute and at actual construction sites, including live exercise-based technological training and teaching of the latest technologies.

Once a year, we also hold Quality Week to raise quality awareness and promote quality control efforts. In FY2021.3, we extended awareness raising initiatives to include Group companies in Japan and overseas. Quality control initiatives at construction sites are designed around the circumstances at each site. They include study meetings, quality patrols, and follow-ups on quality plan documents. Office departments and Group companies conduct quality control trainings and customer satisfaction surveys. This is an opportunity to think about quality and customer satisfaction during employees' day-to-day work.



Quality Week slogan posters in multiple languages

TOPIC Visualization of Construction Site Work Procedures by Mixed Reality (MR)

Obayashi actively uses Mixed Reality (MR) technology to raise work efficiency and ensure safety at construction sites.

MR displays virtual spatial information overlaid on real spaces. It can simulate construction procedures at the construction site. On railroad construction jobs, work can only be done at night because trains are running during the day. We use MR technology to manage processes in jobs like this. Entire series of work processes can be visualized by MR projection. This way, hazardous tasks and spots can be checked in advance. MR also helps when explaining things to clients and construction personnel, thus ensuring safer, more efficient construction.



Related link
Construction Site Work Procedures Visualized by Mixed Reality (MR), Effectiveness Proven for Process Control (Japanese only)
https://www.obayashi.co.jp/news/detail/news20210118_1.html



Ensure Occupational Health and Safety

KPI Progress (FY2021.3 results)

Number of fatal accidents: **2**

Degree of achievement of the Occupational Health and Safety Management System evaluation items: **85.3** %

Related SDGs

Basic Policy

Obayashi's Health and Safety Principles call for us to ensure the health and safety of all workers at construction sites and create comfortable workplace environments, and we promote day-to-day health and safety initiatives accordingly.

Health and Safety Principles

Obayashi makes the safety of our construction sites, where so many people work, a top priority. For that reason, we practice health and safety initiatives day-to-day that are based on the Health and Safety Principles.

Health and Safety Principles

The Obayashi Philosophy states that we "value each person with a stake in our business." In line with that, we ensure the health and safety of all workers at construction sites and create comfortable workplace environments.

Obayashi's Occupational Health and Safety Management System

The Central Health and Safety Committee is headed up by the President. Meeting at least twice a year, it deliberates on basic health and safety affairs, such as prevention of occupational accidents and health problems and how to maintain and promote wellness. We also operate the Occupational Health and Safety Management System, which brings all our safety management methods together, to put the Health and Safety Principles into action. We aim for continual improvement by setting policies and targets and following the PDCA cycle. We also have health and safety management systems in place so we can respond rapidly in case an occupational accident, natural disaster, or other emergency actually happens.

[Occupational Health and Safety Management System](https://www.obayashi.co.jp/en/sustainability/safeenv.html#section2)
<https://www.obayashi.co.jp/en/sustainability/safeenv.html#section2>

Targets and Priority Measures

Obayashi's target is to eliminate fatal accidents and serious accidents. We have formulated priority measures to achieve that. We produce posters that we place at construction sites to heighten safety awareness. We also work for safety by clearly stating specific action plans.

FY2022.3 target: Eliminate fatal accidents and serious accidents

— [Priority Measures] —

- 1 Prevent occupational accidents under the strong leadership of the Project Director
- 2 Plan and execute appropriate work procedures and confirm them onsite
- 3 Prevent accidents resulting in falls
- 4 Prevent machinery accidents
- 5 Prevent landslide accidents
- 6 Prevent fire accidents
- 7 Prevent damage to third parties due to accidents
- 8 Increase health and safety management capabilities and strengthen training
- 9 Promote creation of healthy work environments

Health and Safety Improvement Initiatives

Safety Patrols

All branches conduct regular patrols of construction sites to verify health and safety management conditions. Additionally, the central officer in charge of health and safety and secondary officer in charge conduct special patrols two times a year. We also run patrols to verify dust hazard prevention

efforts at tunnel construction sites and so forth. Additionally, the Safety and Quality Supervisor under the direct supervision of the Safety, Quality & Environment Division patrols construction sites around Japan, giving meticulous instruction and training. Checklists are always used on patrols to determine whether identified issues were ultimately corrected.



A patrol checking dust hazard prevention efforts in a tunnel

Rigorous Health and Safety Training

We are stepping up training for employees, suppliers, and subcontractors to prevent occupational accidents, raise health and safety awareness, and deepen understanding of safety-related laws and regulations. All employees working at construction sites take group trainings focused on case studies of actual accidents. In addition, our Robotics Centers in East and West Japan have training facilities where trainees can really feel and see hazardous situations in person. The point of this experience-based training is to enhance trainees' sensitivity to danger. Ultimately, this will raise their safety awareness and safety management skills.

In cooperation with the Obayashi Accident Prevention Association, which consists of Obayashi suppliers and subcontractors, we produce safety training DVDs used in trainings given at construction sites. In FY2021.3,

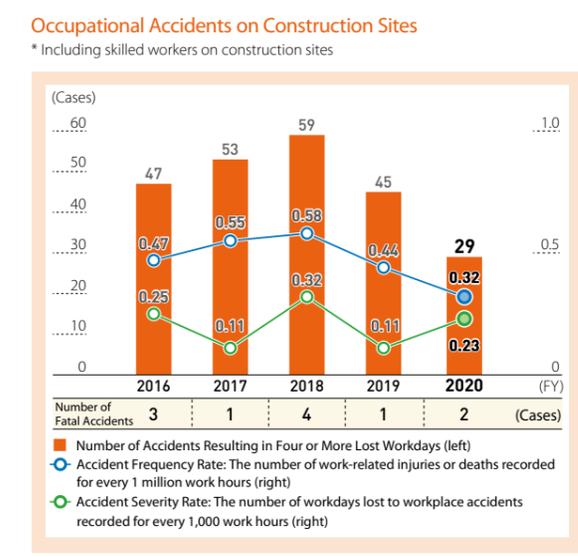
we produced two DVDs. One is about improving site introduction training* for workers posted to new construction sites and the other is about accident prevention when working in an elevated area. The DVD on site introduction training includes subtitles in three languages (English, Chinese, and Vietnamese) so that foreign workers and foreign technical trainees can better understand.

*Safety training that suppliers and subcontractors give to workers before starting to work at a new site

Aiming for Zero Occupational Accidents

The Safety, Quality & Environment Division works to prevent disasters by providing safety instructions and support directly to individual main offices, branches, and construction sites.

In FY2021.3, we had 16 fewer accidents than the year before, setting a record low. We continue to work resolutely to prevent occupational accidents and other accidents.



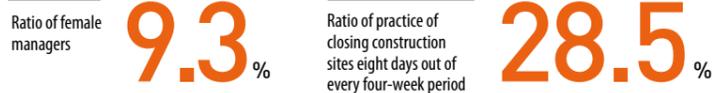
TOPIC Hands-On Construction Site Safety Training

At each construction site, we give training tailored to the type of work done there. That includes hands-on safety training, which realistically enacts possible accidents. During this training, mannequins are used to reenact accidents that have occurred before. The skilled workers engaged in the relevant task come to understand the gravity and tragedy of the accident. Giving workers a sense of fear enhances their safety awareness.



Develop and Retain Human Resources

KPI Progress (FY2021.3 results)



Related SDGs



Basic Policy

At Obayashi, we understand it is the strength of each individual employee that supports our company. For that reason, we establish workplaces in which diverse personnel can play an active role. When hiring, promoting, and the like, we do not discriminate on the basis of race, gender, nationality, religion, disability, or anything unrelated to talent and job performance. We ensure the health and safety of all employees and workers in a work environment where they can exercise their unique character and talents and feel motivated.

Workplaces Where Every Worker Can Feel at Ease

Human Rights Policy

Under the Obayashi Basic Principles, respect for human rights is one of the most important social responsibilities of our business. For that reason, we deem it essential to try to raise each employee's awareness. We established the Obayashi Statement on Human Rights in June 2011. Based on the Universal Declaration of Human Rights, this statement sets out our commitments. We commit to respecting fundamental human rights. We commit to not discriminating based on race, gender, age, nationality, religion, social origin, mental and physical disability, and the like. This applies to all employees and persons associated with our business. We commit to respecting norms including International Labour Organization (ILO) agreements, prohibiting the use of forced labor or child labor, and complying with all applicable laws and regulations in the nations and regions where we operate.

Raising Awareness of Human Rights

The Human Rights Awareness Promotion Committee, chaired by the executive officer responsible for human resources, meets periodically and takes initiatives to raise human rights awareness in keeping with the Obayashi Statement on Human Rights. Based on policies laid out by the Obayashi Human Rights Awareness Promotion Committee, Group companies also provide human rights training tailored to their business and regional characteristics.

Preventing Harassment

Obayashi actively takes initiatives to raise awareness of harassment so that any employee can feel at ease in our workplaces. We have developed Harassment Prevention Guidelines for our entire Group and provide online training with videos. We also distribute handy leaflets and posters

Consultation Desks

Corporate Ethics Consultation and Reporting System P.60

We provide the Corporate Ethics Consultation and Reporting System as a consultation desk on human rights. In addition, we have specialized internal and external points of contact for harassment and disability concerns. Both employees and third parties can reach out anonymously to the consultation desks. We ensure that anyone inquiring will be protected from adverse treatment.

[Consultation Desks](https://www.obayashi.co.jp/en/sustainability/employee.html#section1-4)

<https://www.obayashi.co.jp/en/sustainability/employee.html#section1-4>

that provide consultation desk contact information so employees can reach out at any time. Since FY2020.3, we have been circulating questionnaire surveys that aim to detect and respond to harassment early.

Status of Human Rights Due Diligence

Obayashi practices human rights due diligence under the supervision of the executive officer responsible for the Corporate Strategy Division. Our efforts are cross-organizational and include persons of all relevant departments. In FY2020.3, we specified the main human rights issues in our main businesses. Then in FY2021.3, we

worked with an outside specialist to interview the corporate divisions, departments, and personnel responsible in our company to ascertain the actual state of the specified human rights issues to be prioritized. We will continue to consider measures to mitigate and prevent negative impacts on human rights and implement concrete initiatives.



Promoting Diversity & Inclusion

Obayashi believes it is the strength of each individual employee that supports our company. Based on that conviction, we establish workplaces in which diverse personnel can play an active role regardless of age, gender, and the like so that we can continue to create new value. Well-being is a topic of increasing importance globally. The new Diversity & Inclusion Promotion Department, established at the Head Office in April 2021, is actively promoting diversity to achieve well-being.

MESSAGE

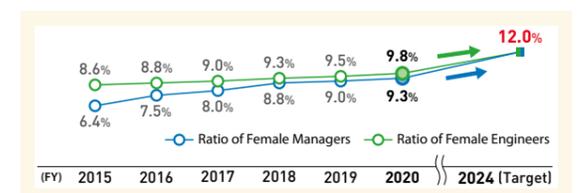
We aim to foster a corporate culture where each person, regardless of age, gender, nationality, life stage, or other personal characteristic, can give their best performance.

Eiko Nakazawa
 Corporate Strategy Division
 General Manager of Diversity & Inclusion
 Promotion Department



Opportunities for Female Employees

Obayashi promotes opportunities for women, hiring and posting them based on ability. In April 2021, we formulated our Second Action Plan based on Japan's Act on Promotion of Women's Participation and Advancement in the Workplace. Under it, we raised our FY2024 target for employment of female engineers and managers from 10% to 12% and are acting accordingly.



Rehiring System for Retirees

Obayashi has a system to provide ongoing employment opportunities for people after retirement so that they can continue to use their vast experience and expertise. Many employees work as "senior staffs" from age 60 and "super senior staffs" from age 65 under our rehiring system for persons who have reached the mandatory retirement age. We have maintained a rehiring level of 100% for those senior staffs who wish to participate. These veterans are helping to solve one of the big issues facing the construction industry: how to pass on skills to the next generation.

Hiring of People with Disabilities

Our special subsidiary Oak Friendly Service Corporation, established in 2001, employs persons with intellectual and mental disabilities. Employees work at 11 offices around Japan. Job coaches with specialized knowledge guide employees, who perform jobs that take account of the nature of their disabilities. The aim is to provide opportunities for independence and a place in society.

Develop and Retain Human Resources

Achieving Work-Life Balance

Obayashi's goal is to help each employee achieve work-life balance so they can be healthy in mind and body. By revising our personnel systems and otherwise maintaining the working environment, we will further strengthen and revitalize our organizations and achieve sustained growth.

Support for Successfully Balancing Work, Childcare, and Home Nursing Care

We offer a variety of programs beyond what is legally required.

To support childcare, we allow parents who cannot get a place for their children in nursery school to extend the period covered by childcare leave to age three. We have multiple parental leave programs, including shorter periods of leave that parents can take to care for their children. We encourage not just women but men to take advantage of the childcare support system. We are working toward a goal of 100% use of annual childcare leave or other leave for the purpose of childcare by men by FY2025.3. The Obayashi Mutual Aid Association also actively supports employees of child-rearing age. Examples include subsidies for hiring babysitters and getting fertility treatment.

To ensure our employees have peace of mind in dealing with home nursing care issues, we are enhancing programs such as home nursing care leave, home nursing care days off, and shortened work hours.

We are encouraging use of the programs by offering a video and leaflet that explain them, not just for employees who might use the programs but also others in the workplace.

Maintaining Employee Health in Mind and Body

It is important that all employees can work in good health. For that reason, we are working to raise the rate of employees getting secondary exams after periodic checkups, ensure that those working long hours follow the advice they get in interviews with doctors, increase the percentage of employees undergoing stress checks, promote follow-up care, and provide mental health training. We also are working to enhance our consultation desks. We have consultation services that even employees outside Japan can use, and medical specialists and clinical psychologists (counselors) in-house who offer personalized mental health support to employees.

Cooperation between Labor and Management

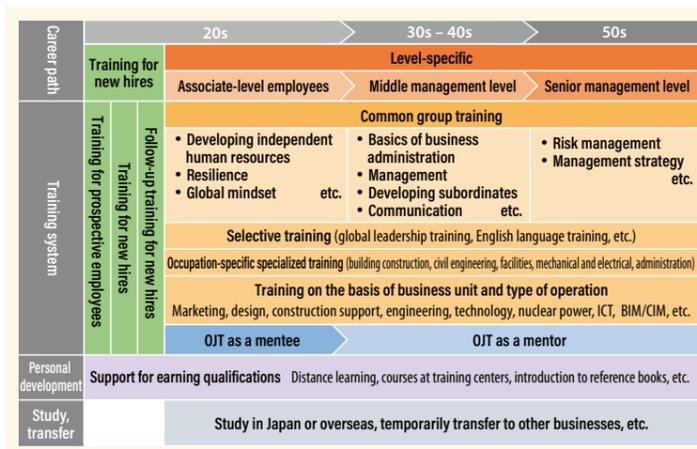
Every employee, with the exception of management and a few others, is a member of the Obayashi Corporation Employees' Union. In other words, 100% of personnel who qualify for union membership actually participate. Labor and management meet together regularly in forums such as the Labor-Management Council and Health Committee. They use these occasions to discuss a broad range of concerns, including creating comfortable work environments, enhancing benefit programs, promoting health and safety, and the wage system.

Developing Human Resources

Developing our personnel is essential to the sustained growth of the Obayashi Group. Therefore, we have a variety of training programs. We offer level-specific training based on age and responsibilities, specialist training for specific occupations, and training on the basis of business unit and type of operation.

Additionally, one key set of measures involves developing human resources for Obayashi's global development. Here, the focus is on global leadership training and expanding the number of persons working outside Japan in future. We give practical trainings, such as lending employees to Group companies overseas to train there for a limited time.

Obayashi's Training System



Work Style Reform

Obayashi has established the Work Style Reform Project, which is a cross-departmental organization headed by the president. This aims to achieve better future work styles for the Company and its employees and is continually examining the issue from each department's perspective.

Reducing Overtime Hours: Targets and Results

We set target maximum overtime hours worked* to try to correct long work hours. The status of our effort is analyzed each half-year and the results reported to the executive officers and disclosed to all employees. In FY2021.3, 90.7% of employees stayed within the target maximum overtime hours worked and moreover our achievement rate was over 90% in each category, so starting in FY2022.3, we are

working toward higher targets.

We are also raising employee awareness of the issue through ongoing training on work style reform. Additionally, an electronic attendance record system introduced in April 2021 manages work hours and compares them with the employee's target.

*The limits on overtime hours in the Work Style Reform Act of Japan come into force April 1, 2024 for the construction industry.

Targets and FY2021.3 Results

		Targets to be achieved by March 31, 2022	FY2021.3 results	
Correcting long work hours <target maximum overtime hours worked>	Yearly maximum	960 hours/year	99.2%*2	90.7%*3
	Multiple-month average*1	No more than 80 hours on average over 6 months	94.4%*2	
	Single-month limit*1	Less than 100 hours	92.6%*2	
Encouraging employees to take yearly paid vacation	At least 10 days			11.1 days

*1 Includes work on days off *2 Percentage of employees who met target *3 Percentage of employees who met all targets (yearly, multiple-month, single-month)

Promoting Telecommuting during COVID-19 Pandemic

We have a telecommuting program for all workplaces. As part of our measures to prevent COVID-19 infections, we encourage office workers to telecommute for at least 50% of their work (at least 70% when a state of emergency has been declared). We have taken steps to make it easier for employees to choose telecommuting. We had employees switch from desktop to mobile computers and are applying electronic seals to internal documents. In addition, we have set up a satellite office so employees can telecommute from someplace other than home.

Closing Construction Sites for 8 Days Every 4-Week Period

We have been endeavoring to meet our target of two days off each week for employees (closing construction sites eight days out of every four-week period). This requires setting appropriate delivery dates. That, in turn, requires understanding on the part of the customer. Pamphlets and other means are used to carefully explain the situation to customers.

We also set target closing times for construction sites and encourage our employees to go home then. This is another way we are advancing work style reform.



A mark of Japan Federation of Construction Contractors calling for two-day weekends for all construction sites

TOPIC Office Reform at Head Office/Tokyo Main Office

Head Office/Tokyo Main Office (Shinagawa) is making office changes as one way to reform work styles and increase productivity. At the new office, employees are free to choose their desks in appropriate groups based on their department. It is promoting the elimination of paper stock and keeping more documents in electronic form. The office has cut waste, letting certain supplies be managed at the floor level rather than by individual departments. There are also new break areas and larger meeting spaces to encourage more communication between employees. This is creating new value at the office.



Matching Gift Program

In 2014, Obayashi introduced the Matching Gift Program, which donates the same amount as each employee donates. In FY2021.3, we donated a total of ¥56 million to 18 groups working especially for the four main priorities set out in the Obayashi Social Responsibility Policy. They included two groups offering COVID-19 support and four local governments in areas affected by the heavy rains of July 2020.



Deputy Mayor Koji Sakoda (left) of Hitoyoshi City, Kumamoto Prefecture receives certificate of relief donation for heavy rains of July 2020.



Foundation Chairperson Takeo Obayashi gives a congratulatory address online to scholarship recipients.

Obayashi Foundation Scholarship Program

The Obayashi Foundation presents awards to persons who make outstanding contributions to solving urban problems and runs a support program for urban studies and the like. In addition, the foundation provides scholarships to students studying to become urban planning professionals or researchers. In FY2021.3, we gave scholarships to 21 students in a wide range of humanities and scientific fields. The awards and completion ceremony was held online to prevent COVID-19 infections.

Environment Social Governance

<https://www.obayashi.co.jp/en/sustainability/communities.html>



Site Tours

Obayashi offers tours of construction sites around Japan as well as the Technology Research Institute and Group company business sites. Tours are open to students and citizens.

Through these events, we are creating opportunities to deepen participants' understanding of the construction industry. Among other things, we hope to show them advanced construction technologies, how dynamic construction can be, and the real joy of craftsmanship.

Construction site tours include events at which participants can experience what it is like to work at a site. We also open some projects to the public if it is safe to do so.



A Foundation for ESG Management



Costs of Social Initiatives



Related SDGs



Basic Policy

In keeping with the Obayashi Basic Principles, Obayashi endeavors to solve social challenges, respect local cultures and customs wherever we work, and promote harmony with society as a good corporate citizen.

Obayashi Social Responsibility Policy: Our Commitments

- 1 We take a global perspective on everything we do to fulfill our social responsibilities, making the most of all the resources available to us around the world. Our business itself contributes solutions to address global issues, and we also undertake special initiatives that go beyond the reach of our business.
- 2 We coordinate our work to address social issues with local communities, non-profits, NGOs, governments, and other key actors, capitalizing on the unique strengths of every entity and every person involved.
- 3 We work hard to ensure that our approach to social responsibility is clearly understood and that our efforts to build a better society are widely known.

Social Contribution: Four Main Priorities

- 1 Global Environmental Responsibility
- 2 Disaster Readiness and Post-Disaster Reconstruction
- 3 Good Citizenship in Local Communities
- 4 Inspiration for the Next Generation



Princess Sirindhorn of Thailand (left) presents the honorary doctorate certificate.

Thai Obayashi Corporation Limited Praised, Awarded for Continuous Human Resources Development

Thai Obayashi Vice Chairman Sompong Chintawongvanich received an honorary doctorate degree from Ramkhamhaeng University in Thailand in recognition of several achievements and deeds. They include the founding of Thai Obayashi Training Center, fostering the next generation, and making monetary donations. The public university grants honorary doctorates to persons who have made significant achievements for Thailand or the international community.



Thai Obayashi Training Center



Hands-on training for young employees, with mockups



Hands-on instruction for students



Cooperation and Support for Fire Departments

Amid growing awareness of disaster prevention, we are putting our demolition sites to work for lifesaving and firefighting drills under a scenario of earthquake or other disaster. In FY2021.3, we cooperated with firefighting agencies in the cities of Yokohama and Hiroshima. We provided demolition sites for those agencies to drill under conditions similar to an actual emergency they might respond to.

Cooperation with Workshops in Semi-Mountainous Areas

Obayashi has participated in Niigata Prefecture's semi-mountainous area partnership establishment support project since 2012. The project focuses its support on the Ohnagatani farm community of Tainai City and the agricultural work there. The purpose is to conserve farmland and revitalize the area that has struggled with the depopulation and aging of its community. We hold planting, harvesting, and similar events each year, although the scale had to be cut back in FY2021.3 to prevent COVID-19 infections.



What We Can Do for the Future of Our Local Communities

The Obayashi Group has been doing business outside Japan for more than 50 years. Currently, Group companies based in Asia and North America are helping to maintain social infrastructure. Along the way, they are forming deeper bonds with their local communities through business activities that account for the environment and society. Here we introduce initiatives that two of our North American Group companies, Webcor and Kraemer North America, are conducting independently to benefit their local communities.

1/1/1 Giving Back Project

Project to return resources to the community has taken root in the company

In 2020, Webcor returned 1% to the community in 3 different ways

- 1 Donating 1% of profits: **\$223,397**
- 2 Dedicating 1% of employee work time to volunteerism: **1,106.5 hours**
- 3 Donating the equivalent of 1% of profits to support non-profit organizations through in-kind items such as services, tools, materials, and equipment

In Webcor's culture, employees spontaneously propose a wide range of ESG initiatives that aim to promote coexistence and collaboration with local communities. The 1/1/1 Giving Back Project, begun at the suggestion of an employee, returns 1% of Webcor's resources to the community in three different ways. They include donating 1% of profits, dedicating 1% of employee work time to volunteerism, and donating the equivalent of 1% of profits to support non-profit organizations through in-kind items such as services, tools, materials, and equipment. The firm contributes to the community by these three approaches.

As part of the Giving Back Project, the company participates with Webcor interns in volunteer activities, cleaning up local streets and helping package food that

About Webcor

A construction company founded in 1971. It works on buildings with all types of uses in California, including office buildings, high-rise condominium buildings, hotels, and hospitals. Webcor has fostered a culture that values coexistence with the community and has many employees that take the lead in volunteer activities.



About Kraemer North America

A construction company founded in 1911. Headquartered in Plain, Wisconsin, its strengths are in the three fields of highway/bridge, railroad/light rail, and marine civil engineering. In 2020, the Denver Business Journal named it one of its Best Places to Work.



KRAEMER UNIVERSITY

Internal training program designed to achieve the corporate philosophy

Kraemer North America's corporate philosophy declares that the company should value three "P's": people, projects, and process. To realize those values, it launched KRAEMER UNIVERSITY, a unique training program, in 2017.

Highly experienced employees and leaders from the various departments serve as program instructors. They train personnel in a wide range of areas, including safety, quality, corporate ethics, IT, construction planning, cost control, and supplier and subcontractor management. Eligible trainees are chosen each month based on their career, position, and years of experience, depending on the classes and content. As of March 31, 2021, KRAEMER UNIVERSITY has been held 167 times with 2,675 trainees in total.

Going forward, Kraemer North America will enhance training content and run a variety of programs to create a firmer foundation for the company while contributing to the development of the community.



At a KRAEMER UNIVERSITY training

Caring for Other Bridges to Prosperity

Bridges to tomorrow for the world

Around the world, there are still communities where inadequate transportation networks isolate people from the surrounding world and prevent them from reaching opportunities in education, healthcare, economic activity, and more. In partnership with the non-profit organization Bridges to Prosperity, Kraemer North America sends employees to such communities and helps to build bridges. These efforts help make life more convenient for local citizens. In February 2019, for example, the company participated in a project to build a 67-meter suspension bridge across the Uchu Uchu River in the mountains of Bolivia, South America. Thanks to the bridge, citizens can safely cross the river and travel to other communities in both wet and dry seasons. In June of the same year, the company also participated in building a 76-meter suspension bridge in Uganda, East Africa.

Kraemer North America is committed to using its technology to ensure that no one is kept from educational, healthcare, or economic opportunity by lack of transportation infrastructure. It will be a bridge for closed-off communities around the world.



Project members built a bridge with steel beams and a wooden deck at a Bolivian mountain site more than 3,000 meters in elevation.



All members of the team sent to the Uganda bridge building project were female.



Volunteers pick up litter, clean sidewalks, and remove graffiti.



Webcor employees and interns package food for the local food bank.



Nearly 100 Webcor employees, family members, and friends joined a project to remodel a classroom.



Implement Rigorous Compliance

KPI Progress (FY2021.3 results)

Related SDGs

Ratio of employees taking corporate ethics training **100** %

Ratio of employees taking information security training **100** %

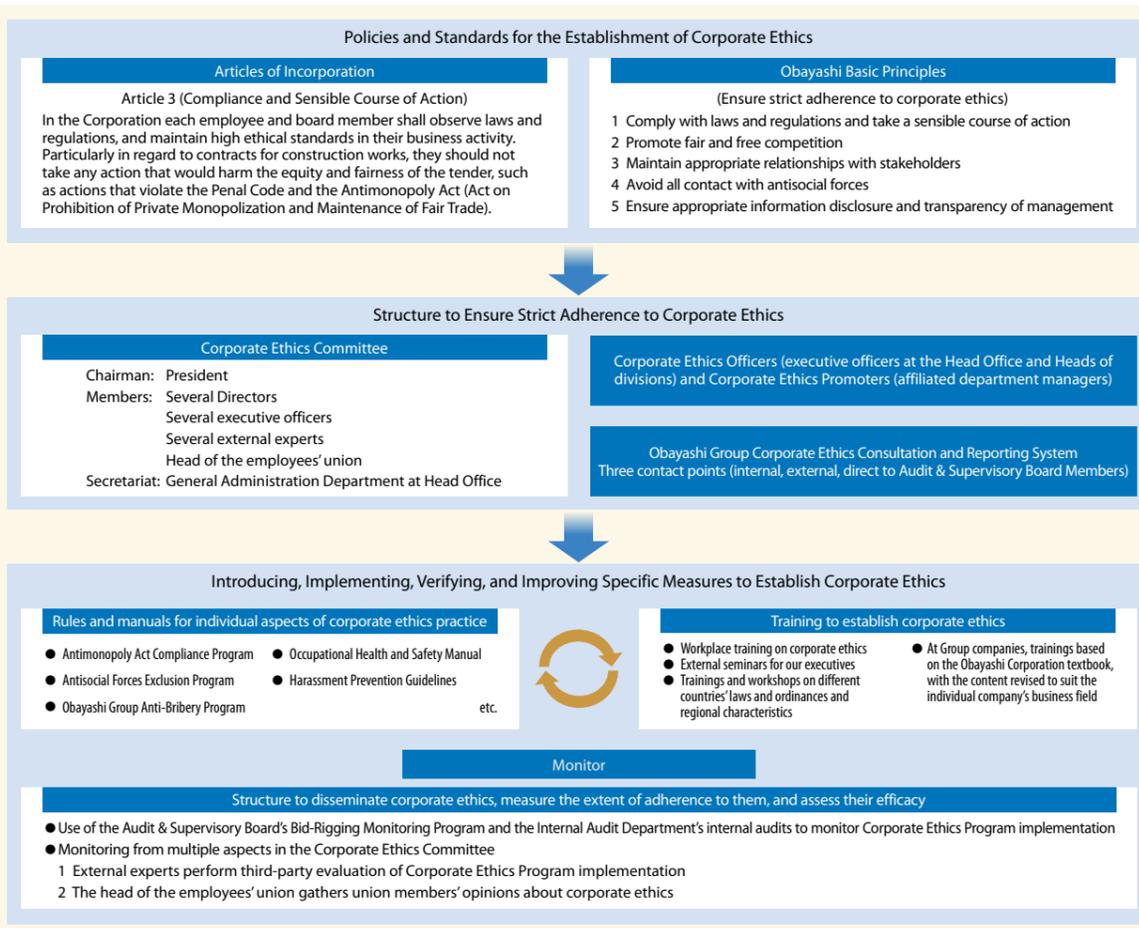


Basic Policy

Obayashi's Articles of Incorporation express our strong determination to stay aware of compliance issues, including corporate ethics. They likewise commit us to complying with laws and regulations to create a sound corporate culture. The Obayashi Code of Conduct moreover stipulates thorough adherence to corporate ethics throughout the Company. Top management leads the effort for corporate ethics.

Promote the Corporate Ethics Program

The Corporate Ethics Program exists to help prevent corruption of all kinds. We are constantly verifying and improving the program. Having set out policies and standards and established a compliance structure, we have introduced specific measures and regularly review the implementation status of each measure.



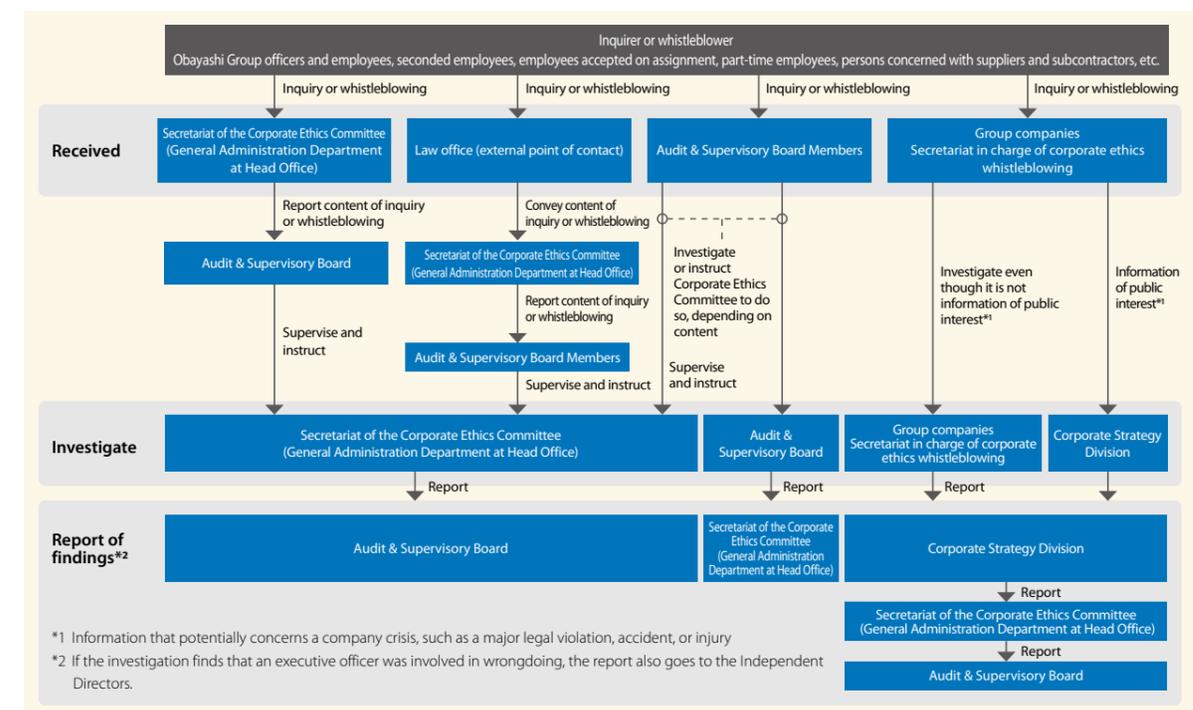
Workplace Training on Corporate Ethics

Workplace training on corporate ethics takes place in April and May each year for all officers and employees. The training uses a textbook produced by the Secretariat of the Corporate Ethics Committee. Using a format of discussion within each department, participants look at specific cases that could potentially happen in their contexts. Example themes include compliance with laws and ordinances such as the Antimonopoly Act of Japan, avoiding all contact with antisocial forces, and stamping out illegitimate accounting practices. We will continue to give workplace training on corporate ethics to ensure that every officer and employee not only complies with the law but acts with a high sense of ethics and sound judgment.

Corporate Ethics Consultation and Reporting System

The Obayashi Group Corporate Ethics Consultation and Reporting System is the hotline for inquiries relating to workplace wrongdoing, harassment, legal violations, corruption, bribery, and other corporate ethics problems. It is available for use by persons concerned with the business of the Obayashi Group (regular employees, seconded employees, employees accepted on assignment, part-time employees, suppliers, etc.). When a report comes in, the situation is immediately investigated, the findings are reported, and any necessary actions are taken.

Reporting Process through Each Contact Point



Practicing Rigorous Information Security Management

Risks to information assets include risk relating to force majeure such as infrastructure failure, risk stemming from poor internal information management, and risk of events like unauthorized access to information by outside parties. To protect against these risks, we put security systems in place and have taken prevention measures against emergencies.

We also continually train all employees, support staff, and suppliers and subcontractors in information security. We are working to raise the awareness of information asset users and managers through trainings that use simulated targeted attack emails to teach how to respond to them and by instructing trainees in appropriate ways to handle personal information based on the Personal Information Protection Policy.

[Information Security](https://www.obayashi.co.jp/en/company/governance/riskmanagement.html#section2) <https://www.obayashi.co.jp/en/company/governance/riskmanagement.html#section2>

Conduct Responsible Supply Chain Management

KPI Progress (FY2021.3 results)

CSR procurement guidelines comprehension questionnaire response rate

96.3%

Number of Certified Excellent Site Supervisors / Excellent Operators

458

Related SDGs



Basic Policy

Obayashi believes that fulfilling corporate social responsibility requires an effort throughout the supply chain. We conduct fair transactions with suppliers and build stronger mutual trust with them as partners who can grow with us.

Obayashi Group CSR Procurement Policy

The Obayashi Group established its CSR Procurement Guidelines as part of our effort to fulfill our corporate social mission based on the Obayashi Basic Principles. Under those guidelines, we have been working to practice CSR procurement in league with a wide range of suppliers concerned with our business.

In March 2020, we revised the guidelines to include items about more specific initiatives, reflecting the growing diversity of society's demands, and notified our suppliers and subcontractors of the revisions. The most important matters are stipulated in contracts concluded with suppliers and confirmed when the contracts are agreed.

In January 2020, we sent questionnaires to companies belonging to the Obayashi Rin-yu-kai to check their compliance with the Obayashi Group CSR Procurement Guidelines, receiving responses from 96.3% of them.

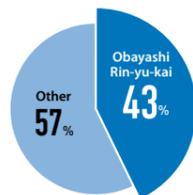
Going forward, we will work to promote greater growth and development with the suppliers of all products and services associated with our business.

[Obayashi Group CSR Procurement Policy](https://www.obayashi.co.jp/en/sustainability/suppliers/csr_procurement.html)
https://www.obayashi.co.jp/en/sustainability/suppliers/csr_procurement.html

Obayashi Rin-yu-kai

Obayashi Rin-yu-kai, comprised of Obayashi suppliers and subcontractors from across Japan, counts about 1,100 member companies doing various types of work. Obayashi periodically monitors member companies to ensure their soundness. Obayashi Rin-yu-kai holds liaison meetings regularly. Participants share information about revisions to safety laws and hosting foreign technical trainees.

Percentage of products and services procured in Japan from Obayashi Rin-yu-kai members and from other companies, by value



A compliance and harassment training at the February 2021 meeting of Obayashi Rin-yu-kai in Tokyo

Obayashi Rin-yu-kai Vocational Training School

In 2014, we opened a vocational training school* to nurture skilled workers at Obayashi's suppliers and subcontractors and pass on expert skills to future generations. The school offers three courses (in scaffolding, ferro-concrete reinforcement, and formwork) as well as a short course that focuses on Computer-Assisted Design (CAD). Employees of Obayashi and its suppliers and subcontractors serve as instructors. Through these trainings, trainees acquire the knowledge and technical skills needed at construction sites. These include construction tasks, safety management, and CAD.

So far, 317 persons have completed courses (as of March 31, 2021) and are now working at construction sites.

Additionally, we have an incentive system for graduates with certain certifications who work on our construction sites. The program gives financial incentives and rewards both to the graduate and the supplier or subcontractor. This helps workers shape their careers and increases their wages.

The construction industry in recent years has an aging workforce and is struggling to recruit and retain skilled workers.

Promoting recruitment of skilled workers who will lead future generations and passing down skills is not just up to suppliers. It is a matter in which Obayashi must play an important role. We work together with our suppliers to convey the appeal of the construction industry.

* Obayashi Rin-yu-kai Vocational Training School is a wide-area occupational training organization utilizing a program of the Ministry of Health, Labour and Welfare.



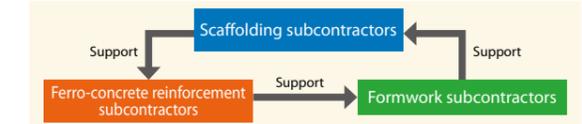
Due to COVID-19, courses were given both in person and remotely in FY2021.3.

Developing Multiskilled Workers

We develop multiskilled and semi-multiskilled workers to deal with the shortage of skilled workers, make work more efficient while saving labor, and stabilize business for our subcontractors. The Tohoku Branch set up a framework joint venture consisting of scaffolding, ferro-concrete reinforcement, and formwork subcontractors. Under the instruction of Obayashi retirees, subcontractors teach each other skills as they work. In addition, we send subcontractor personnel of supervisor class to Obayashi construction sites to gain experience in site construction management duties. The plan is to use them to manage a multiskilled worker organization.

Going forward, we plan to expand the types of work covered in this program and expand it to all branches.

Subcontractors Teach Each Other Different Types of Work to Produce Multiskilled Workers



Subcontractors teaching each other their skills An Obayashi retiree gives instructions.

Certification of Excellent Site Supervisors / Excellent Operators

The Obayashi Excellent Site Supervisor and Excellent Operator Certification Program aims to help pass on expert skills. Under the system, we certify and raise the pay of exceptional supervisors* and crane operators. Each year we are expanding the scope of the program. For example, young skilled workers are now eligible to participate, and we have increased the pay boost that successful candidates receive.

* A skilled worker who provides instructions to subordinates at construction work sites

Number of Certified Excellent Site Supervisors / Excellent Operators



TOPIC Construction Career Up System

The Construction Career Up System is a cross-industry program to register and collect data on skilled workers' qualifications, social insurance subscription status, construction site work experience, and more. The ground-breaking system, which came into full operation in FY2020.3, is a collaboration between public and private entities like the Ministry of Land, Infrastructure, Transport and Tourism and the Japan Federation of Construction Contractors. Obayashi is also an active participant. The system's purpose is to improve treatment of construction site workers and help them visualize their careers into the future. We are also working to make the system more efficient by introducing a facial recognition system using biometric identification.





Shin-Tomei Expressway Nakashima Viaduct Project

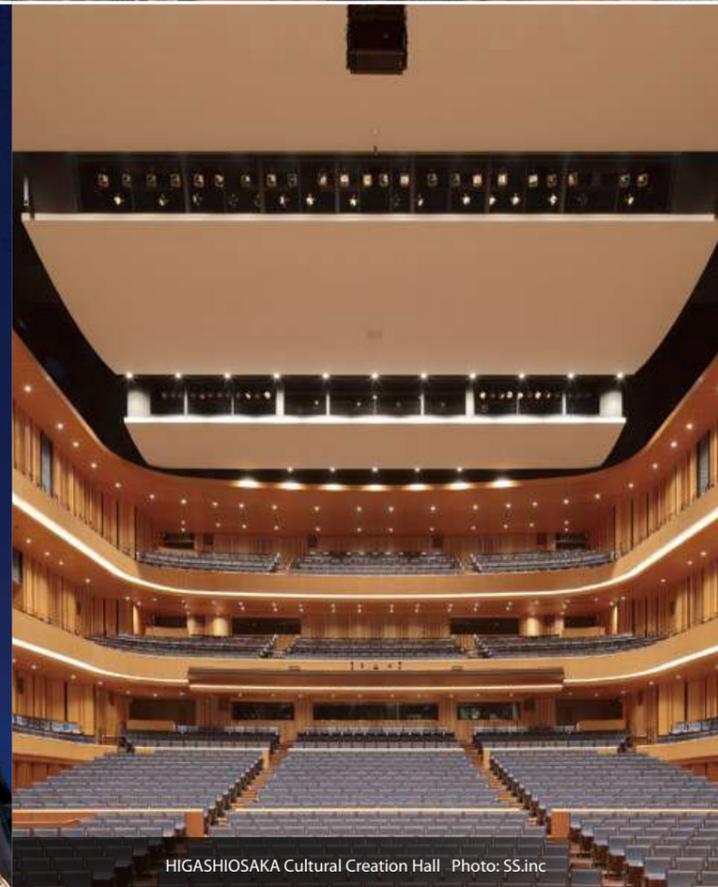


Business Report

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The Parkhouse Kobe Tower Photo: Kazuo Natori



HIGASHIOSAKA Cultural Creation Hall Photo: SS.inc



SHINTORA-DORI CORE Photo: SS.inc



ICONSIAM: Thailand



Building Construction Business



Atsushi Sasagawa

Director, Executive Vice President,
Responsible for overall building construction,
Head of Marketing Division, Head of Tokyo Main Office,
Head of Building Construction Division at Tokyo Main Office

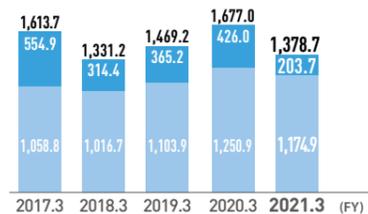
Katsuyoshi Okawa

Senior Managing Executive Officer,
Head of Building Construction Division

Productivity Improvement and Work Style Reform Contributing to Growth of an Attractive Construction Industry

Increasing productivity and reforming work styles are priority issues for the Japanese construction industry to maintain sustainable development. Obayashi will work to enhance productivity, safety, and quality by developing and facilitating next-generation construction technologies. We will also work to reduce overburden, unevenness, and waste at construction sites as we promote work style reform and contribute to the growth of an attractive construction industry. In addition, Obayashi will adjust to market changes, offer a diverse portfolio, and take initiatives to help society become carbon neutral.

Consolidated Orders Received



In spite of orders received for large redevelopment projects in Japan in FY2021.3, COVID-19 forced the postponement of projects in North America, which resulted in lower performance than a year ago.

Consolidated Net Sales



Compared to the previous year, when progress on large construction in Japan drove better performance, there were many large projects in the early stages and less progress in FY2021.3. Overseas revenue and profits were also down due to the COVID-19 pandemic interrupting some projects in North America and Singapore.

Consolidated Operating Income



Specific Measures Based on Business Strategy

Obayashi is developing and facilitating next-generation production systems that use IoT, AI, and robotics. We additionally develop and use labor-saving and quick-build construction methods. Other efforts to enhance productivity include DX, process innovation for work efficiency, and the use of one-model BIM to manage information all together. Moreover, we are also undertaking work style reforms to make it possible to close construction sites eight days out of every four-week period by improving the construction site working conditions and environment. Skilled workers are trained to be multiskilled or semi-multiskilled and we train and support skilled workers through the Obayashi Rin-yu-kai Vocational Training School, among others. Our Excellent Site Supervisor and Excellent Operator certification system enables us to pass down skills to a new generation. To make safety and quality management as thorough as possible, we are raising the awareness of each officer and skilled worker and using ICT to manage safety and quality efficiently.

In our marketing activities, we are building on our competitiveness in growth fields and each region by tapping the Obayashi Group's collective strength and global network. Our moves to increase and strengthen productivity will expand our order-taking capacity.

Our Asia-Pacific and North American Regional Headquarters are partnering with overseas Group companies to build more stable earnings overseas. These initiatives are happening at each headquarters to ensure that we are localizing in each region.

TOPIC

Kumamoto Castle Keeps Restoration Work Completed



The Kumamoto earthquakes of April 2016 caused buildings and stone walls at Kumamoto Castle, including its keeps and turrets, to crumble and collapse, leaving major damage. Obayashi has been working to restore the keeps quickly, since they are an emotional support and symbol of recovery to the citizens of Kumamoto.

In this project, the focus is on a quick but faithful restoration of the keeps to their pre-earthquake condition. Therefore it was necessary to draft a plan in a short span of time, help the parties reach an agreement, and take accurate measurements of the castle in its current state. To find the points where the current state differed from existing documents dating to the 1960 construction of the main tower and identify how the recent earthquake changed it, we took measurements by 3D laser scanner and collected point cloud data for each spot. We made effective use of the point cloud data, for example overlaying BIM models derived from the existing engineering drawings and the drawings made from the new data. That showed with clarity the complex shapes and spot details that would be impossible to see with the existing documents alone, allowing us to create a very precise BIM model. As a result, we could consider an elaborate construction plan that enables us to take on a big construction challenge in the uniquely shaped main tower, namely, realizing seismic reinforcement that requires a complicated structure and exact placement.

We finished restoration of the keeps in March 2021. They are protected by Cross Damper®, an advanced seismic resistance and vibration control system combining a brake damper and oil damper. Although the stone walls still bear earthquake damage, Obayashi will be working to restore them going forward.



A Cross Damper® in the keeps



Related link

Watch a video demonstrating construction technologies used to restore the keeps (Japanese only)
https://www.obayashi.co.jp/news/detail/news20190918_2.html

Opportunities and Risks in Business Environment

- Opportunities**
 - ▶ Continued non-residential construction demand in private sector, including large-scale redevelopment in urban areas and investments from Japanese manufacturing industry in Japan
 - ▶ Creation of new demand and added value with increased productivity as IoT, AI, and robotics evolve and spread
 - ▶ Increasing construction demand in growth fields as society aims to become carbon neutral and in promising fields during and after the COVID-19 pandemic
 - ▶ Growing demand for buildings with high added value of environmental performance like ZEB
 - ▶ Continued construction demand in Southeast Asia, North America, etc.
- Risks**
 - ▶ Less private-sector construction investment as capital expenditure is suspended or shrinks because of economic deceleration and COVID-19
 - ▶ Materials supply shortages and skilled worker shortages and aging
 - ▶ Impact on earnings and business evaluation if there are major safety or quality incidents
 - ▶ Social demands to improve working environments and achieve carbon neutral status
 - ▶ Changes in legal systems and political and economic conditions overseas where we do business

Business Strategy Based on Medium-Term Business Plan

- 1 Implement diverse education programs and make further use of ICT to practice rigorous and uncompromising safety, quality, and environmental management that is true to the basics and to eradicate serious accidents
- 2 Realize new work styles at construction sites, actively hire and train workers, collaborate with suppliers and subcontractors to secure and train personnel, and establish new construction systems including multiskilled workers to ensure productivity
- 3 Actively develop and use innovative technologies and labor-saving construction methods, transform processes for greater efficiency, and implement DX, frontloading, etc. to increase productivity
- 4 Realize stable earnings by getting actively involved in projects from upstream stages, cultivating existing markets by strengthening our competitive advantage in growth markets, and providing high-value-added building services
- 5 Enhance earnings capacity and expand and diversify business domains by collaborating with local partners and sharing our technology in our overseas building construction business

PROJECT REPORT

A New Symbol for a Transformed Marunouchi-Nakadori in Tokyo Business District: Mizuho Marunouchi Tower, Japanese Bankers Association Hall, and Marunouchi TERRACE



This project took place in the Marunouchi area, one of Tokyo's premiere business districts. Three existing buildings came down, replaced by a 29-story tower (Mizuho Marunouchi Tower / Japanese Bankers Association Hall) and 10-story annex (Marunouchi Terrace). The tower's high-rise and low-rise portions and the annex had different clients, architects, and supervisors. It was essential to respond to and coordinate with each company's wishes precisely. For that reason, we managed processes thoroughly up to six months in advance during construction. We made the work on the basement framework as efficient as possible, with an approach that allowed continued use by taking the outside wall of the existing basement framework as a temporary wall. For the sake of the environment, we built the foundation with Clean-Crete®, a low-carbon concrete developed by Obayashi that causes much lower CO₂ emissions than ordinary concrete when it is produced.



Mizuho Marunouchi Tower, with Japanese Bankers Association Hall in the low-rise portion



Marunouchi Terrace opened in November 2020.

PROJECT REPORT

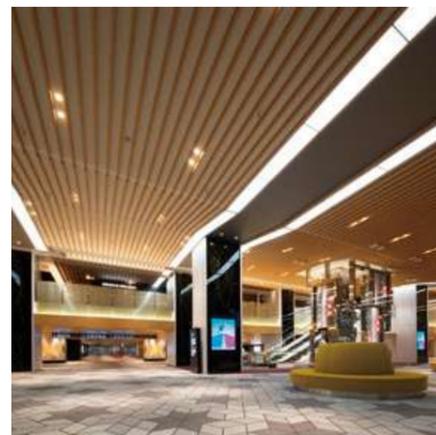
Largest Renovation since Airport's Opening: Osaka International Airport Terminal Building Renovation Project in Japan



The passenger terminal has served as Osaka's gateway to the sky since its completion in 1969. Obayashi carried out the large-scale renovation project, which lasted more than four years, while the terminal continued to operate. The project included fire and seismic upgrades to bring the terminal up to current architectural standards. It also enhanced convenience by bringing scattered arrival gates together. The terminal now has a walk-through commercial area leading up to the boarding gates, a first for domestic routes, and a wood deck on the rooftop for local people to enjoy. The changes have created a smarter, more sustainable airport.



Observation deck brings people close to nature.



The completely renovated arrival lobby

PROJECT REPORT

Public-Private Partnership Project Wins LEED Platinum: UC Merced 2020 Expansion (California, U.S.A.)



Group company Webcor, working with North American public infrastructure investment company Plenary and other partners, expanded the campus of the University of California, Merced in the U.S. The new group of buildings, delivered in June 2020, make up one of America's largest social infrastructure projects by public-private partnership. They have earned acclaim for providing comfortable, productive spaces that are also eco-friendly. All the buildings subject to evaluation under the LEED green building certification program were certified Platinum, the program's highest rating. The campus is also the first public research university certified as carbon neutral.



© UC Merced

TOPIC

Construction DX on a BIM Platform



Obayashi is promoting construction DX with BIM as its work platform. BIM models are now at work on many projects begun in FY2021.3, and we plan to widen the scope of projects where we use them. The models expand on earlier design BIM models and seek to increase productivity comprehensively by integrating construction management, maintenance, and operation.

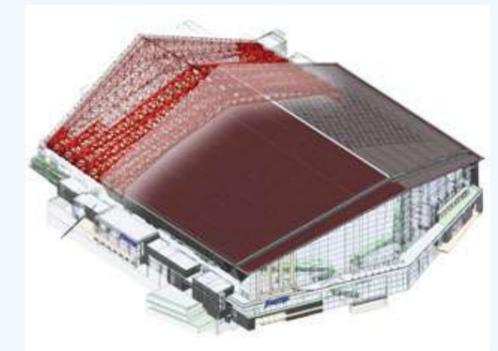
The tentatively named Visual Process Management System, developed independently by Obayashi, uses BIM for construction management. It manages construction progress based on 3D BIM models. It supports data input by scanning QR codes* on construction components. Each component can easily be managed end to end, from production through to site delivery and installation. Using the volume, weight, and other data from BIM models also lets us control work progress, making construction management more efficient.

The system has been in practical use since February 2021 in the current construction of OY Project, an Obayashi Group training facility in Yokohama that is Japan's first fully-wooden high-rise building, and since April 2021 in the construction of the new ES CON FIELD HOKKAIDO, the future home stadium of baseball team Hokkaido Nippon-Ham Fighters.

*QR code is a registered trademark of DENSO WAVE INCORPORATED.



The system checks data on record for each component and links data to photographs.



Obayashi is using the system to manage the process of erecting the fixed steel frame of ES CON FIELD HOKKAIDO's great roof.

Civil Engineering Business

Providing Safe and Secure Infrastructure and Responding to Society's Changes and Challenges

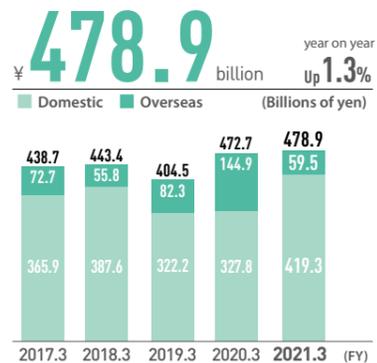
Obayashi aims to respond to society's changes and challenges and be a genuine leading company in both name and reality. With our strong technological capabilities, we will contribute to the construction of social infrastructure that provides safety and security (national resilience projects, large-scale upgrades and repairs, railroad maintenance, and urban development) and by promoting more localization overseas to respond to expanding investment demand there. At the same time, we seek to be a leader by implementing work style reform, construction DX, and other measures in line with ESG management.



Takehito Sato
Representative Director, Executive Vice President,
Responsible for overall civil engineering construction,
Head of Safety, Quality & Environment Division

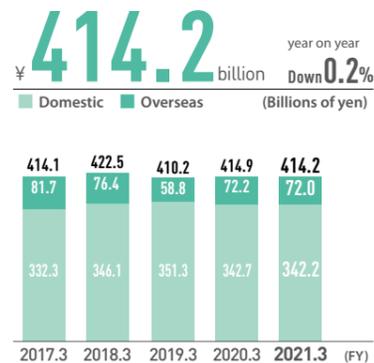
Akinobu Nohira
Senior Managing Executive Officer,
Head of Civil Engineering Construction Division

Consolidated Orders Received



Domestic orders in FY2021.3, which included construction of large-scale public works, were up over the previous fiscal year. Overseas orders were down from the previous year's rebound. In total, consolidated orders were up slightly.

Consolidated Net Sales



Net sales in FY2021.3 were about the same as the previous year, both in Japan and overseas. Operating income, however, was up. In Japan, that was because of projects with better profitability thanks to design changes and cost reductions, which offset the downturn overseas caused by COVID-19 and other factors.

Consolidated Operating Income



Specific Measures Based on Business Strategy

We place safety and quality at the heart of all business activities in the Civil Engineering Business. We are promoting the Occupational Safety and Health Safety Management System and the Quality Management System to ensure management that is more thorough. We are also endeavoring to improve the construction site working environment and ensure productivity by promoting the goal of closing each construction site eight days out of every four-week period (a goal set out in our KPIs), encouraging suppliers and subcontractors to participate in the Construction Career Up System, and supporting their use of ICT tools. We are also pursuing greater productivity and construction safety by developing construction automation and autonomization technologies. We are digitalizing site management using BIM/CIM and ICT and enhancing construction management.

In our quest for a stable stream of construction orders in future, we are working to adopt new order-taking systems, including an ECI* system and projects using new technology. We are additionally differentiating ourselves from competitors by developing unmanned construction, delivering in shorter construction periods, and leveraging cost reduction technologies. We are moreover using our Group-wide organizational strength for marketing activities and striving to raise our competitiveness by collaborating with manufacturers and businesses in peripheral fields.

In the field of renewable energy, we are building the Self Elevating Platform (SEP), which is essential to construction of offshore wind power stations, as well as developing the related technologies and effecting streamlined designs that put the technologies to work. These steps will give Obayashi a competitive advantage to win orders for offshore wind power stations, and their construction will help spread renewable energy.

The future of overseas markets, primarily Asia and North America, and in particular infrastructure building there, is hard to predict, given the COVID-19 pandemic. However, we foresee stable demand over the medium to long term. We are expanding markets by collaborating with marketing departments in Japan and with new partners, bolstering our revenue base in line with each base's strategy, and promoting localization. In addition, we are preparing for the new normal, for example working remotely to halt infectious disease.

* Early Contractor Involvement: An approach to placing orders that aims to reduce costs and shorten construction periods by incorporating construction contractors' technological capabilities into designs starting with the project's design stage.

TOPIC

Waterview Connection Expressway Wins at Japan Construction International Awards



The Waterview Connection Tunnels and Great North Road Interchange Project in New Zealand was a winner at the 3rd Japan Construction International Award (Construction Project Category). Hosted by the Ministry of Land, Infrastructure, Transport and Tourism of Japan, the awards honor overseas projects establishing high-quality infrastructure. The project built two large-section tunnels of 2,400 meters to connect existing expressways, using the TBM tunneling method, which had seldom been used in New Zealand. It completed a ring expressway network in Auckland, the main city in the country. The project contributed to the community in several big ways. Obayashi used its own technology to shorten the project period and save costs. It fostered local engineers and workers, which encouraged the development of subsequent critical urban tunnel infrastructure. In addition, a sports facility and public amenities were built in the construction laydown yard. The project is also eco-friendly. The tunnel ventilating stack was designed to be located far enough from a school and exhaust was monitored to optimize ventilation power consumption. Awards program judges gave high praise for the overall infrastructure building project, which also incorporated indigenous Maori artistic elements.



After drill-through was finished on the first tunnel, the shield machine was turned around inside the shaft and began drill-through on the second tunnel, shortening the construction period.



The tunnel's ventilating stack. Ventilation power consumption has been suppressed, saving about 4,600 t-CO₂ per year.

Related link
Waterview Connection Tunnels and Great North Road Interchange Project in New Zealand wins at Japan Construction International Awards (Japanese only)
https://www.obayashi.co.jp/news/detail/news20200306_2.html

Opportunities and Risks in Business Environment

- | Opportunities | Risks |
|---|--|
| <ul style="list-style-type: none"> Measures to accelerate national resilience projects by five years Large-scale upgrade and repair projects that are expected to expand Urban renewal projects associated with large-scale railroad construction projects, including Chuo Shinkansen maglev line Growing market for renewable energy following government's 2050 Carbon Neutral Declaration Infrastructure capital expenditure demand in Asia and North America | <ul style="list-style-type: none"> Impact on earnings and business evaluation if there are major safety or quality incidents Lack of production capacity as changing population structures leave fewer and older skilled workers Social demands to correct problems in working environments, such as long work hours Changes in working environments during the COVID-19 pandemic Business interruptions due to shortages of skilled workers, materials, or equipment during a natural disaster |

Business Strategy Based on Medium-Term Business Plan

- Practice thorough site management based on safety and quality, improve construction site working environment, and ensure productivity
- Further improve productivity and construction safety with labor-saving technology and ICT and promote construction DX
- Increase collective strength to ensure stable order-taking and expand region-specific strategies
- Improve competitiveness in large-scale renovation field, which is expected to expand going forward
- Work to acquire orders in energy-related fields that respond to social and environmental change
- Promote localization of overseas civil engineering business and stabilize its earnings

TOPIC

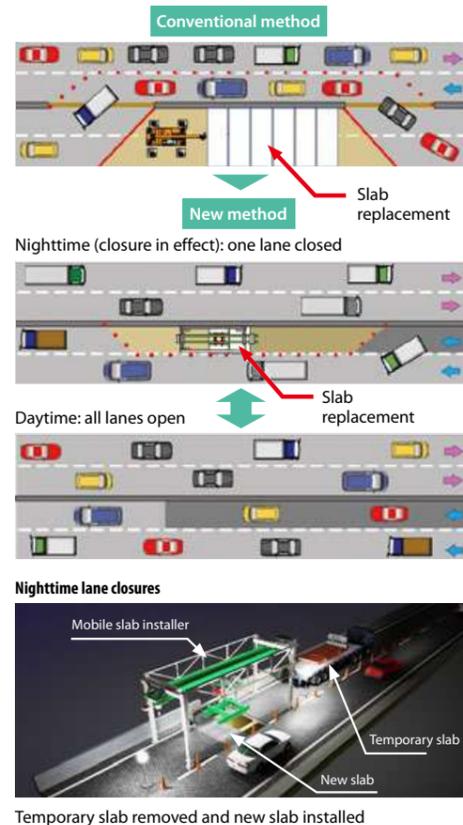
Developing New Technologies for More Efficient Expressway Upgrade Construction



The aging of expressways and other transportation infrastructure is emerging as a problem for society. Communities everywhere are faced with the urgent need for upgrades. However, there are quite a few issues that have to be overcome to make these upgrades. For example, there are fewer skilled workers and lane closures during construction make the roads more crowded and congested. To address the situation, Obayashi is working with other enterprises to develop technologies that will allow construction to be done with less labor and fewer workers, enhance safety, shorten construction periods, and help minimize lane closures.

The DAYFREE® method uses the Highway Strider® mobile slab installer that carries slabs in a trailer and occupies just half the width of the road (one of two highway lanes). The method also uses Slim NEO Plate®, a precast panel made of SLIM-Crete® ultra-high-strength fiber-reinforced concrete cured at a normal temperature. With this method, we can remove old slabs, put down new ones, and resurface the road in the limited amount of time available at night, when there is less traffic. The technique was used for slab replacement work ordered by the Central Nippon Expressway Company Limited on the Yumifuri River Bridge (inbound lanes) on the Chuo Expressway. The Highway Panel Rack™ method rapidly installs low-rise noise barriers on expressways. The work processes of stowing, transporting, sliding out, and installing the barriers can be done from the cargo bed of just one vehicle. That makes installation about seven times faster than the conventional method, so lane closure times can be cut significantly. We are developing many other systems and technologies to perform tasks like viaduct slab replacement with less labor and time. These are already in use in expressway update projects or are under consideration for future use. Obayashi will continue to pursue technological development to help extend the life of safe and secure infrastructure.

Comparison of lane closures with conventional and DAYFREE® methods



Highway Panel Rack™ method



Related link
Project front lines: Large-scale upgrade on 10 Chuo Expressway bridges (Japanese only)
<https://www.obayashi.co.jp/thinking/detail/project62.html>

TOPIC

Technological Development Complete for All Five Aspects of OTISM/LINING® System to Raise Productivity of Mountain Tunnel Lining Work



Obayashi has been developing OTISM®, an integrated system for increasing productivity during mountain tunnel construction. This includes OTISM/LINING®, a system expected to enhance quality and save labor while lining the tunnel. Technological development is now complete for all five aspects of this system.

We developed OTISM/LINING® for each of five aspects of lining work: installing waterproof sheet, setting the traveling form, the concrete, pouring, and curing. Up to now, we have developed practical new technology for concrete and curing and a new system for waterproof sheet is almost ready. Now, we are also demonstrating the onsite effectiveness of a hose extension and retraction-type continuous concrete pouring system to save labor and reduce the need for personnel during lining concrete pouring and recently developed a fully automatic traveling form setting system. Now that development of all the technologies making up OTISM/LINING® is finished, we are readying it for practical use at construction sites. Once that is done, we will have achieved quality improvement and labor saving in the lining process.

* OTISM=Obayashi Tunnel Integrated System



Related link
OBAYASHI TUNNEL WORLD (Japanese only)
<https://www.obayashi.co.jp/tunnelworld/>



OTISM/LINING® hose extension and retraction-type continuous concrete pouring system

Shortening Construction Period on Hokuriku Shinkansen Viaduct with First Use of Railroad Precast Viaduct LRV Construction Method



For the first time in Japan, the LRV construction method has been used to build a railroad viaduct. The Fukui Kaihotsu Viaduct Project is proceeding near Fukui Station, between Kanazawa and Tsuruga on the Hokuriku Shinkansen.

The railroad precast viaduct LRV construction method is an adaptation of the LRV construction method developed for reinforced concrete high-rise residential buildings. Used on railroad reinforced concrete rigid frame viaducts, it uses precast beams and pillar-beam junctions. This cuts the construction time on the above-ground structure in half as compared to conventional casting in place. Also, the only tasks that need to be performed on site are assembly of the precast components and injection of the mortar. Onsite productivity rises because there is less time spent working on rebar, formwork, and concrete and setting up the falsework for them. Quality is also greater than when pouring concrete onsite, since pillar-beam junctions consisting of multiple components and having a dense rebar arrangement are made in a factory.

The viaduct work began in November 2019 under the limiting condition that it needed to start after separate work was complete on a nearby existing commercial railway line. Use of the LRV construction method not only shortened the work period by about five months compared to the conventional method, but also realized greater quality and productivity.



Related link
Railroad precast viaduct LRV construction method (Japanese only)
https://www.obayashi.co.jp/solution_technology/detail/tech_d171.html



Real Estate Development Business

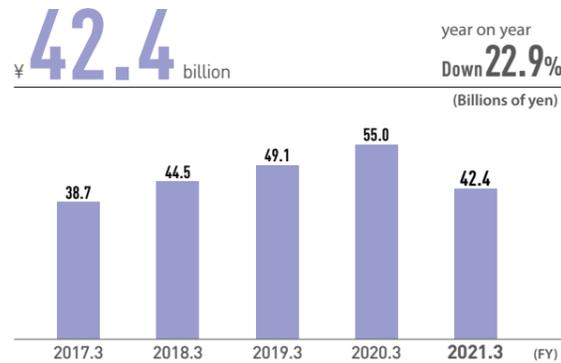


Understanding the Times and Practicing Community Development the Obayashi Group Way

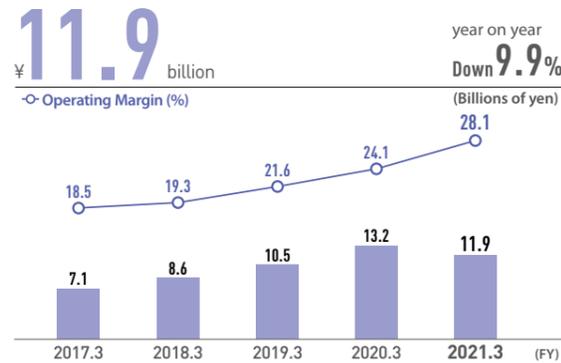
This is a time of change in how our cities, buildings, and office environments work. DX is pervading even community development and building operations in order to achieve the SDGs and Japan's goal of carbon neutrality by 2050. Even in times of great change, however, we will pursue the Real Estate Development Business in close cooperation with the Construction Business to produce high synergy and continue appealing community development the Obayashi Group way.

Jiro Otsuka
Senior Managing Executive Officer,
Head of Real Estate Development Division

Consolidated Net Sales



Consolidated Operating Income



Net sales and profits were both down in FY2021.3 owing to a rebound decline following large-scale property sales at a subsidiary in the previous fiscal year. In the leasing business, we reduced or waived rent for some tenants impacted by COVID-19, but the overall effect was slight since commercial facilities make up only a small percentage of this business segment.

Opportunities and Risks in Business Environment

- Opportunities**
 - ▶ Continued redevelopment in the urban areas of Tokyo and Osaka
 - ▶ Increasing importance of environmentally responsible real estate development projects as ESG investment rises
 - ▶ Increasing demand for facility management that leverages innovations like IoT and AI
 - ▶ Decarbonization of structures to prepare to go carbon neutral by 2050
 - ▶ Changes in office needs because of need to maintain social distance
- Risks**
 - ▶ Oversupply of office space, falling rents if a large volume of office buildings are supplied
 - ▶ Risk of losses from real estate price drops when economy worsens
 - ▶ Price of land for development jumps too high
 - ▶ Worsening real estate markets overseas because of changes in international situation and COVID-19
 - ▶ Declining demand for office space because of changes in work style and prevalence of telecommuting

Business Strategy Based on Medium-Term Business Plan

- 1 Strengthen income gains with focus on central Tokyo (leasing business)
- 2 Strengthen capital gains in Tokyo metropolitan area and Kansai region urban areas (sales business)
- 3 Strengthen overseas real estate business activities, giving due consideration to each region's economy, level of public order, legal system, market transparency, and whether the Obayashi Group has a branch there
- 4 Expand non-asset business
- 5 Contribute to realizing a sustainable society through our ESG efforts
- 6 Promote facility management that leverages innovation like IoT and AI
- 7 Contribute to construction business by using real estate development expertise to create added value
- 8 Respond to changes in the environment of the real estate business due to COVID-19

Specific Measures Based on Business Strategy

The Real Estate Development Business is poised for further growth. It benefits from the customer relationships and expertise in assessing construction risk that Obayashi has learned from the construction industry. We also create synergy with our construction business in that winning orders for construction and implementing Obayashi construction technologies can increase real estate value. One of our aims is to strengthen income gains by being quick to secure tenants and continually reviewing our portfolio. We also pursue a rotating business, making capital gains by selling office and logistics facilities developed by Obayashi, and seek returns proportionate to our risk. We are also stepping up our overseas real estate activities to disperse our market risk.

To meet the Japanese government's 2050 Carbon Neutral Declaration, we are actively implementing environmental technologies and seeking environmental certification for both existing and newly developed properties. In addition, we are actively proposing smart building management systems using technologies like IoT and AI. As such, we will contribute to eco-friendly sustainable community development with high added value.

Meanwhile, the outbreak of COVID-19 has transformed our society and economy, and DX is accelerating. These have made it urgent to rethink our strategies in ways that meet the changed environment of the real estate business. The Real Estate Development Division is taking the lead in collecting and analyzing information so we can respond to the changes. We are flexibly reconsidering our business strategy and taking on new fields. By these actions, we will be able to continually expand profitability and strengthen our organization.

TOPIC

Construction Started on Umekita 2nd Project, Where Greenery Meets Innovation



Construction has begun on the Umekita 2nd Project, which aims to create a new urban model in Osaka, one built for the New Normal/Next Normal, Society 5.0, and the SDGs. Obayashi is participating in the project by investing in the Umekita Development Special Purpose Company (SPC). Covering a large area of about 9.1 hectares, the project is developing urban parks and residential land in a unified way. Green tracts are being maintained to provide for diversity and create dynamism, and advanced urban and innovation functions that are internationally competitive will cluster in the district. The entire area is being transformed into a verdant urban space overflowing with life force. The green tracts, easily accessible to anyone, enhance the grace and attractiveness of the city and help raise Osaka's status to that of international cities with world-class urban spaces. The district will bring together resources and outstanding talent from around the world to make creative and cutting-edge change (innovation).



Aerial view of the Umekita 2nd Project (rendering of finished project)



Rendering of building with space for lease in south block of project



Related link
Construction Begins for the Umekita 2nd Project Development (name TBC) (Japanese only)
https://www.obayashi.co.jp/news/upload/img/news20201221_1.pdf

New Businesses

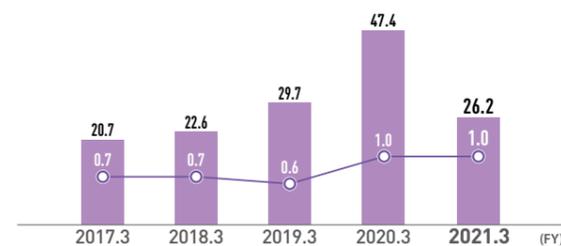
Elevating Obayashi's Presence by Promoting Green Energy Business and PPP Business

To achieve a state of carbon neutrality, Obayashi will steadily promote our existing renewable energy business. We also aim to bring together Obayashi Group energy supply capabilities, technologies, and expertise to offer energy solutions. We furthermore strive to establish new businesses that tap storage battery and hydrogen technologies. Through these steps, we seek to create opportunities for earnings from the entire green energy value chain. In the PPP Business, we will leverage the Group's abundant experience spanning 20 years. With this, we will improve our capacity for proposing solutions to meet the needs of the public, including local governments trying to grow sustainably.

Yuichi Yamamoto
Managing Executive Officer,
Head of Green Energy Division and responsible for PPP Division



There are 30 power generation facilities in the Obayashi Group—28 that generate solar power, one wind power, and one biomass which are operating satisfactorily. At ¥9.4 billion and ¥2.0 billion, respectively, both net sales and operating income were up year on year.



Our 32 special purpose companies' private finance initiative (PFI) business operations are doing well. Net sales in FY2021.3 were down about ¥21 billion compared to FY2020.3, a year when some large-scale facilities were completed and delivered, but operating income stayed about even.

Specific Measures Based on Business Strategy

Green Energy Business

Japanese government policies name renewable energy as the major power source of the future, and the Obayashi Group continues its activity in the renewable energy generation business (wind, geothermal, small-scale hydropower, biomass, etc.). We are working on existing projects and others due to go into commercial operation in future, such as offshore wind power in Akita Prefecture and biomass power in Kamisu City, Ibaraki Prefecture. We will closely observe customer needs for renewable energy in the medium to long term and consider commercialization in a new business domain leveraging our green electric power, storage battery, and hydrogen technologies as we aim to create synergy with Obayashi's construction business.

PPP Business

Along with the increasing number of PPP projects in public works, a growing number of businesses are getting into the field, making it severely competitive. Aiming to expand project orders and ensure profitability, we will firm up our proposals and management and make them more efficient while taking effective initiatives with stronger collaborations throughout the Obayashi Group. We will primarily target sports and educational facilities, government office buildings, and the like. After closely examining their business feasibility and risks, we will take on public works in general, such as projects that use surplus land, projects that combine private-sector for-profit facilities with public ones, and concession projects, and use those to grow earnings for the Group as a whole.

TOPIC

Start of Group's Second Biomass Power Generation Project



A project to generate power from woody biomass has begun at a plant in Kamisu City, Ibaraki Prefecture. The site, the second biomass plant for the Group, is scheduled to start operating in the autumn of 2021. It is part of the Obayashi Kamisu Biomass Power Project established by Obayashi Clean Energy Corporation. For its fuel, the Kamisu Biomass Power Station will primarily use imported wood pellets certified as sustainable. Its rated output of 51.5 MW is enough to power about 110,000 households.*



Power generation facility at Kamisu Biomass Power Station

* Estimate assumes 3,600 kWh of energy consumption annually per household

Promoting the Onshore Wind Power Generation Business at Kamikita Ogawara, Aomori Prefecture



Construction began in September 2020 in the Kamikita Ogawara Onshore Wind Power Station Project. Obayashi Clean Energy Corporation is advancing the project in Rokkasho, Aomori Prefecture as part of Group initiatives for a decarbonized society. Commercial operation is to begin in March 2022. The site is the Group's second onshore wind power generation project following the Mitanehamada Wind Power Station, which began operating in 2018. Its generating capacity of up to 20.4 MW is equivalent to the annual energy consumption of about 17,000 households. During construction, the crew used the Wind Lift® Method to assemble the turbines. Since the method uses no extra-large crane, assembly required only a minimal footprint. This helped to protect the safety and environment of the surrounding area while keeping costs down.



Rendering of Kamikita Ogawara Onshore Wind Power Station upon completion

Opportunities and Risks in Business Environment

Green Energy Business

- Opportunities**
 - ▶ Increasing demand for renewable energy aiming for the 2030 energy mix outlined by the Japanese government
 - ▶ Changes in the energy environment, including the enforcement of the Paris Agreement to deal with the rising risk of climate change
- Risks**
 - ▶ Decline in unit prices as FIT system that purchases electric power at a fixed price is revised
 - ▶ Shifts in Japanese government's energy policies
 - ▶ Functional decline and troubles at renewable energy power generation facilities

PPP Business

- Opportunities**
 - ▶ Increasing opportunities to win public works projects owing to Japanese government promoting PPP (private finance initiatives (PFI), concessions, etc.)
- Risks**
 - ▶ Contingencies and troubles in long-term, wide-ranging PFI

Business Strategy Based on Medium-Term Business Plan

Green Energy Business

- 1 Continue renewable energy business initiatives in line with Japanese government policies
- 2 Create synergy with Obayashi's construction business and businesses that use green energy

PPP Business

- 1 Further promote PPP projects by strengthening collaboration with the entire Group
- 2 Establish an independent PPP Division and strengthen its business systems
- 3 Manage acquired projects more efficiently and practice appropriate risk management

Engineering Business



Polishing our Ability to Create New Added Value, Manifesting Synergy with Construction Business

The circumstances of manufacturing, energy, and even the way people work are changing. There is an ever-growing field of places where we can put our technology and expertise to good use, particularly with wind power and ICT. To ensure we can offer a wide range of products and services associated with our high-level, professional engineering technology, we in the Engineering Business are improving our technologies and quality as well as working with partners among other ways to step up our business platform. By so doing, we are polishing our ability to create new added value and manifesting synergy with the construction business.

Atsushi Takeuchi
Executive Officer,
Head of Engineering Division

Specific Measures Based on Business Strategy

The Engineering Division works to expand its domains of technology by cultivating markets associated with related facilities, strengthen our lines of business and the nature of our work by building on our highly professional technology and solutions, and enhance our human resources and organization to better execute projects.

In the field of manufacturing facilities, we are cultivating new derived application technology and manufacturing facility applications (of other industries) based on planning and design technology originally developed for pharmaceutical, food product, electronics, and chemical facilities. In the information field, we are setting up networks, introducing a variety of software, and establishing an ICT platform for bringing digitalization to buildings. In the field of environmental (renewable energy) facilities, we have set onshore and offshore wind power stations as key domains and are building up our human resources, functions, and organizations associated with high-voltage electrical facilities, including biomass power generation facilities.

In the soil environment field, our focus is on soil contamination solutions, waste disposal sites, and Fukushima environmental restoration. In addition, we are stepping up our work on comprehensive environmental initiatives that address noise, vibration, air and water quality, ecosystems, and more.

TOPIC

Advanced Engineering Brings Automation and Autonomization to One of Japan's Largest Clinical Testing Facilities



Obayashi designed and constructed one of Japan's largest facilities for clinical testing of blood and other samples. Our scope of work included a robotics handling system, a utility supply system, waste treatment equipment, and an IT network system.

The facility introduced leading-edge robotics and an automated storage system that can distinguish, store, and pick and sort up to 300,000 samples per day. We developed the multi-control system that manages this equipment centrally and we helped the facility operate automatically and autonomously.



H.U. Bioness Complex

Photo: Koichi Torimura

Nuclear Facilities Business



Pursuing Safe and Clean Nuclear Power to Advance Decarbonization

The Japanese government's Green Growth Strategy for becoming carbon neutral by 2050 considers nuclear power an established decarbonization technology. The Nuclear Facilities Division aims to contribute to this goal with technology for the safe, clean use of nuclear power. Our focus will be on jobs that enhance safety at nuclear power stations and environmental remediation after the accident at the Fukushima Daiichi Nuclear Power Station, as well as developing technologies for the future, including next-generation reactors and radioactive waste disposal.

Yoshikatsu Imazuka
Executive Officer,
Head of Nuclear Facilities Division

Specific Measures Based on Business Strategy

The Nuclear Facilities Division is endeavoring to win orders for engineering and construction work that will help enhance the safety of nuclear facilities and is promoting design and construction work with a view to shortening construction periods and reducing costs, which are strong customer demands. We are also working on jobs related to environmental remediation after the accident at the Fukushima Daiichi Nuclear Power Station. These include construction of interim storage facilities and related facilities for removed soil and waste generated from offsite decontamination works and also reuse of removed soil. At the same time, we aim to participate in the business of nuclear decommissioning, which will get started in future.

Looking ahead, we will be developing human resources and technology leading the way to nuclear power innovation to get ready to participate in projects relating to new nuclear power plant construction in Japan, nuclear decommissioning, and radioactive waste disposal. We also aim to expand our business by gathering information and monitoring the trends in new nuclear power plant construction overseas and the development of new reactors.

TOPIC

Developing Human Resources and Technology to Contribute to High-Level Radioactive Waste Disposal Project



Disposal of the high-level radioactive waste generated from the reprocessing of spent nuclear fuel from nuclear power stations is a critical issue facing the international community. The Nuclear Waste Management Organization of Japan (NUMO) is leading geological disposal of radioactive waste in Japan. The first step of the site selection of the repository, a literature survey, began in two local areas of Hokkaido in 2020, marking the start of the radioactive waste disposal project. Obayashi aims to participate in the disposal project, which will reportedly last 100 years. We are contributing to the research and development in an underground research laboratory project in Japan and taking part in collaborative international research at an underground research laboratory in Switzerland, a leader in waste management. We are also accumulating technologies and developing human resources by dispatching staff to Switzerland's National Cooperative for the Disposal of Radioactive Waste (NAGRA).



A gate to the experimental area (Gallery Ga04) at the Mont Terri Rock Laboratory. © swisstopo



An electric heater for the HotBENT Experiment (a test of the effects of high temperatures on bentonite) at the Grimsel Test Site. © Nagra

Robotics Business



Promoting Automatic and Autonomous Construction Machinery and Stepping up the Pace of DX

The Construction Robotics Division is working toward fully autonomous construction at construction sites. Our focus with the automation and autonomization robotics technology we develop will be on its transition from “usable technology” to “technology that is truly essential to the work site.” We will speed up the incorporation of DX into every work process and the implementation of robotics technology into the fields of building construction, civil engineering, and new businesses.

Hitoshi Shibuya
Executive Officer,
Head of Construction Robotics Division

Specific Measures Based on Business Strategy

The Construction Robotics Division aims to realize fully autonomous, eco-friendly construction using IoT, AI, xR,* robots, and 5G to be a leading company in the field of autonomous construction machinery. We will win construction orders and generate profits by developing technologies like automatic and autonomous construction systems and special machines that differentiate us and by working to increase productivity and safety while saving labor.

Further, by combining Obayashi’s differentiating technologies with technologies from other industry sectors, we will expand our sales markets beyond the construction industry and build new business models.

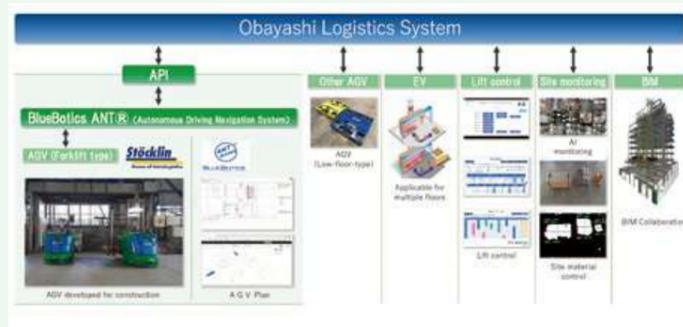
* A collective term for virtual reality (VR), augmented reality (AR), mixed reality (MR), etc.

TOPIC

Developing Logistics Systems Helping to Automize Material Transportation and Raise Productivity and Safety



Obayashi has developed a logistics system that coordinates the operation of automated guided vehicles (AGV) with that of an elevator at a construction site. The result is autonomous transportation of materials across different floors of a building. The system looks up a transportation schedule that is input via the web. AGVs automatically transport materials from the reception floor to their destination. No operator is needed to run the elevator. Materials can be delivered to the appropriate place at night or any time workers are not present. Freed from having to move the materials themselves, workers can concentrate on actual construction work. This is expected not only to increase productivity but also reduce workers’ physical burden while enhancing work quality and safety.



Related link
Obayashi logistics
<https://youtu.be/1dZuF4CTuCk>

TOPIC

Automatic Construction System Implemented at the Main Body of Kawakami Dam



Obayashi is combining digital technology with the construction technology we have cultivated over many years of dam construction. This is increasing productivity and safety and bringing quality control to a higher level. At the construction of the main body of Kawakami Dam now underway in Iga City, Mie Prefecture, we are using ODICT**1, which integrates and systematizes Obayashi’s proprietary computer-aided construction technologies.

Pouring the concrete of the Kawakami Dam involves repeated transportation of concrete and buckets, which together can weigh close to 20 tons on each trip. The safety and efficiency of crane work depends in large part on the crane operator’s competence. Veteran skills are necessary to minimize load swinging for the sake of safe and efficient transportation. We developed this system to learn and reproduce the actions of a skilled operator. As a result, optimal transportation can be done automatically.

Another example is dam concrete formwork, which until now has taken much time and labor. Conventionally, a crane raised the formwork to the prescribed position for the pouring process, after which veteran workers on the site adjusted it to the exact position and put the formwork in place at the next higher level. In contrast, the automatic dam formwork sliding system we recently implemented has scaffolding that climbs automatically, a measuring system that confirms the formwork’s position and orientation data, and a driving system that moves the formwork back and forth. Now, the entire process of removing the formwork from the poured layer, sliding it upwards, positioning it, and putting the formwork in its new place can be done automatically. Any part of the process that requires human control can be done from a tablet onsite.

Other technologies we are using to bring automation, autonomization, and remote operation to many construction processes include a system that assesses dam concrete compaction with a viback**2, an automatic concrete green cutting machine operating system, and a dam concrete construction management system. These are helping to raise productivity, improve the working environment, and make work safer.

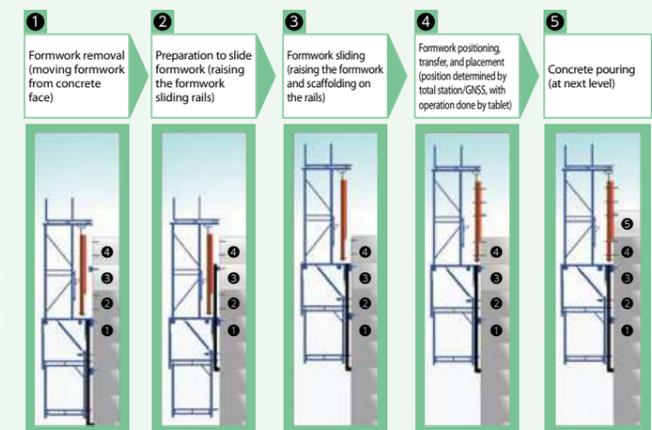


Automatic concrete transportation system using tower cranes

*1 ODICT: Obayashi-Dam Innovative Construction Technology
*2 Viback: A machine for compacting the concrete of a dam



Dam formwork automatic sliding system automates concrete formwork transfer and placement.



Automatic sliding procedure for formwork (flow of sliding work)



Related link
OBAYASHI DAM WORLD (Japanese only)
<https://www.obayashi.co.jp/damworld/system/>

Technological Development

Promoting Innovation to Contribute to a Sustainable Society

The Technology Division is strengthening collaboration with enterprises and groups in a variety of fields who have leading-edge technology. Our aim is to promote innovation in all sorts of business domains to realize sustainability of "the planet, society, and people."

We endeavor to develop technology to create new value, which includes raising quality and productivity, transforming business processes with BIM/CIM, cutting costs, preparing for natural disasters, and mitigating environmental impact. We are also working to develop technologies and services that will prove useful in next-generation and future creation fields.

Naoki Kajita
Managing Executive Officer,
Head of Technology Division

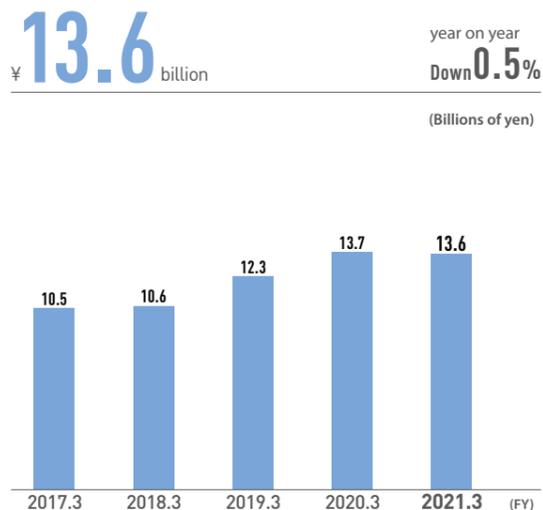


Specific Measures Based on Business Strategy

In line with the business strategy based on the Medium-Term Business Plan and the policies of the Japanese government's growth strategy, the Technology Division prioritizes development of technologies in six categories: 1) construction streamlining, 2) construction DX, 3) future and smart services, 4) sustainability, 5) infectious disease countermeasures, and 6) safety and security.

Technological development that leverages IoT, AI, and robotics to streamline work and increase productivity at construction sites, along with promoting construction DX with a foundation of BIM/CIM, are key to improving the sustainability of the construction industry. These fields demand further technological development going forward. We will also focus our efforts on technological development related to data platforms and future smart services relevant to energy and mobility, since these will help create next-generation and future creation fields that extend beyond the construction industry. Developing technologies for upgrading expressways, mountain tunnels, and other large-scale infrastructure and renewable energy technologies like onshore and offshore wind power that will help the world go carbon neutral will make sustainable societies possible. And developing technologies to deal with infectious diseases will be essential during and after the COVID-19 pandemic. Finally, we will continue to develop construction site safety management technologies and technologies that protect users from natural and human-made disasters, as these are permanent issues for the construction industry.

Consolidated Research and Development Expense



Major Technological Development Themes

- 1 Construction streamlining**
Automation, autonomization, remote control, etc. of construction machinery
- 2 Construction DX**
Development of automatic quality control systems, SmartBIM, etc.
- 3 Future and smart services**
Mobility revolution (e.g., MaaS, wireless charging roads, cargo drones), etc.
- 4 Sustainability**
Expressway and mountain tunnel upgrade technology, renewable energy use, etc.
- 5 Infectious disease countermeasures**
Offices during COVID-19 pandemic, indoor pollution simulation, etc.
- 6 Safety and security**
Increasing safety and productivity in tunnel work, etc.

TOPIC

World's First Successful Technology Verification of 100% Hydrogen-Fueled Gas Turbine with Dry Low-NOx Combustion



Obayashi, along with the New Energy and Industrial Technology Development Organization (NEDO) and Kawasaki Heavy Industries, Ltd., began technology verification in May 2020 of a 100% hydrogen-fueled gas turbine with dry low-NOx combustion. Part of an effort to realize a hydrogen-based society, the test was successful for the first time in the world.

The system uses the micro-mix combustion technology developed by Kawasaki Heavy Industries, Ltd. to fuel the dry combustion. The most noteworthy characteristic is its high power generation efficiency and low NOx emissions compared to a water injection method that was tested in FY2018.3 and FY2019.3. The experiment is already testing whether the system on Port Island in Kobe can operate stably, how efficiently it can generate electricity, and how effectively it can reduce environmental impact. Simultaneously, it is testing an integrated energy management system to comprehensively manage the hydrogen fuel and the heat and electricity used in nearby facilities. Over time, the experiment will confirm the future business feasibility of the energy management system.

Obayashi will continue to collaborate with industry, academic, and government partners to develop and prove schemes for using hydrogen and help to achieve carbon neutral status.

Related link

World's First Successful Technology Verification of 100% Hydrogen-Fueled Gas Turbine Operation with Dry Low NOx Combustion (Japanese only)
https://www.obayashi.co.jp/news/detail/news20200721_1.html



100% hydrogen-fueled gas turbine verification plant with dry low-NOx combustion (a NEDO-subsidized project)

From Sea to Space: Test of Offshore Rocket Launch with Chiba Institute of Technology and ASTROCEAN



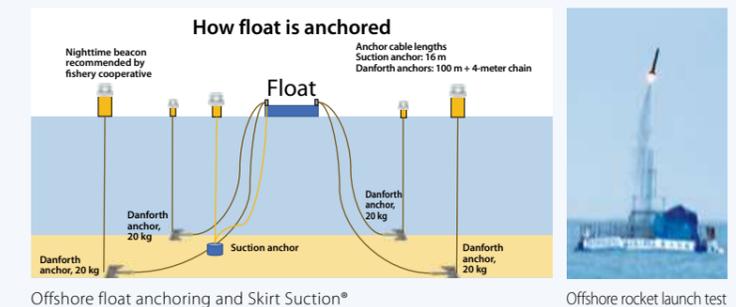
In joint research with Chiba Institute of Technology and ASTROCEAN Co., Ltd., Obayashi tested the offshore launch of small hybrid rockets, built by university students, starting in 2019. Launch testing, which took place offshore from Ajiro Bay, Chiba Prefecture, was successful. The series of tests have steadily increased knowledge for meeting the experimenters' ultimate objective, which is to collect microparticles from space. The tests use Obayashi's proprietary Skirt Suction® technology to anchor the floating launchpad. Used on foundations and anchors of offshore wind power turbines, this technology provides structures on the sea with stability. It can anchor launchpads at sea and help to operate floating structures efficiently. Significant advances are taking place in the field of space development, but a lack of launchpads has been a problem, since launchpads need to be located far from human habitation for safety. Offshore launches can help eliminate this limitation. In future, Obayashi also looks forward to helping advance new business domains, such as launchpad construction and operation and eventually space development.

Related link

Chiba Institute of Technology, ASTROCEAN, and Obayashi Test-Launch Four Rockets Offshore (Japanese only)



https://www.obayashi.co.jp/news/detail/news20191001_1.html



Offshore float anchoring and Skirt Suction®



Offshore rocket launch test

Consolidated Financial Summary

Fiscal years ended March 31	Millions of yen										Thousands of U.S. dollars**	
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021
Orders received	1,180,639	1,362,702	1,449,567	1,653,005	1,900,517	1,951,943	2,145,256	1,880,155	1,958,869	2,240,001	1,948,682	17,601,683
Orders received (construction business)	1,108,348	1,289,779	1,372,658	1,580,900	1,797,441	1,862,140	2,052,504	1,774,745	1,873,739	2,149,788	1,857,688	16,779,772
Net sales	1,131,864	1,245,772	1,448,305	1,612,756	1,773,981	1,777,834	1,872,721	1,900,655	2,039,685	2,073,043	1,766,893	15,959,655
Gross profit	99,716	110,678	114,687	112,059	131,707	193,052	224,933	234,303	254,023	255,547	225,784	2,039,424
Gross profit margin (%)	8.8	8.9	7.9	6.9	7.4	10.9	12.0	12.3	12.5	12.3	12.8	—
Selling, general and administrative expenses	76,542	79,532	79,534	80,067	83,318	86,671	91,191	96,502	98,542	102,675	102,622	926,950
Operating income (loss)	23,174	31,145	35,153	31,991	48,388	106,380	133,742	137,800	155,480	152,871	123,161	1,112,473
Operating margin (%)	2.0	2.5	2.4	2.0	2.7	6.0	7.1	7.3	7.6	7.4	7.0	—
Ordinary income (loss)	22,207	35,241	44,690	40,135	59,913	111,208	140,106	143,951	163,054	159,005	128,784	1,163,261
Profit (loss) attributable to owners of parent*1	15,423	5,142	13,195	21,627	28,695	63,437	94,501	92,662	113,155	113,093	98,780	892,247
Profit (loss) attributable to owners of parent per share (EPS) (yen/U.S. dollars)	21.46	7.16	18.37	30.11	39.96	88.36	131.66	129.09	157.65	157.59	137.64	1.24
Net assets	351,287	365,492	414,650	448,108	549,483	561,658	644,076	711,525	798,149	850,498	961,979	8,689,182
Equity (net assets less non-controlling interests)	325,936	340,463	384,730	412,456	507,670	516,098	594,160	684,836	768,944	817,892	931,008	8,409,433
Retained earnings	151,684	152,278	161,666	178,665	199,296	255,750	334,957	404,840	498,195	587,012	661,512	5,975,186
[The ratio of retained earnings to equity]	[46.5%]	[44.7%]	[42.0%]	[43.3%]	[39.3%]	[49.6%]	[56.4%]	[59.1%]	[64.8%]	[71.8%]	[71.1%]	—
Total assets	1,505,697	1,618,748	1,656,289	1,818,886	1,996,193	1,951,907	2,015,996	2,148,861	2,214,512	2,230,297	2,272,628	20,527,758
Property, plant and equipment	360,209	358,186	376,489	415,089	408,848	441,604	459,597	526,270	544,558	572,190	609,256	5,503,176
Investment securities	251,196	264,365	317,386	323,858	415,541	342,021	346,245	372,308	360,627	290,719	340,079	3,071,805
[Sales result of investment securities]	[12,358]	[14,427]	[9,066]	[12,089]	[4,541]	[4,497]	[4,495]	[8,710]	[5,454]	[9,263]	[7,648]	[69,081]
Net assets per share (BPS) (yen/U.S. dollars)	453.52	474.01	535.67	574.32	706.94	719.01	827.77	954.05	1,071.49	1,139.69	1,297.25	11.71
Equity ratio (%)	21.6	21.0	23.2	22.7	25.4	26.4	29.5	31.9	34.7	36.7	41.0	—
Return on equity (ROE)	4.6	1.5	3.6	5.4	6.2	12.4	17.0	14.5	15.6	14.3	11.3	—
Price-earnings ratio (PER) (times)	17.2	50.4	24.5	19.3	19.5	12.6	7.9	9.0	7.1	5.9	7.4	—
Dividends per share (yen/U.S. dollars)	8	8	8	8	10	18	28	28	32	32	32	0.28
Dividend payout ratio (%)	37.3	111.7	43.5	26.6	25.0	20.4	21.3	21.7	20.3	20.3	23.2	—
Net cash provided by (used in) operating activities*2	1,096	65,755	31,496	37,962	74,646	124,980	158,892	114,034	44,203	237,628	24,803	224,036
Net cash provided by (used in) investing activities*2	(33,134)	(1,919)	(29,151)	(47,328)	(7,442)	(48,029)	(37,884)	(71,289)	(45,302)	(47,318)	(79,075)	(714,258)
Net cash provided by (used in) financing activities*2	10,611	(48,949)	(28,977)	27,587	(34,523)	(68,967)	(89,165)	(54,548)	(24,823)	(49,397)	(8,483)	(76,627)
Cash and cash equivalents at end of period	108,999	121,682	99,690	121,177	162,607	164,802	194,195	184,783	157,699	298,945	236,474	2,135,980
Number of personnel*3	14,639	12,870	12,838	12,856	13,432	13,688	14,094	14,359	14,739	14,993	15,267	—
[Average number of temporary personnel not included in the above]		[2,869]	[3,031]	[3,139]	[3,658]	[4,066]	[4,431]	[4,393]	[4,093]	[3,886]	[3,791]	—
Interest-bearing debt (except nonrecourse loans)	321,375	320,798	306,323	351,592	327,802	266,465	200,334	184,724	183,061	172,928	196,357	1,773,616
Nonrecourse loans	87,885	84,316	81,845	76,851	83,017	79,874	73,024	92,004	89,156	75,624	69,596	628,640
Total amount of interest-bearing debt and nonrecourse loans	409,260	405,115	388,168	428,444	410,820	346,339	273,359	276,728	272,218	248,552	265,953	2,402,257
Debt-equity ratio (times)	1.26	1.19	1.01	1.04	0.81	0.67	0.46	0.40	0.35	0.30	0.29	—
Capital expenditure	49,043	17,017	35,084	69,110	42,308	56,231	31,410	76,383	39,586	47,573	52,539	474,572
Research and development expense	8,561	9,093	8,742	8,927	9,391	10,081	10,553	10,602	12,312	13,734	13,661	123,397
Depreciation	11,394	11,954	10,916	12,103	14,392	14,476	14,981	14,659	17,672	19,880	20,038	180,995

*1 Since the year ended March 31, 2016, the line item "Net income (loss)" has been changed to "Profit (loss) attributable to owners of parent"
 *2 In the consolidated statements of cash flows, figures in parentheses represent a decrease in cash and cash equivalents

*3 Average headcount of temporary employees for each fiscal year is recorded separately in brackets. This is because the importance of temporary employees in average headcount rose following a revision in the boundary between employees and temporary employees starting in the fiscal year ended March 31, 2012
 *4 U.S. dollar amounts are provided solely for the convenience of the reader, translated on the basis of ¥110.71 to US\$1, the prevailing exchange rate on March 31, 2021

Group Network

<https://www.obayashi.co.jp/en/company/group.html>



Major Group Companies in Japan

Name (major business)	Group interest	FY	Financial data (millions of yen)			Number of personnel (end of fiscal year)
			Net sales	Profit attributable to owners of parent	Net assets	
NAIGAI TECHNOS CORPORATION (Interior, building construction, and sales of materials and equipment for construction)	100.0%	2019	97,391	1,050	7,429	149
		2020	91,637	558	7,679	147
OBAYASHI FACILITIES CORPORATION (Overall property management, building and M&E construction, and contracted operations)	100.0%	2019	28,644	1,102	14,281	709
		2020	27,858	949	14,859	768
OAK SETSUBI CORPORATION (M&E design and construction including air conditioning, ventilation, drainage, sanitary, and electricity)	100.0%	2019	16,772	28	4,327	238
		2020	20,309	526	4,854	242
OBAYASHI ROAD CORPORATION (Paving and civil engineering)	100.0%	2019	106,324	7,117	54,767	1,050
		2020	100,059	4,774	57,565	1,141
OBAYASHI-SHINSEIWA REAL ESTATE CORPORATION (Real estate leasing and sales, property management, insurance)	100.0%	2019	45,103	6,089	59,264	159
		2020	32,087	5,371	64,636	161
OBAYASHI CLEAN ENERGY CORPORATION*1 (Renewable power generation business)	—	2019	9,211	789	7,279	22
		2020	9,482	741	7,945	27
OAK INFORMATION SYSTEM CORPORATION (Development and sales of computer software and sales and lease of electronic equipment)	100.0%	2019	7,434	200	1,968	179
		2020	8,244	165	2,072	184
OC FINANCE CORPORATION (Finance-related services)	100.0%	2019	606	340	6,417	—
		2020	531	306	6,723	—
IBARAKI GREEN CO., LTD. (Old Orchard Golf Club, Daystar Golf Club)	100.0%	2019	1,224	-30	5,187	39
		2020	1,020	-116	5,070	45
32 PFI subsidiaries (PFI-related services)	—	2019	47,464	652	4,094	85
		2020	26,239	840	5,112	83

*1 Includes its own subsidiary in the renewable energy business

Major Overseas Group Companies

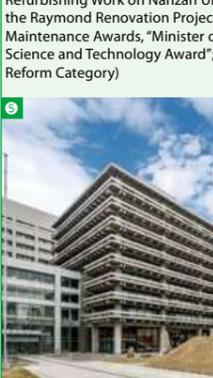
Name (major business)	Group interest	FY	Financial data (millions of yen)			Number of personnel (end of fiscal year)
			Net sales	Profit attributable to owners of parent	Net assets	
E.W. HOWELL CO., LLC*2 (Building construction business)	92.0%	2019	32,931	280	2,567	170
		2020	30,450	344	2,611	156
WEBCOR, LP*2 (Building construction business)	98.0%	2019	225,089	1,953	12,375	743
		2020	151,769	1,829	13,799	616
JAMES E. ROBERTS-OBAYASHI CORPORATION*2 (Building construction business)	51.0%	2019	10,301	83	1,735	43
		2020	25,915	338	2,097	54
THAI OBAYASHI CORPORATION LIMITED (Building construction business)	50.0%	2019	58,225	2,683	52,248	1,294
		2020	31,795	741	50,019	1,291
PT. JAYA OBAYASHI (Building construction business)	85.0%	2019	6,852	13	1,799	180
		2020	8,960	56	1,713	218
TAIWAN OBAYASHI CORPORATION (Building construction business)	100.0%	2019	4,138	-129	3,673	62
		2020	8,099	-747	2,956	82
OBAYASHI SINGAPORE PRIVATE LIMITED (Building construction business)	100.0%	2019	26,409	1,615	6,524	296
		2020	24,288	669	6,947	349
OBAYASHI VIETNAM CORPORATION (Building construction business)	100.0%	2019	17,565	592	5,059	153
		2020	15,874	626	5,415	165
KRAEMER NORTH AMERICA, LLC*2 (Civil engineering business)	56.0%	2019	32,991	801	5,259	164
		2020	34,789	816	3,811	178
KENAIDAN GROUP LTD.*3 (Civil engineering business)	60.0%	2019	20,394	72	1,836	142
		2020	17,022	92	1,887	150
OBAYASHI PROPERTIES UK LIMITED*4 (Real estate business)	100.0%	2019	—	—	—	—
		2020	812	358	45,049	2

*2 Consolidated subsidiary of Obayashi USA, LLC

*3 Consolidated subsidiary of Obayashi Canada Holdings Ltd.

*4 Established in the first quarter of FY2021.3

Major Awards and Commendations

<p>The 29th BELCA Awards, Best Reform Category Awarding organization: Building and Equipment Long-life Cycle Association Award-winning object/party: Expo '70 Commemorative Park's Tower of the Sun ▶ Our History P.09</p>	
<p>The 3rd Japan Construction International Awards (Construction Project Category) Awarding organization: Ministry of Land, Infrastructure, Transport and Tourism Award-winning object/party: Waterview Connection Tunnels and Great North Road Interchange Project ▶ Civil Engineering Business P.70</p>	
<p>Architectural Institute of Japan Prize 2020 (Building Engineering Division) Awarding organization: Architectural Institute of Japan Award given for: Development of Dismantling Noise Reduction Device Using Air Bubbles</p>	
<p>The 31st Institute of Electrical Installation Engineers of Japan Awards, Technology Incentive Division, Incentive Awards Awarding organization: Institute of Electrical Installation Engineers of Japan Award given for: A Development of Planning Approach and Control Method on CO₂-free Hydrogen Production System Using Electricity Generated by Photovoltaics</p>	
<p>2019 Japan Society of Civil Engineers Awards Awarding organization: Japan Society of Civil Engineers Award given for: [Outstanding Civil Engineering Achievement Award] The Unparalleled Large and Rectangular Shield Construction in Times Past under the Conditions of Soft Ground and Shallow Earth Covering (Toranomom Underground Passage Construction Work) [Outstanding Civil Engineering Achievement Award] Strengthening Networks between Metropolitan Areas (Upgrade of Kobe Junction for Shin-Meishin Expressway) [Outstanding Civil Engineering Achievement Award] Construction of Jakarta Mass Rapid Transit Protect Phase 1 (First-Time Overseas Railway Project including Master Plan, Feasibility Study, Basic Design, Tender Assistance Services, Construction and O&M Services by All-Japanese Efforts) [Outstanding Civil Engineering Achievement Award] Decontamination of Radioactive Materials from the Fukushima Daiichi Nuclear Power Plant Accident [Innovative Technique Award] Development of Precast Deck Connection (Slim-Fastener®) using UFC</p>	
<p>Japan Institute of Healthcare Architecture, Healthcare Architecture Award 2019 Awarding organization: Japan Institute of Healthcare Architecture Award-winning object/party: Hyogo Prefectural Kobe Children's Hospital</p>	
<p>Association of New Urban Housing Technology, "FY2020 CFT Structure Awards" Awarding organization: Association of New Urban Housing Technology Award-winning object/party: Urbannet Uchisaiwaicho Building / THE BLOSSOM HIBIYA, DaiyaGate Ikebukuro</p>	
<p>2020 (The 65th) Association of Railway Architects Awards, "Special Awards" Awarding organization: Association of Railway Architects Award-winning object/party: DaiyaGate Ikebukuro</p>	
<p>The First Construction Excellence Prize Awarding organization: Japan Federation of Construction Contractors Award-winning object/party: Mitanehamada Wind Power Station Construction Project ▶</p>	
<p>Good Design Award 2020 Awarding organization: Japan Institute of Design Promotion Award-winning object/party: The Parkhouse Kobe Tower, PROUD CITY Sendai Kamisugiyamadori, Mitejima Building, THE HIRAMATSU KYOTO</p>	
<p>The 19th Rooftop-Green Wall Technology Competition, "Organization for Landscape and Urban Green Infrastructure Chairman's Prize," Rooftop Greening Category Awarding organization: Organization for Landscape and Urban Green Infrastructure Award-winning object/party: Tokyo Medical University Hospital</p>	
<p>The 61st BCS Prize Awarding organization: Japan Federation of Construction Contractors Award-winning object/party: Nihonbashi 2-Chome Type-1 Urban Area Redevelopment Project, Toyonaka Performing Arts Center ▶</p>	
<p>Japan Wood Design Award 2020, "Excellence Award (Forestry Agency Director-General Award)," Heartful Design Category Awarding organization: Management Office of Japan Wood Design Award Award-winning object/party: Nara Prefectural Convention Center ▶ Wooden structure and interior initiatives P.45</p>	
<p>Japan Wood Design Award 2020, "Special Award (Wood Hospitality Award)," Heartful Design Category Awarding organization: Management Office of Japan Wood Design Award Award-winning object/party: THE HIRAMATSU KYOTO</p>	
<p>The 4th Infrastructure Maintenance Awards, "Minister of Education, Culture, Sports, Science and Technology Award" Awarding organization: Ministry of Education, Culture, Sports, Science and Technology, others Award-winning object/party: Refurbishing Work on Nanzan University Campus under the Raymond Renovation Project</p>	
<p>The 30th BELCA Awards, Best Reform Category Awarding organization: Building and Equipment Long-life Cycle Association Award-winning object/party: Nanzan University (Buildings G30, G, F, and H)</p>	
<p>FY2020 Awards for Excellent Architecture/Contributors in Seismic Retrofitting (10th) Awarding organization: Japan Building Disaster Prevention Association Award-winning object/party: [Minister of Land, Infrastructure, Transport and Tourism Award, Award for Excellent Contributor to Seismic Retrofitting] Kagawa Prefectural Government Office East Building [Award for Excellent Contributor to Seismic Retrofitting] The Hotel Seiryu Kyoto Kiyomizu, Hirosaki Museum of Contemporary Art</p>	
<p>The 40th Engineering Commendation Award Awarding organization: Engineering Advancement Association of Japan Award-winning object/party: Jakarta Mass Rapid Transit Phase 1, CP103 and CP104/CP105 Project Team for Viaduct Expansion of Shuto Expressway between Itabashi and Kumano-cho Junctions Project Team Implementing Unmanned Operation to Collect Fallen Rocks from Kumamoto Castle</p>	
<p>The 12th Engineering Special Encouragement Award Awarding organization: Engineering Advancement Association of Japan Award-winning object/party: Demolition Noise Reduction Device Bubble Silencer® Development Team</p>	
<p>The 12th Engineering Special Encouragement Award Awarding organization: Engineering Advancement Association of Japan Award-winning object/party: Demolition Noise Reduction Device Bubble Silencer® Development Team</p>	



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