

# CTI Engineering Co., Ltd. Integrated Report **2023**

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**CTI Engineering Co., Ltd.**

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**Aiming to Be a Global Infrastructure  
Solutions Group**



**Business Philosophy**  
 We strive to create a safe, comfortable and enriching society using world-class technology and expertise

**Code of Corporate Conduct**



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**Editorial Policy**

CTI Engineering Co., Ltd. ("the Company") publishes its integrated report as an integrated communication tool for its stakeholders. We hope that this report will provide a full understanding of our company's stance from its founding to the present, as well as our efforts to increase corporate value further. We used the International Integrated Reporting Council (IIRC)'s disclosure framework to compile this report.

**Caution Regarding Forward-Looking Statements**

This integrated report contains forward-looking statements about matters such as forecasts of the Company's future financial results. These statements represent the judgments of the Company's management based on currently available information. The Company's future performance may differ significantly from the content of these statements for a variety of reasons. As a result, the forward-looking statements in this report do not guarantee forecast accuracy or future performance.

# Introduction

## Tracing the Evolution of Infrastructure and Value Creation

Management Policy and Vision Group Company Membership



### CTI Engineering's Brand Slogan: Create Safety and Security for the Future

#### Brand Story

CTI Engineering Co., Ltd. has faced social issues with integrity throughout its history as a pioneering consulting engineer. It has worked to solve a variety of infrastructure development issues by constantly improving its engineering capabilities.

As technological innovation accelerates, we will serve as a group of professionals who will ambitiously take on new technologies and always provide the best infrastructure services. We will work tirelessly to create a society where people can live safely and securely with an eye on the future.

CTI Engineering Group

Aug. 1, 1945

Construction Technology Institute (Zaidan Hojin Kensetsu Gijutsu Kenkyujo) founded as the first consulting engineer in Japan



Design and construction management of hydropower dams and power plants

May 1958

Tama Testing Lab established to perform hydraulic model experiments for the Marikina Multipurpose Dam



Expanded dam design and hydraulic model experiment services

From 1964

Provided numerous surveys, designs, experiments and other services for expressways

Jan. 1975

Environmental Assessment Office established

This office addressed residents' concerns about pollution, destruction of nature, and other environmental issues, as well as their opposition to construction

Jul. 1971

Tama Testing Lab established



As the deterioration of river water quality in urban areas became serious, this office led the industry in water quality preservation measures

Apr. 1963

Construction Technology Institute Co., Ltd. (Kensetsu Giken KK) established

Jul. 1950

Consulting engineer services started in earnest

Feb. 1964

Company name changed to CTI Engineering Co., Ltd. (Kensetsu Gijutsu Kenkyujo KK)

Jul. 1989

Second Mid-Term Management Plan (BIG CTI) formulated

Jul. 1989

CTI Ground Planning Co., Ltd. established

Oct. 1987

CTI Wing Co., Ltd. established

Sep. 1983

Mid-term management policy formulated

From 1991

The Company led the way in nature-oriented river works through activities such as research, review, and guideline development

Mar. 1999

CTI Engineering International Co., Ltd. established

Jun. 1999

Company shares listed on the First Section of the Tokyo Stock Exchange



Manggahan Floodway The Company's first overseas consulting project, awarded exclusively to it by the Philippine government. (1977)



Simulated pyroclastic flow experiment using a miniature model of Mt. Unzen Fugen-dake. (1992)

The Ministry of Construction and Japan Society of Civil Engineers asked CTI Engineering to display this model, and it was covered by the newspapers. Following that, the Company built numerous miniature models.

Aug. 2001

Mid-Term Vision AQUILA 2005 formulated

Apr. 2002

Research Center for Sustainable Societies (Kokudobunka Kenkyujo) established

Jun. 2006

Japan Urban Engineering Co., Ltd. joined the Group

Apr. 2007

Third Mid- to Long-Term Vision PHOOS 2015 formulated

Oct. 2010

Chi-ken Sogo Consultants Co., Ltd. joined the Group

Sep. 2013

CTI Frontier Co., Ltd. established

Feb. 2008

Headquarters for Work Style Innovation of 1,300 People established



Fudo Ohashi Bridge (former name: Yamba Dam Lake No. 2 Bridge)

The Fudo Ohashi Bridge is the world's first PC compound truss extradosed bridge. It features a composite structure that replaces the traditional concrete web with lightweight steel pipe trusses, making it the world's first extradosed bridge to adopt such a structure. (Received the Tanaka Award from the Japan Society of Civil Engineers in 2010)

Apr. 2010

Global Environmental Project Division established

Apr. 2015

CTI Engineering Group's Mid- to Long-Term Vision CLAVIS 2025 formulated

Apr. 2016

Diversity Promotion Section newly set up

Apr. 2023

CTI Engineering Co., Ltd. celebrated its 60th anniversary

Jun. 2017

Waterman Group Plc joined the Group

Jun. 2019

Code of Corporate Conduct revised

Apr. 2021

CTI REED Co., Ltd. established

Jun. 2021

CTI Engineering Group's Mid- to Long-Term Vision SPRONG 2030 formulated

Apr. 2022

Transitioned to the Prime Market of the Tokyo Stock Exchange

Jan. 2023

CTI Ascend Co., Ltd. established



Redevelopment of Ikaho's Stone Step Street The Company redeveloped areas surrounding the stone step street that serves as a symbol of the Ikaho area in order to increase the appeal of this hot springs resort. (Received the Excellence Award in the Urban Spaces Category of the Cityscapes Awards in 2015)

Apr. 2013

Infrastructure Management Division established

Nov. 2015

NISSOKEN ARCHITECTS & ENGINEERS Co., Ltd. joined the Group

Jul. 2015

Environmental Research & Solutions Co., Ltd. joined the Group



Isawa Dam Construction Project In this unprecedented project, construction management work was awarded to the builder and the design consortium. Construction management work was carried out over 10 years from 2003 to 2012. (Received the Technology Award from the Japan Society of Dam Engineers in 2014)

Jan. 2012

Tohoku Reconstruction Promotion Center established

Reconstruction projects implemented in Kamaishi, Onagawa and other locations

Power infrastructure development

High economic growth

Pollution problems

From quantity to quality

Global environmental issues

Quality assurance and improvement

Maintenance and management of assets

Disaster reconstruction

Work style innovation

Major events in society and the civil engineering industry

Aug. 1945 End of World War II  
Sep. 1959 Isewan Typhoon (Typhoon Vera)

Oct. 1964 Tokyo Olympics held  
Opening of the Tokaido Shinkansen

May 1969 Opening of the Tomei Expressway

Mar.-Sep. 1970 Japan World Exposition held in Osaka

Jul. 1971 Japan Environment Agency established

Dec. 1973 First oil crisis

Nov. 1990 The Ministry of Construction (currently, the Ministry of Land, Infrastructure, Transport and Tourism [MLIT]) issued a notification regarding the promotion of nature-oriented river works

Mar. 1991 Japan's asset price bubble burst

Jun. 1991 Volcanic eruption of Mt. Unzen Fugen-dake

Jan. 1995 Great Hanshin-Awaji Earthquake

Jun. 1997 River Act revised  
Development and conservation of the environment were added as one of the purposes of the River Act, in addition to flood control and water use

Dec. 1997 Kyoto Protocol adopted

Jun. 2000 Volcanic eruption on Miyakejima Island

Apr. 2005 Act on Promoting Quality Assurance in Public Works (commonly known as the Quality Assurance Act) enforced

(Emergence of full-fledged technological competition)

Jun. 2005 Three Acts on Landscape and Greenery fully enforced

Jul. 2007 Niigata Chuetsu Offshore Earthquake

Mar. 2011 Great East Japan Earthquake

Dec. 2012 Ceiling panel collapse in the Sasago Tunnel

Apr. 2014 Ordinance and public notice concerning road maintenance and repair established

Sep. 2015 Sustainable Development Goals (SDGs) by the United Nations adopted

Apr. 2019 Labor Standards Act, amended as a result of the Work Style Reform-Related Act, enforced

Feb. 2020 Spread of COVID-19

Jul.-Sep. 2021 Tokyo Olympics and Paralympics held

# Introduction

## The Business and Role of Consulting Engineers

### What Is a Consulting Engineer?

Consulting engineers support their clients by providing comprehensive guidance and advice on all aspects of infrastructure construction. All of us rely on infrastructure to live and work safely, conveniently, and comfortably. Roads, railways, ports, airports, water and sewerage systems, rivers, dams, parks, power supply facilities, communication facilities, waste management

facilities, public utility buildings, structures and various other systems are all examples of infrastructure. In general, infrastructure is created by three main parties: the client who owns the project (often an entity such as a national or local government), the consulting engineer, and the construction company.

### How the Consulting Engineer Fits into the Team

Consulting engineers provide a wide range of services throughout the life cycle of the construction project, including project conceptualization, research, planning, design, construction management, and maintenance management. As the client's technical advisor, the

consulting engineer helps to deliver safe and high-quality infrastructure that the public needs. The consulting engineer creates the designs that construction companies follow when performing construction work.

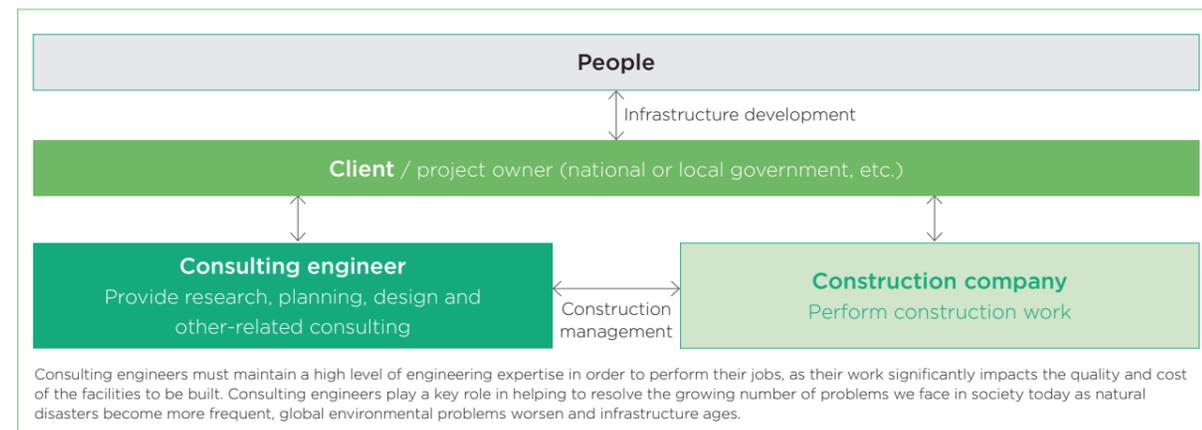


Figure: How the consulting engineer fits into the team

### What Exactly Does a Consulting Engineer Do?

Construction projects proceed in phases, starting with project conceptualization, followed by planning, research, design, construction, and management. In Japan, orders for the design and building processes are placed separately, in principle. Construction companies

handle the building process, while construction-related companies handle the planning, research, and design. Consulting engineers fall under the latter category of construction-related companies.

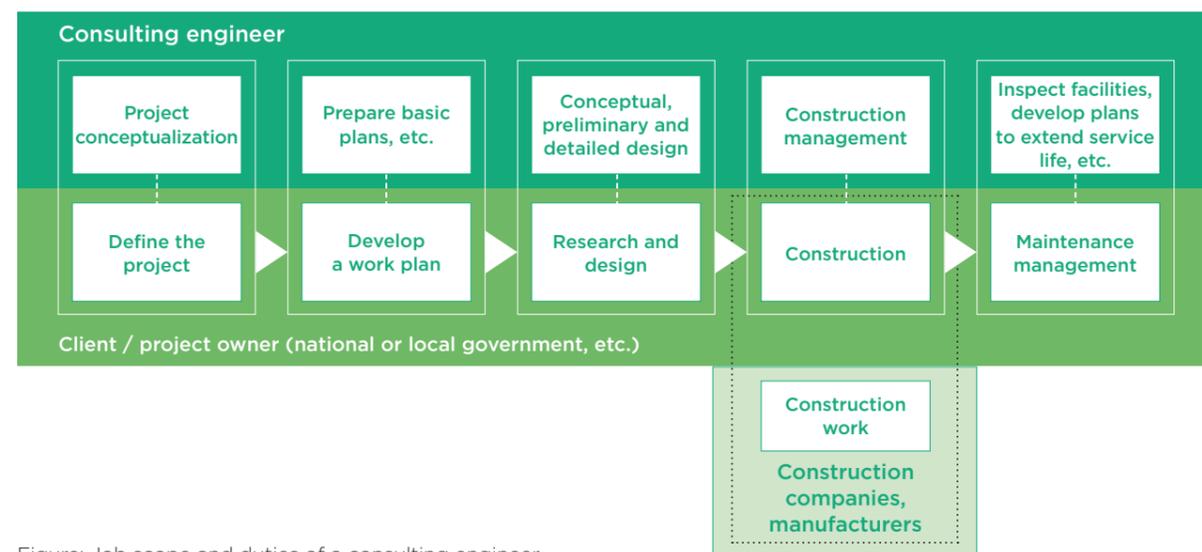


Figure: Job scope and duties of a consulting engineer

### Registration System for Consulting Engineers and Professional Engineers

Businesses must staff an engineering administrator who is certified as a Professional Engineer in accordance with the Professional Engineer Act in order to be registered by the Minister of Land, Infrastructure, Transport and Tourism (MLIT) under the Registration System for Consulting Engineers.

#### What Is the Registration System for Consulting Engineers?—CTI Engineering is Registered in All 21 Technical Disciplines—

The Registration System for Consulting Engineers allows a consulting engineer to be registered with the MLIT if they meet certain requirements in all or some of the 21 civil engineering registration disciplines.

CTI Engineering has Professional Engineers

registered in all 21 registration disciplines.

While consulting engineers are free to conduct business regardless of registration, the CTI Engineering Group believes that its registration as a consulting engineering firm is one of the Company's hallmarks of trust.

#### Requirements and Registration Disciplines under the Registration System for Consulting Engineers

<b>Requirements for registration</b>	<p>(1) For each discipline in which registration is to be obtained, an expert responsible for managing technical matters for services in such discipline (hereinafter, "engineering administrator") must be staffed.</p> <p><b>In principle, the engineering administrator must be a Professional Engineer who has passed the second stage examination required by the Professional Engineer Act in the optional subjects corresponding to each registration discipline and works full time in that discipline.</b></p> <p>(2) A registered entity must have a financial foundation or be financially creditworthy. A corporation must have stated capital of ¥5.0 million or more, as well as equity capital of ¥10.0 million or more.</p>																						
<b>Registration disciplines</b>	<table border="0"> <tbody> <tr> <td>1) River, Sabo, Coastal &amp; Ocean Engineering</td> <td>11) Waste Management</td> </tr> <tr> <td>2) Port, Harbor &amp; Airport Engineering</td> <td>12) Landscaping</td> </tr> <tr> <td>3) Electric Power Civil Engineering</td> <td>13) Urban &amp; Regional Planning</td> </tr> <tr> <td>4) Road Engineering</td> <td>14) Geology</td> </tr> <tr> <td>5) Railway Engineering</td> <td>15) Soil Mechanics &amp; Foundation</td> </tr> <tr> <td>6) Water Supply &amp; Industrial Water Supply Engineering</td> <td>16) Materials &amp; Structures Engineering</td> </tr> <tr> <td>7) Sewerage Engineering</td> <td>17) Tunnel Engineering</td> </tr> <tr> <td>8) Irrigation, Drainage &amp; Rural Engineering</td> <td>18) Construction Planning, Management &amp; Cost Estimation</td> </tr> <tr> <td>9) Forest Civil Engineering</td> <td>19) Environmental Assessment &amp; Management for Construction</td> </tr> <tr> <td>10) Fisheries Civil Engineering</td> <td>20) Mechanical Design Engineering</td> </tr> <tr> <td></td> <td>21) Electrical &amp; Electronics Engineering</td> </tr> </tbody> </table>	1) River, Sabo, Coastal & Ocean Engineering	11) Waste Management	2) Port, Harbor & Airport Engineering	12) Landscaping	3) Electric Power Civil Engineering	13) Urban & Regional Planning	4) Road Engineering	14) Geology	5) Railway Engineering	15) Soil Mechanics & Foundation	6) Water Supply & Industrial Water Supply Engineering	16) Materials & Structures Engineering	7) Sewerage Engineering	17) Tunnel Engineering	8) Irrigation, Drainage & Rural Engineering	18) Construction Planning, Management & Cost Estimation	9) Forest Civil Engineering	19) Environmental Assessment & Management for Construction	10) Fisheries Civil Engineering	20) Mechanical Design Engineering		21) Electrical & Electronics Engineering
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### Who Is a Professional Engineer?

A Professional Engineer refers to "a person who conducts business on matters of planning, research, design, analysis, testing, evaluation or guidance thereof, which require advanced and adaptive expertise in science and technology" (Article 2, Professional Engineer Act).

Professional Engineer is a national certification program administered by the Ministry of Education, Culture, Sports, Science and Technology (MEXT). Professional Engineers have a duty to maintain high engineering ethics and to strive to continuously improve their skills.

The Professional Engineer certification is one of the certifications recognized as a qualifying requirement to work as a supervising engineer or inspection engineer in consulting engineer work. Having Professional Engineers on staff is rated highly when engineers are evaluated as part of proposals and other situations.

CTI Engineering is a group of engineers with more than 1,300 Professional Engineers.\*

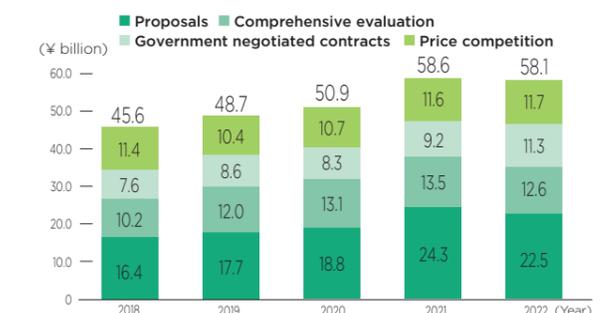
Approximately 50% of CTI Engineering's orders received are for national infrastructure projects ordered by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT). The Company's engineering capabilities

have been highly commended, and it received 77 awards in fiscal 2021 for projects that had been found to have been particularly outstanding that year.

\* Those holding multiple qualifications are counted by the number of qualifications held.

The percentage of orders received through technical competition (proposals and comprehensive evaluation) is also high in terms of orders received by contract method.

#### Orders Received by Contract Method



## Top Message

### Message from the CEO

# We will work tirelessly to make great strides as a Global Infrastructure Solutions Group

Tetsumi Nakamura

Representative Director  
and President, CEO



### Current Business Environment and Business Accomplishments

We have gradually started to see bright signs in the CTI Engineering Group's current business environment both in Japan and overseas.

Following on from the previous year, conditions in the Japanese market remained firm, in response to the Japanese government's efforts to strengthen disaster readiness and mitigation measures, as well as moves to promote stronger national resilience in connection with measures to address aging infrastructure. Overseas, in the Asian and UK markets where the CTI Engineering Group operates, the protracted COVID-19 pandemic began to wind down, leading to the easing of various regulations. Meanwhile, uncertainty has increased as a result of issues such as the Ukraine conflict and worsening inflation. During the COVID-19 pandemic over the past three years, the CTI Engineering Group's business environment, people's values, and work styles have changed dramatically, and at times it has been difficult to steer management in the right direction. However, in order to fulfill our mission as essential workers who support social infrastructure, we have made unceasing efforts to develop infrastructure while giving due consideration to the health of employees.

Under these business conditions, in the domestic

consulting engineering business during the fiscal year ended December 31, 2022, we expanded businesses that will facilitate digital transformation (DX). For example, we provided a service that allows people to easily check for any water-related disaster hazards nationwide, such as flooding and landslides, and developed an AI utilization model to support the proper operation of multiple dams. Additionally, in services for local governments, we conducted field trials of personal mobility and MaaS (Mobility as a Service) in and around Nara Park in November 2022. In services for the private sector, we accelerated the implementation of environmental surveys and assessments related to renewable energy, such as wind power generation. Meanwhile, in the overseas consulting engineering business, we expanded orders received at CTI Engineering International Co., Ltd., which is based in Southeast Asia. Moreover, Waterman Group Plc, which is engaged in public and private works primarily in the UK, achieved growth in its business performance.

As a result of these business activities, the CTI Engineering Group delivered results that surpassed expectations in terms of orders received, sales and profits in the fiscal year ended December 31, 2022. Notably, sales increased for the 10<sup>th</sup> consecutive year, and operating income increased for the 6<sup>th</sup> consecutive year. Four years have passed since I was appointed CEO, and we currently still have many issues that must be solved.

However, I'm relieved that we have successfully dealt with a variety of unforeseen changes in the business environment, including the COVID-19 pandemic, and that we have still produced satisfactory results.

### Progress on the Mid-Term Management Plan and Issues Ahead

The CTI Engineering Group is currently implementing Mid-Term Management Plan 2024, a three-year plan that started in the fiscal year ended December 31, 2022. We have positioned this Mid-Term Management Plan (hereinafter, "the Mid-Term Plan") as the first step to realizing the CTI Engineering Group's Mid- to Long-Term Vision SPRONG 2030. Under this Vision, we aim to make great strides as a Global Infrastructure Solutions Group that contributes to the sustainable development of society by facilitating solutions to myriad infrastructure-related challenges in Japan and around the world. The highest priority of the Mid-Term Plan is growth. In order to achieve growth, we are moving forward with the following four measures.

1. Business expansion by promoting cooperation among Group companies
2. Stable management and improvement of profitability for major Group companies
3. Strengthening Group governance
4. Promotion of sustainability management throughout the Group

Guided by the Mid-Term Plan, CTI Engineering Co., Ltd. (hereinafter, "the Company"), which is the CTI Engineering Group's core company, aims to promote the transformation of its business structure and establish a group of professionals. To this end, the Company is making every effort to realize the definitive achievement of transforming business structure, promotion of reforming production systems, strengthening governance, and promotion of sustainability management.

The Mid-Term Plan's first year has ended, and we are now in the plan's second year. While the CTI Engineering Group has made progress on each of the plan's measures, I feel that progress has been slightly slow with promoting the transformation of our business structure and establishing a group of professionals. Although the Company's core business is related to national public works projects, and it has significant competitive advantages in this area, I would like to broaden our operations to include prefectures and municipalities, and the private-sector market, because these areas have a significant impact on national policies. In the fiscal year ended December 31, 2022, national public works projects, particularly contracted work from the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), continued to increase, so we concentrated management resources in this business. Consequently, we were unable to expand our business to local governments and the private sector as we had hoped. Furthermore, we are still only halfway through our efforts to promote the reform of production systems. Productivity improvement and quality assurance are

crucial to reforming production systems. In terms of productivity improvement, we are working to improve the work efficiency of every consulting engineer, while strengthening human resources, including the recruitment of new graduates. However, we are well aware of how difficult recruitment is at the moment. In terms of quality assurance, this essentially means focusing on preventing human error with even greater care and attention to detail than before. I believe that making steadfast efforts to improve productivity and assure quality will ultimately pave the way for steady improvement in profitability.

In February 2023, we partially amended the Mid-Term Plan. Specifically, we revised our sales and operating income targets upward following our reevaluation of profitability based on an increase in the unit price per order placed and productivity improvement, as well as progress with our concentration on priority fields, such as information provision services and energy.

### CTI Engineering Group's Reason for Being and Driving Force

The Construction Technology Institute (an incorporated foundation), the predecessor of the Company, was established in 1945 amid Japan's postwar recovery, in order to improve the country's construction technology. Ever since, the Company has faced a multitude of social challenges, encompassing rapid economic expansion, pollution problems, technological innovation, internal demand growth, the bubble economy and its collapse, and global environmental issues. The Company has worked to develop infrastructure while overcoming these challenges. Notably, we have supported the advancement of measures to build national resilience as a national government strategy during the last 10 years, including the recovery from the Great East Japan Earthquake and tackling the rising frequency and severity of natural disasters. Furthermore, in anticipation of the CTI Engineering Group's business expansion, NISSOKEN ARCHITECTS & ENGINEERS Co., Ltd., which conducts architectural design, and Environmental Research & Solutions Co., Ltd., which conducts environmental surveys and related operations,



# Top Message

## Message from the CEO

### Valuing employees and contributing group-wide to the Creation of a Safe, Comfortable and Enriching Society



were welcomed into the CTI Engineering Group in Japan, while overseas, Waterman Group Plc of the UK joined the CTI Engineering Group.

Our Business Philosophy at the CTI Engineering Group is "We strive to create a safe, comfortable, and enriching society using world-class technology and expertise." This statement articulates the CTI Engineering Group's reason for being. We are proud of our roles as infrastructure builders, and each member of the Group is driven by a strong sense of mission to create positive change by serving society and people.

The driving force for the CTI Engineering Group in the past and present has always been and will continue to be "technology and expertise." Clearly, people are the ones who create, accumulate, and use technology for the benefit of society. Because we have a business model that creates value through people's technology and expertise, we have many labor-intensive operations. In the growth process, each consulting engineer has been susceptible to the burden of their work, and this has been one serious issue faced by the CTI Engineering Group so far. However, from the perspective of the CTI Engineering Group's sustained growth, we should give priority to providing a productive and comfortable work environment to all employees and making their work meaningful and fulfilling. Due in part to my strong personal commitment to this priority, we have announced the CTI Engineering Well-Being Declaration and Basic Policy on Well-Being. In addition, we have taken various steps to develop an environment where all employees, including consulting engineers, can work in good health and energetically without increasing their work hours. As noted earlier, one of the pillars of the Company's Mid-Term Plan is the promotion of reforming production systems. As stated previously, while this is rarely simple, we are focused on supporting the happiness (well-being) of employees. We are moving forward with work style reforms to provide employees with a variety of work style options so that they can feel a sense of achievement in their work. We are also recruiting and developing human

resources, including proactive recruitment activities such as offering summer and winter internships. In addition, we are revising production systems and developing an environment that harnesses digital transformation (DX), such as the accumulation and use of engineering assets utilizing the cloud. We have also begun personnel system reform, with the aim of reforming the remuneration system and personnel evaluations, and we started to put the new systems into operation in April 2023.

### Toward Realizing a Sustainable Society

Through the sustained development of the CTI Engineering Group through initiatives focused on people's success, we will help to realize a sustainable society. Considering that the development of social infrastructure, which is the CTI Engineering Group's core business itself, has a high social significance, I believe that conducting our core business with integrity and producing solid achievements is how we can make our greatest contribution to society. As a matter of course, we will address disaster prevention and mitigation, as well as climate change and the natural environment, through business and organizational activities based on our Code of Corporate Conduct, which comprises six items such as contribute to the creation of a sustainable society. Besides this, we intend to redouble our efforts to develop infrastructure for regional revitalization in the future. In June 2022, we announced the CTI Engineering Group Challenges for Sustainability as part of our commitment to achieving sustainability through infrastructure development. This summarizes our Challenges for Sustainability Promotion Goals 2030 and 2050 and promotion plan for achieving our targets by 2030, considering discussions in the Sustainability Committee, which I lead as chairperson in my role as CEO. This plan has two parts: the 2030 Net Zero Achievement Plan and the Local Community Sustainability Promotion Plan. It also covers how information will be disclosed and how the governance system will

be structured to ensure successful plan implementation.

In order to achieve carbon neutrality, we will push ahead with energy-saving measures and offsetting measures to reduce greenhouse gas emissions from the CTI Engineering Group's corporate activities to net zero. Moreover, in order to improve the sustainability of local communities, we have announced that we will promote proposals that contribute to sustainability in our consulting services, which are the CTI Engineering Group's core business, and proactively invest in businesses, research and development, and personnel development that contribute to sustainability. One specific initiative based on the CTI Engineering Group Challenges for Sustainability was the establishment of CTI Ascend Co., Ltd. in January 2023. CTI Ascend was established to contribute to regional reconstruction in Soma City, Fukushima Prefecture, an area devastated by the Great East Japan Earthquake, through sustainable businesses such as recycling local resources and utilizing unused facilities. In order to contribute to the reconstruction of areas affected by the Great East Japan Earthquake, the Company has been acquiring whisky

manufacturing technology and cultivating corn on decontaminated farmland since 2020. CTI Ascend was established for the purpose of advancing these activities further. Looking ahead, we will make specific preparations to commence the cultivation of grain corn and manufacturing and selling of whisky made from this grain corn.

In terms of information disclosure, in addition to disclosing information in line with the four pillars of the TCFD recommendations, we will also discuss initiatives related to green infrastructure. With regard to strengthening the relevant governance, we will clearly position the Sustainability Committee, whose chairperson is the Representative Director and President, CEO, within our business management framework. We intend to highly commend activities such as research and technical development, personnel training, and business proposals that deliver major improvements to reducing greenhouse gas emissions, resource recycling rates, reducing water resource usage, preserving ecosystems and maintaining biodiversity, and grant awards and other incentives for these achievements.

## To Our Stakeholders

2023 marks a milestone year that falls on our 60<sup>th</sup> anniversary since 1963, the year when the Company started out as a joint stock company. The CTI Engineering Group's reason for being, as expressed in our Business Philosophy, will remain unchanged in the new era to come. As stated in SPRONG 2030, we will continue to aim to make great strides forward as a Global Infrastructure Solutions Group as we make Group-wide efforts to sustainably increase our corporate value and contribute to the sustainable development of society.

"Have a heart that is big, ambitious, deep, and warm. Listen closely to what others say and use your own mind to think deeply about their words."

These remarks were made by Mr. Sohei Nakayama, former president of the Industrial Bank of Japan. I've adopted these remarks as my own motto. We have entered an era when the social environment is changing dramatically. I hope to be a business leader who can listen closely to the voices of various stakeholders and always use my own mind to think things through, without being swayed by the times.

I also intend to work tirelessly to ensure that the CTI Engineering Group continues to value people and technology and to provide infrastructure solutions essential to building a safe and secure society.

We kindly request your continued understanding and support as we endeavor to drive the CTI Engineering Group's sustained growth and increase its corporate value.



September 2023

中村哲己

Tetsumi Nakamura  
Representative Director and President, CEO

# Top Message

## Message from the Officer in Charge of Finance



### Changes in the Business Environment and Results in the Fiscal Year Ended December 31, 2022

In the fiscal year ended December 31, 2022, the global economy showed signs of brightening as the COVID-19 pandemic began to abate. With regard to the market environment that the CTI Engineering Group finds itself in, domestic business remained as robust as it was in the previous fiscal year on the back of the bolstering of government-led projects for disaster prevention/mitigation and the promotion of measures to build national resilience. Overseas, COVID-19 restrictions were relaxed, but the situation in Ukraine, inflation mainly in Europe and other trends saw continued uncertainty.

Against this backdrop, orders received related to public works projects from the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) continued to be strong in the domestic construction consulting engineering business, as well as many requests from energy companies for environmental surveys and assessments amid growing social focus on renewable energy. The CTI Engineering Group has been diversifying its business portfolio by expanding businesses for local governments and the private sector as part of the transformation of business structure based on Mid-Term Management Plan 2024, and in 2022 this resulted in a significant increase in businesses for the private sector, including the consolidation of Environmental Research & Solutions Co., Ltd.

In the overseas consulting engineering business, the public works division of the Waterman Group Plc, which operates mainly in the UK, performed solidly in addition

to a recovery in sales in the architectural sector, which had temporarily struggled under the COVID-19 pandemic. CTI Engineering International Co., Ltd., which operates mainly in Southeast Asia, also performed strongly.

As a result of the above, orders received increased slightly compared to the previous fiscal year to ¥85.8 billion, sales increased 12.2% to ¥83.4 billion for a 10<sup>th</sup> consecutive year of increased sales, and operating income increased by 14.7% to ¥8.0 billion for a 6<sup>th</sup> consecutive year of increased profit.

### Progress on the Mid-Term Management Plan

We made steady progress on Mid-Term Management Plan 2024 with the fiscal year ended December 31, 2022, being the first year of the plan. In the consulting engineering business, including the CTI Engineering Group, the main source of earnings is consideration for consultancy provided. Consequently, investment in human resources, such as recruitment and training of human resources and enhancement of compensation, is the most important growth strategy, and we invested in human resources by increasing compensation and aggressively hiring. Moreover, under Mid-Term Management Plan 2024 we are implementing a plan to invest ¥3.0 billion over three years in productivity-enhancing technologies that utilize DX (digital transformation), and in R&D investments to expand into new business domains. From a training aspect, we are focusing on IT-related reskilling as well as devoting energies to improving the IT skills of part-time human resources

other than engineers. We are also moving forward on proactive recruitment to alleviate the labor burden placed on each individual. We believe that this strengthens the quality of service and technological capabilities that consultants provide, carries the intent of motivating individuals and improves medium- to long-term corporate value. We are considering continuing to invest in DX promotion and R&D to a level on a par with 2022.

We reviewed our Mid-Term Management Plan 2024 and its targets in February 2023. The background to that was an improved profit margin due to the rising prices of orders received and enhanced productivity and progress made in focusing on priority fields such as information provision services and energy. Taking these circumstances into account, we upwardly revised numerical targets for sales and operating income.

### CTI Engineering Group's Financial Structure and Cash Allocation

The CTI Engineering Group has a labor-intensive earnings structure due to the nature of its business as an engineering construction consultant, and to increase net sales while maintaining improvements in service quality it is necessary to raise productivity per engineer by using DX and other means. Moreover, because CTI Engineering is engaged in highly public businesses such as disaster recovery assistance, it is essential for us to continue to have a stable and sound financial structure to ensure adequate liquidity on hand. Furthermore, we believe that we need to have two- to three-months' worth of net sales as cash on hand for business activities.

Going forward, while maintaining a sound financial structure, the CTI Engineering Group will continue to strive to improve its medium- to long-term corporate value by conducting M&A after carefully examining risks and capital costs to transform its business portfolio based on the Mid- to Long-Term Vision SPRONG 2030 and our Mid-Term Management Plan 2024. We have a certain amount of capital to conduct agile M&A. And we



will consider borrowing to procure funds depending on the size of the M&A.

We will allocate surplus funds other than those required for liquidity on hand and M&A to shareholder returns, including share buybacks. Based on these beliefs, in the fiscal year ended December 31, 2022, net assets amounted to ¥47.7 billion, the equity ratio 64.8% and ROE 13.1%. Regarding dividends, our fundamental stance is to implement stable and continuous dividends. When deciding on the amount of the dividend, we take a comprehensive consideration of matters such as financial positions and the business environment, and distribute profits in accordance with consolidated results as well as aim for a dividend payout ratio of 30% over the medium- to long-term.

### Improving Corporate Value

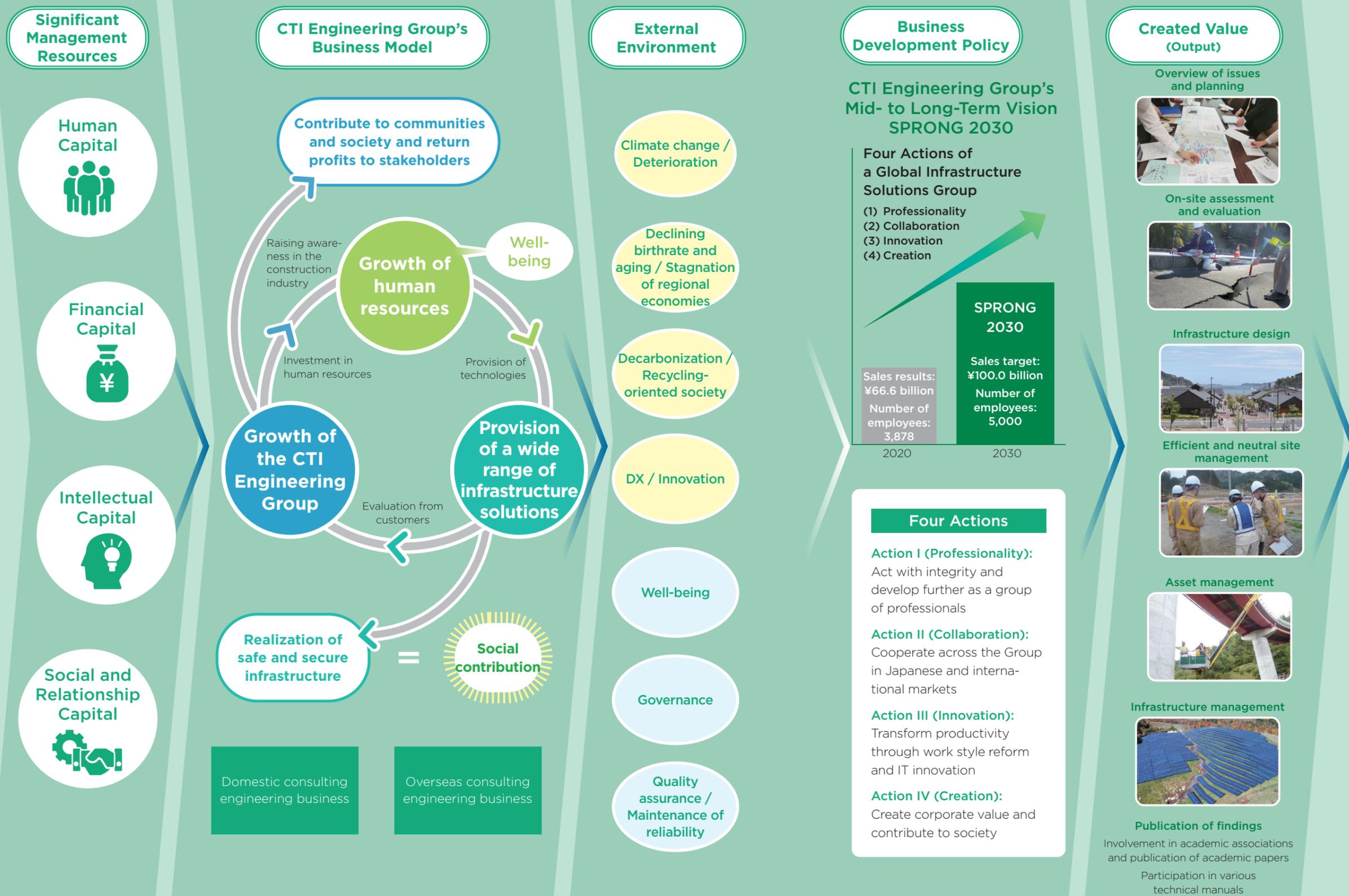
The CTI Engineering Group conducts the business of providing society with safe and secure social infrastructure and our engineers work with a high sense of duty. This attitude displayed by engineers creates a powerful relationship of trust with customers, which forms the basis of the CTI Engineering Group's sustained growth. Looking ahead, while maintaining the sound financial position needed for organic growth and raising productivity, we want to continue management conscious of capital efficiency, including appropriate shareholder returns. In addition, to be further appreciated by capital markets, we will continue to always balance “employee satisfaction,” “customer satisfaction” and “shareholder satisfaction,” raise the CTI Engineering Group's non-financial value and proactively engage in constructive dialogue with shareholders to promote our value. Please have great expectations of the CTI Engineering Group's advance toward improving corporate value.

# CTI Engineering Group's Value Creation Story

## Value Creation Story

### CTI Engineering Group's Evolution into a Global

### Infrastructure Solutions Group



### IMPACT Solving Social Issues

Contributing to the sustainable development of society by facilitating solutions to a myriad of infrastructure-related challenges in Japan and around the world

Realizing a rich future by contributing to the economy, society, and the environment

- Building a safe and secure society
- Building a competitive economy and society and promoting regional revitalization
- Conservation and creation of a good environment
- Global contribution

# CTI Engineering Group's Value Creation Story

Significant Management Resources Human Capital /  
Financial Capital / Intellectual Capital / Social and Relationship Capital

## Human Capital



A diverse group of engineers with advanced expertise and national qualifications, such as Professional Engineers contribute to the sustainable development of society by facilitating solutions to myriad infrastructure-related challenges in Japan and overseas

### Mid- to Long-Term Management Targets

- 1) Strengthen investment in recruiting
- 2) Invest in training professional human resources
- 3) Promote well-being

## Intellectual Capital



Create new value through research and development that responds to business development and on-site needs, utilizing technologies accumulated to date, and advanced technology development with the Research Center for Sustainable Communities (Kokudobunka Kenkyujo) at its core  
Provide new technologies to meet the needs of society and propose solutions to social issues

### Mid- to Long-Term Management Targets

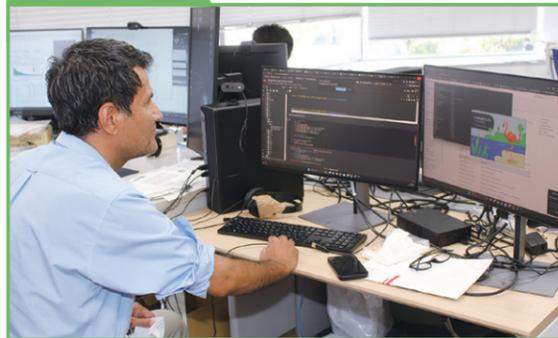
- 1) Invest in new business development
- 2) Invest in new technology development and enhancement
- 3) Invest in technology to improve quality and productivity

### FY2022 Input

- Promote innovations to boost productivity
- Reduce working hours in such ways as strengthening human resources recruitment and ensuring production capabilities

### Outcome

Diverse workforce, etc.

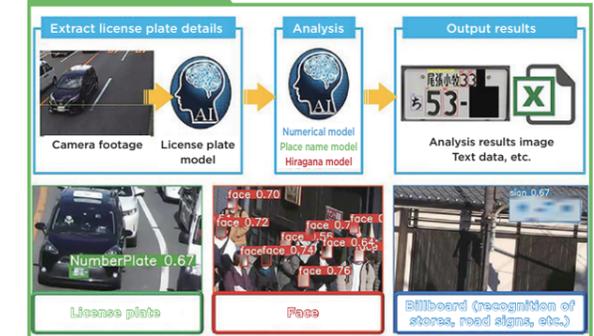


### FY2022 Input

- Formulate basic plan for R&D investment for 60th term (R&D investment budget: ¥1.1 billion)

### Outcome

Improve productivity and results quality through AI



## Financial Capital



Realize growth and shareholder returns by strengthening the financial base and increasing capital efficiency while continuing stable investment in new technology, new business development, and human resource development

### Mid- to Long-Term Management Targets

- 1) Invest in productivity-enhancing technologies that utilize DX and developing new business domains (¥3.0 billion over three years)
- 2) Strengthen financial soundness
- 3) Improve capital efficiency and achieve both growth and shareholder returns

## Social and Relationship Capital



Steadily create value by providing safe and secure infrastructure solution services in Japan and overseas, utilizing customer bases and service networks nationwide and in overseas bases

### Mid- to Long-Term Management Targets

- 1) Strengthen CTI Engineering Group collaboration
- 2) Strengthen relationships with stakeholders

### FY2022 Input

- Strengthen capital policy
- Apply Accounting Standard for Revenue Recognition
- Invest proactively to promote DX

### Outcome

Implement DX promotion results in production sites



### FY2022 Input

- Promote business development utilizing the nationwide customer base
- Strengthen IR meetings, etc.

### Outcome

Expand opportunities for dialogue with stakeholders



# CTI Engineering Group's Value Creation Story

## Significant Management Resources Capital

	The Importance of Capital	Mid- to Long-Term Management Targets		Main Initiatives for FY2022 (Input)	FY2022 Results (Outcome)
<b>Human Capital</b> 	<p>A diverse group of engineers with advanced expertise and national qualifications, such as Professional Engineers contribute to the sustainable development of society by facilitating solutions to myriad infrastructure-related challenges in Japan and overseas</p>	<p><b>Strengthen investment in recruiting</b></p> <ul style="list-style-type: none"> <li>Investment in strengthening new graduate recruitment through expanded internships</li> <li>Investment in career track recruitment</li> </ul> <p><b>Invest in training professional human resources</b></p> <ul style="list-style-type: none"> <li>Investment in a variety of human resource development training including initial professional development (IPD), rank-specific training, overseas training and graduate school programs for working professionals</li> </ul> <p><b>Promote well-being</b></p> <ul style="list-style-type: none"> <li>Aim for the happiness of all employees by establishing safe work environments for a diverse range of employees to be healthy physically and mentally</li> </ul>		<p><b>Promoted innovations to boost productivity</b></p> <p><b>Reduced working hours through strengthened human resource recruitment and ensuring production capacity, etc.</b></p> <ul style="list-style-type: none"> <li>Increased internships</li> <li>Secured career-track recruits through head-hunting, etc.</li> <li>Strengthened collaboration with regional subsidiaries and discovered subcontractors</li> <li>Secured production capacity utilizing the promotion of diversity and new work styles</li> <li>Managed overtime hours and working on holidays rigorously</li> <li>Promoted diverse working styles through IT innovation</li> <li>Considered new personnel treatment system</li> </ul>	<ul style="list-style-type: none"> <li>Increased the number of consolidated employees</li> <li>Acquired Eruboshi certification</li> <li>Saved labor through RPA, AI, etc.</li> <li>Number of recruits (new graduates, mid-career)</li> <li>Improved rate of hiring people with disabilities</li> <li>Diverse human resources thrived</li> </ul>
<b>Financial Capital</b> 	<p>Realize growth and shareholder returns by strengthening the financial base and increasing capital efficiency while continuing stable investment in new technology, new business development, and human resource development</p>	<p><b>Invest in productivity-enhancing technologies that utilize DX and developing new business domains (¥3.0 billion over three years)</b></p> <p><b>Strengthen financial soundness</b></p> <ul style="list-style-type: none"> <li>Operating income margin: 8%, ROE 10% or higher</li> </ul> <p><b>Improve capital efficiency and achieve both growth and shareholder returns</b></p> <ul style="list-style-type: none"> <li>Strategic M&amp;A</li> <li>M&amp;A are fundamentally self-financed, but will borrow if necessary</li> </ul>		<p><b>Strengthened capital policy</b></p> <ul style="list-style-type: none"> <li>Increased dividend (From ¥65 to ¥100)</li> <li>Share buyback</li> <li>Introduced restricted stock</li> </ul> <p><b>Applied Accounting Standard for Revenue Recognition</b></p> <p><b>Invested proactively to promote DX</b></p>	<ul style="list-style-type: none"> <li>Improved the net worth ratio</li> <li>Increased ROE</li> <li>Enhanced the dividend payout ratio</li> <li>Appropriate financial reporting</li> <li>Enhanced operating income margin</li> </ul>
<b>Intellectual Capital</b> 	<p>While utilizing the technologies accumulated to date, create new value through planned research and development that takes business development into account, and short-term research and development that responds to on-site needs, and practically implement advanced technology development knowledge accumulated with the Research Center for Sustainable Societies (Kokudobunka Kenkyujo) at its core</p> <p>Provide new technologies to meet the needs of society and propose solutions to emerging social issues</p>	<p><b>Invest in new business development</b></p> <ul style="list-style-type: none"> <li>Investment in new business development unconstrained by existing boundaries</li> <li>Investment to expand or strengthen service domains</li> </ul> <p><b>Invest in new technology development and enhancement</b></p> <ul style="list-style-type: none"> <li>Investment in independent and collaborative research on highly specialized technology development</li> <li>Investment in the promotion of DX in the construction field, including BIM/CIM</li> </ul> <p><b>Invest in technology to improve quality and productivity</b></p> <ul style="list-style-type: none"> <li>Investment in improving productivity, including production technologies such as AI and RPA, enhanced quality and work environment improvements</li> </ul>		<p><b>Formulated basic plan for R&amp;D investment for 60th term</b></p> <ul style="list-style-type: none"> <li>R&amp;D investment budget ¥1.1 billion</li> <li>Promoted integrated CTI Engineering Group R&amp;D</li> <li>Promoted effective utilization of R&amp;D investment results</li> <li>Proactively communicated publicly about R&amp;D investment results</li> <li>Clarified employee evaluations and rules related to R&amp;D</li> </ul>	<ul style="list-style-type: none"> <li>Increased the number of Professional Engineers</li> <li>Continued expanding the R&amp;D investment amount</li> <li>Implemented diverse R&amp;D results in production sites</li> <li>Increased and expanded the number of external disclosures of investment results</li> <li>Playful Infrastructure and other research publications</li> </ul>
<b>Social and Relationship Capital</b> 	<p>Further solidify the strong customer base through a nationwide customer service network made up of sales offices in all prefectures and steadily create value by providing safe and secure infrastructure solution services globally by building a supply chain through collaboration between the CTI Engineering Group and subcontractors and overseas companies (including the UK, Ireland, Australia and the Philippines)</p>	<p><b>Strengthen CTI Engineering Group collaboration</b></p> <ul style="list-style-type: none"> <li>Strengthen new business development, business domain expansion and production through one-stop service, etc.</li> <li>Utilize advanced domestic technologies and domestic human resources from Japan in overseas operations</li> </ul> <p><b>Strengthen relationships with stakeholders</b></p> <ul style="list-style-type: none"> <li>Expand business processes and services utilizing the customer base</li> <li>Expand appropriate information disclosure and dialogue with stakeholders</li> </ul>		<p><b>Promoted business development utilizing the nationwide customer base</b></p> <ul style="list-style-type: none"> <li>Expanded orders received from municipalities, private sector</li> <li>Expanded orders received in new fields, processes</li> </ul> <p><b>Strengthened IR meetings</b></p>	<ul style="list-style-type: none"> <li>Business alliance with regional consultants (cities of Higashi Hiroshima, Nagano)</li> <li>Established CTI Ascend Co., Ltd.</li> <li>Expanded orders received for information provision services and system developments</li> <li>Waterman Group Plc business awards 2022</li> <li>CTI Engineering International Co., Ltd. received Business Award in 2022</li> <li>2022 Minister's Encouragement Award for Outstanding International Infrastructure Engineer (Minister of Land, Infrastructure, Transport and Tourism Award)</li> <li>Expanded opportunities for dialogue with stakeholders</li> </ul>

# CTI Engineering Group's Value Creation Story

## CTI Engineering Group's Materiality

The CTI Engineering Group's social environment presents a diverse array of issues, such as demands for greater diversity in personnel and stronger corporate governance, in addition to global problems such as climate change and energy. In this social environment, under its Mid- to Long-Term Vision SPRONG 2030, the CTI Engineering Group aims to make great strides forward as a Global Infrastructure Solutions Group that can resolve all sorts of issues related to infrastructure in Japan and overseas, and contribute to the sustainable development of society. To ensure that we take steady steps toward making this happen, we have identified the important issues we should address as our materiality issues.

### Important Issues the CTI Engineering Group Should Address (Materiality Issues)

- |   |  |
|---|--|
| I. Contribute to infrastructure development that supports safety and security               | IV. Create value through digital transformation (DX)               |
| II. Contribute to the sustained development of countries, communities and society           | V. Enhance human resources and achieve well-being                  |
| III. Contribute to a decarbonized and recycling-oriented society and ecosystem preservation | VI. Strengthen corporate governance                                |
|   | VII. Assure and improve the quality of final products and services |

### Materiality Determination Process

#### (1) Extract Social Issues

We created a list of social issues with reference to the SDGs and ISO 26000, particularly issues that are related to contributing to a sustainable society and those related to the Company's management foundation.

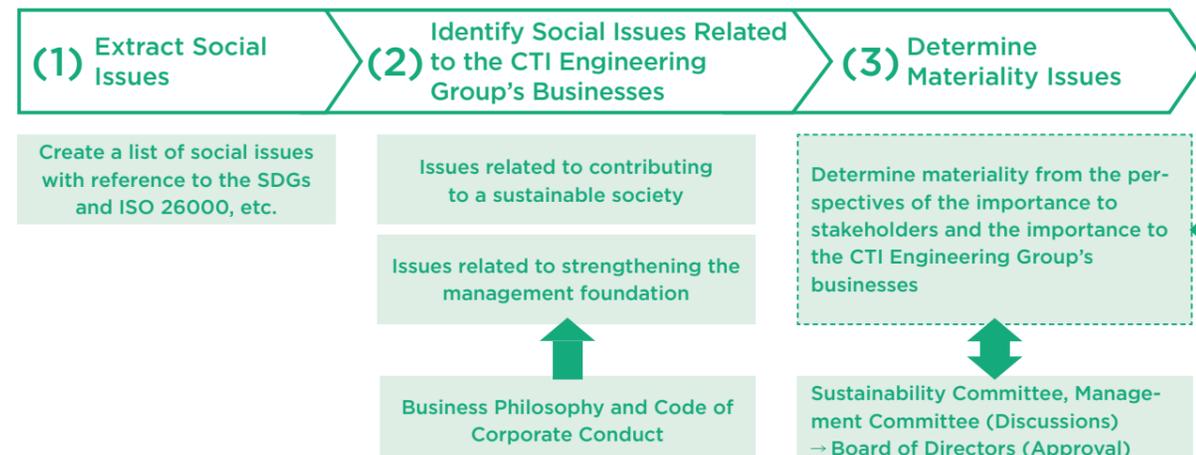
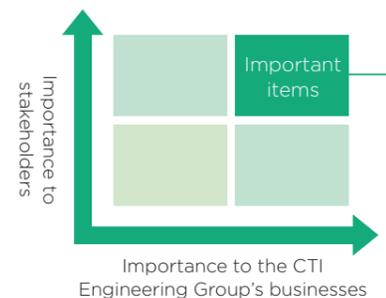
#### (2) Identify Social Issues Related to the CTI Engineering Group's Businesses

Based on the CTI Engineering Group's Business Philosophy and Code of Corporate Conduct, we identified the issues related to the CTI Engineering Group's businesses from among the social issues. The issues related to the CTI Engineering Group's businesses were then organized by classifying them into issues related to contributing to a sustainable society and issues related to strengthening the management foundation.

#### (3) Determine Materiality Issues

We assessed the importance of each issue from the perspectives of the importance to stakeholders and the importance to the CTI Engineering Group's businesses and identified seven materiality issues. The Board of Directors approved these materiality issues following discussions in the Sustainability Committee, the Management Meeting and other forums.

The Sustainability Committee will monitor the identified materiality issues and revise them as necessary through PDCA cycles.



### Main Reasons for Selection of Materiality Issue and Main Initiatives

	Main Reasons for Selection of Materiality Issue		Main Initiatives
Contributing to a Sustainable Society	<b>I. Contribute to infrastructure development that supports safety and security</b> The increasing severity of natural disasters due to climate change and the aging of infrastructure developed during Japan's period of high economic growth, among other challenges, have become social issues. Meanwhile, funding for infrastructure development and the lack of infrastructure developers are also challenges, requiring more efficient and effective infrastructure development. Leveraging its accumulated expertise and experience, the CTI Engineering Group will address issues related to infrastructure development, which supports a safe and secure society.	 	<ul style="list-style-type: none"> <li>Strengthen measures to address national resilience</li> <li>Expand business to public-private partnerships and the private-sector market</li> </ul>
	<b>II. Contribute to the sustained development of countries, communities and society</b> The stagnation of regional economies and maintenance of social infrastructure services have become social issues due to factors such as the declining birth-rate and aging of society. In addition, there are certain regions of the world that are suffering from a lack of infrastructure development, which is necessary for economic development. By harnessing the initiative of revitalizing regions through next-generation mobility and its track record of developing infrastructure in Japan, the CTI Engineering Group will contribute to the sustained development of society in Japan and other parts of the world.	  	<ul style="list-style-type: none"> <li>Expand business to municipalities</li> <li>Promote global business expansion</li> </ul>
	<b>III. Contribute to a decarbonized and recycling-oriented society and ecosystem preservation</b> Realizing a recycling-oriented society with a reduced environmental impact through such means as shifting to sustainable energy has become a global priority. The preservation of ecosystems and protection of biodiversity in bodies of water and on land areas have also become urgent priorities. By leveraging the CTI Engineering Group's experience in consulting services related to environmental analysis and environmental preservation measures, the CTI Engineering Group will contribute to the creation of a recycling-oriented society and the preservation of ecosystems.	   	<ul style="list-style-type: none"> <li>Expand business to the energy and environmental management sectors</li> <li>Promote the CTI Engineering Group Challenges for Sustainability</li> </ul>
	<b>IV. Create value through digital transformation (DX)</b> The CTI Engineering Group aims to contribute to society through technology. Therefore, it is essential for the CTI Engineering Group to stay on top of rapidly evolving technology. The digitalization and innovation of companies are sources of competitiveness, and the use of innovative technologies also helps to solve social issues. The CTI Engineering Group will apply the outcomes of its digital transformation (DX) initiatives to solve social issues, along with putting these outcomes to good use in streamlining business production processes and increasing corporate value.		<ul style="list-style-type: none"> <li>Strengthen investment in technological innovation</li> <li>Expand business to the information services sector</li> </ul>
Strengthening the Management Foundation	<b>V. Enhance human resources and achieve well-being</b> The CTI Engineering Group's greatest management resource is its people. Therefore, it is extremely important for us to hire, train, and revitalize our people. We believe that when employees are happy, it drives their creativity and productivity, which in turn attracts more talented people. For this reason, the CTI Engineering Group regards well-being as its most important challenge, and top management will promote it as a significant issue.	   	<ul style="list-style-type: none"> <li>Promote well-being management</li> <li>Strengthen recruitment and development of human resources</li> </ul>
	<b>VI. Strengthen corporate governance</b> The CTI Engineering Group believes that transparent governance is essential to promoting sustainable reforms under fair business practices. Through proper and proactive information disclosure, we will build relationships of trust with stakeholders. Concurrently, we will ensure fair decision-making and management and implement proactive and defensive governance, with the aim of sustainably increasing corporate value.	 	<ul style="list-style-type: none"> <li>Strengthen risk management</li> <li>Implement management that considers capital efficiency</li> <li>Conduct proper and proactive information disclosure</li> </ul>
	<b>VII. Assure and improve the quality of final products and services</b> The CTI Engineering Group's final products and services are directly related to people's safety and security. Therefore, assuring the quality of final products and services, as well as retaining the trust of customers and other stakeholders, can be described as a lifeline for the CTI Engineering Group's corporate activities. The CTI Engineering Group will endeavor to provide high-quality final products and services as it strives to enhance customer satisfaction, its public reputation, and its technical competitiveness.		<ul style="list-style-type: none"> <li>Raise the sophistication of quality management</li> <li>Promote reform of production systems</li> </ul>

# CTI Engineering Group's Value Creation Story

## Business Model Business Portfolio

### Management Foundation: Supporting Various Infrastructure Development Businesses

The CTI Engineering Group supports investment in major public works by national and local governments (roads and transportation, flood control and irrigation, residential, urban, and environmental maintenance) and various infrastructure through its four business sectors: Water & Land Business Sector, Transportation & Urban Business Sector, Environmental & Social Business

Sector, and Construction Management Business Sector. We also contribute extensively to infrastructure development, including public works projects, by handling all project stages from upstream (project conceptualization, research, and planning) to downstream (design, construction management, and maintenance management).

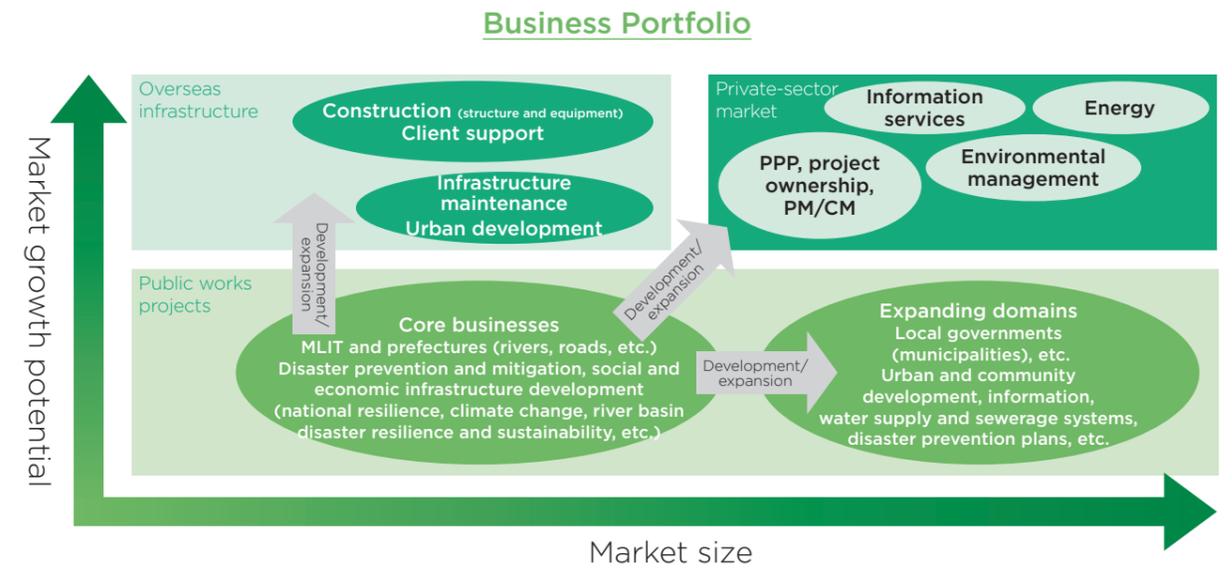
### Development Policy: Expansion of Business Processes, Fields and Services, and Markets

The CTI Engineering Group will expand services covering the entire business process from project conceptualization, research, planning and design of infrastructure development, which have been its original mainstays, to maintenance management and renewal, client support, operation, and management.

Target markets include not only national (primarily the Ministry of Land, Infrastructure, Transport and Tourism [MLIT]) and prefectural public works projects that make up our core business, but also private-sector markets and public works projects of local

governments such as municipalities that lack sufficient civil engineering technical staff.

In overseas markets, we will expand our business through such means as non-ODA projects in Asia (i.e., pivoting away from ODA projects); ODA projects in Africa, the Middle East, South America, and other regions; development of new fields in the UK, Ireland, and Australia using Japanese technology; cooperation and mutual exchange between the Company and Waterman Group Plc; and alliances and M&A with companies that have proven overseas experience.



Business Domain and Field		Market Characteristics	Advantages and Strengths	Business Development Measures	
Businesses to develop and expand	<b>Core businesses</b>	<ul style="list-style-type: none"> <li>■ <b>MLIT and prefectures (rivers, roads, etc.)</b> Disaster prevention and mitigation, social and economic infrastructure development (national resilience, climate change, river basin disaster resilience and sustainability, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>◆ <b>Highly competitive technology</b></li> <li>◆ <b>Consulting engineers registered in all 21 technical disciplines (support for an expansive range of disciplines)</b></li> <li>◆ <b>Utilization of customer network through sales offices located in all 47 prefectures</b></li> </ul>	<ul style="list-style-type: none"> <li>◆ <b>Utilize technologies developed in core businesses (such as project conceptualization, research, planning, design, construction management, and maintenance management)</b></li> <li>◆ <b>Explore opportunities to utilize the CTI Engineering Group's strengths by leveraging sales offices in all 47 prefectures and identifying local needs</b></li> <li>◆ <b>Cooperate and jointly capture orders with the CTI Engineering Group's local subsidiaries and local consultants</b></li> <li>● Strengthen the dissemination of information related to new technologies and businesses</li> </ul>	
	Domestic	<ul style="list-style-type: none"> <li>■ <b>Local governments (municipalities), etc.</b> Urban and community development, information, water supply and sewerage systems, disaster prevention plans, etc.</li> </ul>			<ul style="list-style-type: none"> <li>● The national government's initial budget for annual public works investment has remained at around ¥6 trillion since fiscal year 2015.</li> <li>● Civil engineering work expenses of prefectures and municipalities are approximately ¥12 trillion.</li> <li>● The scale of total financial settlement of public enterprises (water supply, transportation, sewerage) is approximately ¥12 trillion.</li> <li>● Shortage of civil engineers at local governments</li> </ul>
		<ul style="list-style-type: none"> <li>■ <b>Private-sector market</b> PPP, project ownership, PM/CM Environmental management Information services Energy</li> </ul>			<ul style="list-style-type: none"> <li>● Stimulation of private-sector investment through monetary and fiscal policy</li> <li>● Shortage of civil engineers</li> <li>● Growing environmental risk for business continuity</li> <li>● Growing needs for instant and accurate processing of a variety of information, such as risk prediction and assessment</li> <li>● Accelerate initiatives to address carbon neutrality</li> </ul>
Overseas	<ul style="list-style-type: none"> <li>■ <b>Asia</b></li> <li>■ <b>Africa, the Middle East, South America</b></li> <li>■ <b>UK, Ireland, Australia</b></li> <li>■ <b>Business domains and fields</b> Infrastructure development, urban development Construction (structure and equipment), client support</li> </ul>	<ul style="list-style-type: none"> <li>● Continuous increase in nominal construction investment in the Asia-Pacific region</li> <li>● Firm growth in nominal construction investment in major countries in the West Asia and North Africa (WANA) region, including the Middle East</li> <li>● Accelerate measures to address environmental issues in developed countries</li> </ul>	<ul style="list-style-type: none"> <li>◆ <b>Utilization of the latest technologies, systems and engineers in Japan</b></li> <li>● Setting up offices in Asia, including the Philippines and Myanmar, and hiring local personnel</li> <li>● Business expansion in developed countries such as the UK and Australia</li> </ul>	<ul style="list-style-type: none"> <li>● Non-ODA projects in Asia (i.e., pivoting away from ODA projects)</li> <li>● ODA projects in Africa, the Middle East, and South America</li> <li>● Develop new fields in the UK, Ireland, and Australia using Japanese technology</li> <li>● Cooperate and foster mutual exchange between the Company and Waterman Group Plc</li> <li>● Alliances and M&amp;A with companies that have proven overseas experience, among other measures</li> </ul>	

# CTI Engineering Group's Value Creation Story

## Business Model Growth Driver: Continuous Investment

The CTI Engineering Group is proactively and continuously making the necessary investments to drive growth.

The Company proactively invests in measures that will support recruitment of personnel and training of the next generation of workers, such as the acceptance of numerous interns.

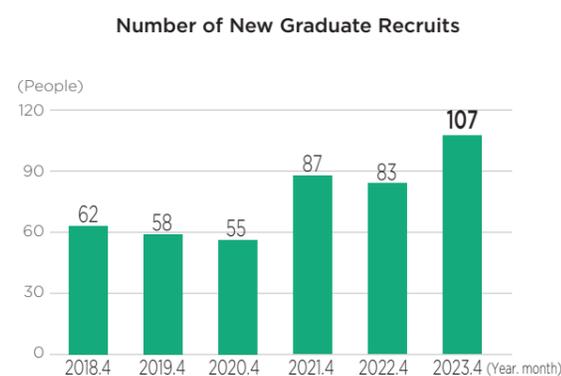
Since 2015, we have invested over ¥900.0 million in R&D each year. In 2023, we will invest ¥1.2 billion in R&D. Of this amount, sustainability investment will account for ¥270.0 million. This investment comprises investment in R&D that will contribute to carbon neutrality, regional revitalization, and environmental protection, thereby helping to create a sustainable society, and investment in human resource development that includes those features.

Furthermore, we invest proactively each year in initiatives that advance digital transformation (DX) related to production system reform.

## Investment in Human Capital

### (1) Strengthening Personnel Recruitment

- New graduate recruitment: Since 2021, we have continuously hired more than 80 new graduates every year. In April 2023, we hired 107 new graduates.
- Internships: In terms of securing personnel, who are important management resources, we have accepted interns for summer and winter internships, focusing on training and educating the next generation of workers. Internships are also offered at each Group company.



### (2) Investment in Human Resource Development [2023: ¥310.0 Million]

- Offering programs such as rank-based training, overseas training, a system of graduate school for working adults, and CTI Engineering Group technical training sessions
- Introduction of a framework for Initial Professional Development (IPD) for young employees
- Offering unique sector-specific training programs for improving specialized technical skills in each technical sector (business sector training)
- Others (IT, diversity, communication, PM, support for acquisition of Professional Engineer certification, support for overseas human resource development, etc.)

### (3) Promoting Reform of the Remuneration System and Well-Being

- Introduction of a new personnel remuneration system in April 2023, with a fully reformed ranking, personnel evaluation, and compensation system, including an average 6% raise in monthly salary.
- Introduction of Motivation Cloud\* as a means of improving employee engagement

\* What is Motivation Cloud?

Motivation Cloud is a cloud-based service that supports efforts to improve employee engagement by assessing an organization's condition using one of Japan's largest databases, which includes over 9,660 companies and 2.89 million individuals.

## Investment in Technological Innovation and Improving Quality and Productivity [2023: ¥300.0 Million]

We provide new technologies to meet the needs of society and propose solutions to social issues.

- Enhancement of flood risk prediction and hydrological prediction such as drought risk
- Promotion of digital transformation (DX) in the construction field in areas such as BIM/CIM
- Promotion of digital transformation (DX) in the maintenance management field in areas such as laser hammering systems
- Others (promotion of technological development in various business sectors)

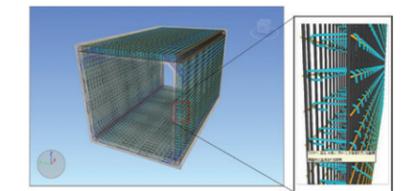


Figure: Automated generation tool for BIM/CIM structural reinforcement model

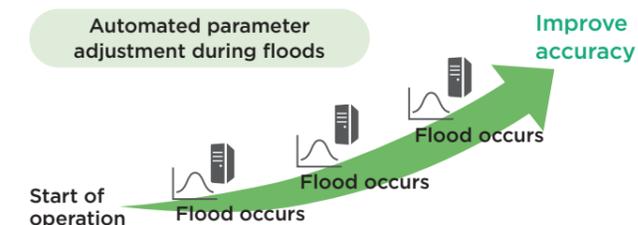
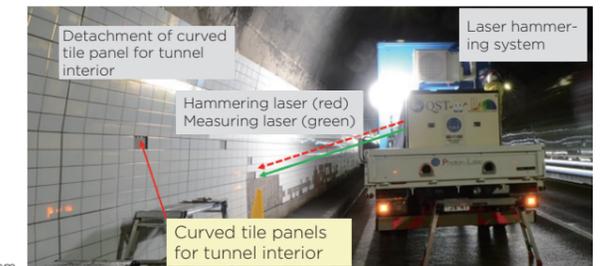


Figure: Process for enhancing the flood risk prediction process through AI (illustration of automated learning function deployment)

Photo: Laser hammering system



## Investment in New Business Development and Business Expansion [2023: ¥190.0 Million]

### (1) Business Expansion in Japan and Overseas Using Core Technologies

- Flood forecasting and information services business, etc.
- Demonstration experiments for on-demand mobility services and flying cars
- Technology for detecting unknown water in sewerage systems
- Expand business domains, including PM, CM, client support, construction management and PPP

### (2) Expansion through Establishment of and Participation in Operating Companies

- Renewable energy-related business
- Agricultural production and consulting business
- Cultivation of corn using sewage sludge as fertilizer and manufacturing of whisky

### (3) Direct Investments Such as M&A

- Strengthening the CTI Engineering Group through M&A (average annual direct investment of ¥750.0 million over the past 10 years)

<Environmental Research & Solutions Co., Ltd. (July 2015), NISSOKEN ARCHITECTS & ENGINEERS Co., Ltd. (November 2015), Waterman Group Plc (June 2017)>



Photo: Cultivation of corn using sewage sludge as fertilizer (CTI Ascend, see page 35)

## Investment in Promotion of Digital Transformation (DX) [2022 Result: ¥990.0 Million]

We are proactively investing in promotion of reforming production systems.

- Establish the DX Strategy Promotion Headquarters and promotion organization and system
- Promote digital transformation (DX) related to production structure, market creation and management and sales
- Develop an IT environment, including establishing a foundation to support smart work and cloud production and strengthening security

## Investment in CSR Activities [2023: ¥40.0 Million]

The corporate business activities of a consulting engineer are directly linked to CSR activities. We are making the necessary investments in initiatives such as external educational support and community activities that leverage our expertise as a consulting engineer.

# CTI Engineering Group's Value Creation Story

## Vision and Strategy

### CTI Engineering Group's Mid- to Long-Term Vision SPRONG 2030

#### Growth Strategy

In June 2021, CTI Engineering formulated the CTI Engineering Group's Mid- to Long-Term Vision SPRONG 2030 to solidify the goals to achieve by 2030, and has started working toward those goals to contribute to development of a sustainable society and respond to drastically changing business and management environments affected by factors such as the increase in large-scale natural disasters due to climate

change, major shifts in work styles triggered by the spread of COVID-19, developments in the Fourth Industrial Revolution, and achievement of SDG targets.

To achieve this vision, the Company formulated the Mid-Term Management Plan for 2024 in December 2021 and is moving forward on various policies such as business structure transformation, human resource development, and business development.

#### CTI Engineering Group's Vision

##### Global Infrastructure Solutions Group

The Company aims to make great strides forward as a Global Infrastructure Solutions Group that can resolve all sorts of issues related to infrastructure in Japan and overseas, and contribute to the sustainable development of society.

#### CTI Engineering Group's Management Target Figures

Management Target Figures	Target year	2030
	Sales	¥100.0 billion (¥72.0 billion in Japan + ¥28.0 billion overseas) (¥60.0 billion from CTI Engineering + ¥40.0 billion from main Group companies*)
	Operating income margin	9% (CTI Engineering 10%, main Group companies* 7%)
	Number of employees	5,000

\* CTI Engineering International Co., Ltd., Waterman Group Plc, Japan Urban Engineering Co., Ltd., Chi-ken Sogo Consultants Co., Ltd., NISSOKEN ARCHITECTS & ENGINEERS Co., Ltd., and Environmental Research & Solutions Co., Ltd.

#### Direction of Business Expansion

The Company will broaden its business by expanding business processes, business fields (services), and markets.

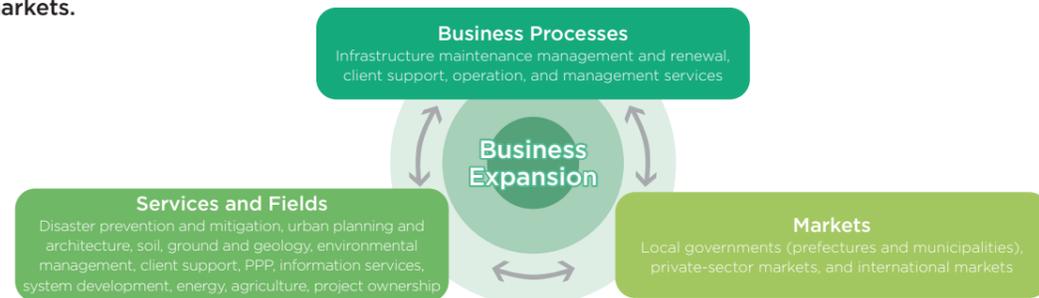


Figure: Direction of business expansion

#### Direction of Business Expansion in Japan

**Expansion of Business Processes** The Company will develop services\* for all business processes related to infrastructure.

\* "Services" refers to infrastructure services provided in various fields, such as rivers, roads, information, and the environment.

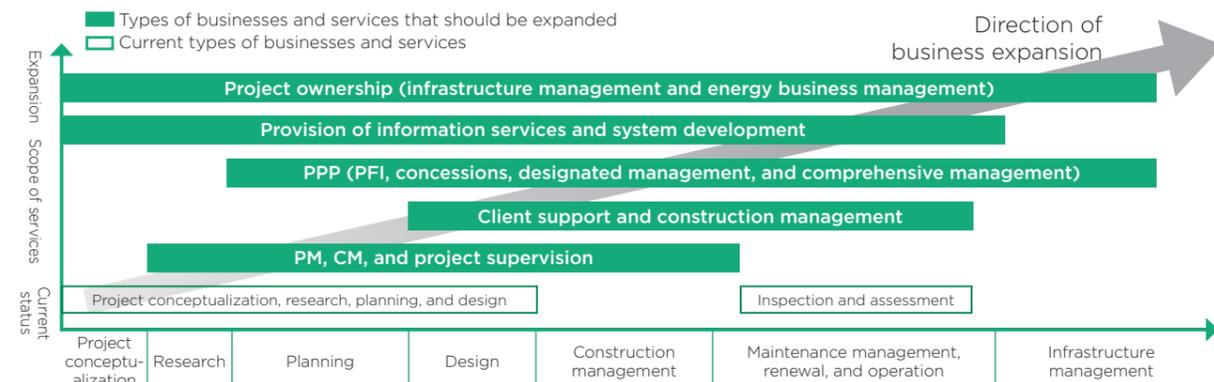


Figure: Main services and business processes to be expanded

#### Domestic Market Expansion

The Company will steadily increase orders received from primary government agencies, such as the Ministry of Land, Infrastructure, Transport and Tourism (MLIT), and expand its business especially to local governments (prefectures and municipalities) and private-sector markets.

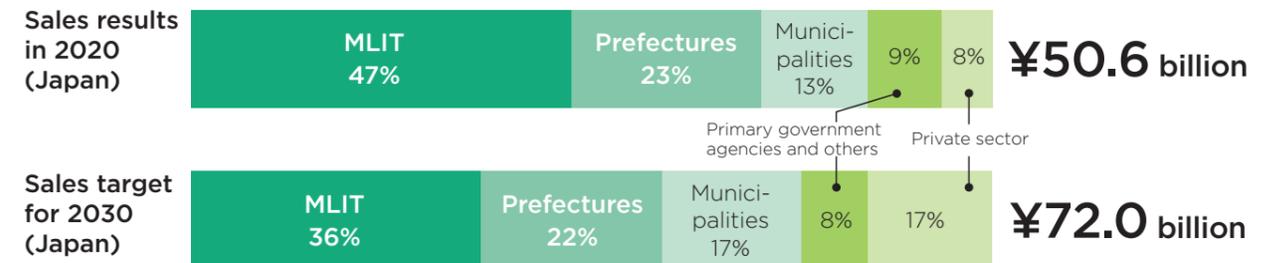


Figure: Sales targets by market segment

\* Results for 2020 do not account for offset amounts between CTI Engineering Group companies. 2030 targets are estimates of sales based on the Group's overall sales in Japan target of ¥100.0 billion.

#### Direction of International Business Expansion

We will promote global expansion in developing and developed countries.

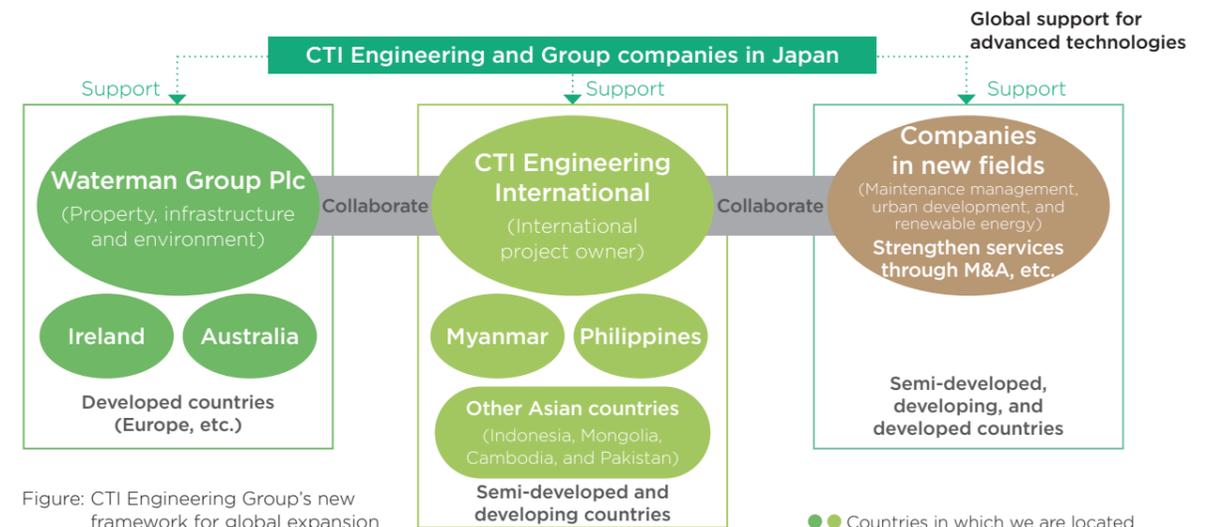


Figure: CTI Engineering Group's new framework for global expansion

● Countries in which we are located

#### Actions to Achieve the Group Vision

We will make strides as a Global Infrastructure Solutions Group through four actions.

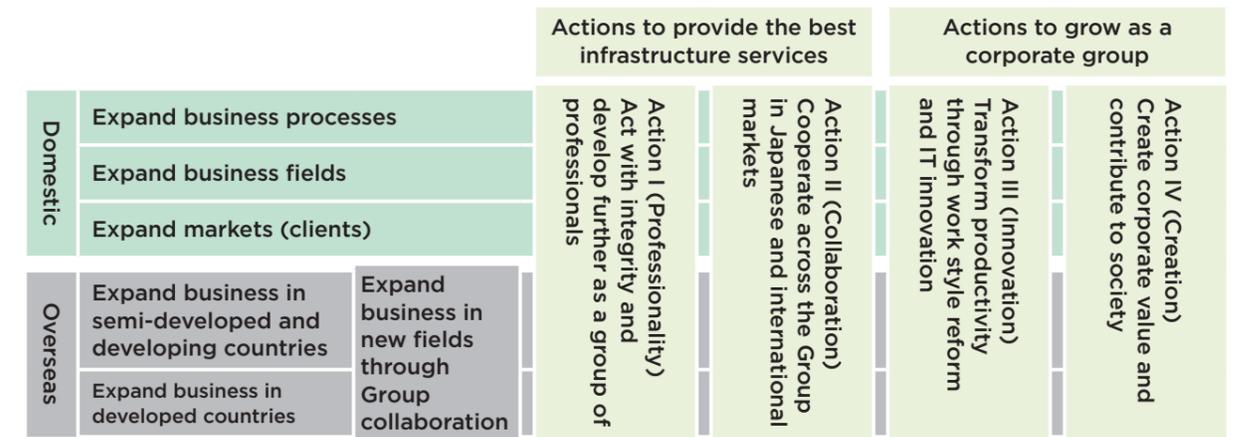


Figure: Actions to achieve the Group vision

# CTI Engineering Group's Value Creation Story

**Vision and Strategy** CTI Engineering Group's  
Mid-Term Management Plan for 2024 (partially revised in February 2023)

## CTI Engineering Group's Mid-Term Management Plan

### Goals of the CTI Engineering Group

We aim to grow as a **Global Infrastructure Solutions Group**, and we aim to grow as a **Group to improve corporate value and contribute to the sustainable development of society**.



\* CTI Engineering International Co., Ltd., Waterman Group Plc, Japan Urban Engineering Co., Ltd., Chi-ken Sogo Consultants Co., Ltd., NISSOKEN ARCHITECTS & ENGINEERS Co., Ltd., and Environmental Research & Solutions Co., Ltd.

### CTI Engineering Group's Management Target Figures

The Company aims to achieve sales of **¥85.0 billion** and an operating income margin of **9%** (operating income of **¥7.7 billion**) at the end of 2024.

#### Group's Management Target Figures

Business expansion	Consolidated sales	¥85.0 billion
	Operating income margin	9%
Commitment to stakeholders	Rewarding and attractive workplaces	Improving employee satisfaction
	Client claims	None
	Field accidents	None
	ROE	10% or higher
	Net R&D investment	¥3.0 billion for 3 years

### Initiatives to Achieve Targets throughout the Group

Business expansion by promoting cooperation among Group companies	Identifying priority businesses and fields, establishment of systems for Group collaboration and promotion of R&D
Stable management and improvement of profitability for major Group companies	Active support from CTI Engineering through collaboration and information sharing, and improved profitability through quality system upgrades, etc.
Strengthening Group governance	Development and subsequent horizontal deployment within the Group of the CTI Engineering Group's Quality Assurance and Safety Management Plan and strengthening of overall Group governance
Promotion of sustainability management throughout the Group	Investment in social issues such as the SDGs and promotion of corporate activities aimed at building a sustainable society, including proposal of green infrastructure

## CTI Engineering's Mid-Term Management Plan

### Goals of CTI Engineering

Aim for promotion of transforming business structure and establishment of a group of professionals.



### CTI Engineering's Management Target Figures

The Company aims for promotion of transforming business structure and establishment of a group of professionals through the mid-term management plan. Through this initiative, we aim to achieve management target figures including sales of **¥55.0 billion**, an operating income margin of **11.6%** and **2,220** employees.



### Action Plan to Achieve Targets (1): Definitive Achievement of Transforming Business Structure

- Strategic expansion of business processes and services
- Efficient Group collaboration
- Building a new organization for expansion
- Improvement of competitiveness to differentiate technologies

### Action Plan to Achieve Targets (3): Strengthening Governance

- Strengthening compliance
- Thorough risk management
- Strengthening quality improvement and the safety management system

### Action Plan to Achieve Targets (2): Promotion of Reforming Production Systems

- Reforming work styles
- Recruiting and developing human resources
- Reformation of the HR system
- Review of production systems to improve productivity and workplace environments

### Action Plan to Achieve Targets (4): Promotion of Sustainability Management

- Promotion through corporate activities
- Proactive proposals
- External publicity to enhance corporate value

#### Targets for Priority Markets for Expansion

The Company will expand its business to local governments (prefectures and municipalities) and private-sector markets, in addition to steadily increasing orders received from primary government agencies including the Ministry of Land, Infrastructure, Transport and Tourism (MLIT).

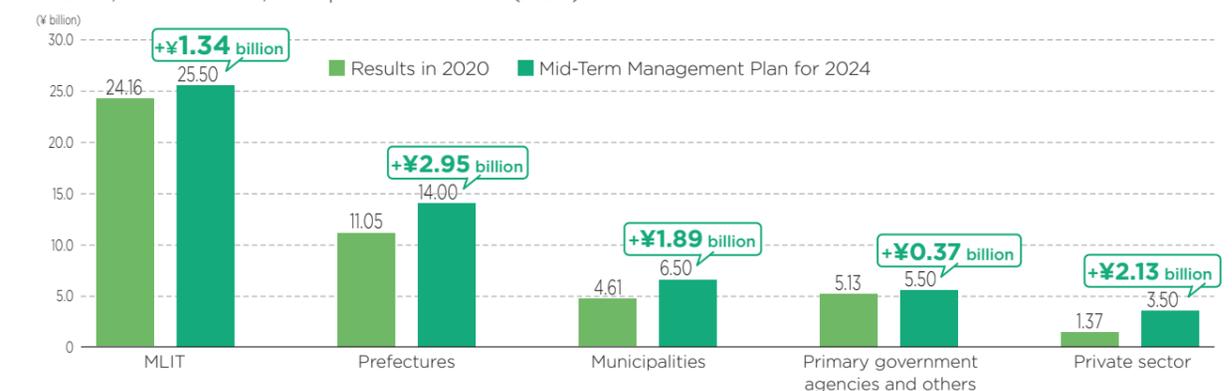


Figure: Results in 2020 and targets for 2024 for sales by market (customer)

# CTI Engineering Group's Value Creation Story

## Value of Business Activities

### Domestic Consulting Engineering Business

The domestic consulting engineering business is based on 4 business sectors divided into 13 technical sectors. Our major Group companies are developing businesses independently in addition to collaborating with the business sectors in charge of our core business fields. Together, they are collaborating to strengthen the business foundation and expand operations.

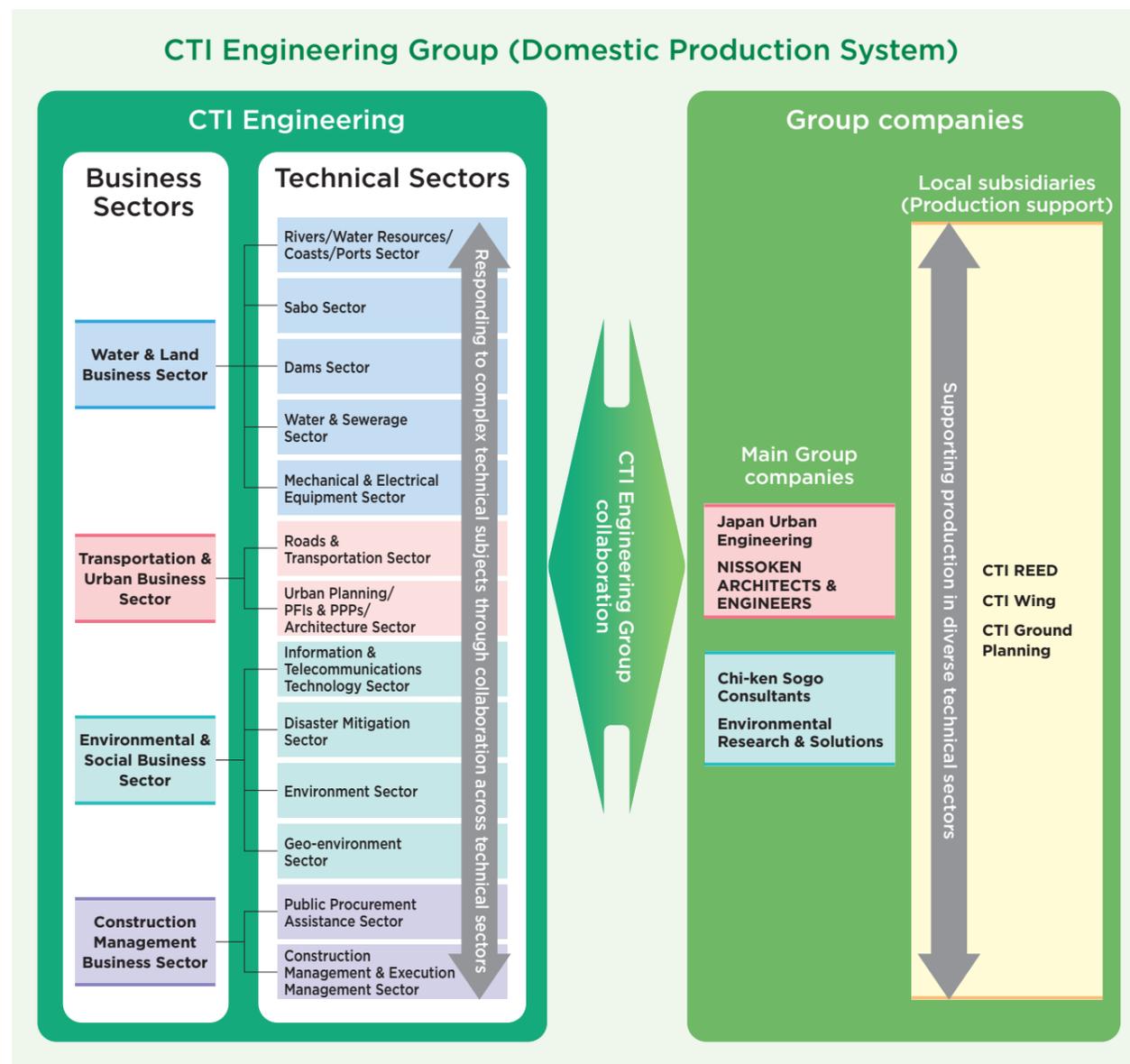
In addition, our local subsidiaries not only support CTI Engineering Group production, which is led by the Company, but also make full use of their production technologies to take orders from outside customers as well.

## Production System

Our 13 technical sectors with advanced expertise support a variety of infrastructure while addressing subjects that require complex technologies through collaboration across technical sectors and among

Group companies.

Furthermore, production support from our local subsidiaries ensures the CTI Engineering Group's high quality and an efficient production system.



## Business Environment

In fiscal 2023, the government's budget for public works projects, disaster prevention and mitigation, and the budget for the promotion of national land resilience are expected to be maintained at the same levels as in the previous year. In addition, river and road maintenance projects designed as measures

against aging infrastructure, and promotion of river basin flood control as a measure for disaster prevention and mitigation, are expected to remain robust. Also, social demands are expected to increase further in areas related to disaster risk, promotion of DX, carbon neutrality and others.

## Basic Strategy

While continuing to provide infrastructure services including project conceptualization, research, planning and design in various fields such as rivers and roads that the CTI Engineering Group has thus far implemented, the Group will focus on business expansion

going forward in terms of business processes, services and fields, and markets.

**<Reference: CTI Engineering Group's Mid- to Long-Term Vision SPRONG 2030 (P.24-25), CTI Engineering Group's Mid-Term Management Plan 2024 (P.26-27)>**

### Business Processes, Services and Fields, and Markets for Business Expansion

Expansion Areas	Targeted Processes, Services and Fields, and Markets
Business processes	Services for maintenance management and renewal, client support, operations, management related to infrastructure
Services and fields	Disaster prevention and mitigation, urban and construction, environmental management, client support, PPP, information services, system development, energy, agriculture
Markets	Local governments (prefectures, municipalities), private sector

## Achievements and Challenges

Our goal under the Mid-Term Management Plan 2024, starting in 2022, was "Growing as a Global Infrastructure Solutions Group." We have engaged in a variety of efforts based on four initiatives set out for the Group as a whole, including (1) Business expansion by promoting cooperation among Group companies; (2) Stable management and improvement of profitability for major Group companies; (3) Strengthening Group governance; and (4) Promoting sustainability management throughout the Group.

Along with the effects of these initiatives, we were also able to secure higher sales and profits in the domestic construction consulting business, backed by the Five-Year Accelerated Measures to Prevent and Mitigate Natural Disasters and Strengthen National Land Resilience promoted by the government. In the fields of existing stock and maintenance management, environmental management, energy, and information services and system development, we secured more orders than in the previous fiscal year.

Based on the status of achievement noted at left and other factors, in February 2023 we revised upwards certain parts of the CTI Engineering Group Mid-Term Management Plan 2024 (including the operating income margin due to rising order unit prices and enhanced productivity, and planned values in the energy and information services and system development fields, where we particularly expect an expansion in orders going forward).

Of the approximately ¥15.0 trillion budgeted for the Five-Year Accelerated Measures to Prevent and Mitigate Natural Disasters and Strengthen National Land Resilience, a cumulative total of about ¥10.0 trillion will be provided in the second supplementary budget for fiscal 2022. As the mid- to long-term budget is uncertain and cannot be counted on, going forward we will continue to steadily expand in the business process and services fields and markets in order to address those risks.

# CTI Engineering Group's Value Creation Story

## Value of Business Activities

### Domestic Consulting Engineering Business

#### ■ For a Prosperous Land Coexisting with Water: Water & Land Business Sector

##### Main Business Domains of the Water & Land Business Sector

Technical Sector	Main Business Domains
Rivers/Water Resources/Coasts/Ports Sector	Disaster countermeasures for floods, tsunamis, and storm surges; river basin disaster resilience and sustainability; watershed hydrology; research, analyses, experiments, planning, design, and maintenance management of rivers and coasts; seismic countermeasures for river management and coastal protection facilities
Dams Sector	Planning and design of new dams and dam upgrades, sediment management, measures to extend the service life of dams, management of dam operation, etc.
Sabo Sector	Disaster research and forecasts; planning, design, and maintenance management of erosion control facilities; non-mechanical measures against sediment disasters
Water & Sewerage Sector	Design of pipes, drains, and related facilities; evaluation of the seismic performance of related structures; design of aseismic reinforcement works; detection of structural degradation; planning to extend service life
Mechanical & Electrical Equipment Sector	Planning and maintenance management planning of mechanical and electric equipment for dams, river systems, water supply and sewerage systems, etc.



##### Shirakawa River Severe Disaster Countermeasures Special Emergency Project

We undertook improvements to a levee along a section of the Shirakawa River between the Ryujin Bridge and the Ozeki Bridge which was damaged during torrential rains in July 2012. The project aimed to minimize changes to the river environment and create a space that area residents could use on a daily basis. We also aimed to raise awareness of disasters by creating an environment in which people could interact with the river daily. In designing the levee, we took into account natural environment conservation elements, development of the overall landscape of the river, and resident ideas and use.

#### ■ Building the Foundation for People's Lives and Social Activities: Transportation & Urban Business Sector

##### Main Business Domains of the Transportation & Urban Business Sector

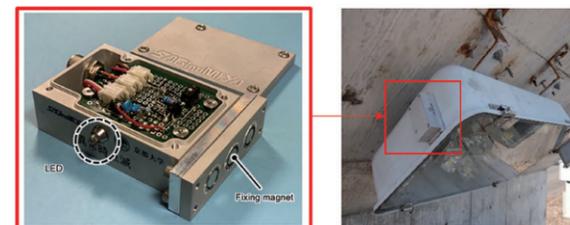
Technical Sector	Main Business Domains
Roads & Transportation Sector	Roadworks assessment, planning, and design; road maintenance management; provision of road traffic management information and establishment of systems for distributing relief supplies in times of disaster; planning, design, extension of service life, and maintenance management of bridges
Urban Planning/PFIs and PPPs/Architecture Sector	Community development that responds to social issues (aging population and declining birthrate, local development, regional improvement, safety and security, and urban landscape), support for commercialization through PFI and PPP, support for urban transportation projects (developing plans for transportation systems and public transportation operation, planning district transportation, and supporting transportation projects for MaaS and automated driving)

[https://www.ctie.co.jp/news/tech/2022/20221221\\_1016.html](https://www.ctie.co.jp/news/tech/2022/20221221_1016.html)  
(Only in Japanese)



See here for details ▶

##### Developed a "Frequenter," a Device for Detecting Installation Abnormalities in Tunnel Lighting Fixtures that Requires no Power Supply



Under Kyoto University's Consortium of Innovative Technique for Infrastructure, we worked with Koken Engineering Co., Ltd., Saginomiya Seisakusho, Inc., Kyoto University, and Hokkaido University to develop a "frequenter," a device for detecting installation abnormalities in tunnel lighting fixtures that requires no power supply and which uses an energy harvester developed by Saginomiya Seisakusho, Inc. The device has been registered in the Ministry of Land, Infrastructure, Transport and Tourism's Inspection Support Technology Performance Catalog (TN030009-V0022). This will make it possible to assist in identifying abnormalities in the installation of tunnel lighting fixtures, and is expected to improve the efficiency of such facility inspections.

#### ■ A Foundation for Various Civil Engineering Fields: Environmental & Social Business Sector

##### Main Business Domains of the Environmental & Social Business Sector

Technical Sector	Main Business Domains
Information & Telecommunications Technology Sector	Planning and design of information systems, electrical facilities, and telecommunication facilities related to infrastructure
Disaster Mitigation Sector	Formulation of regional, urban, and facility disaster prevention plans designed for large-scale, multiple, and complex disasters; formulation of BCP and relief plans for organizations
Environment Sector	Environmental research, planning, utilization, and conservation measures in infrastructure development; planning and project support for the creation of a low-carbon and recycling-oriented society
Geo-environment Sector	Consultation regarding necessary geological conditions for construction of civil engineering structures; proposal of methods to reduce geological risks during various phases of civil engineering projects, including planning, design, construction, and maintenance management



##### Ongagawa River Fishway Park

For this project, we were involved in the design study and implementation design. An approx. 50-meter concrete fishway at the Ongagawa estuary weir was replaced with a roughly 200-meter-long multi-nature river fishway. While the original fishway underwent a sudden change from seawater to freshwater, the multi-nature fishway now allows fish to migrate upstream while acclimating to the change in salinity. In addition, spawning and fry growth can now take place in the fishway, something not possible in a normal fishway. The area has also been transformed into a playground for children. The area surrounding the fishway has been redeveloped as a local park and a prefectural cycling path, and the project covered diverse issues, including flow planning, pictograms for providing information, and universal design studies.

#### ■ A Coordinator that Supports Construction Projects: Construction Management Business Sector

##### Main Business Domains of the Construction Management Business Sector

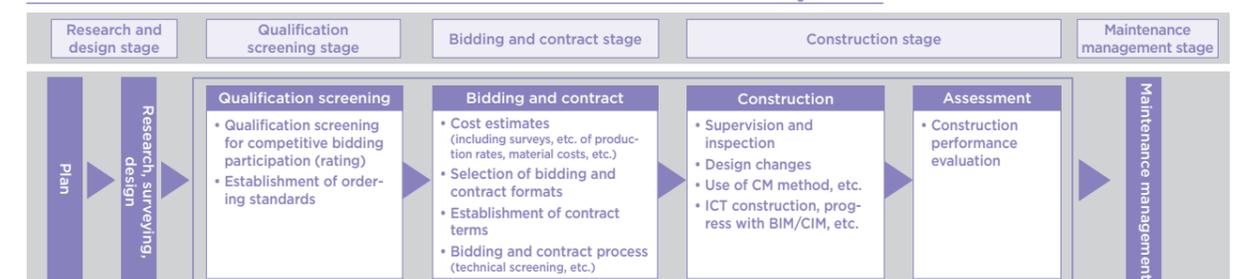
Technical Sector	Main Business Domains
Public Procurement Assistance Sector	Timely provision of the right technologies and professionals to ensure that public works projects are implemented properly and smoothly; post-project assistance including monitoring and evaluation
Construction Management & Execution Management Sector	PM/CM for construction projects (maintaining neutrality in various management activities carried out by project owners at each stage of design, ordering, and execution and making use of technical expertise to act as an agent for project owners); supporting project owners in construction projects (preparing documents essential to the implementation of contracted work, verifying and confirming the construction status, and attending construction inspections, etc.)

##### Yokohama National Highway Office Ken-O Expressway Project Supervisory Work (Part 2)

The objective of this project was to help ensure the smooth development of the Yokohama Ring Expressway southern route project as part of National Route 468 (the Metropolitan Inter-City Expressway), within the jurisdiction of the Yokohama National Highway Office. We supported survey staff in reviewing and managing the progress of the draft project plan, efficiently managing the work required before construction orders were placed, and discussing and coordinating with the relevant agencies.



##### Overview of Public Procurement in Construction Production Systems



# CTI Engineering Group's Value Creation Story

## Value of Business Activities

### Overseas Consulting Engineering Business

We promote overseas business expansion centered around CTI Engineering International in collaboration with Waterman Group Plc.

#### Business Environment

While business in Southeast Asia under the purview of CTI Engineering International has gradually recovered, swinging back after the COVID-19 pandemic, in the UK and Australia under Waterman Group Plc, soaring inflation rates, rising wages and other economic trends

have made for an uncertain environment for orders. Restrictions based on the COVID-19 pandemic have been eased in both the Asian and UK markets, but continued attention needs to be paid to economic trends, including the situation in Ukraine and inflation.

#### Basic Strategy

CTI Engineering, CTI Engineering International, and Waterman Group Plc will work together as one to formulate and systematically develop a global expansion strategy for the CTI Engineering Group to expand worldwide, from developing countries to developed countries.

##### (1) Expansion in developing and semi-developed countries

With CTI Engineering International as a key player, we will promote expansion into non-ODA countries in Asia and ODA countries in Asia, Africa, the Middle East, South America, etc.

##### (2) Expansion in developed countries

With Waterman Group Plc as a key player, we will expand in the public and private sectors, including urban and construction, transportation infrastructure, and environmental sectors in the UK, Ireland, and Australia

##### (3) Collaboration and expansion into new fields

Leveraging the strengths of each of the CTI Engineering Group companies, we will collaborate as necessary to expand into (1), (2), and other developed countries

#### Achievements and Challenges

Large orders were won at CTI Engineering International, based in Southeast Asia, and the performance of Waterman Group Plc, which operates primarily in the UK, expanded significantly. Waterman Group Plc's Public Works Sector in the UK has been impacted by soaring wages due to inflation, but thanks in part to contributions from the private sector architecture sector, including in Ireland and Australia, results significantly exceeded plan in terms of profit as well.

In expanding our overseas business, we believe it is necessary to promote the employment of overseas engineers and the participation in overseas business of engineers from CTI Engineering who work in domestic businesses in order to deploy the latest domestic technology overseas. To do this, it is essential to develop human resources capable of adapting to overseas operations. We will promote the use of overseas human

resource development programs, and accelerate collaboration and cooperation among technical divisions at CTI Engineering, CTI Engineering International, and Waterman Group Plc, enhancing synergistic effects and working to expand business regions and domains.

Additionally, in overseas business activities, unforeseen changes in legal systems in a country or region, or unexpected events involving political and economic situations may have an impact on the CTI Engineering Group's business results. To address these risks, we will work to ensure employee safety by formulating safety manuals for those engaging in overseas operations, flexibly develop our business in response to changes in overseas markets, and strive to reduce the risk of nonpayment or bad debts through rigorous credit management.

#### Awarded 2022 Minister's Encouragement Award for Outstanding International Infrastructure Engineers (Minister of Land, Infrastructure, Transport and Tourism)

An employee of the Company was awarded a 2022 Minister's Encouragement Award for Outstanding International Infrastructure Engineers from the Ministry of Land, Infrastructure, Transport and Tourism (MLIT). This award certifies the achievements of engineers who have worked on overseas infrastructure projects, while also giving special recognition to particularly outstanding engineers. The Minister's Encouragement Award is given to young (under 40 years of age), outstanding engineers who have potential for future success. This award was presented in recognition of our employee's achievements in the Republic of Indonesia and the Republic of the Philippines, where he was engaged in the "FY2021 Smart JAMP (Feasibility Study on the Introduction of an Evacuation Action Promotion System in ASEAN)."

#### Comment by Awardee: Go Ozawa of the Water Management & Research Division at the Tokyo Head Office

Said project was carried out in collaboration with CTI Engineering International, and involved studies of the need to deploy disaster prevention information collection systems and flood forecasting and warning systems.

Since joining the Company, I have consistently pursued my vision of becoming an engineer who can perform anywhere, both at home and overseas. I am deeply moved to have finally achieved this vision after 17 years.



## Expansion in Semi-Developed and Developing Countries: CTI Engineering International

### East-West Road Rehabilitation Project (National Highway 70) in the Islamic Republic of Pakistan

This project involved the construction, funded by Japanese ODA (yen loan), of an 11.5-kilometer-long section of National Highway 70, an important trunk road connecting Quetta, Balochistan Province in western Pakistan and Multan, Punjab Province in the east. The road is located in steeply mountainous region with an elevation difference of 600 meters, and consists of earthwork sections with 99 curves in two places as well as bridge sections.

CTI Engineering International was responsible for detailed designs and construction supervision. By

adopting slope disaster prevention technology developed in Japan and other techniques, the project was made more resilient to natural disasters. Combining the advantages of weather-resistant steel and traditional local construction methods shrank both construction costs and construction time, while also reducing maintenance management and environmental impact.

This project received the Grand Prize of the Fiscal 2022 5th Japan Construction International Award (Minister of Land, Infrastructure, Transport and Tourism Award).



Curved steel box girder bridges built on steep slopes



Road disaster prevention measures using the artificial slope stabilization method

## Expansion in Developed Countries: Waterman Group Plc

### Promoting a Shift to a Circular Economy

Edenica, a circular economy-focused commercial building development project, offers an outstanding user experience that utilizes the latest design technology while at the same time optimizing energy efficiency and slashing embodied carbon. As part of this project, Waterman Group Plc's Sustainability Team is piloting the use of Materials Passports, which are circular economy-boosting digital data sets that record the key characteristics of materials and components in products and systems.

Materials Passports are data sets that record the characteristics of construction materials and other components, and are designed to support contemporary usage and future recovery and reuse of materials. These data make it possible to reuse materials both

during a building's operation and at the end of its useful life, converting used materials into valuable resources and reducing waste.

At the Association for Consultancy and Engineering (ACE) Awards, Edenica won Best Net Zero Project in recognition of the project's potential to promote materials recycling across the entire construction environment. The project has also captured a Platinum rating under WiredScore, the world's only internationally recognized digital connectivity rating scheme for real estate.



Materials Passports, data sets that use tags affixed to construction materials, etc. to record their characteristics



Use in design of Materials Passports data



Commercial building construction plan for Edenica utilizing Materials Passports

# CTI Engineering Group's Value Creation Story

## Sustainability ESG (Environment)

### CTI Engineering Group Challenges for Sustainability

The CTI Engineering Group positions sustainability as one of the basic concepts in the Code of Corporate Conduct, which serves as the Group's standard for business, and made infrastructure development that supports a sustainable society its core business. In order to achieve sustainability through infrastructure development, the CTI Engineering Group proposes new value that contributes to simultaneously realizing

local disaster prevention, environmental conservation, and regional revitalization through co-creation by diverse entities and the skillful utilization of the power of nature.

- ① Challenges in consulting services
- ② Challenges to promote sustainability in society

### CTI Engineering Group Sustainable Challenge Promotion Plan

#### 1. The CTI Engineering Group's Aims

##### ① Challenges for Sustainability Promotion Goals 2030

As a medium-term goal through 2030, the CTI Engineering Group aims to achieve net-zero greenhouse gas emissions from business activities.

##### ② Challenges for Sustainability Promotion Goals 2050

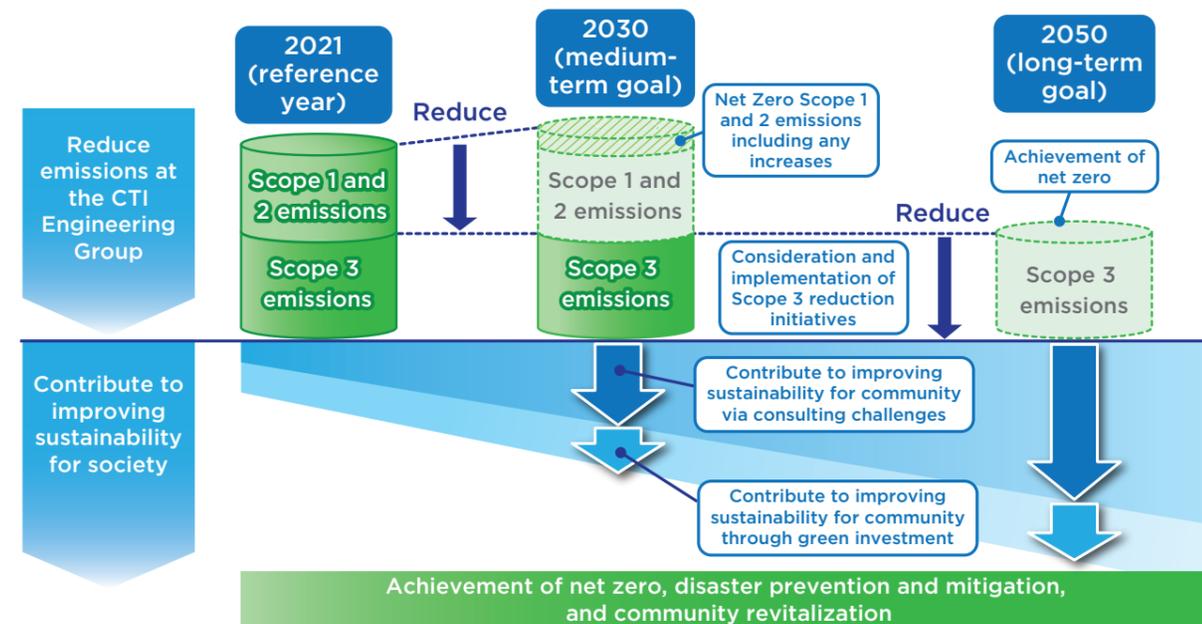
As a long-term goal through 2050, we aim to achieve net-zero greenhouse gas emissions, including in our own supply chain.

Throughout both of these periods, in addition to pursuing proposals that contribute to sustainability in the

CTI Engineering Group's consulting services, we will contribute to improving the sustainability of communities by proactively investing in businesses, research and development, and human resource development that contribute to sustainability.

#### The CTI Engineering Group is building sustainable communities and a sustainable society

- ① As a constituent of communities and society, we will achieve net zero in our own activities
- ② We will use Group technologies to build sustainable community and society



#### 2. Status of Initiatives

##### ① Achieving Carbon Neutrality for the CTI Engineering Group

In order to reduce the CTI Engineering Group's greenhouse gas emissions, we have promoted energy conservation activities such as turning off lights during lunch breaks at Group company offices. However, due to the increase in the number of employees and the accompanying expansion of floor space, greenhouse gas emissions were 4,790 tons in 2021, but in 2022 we

reduced emissions by 339 tons to 4,451 tons. Going forward, we will aim to further reduce greenhouse gas emissions through a variety of efforts, including performing energy-saving diagnostics to understand the specific conditions at each office, switching to LED lighting, and introducing next-generation vehicles.

##### ② Contributing to the Sustainability of Communities

We have established a sustainable investment block within our R&D investment program in order to develop technologies aimed at improving the sustainability of communities. In 2022, 32 R&D investments were chosen, including ongoing investments, 12 of which were defined as the sustainable investment block, and

54.8% of the research budget block was selected.

Additionally, in our consulting services, starting this fiscal year we are incorporating the provision of proposals that contribute to the sustainability of communities into our quality and environmental management system.

Category	Outcome	Outcome		Notes
		2021	2022	
Achieving carbon neutrality for the CTI Engineering Group	The CTI Engineering Group's greenhouse gas emissions	4,790 tons	4,451 tons	
Contributing to the sustainability of communities	Reduction in greenhouse gas emissions due to green business investment	651 tons	803 tons	Results of Kamaishi mega solar project
	Percentage of sustainable investment blocks in R&D investment	—	12 out of 32 (54.8% of budget)	R&D began in 2023

#### The CTI Engineering Group: Contributing to community restoration through sustainable projects

In January 2023, we established CTI Ascend Co., Ltd. in Soma City, Fukushima Prefecture, a city affected by the Great East Japan Earthquake of 2011. This company's aim is to contribute to restoring the community through sustainable projects, including recycling local resources and utilizing idle facilities.

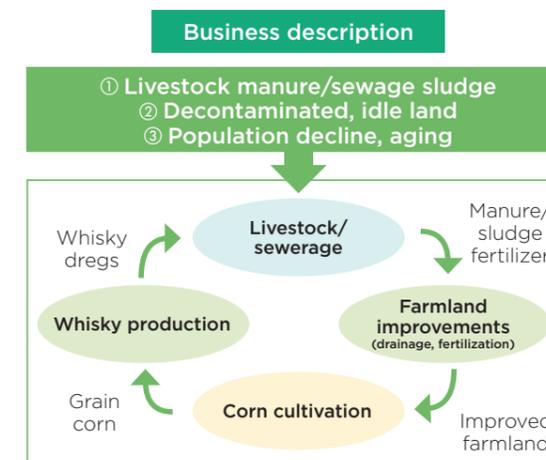
CTI Ascend is a company that aims to contribute to communities using sustainable methods, such as agriculture, processing and sales that reuse resources and the reuse of waste materials, to address issues such as the decline in the number of farmers, and the increase in idle land and unused facilities, which are issues that have become pronounced in

impacted disaster-stricken areas in the wake of the Great East Japan Earthquake, as well as addressing the issue of sludge treatment in sewerage projects.

In Soma City, Fukushima Prefecture, the company aims to grow corn grains using sewage sludge as fertilizer on decontaminated farmland, and then produce and sell whisky using the cultivated corn grain. The company plans to use an abandoned school building in Soma City to produce the whisky.

The company aims to contribute to the restoration and revitalization of the region by building sustainable businesses that recycle resources, such as using sewage sludge as fertilizer and whisky dregs for livestock feed and fertilizer, as well as by implementing projects that utilize idle land and abandoned school facilities.

CTI Engineering and CTI Ascend have concluded an agreement on comprehensive collaboration with Soma City to work together on a "sustainability businesses centered on grain corn cultivation and whisky production and sales."



# CTI Engineering Group's Value Creation Story

## Sustainability ESG (Environment)

Amid the urgent need to combat climate change on a global scale, the introduction of renewable energy is being promoted in Japan with the aim of achieving carbon neutrality (a decarbonized society) by 2050.

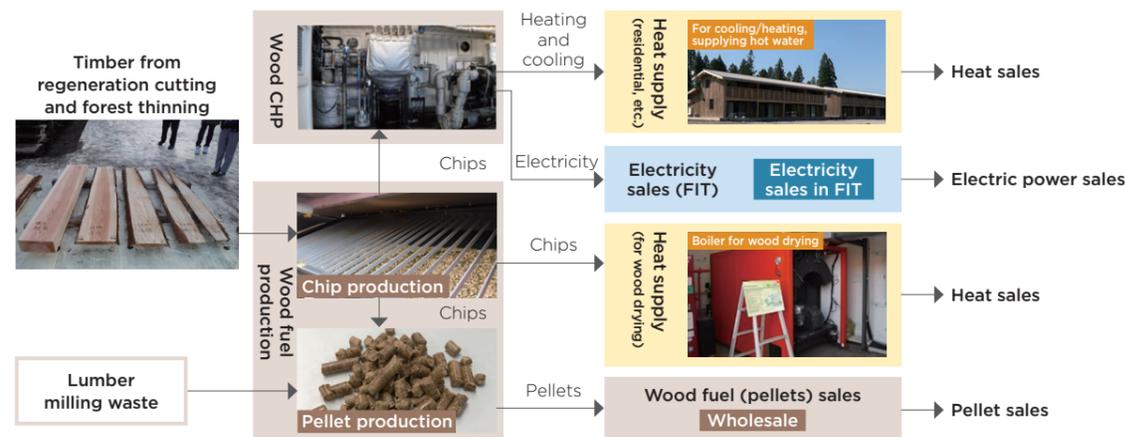
In April 2022, we established the Energy Business Promotion Office to serve as the nucleus of our efforts aimed at promoting business development in energy-related fields, participating in the energy business as a business operator, and providing operational support. Going forward, we will accelerate the roll-out of our energy business while leveraging the know-how of each CTI Engineering Group company.

### Participation in a Biomass Energy Project Utilizing Local Forest Resources: Kami Town, Miyagi Prefecture

We have invested in Vesta CHP Co., Ltd., a company that engages in the biomass energy business utilizing forest resources in communities, and we are participating in Vesta CHP's projects. The VESTA Project, which started as a founding business, strives for coexistence and circulation, and aims to manufacture and sell wood fuel (pellets) in collaboration with local forestry companies and to provide heat and electricity to homes using wood fuel, making this an energy business that serves as a leading model in Japan for

achieving "local production for local consumption" of wood resources.

Aiming to create sustainable communities, there are growing needs for everything from project construction to actual implementation, especially among local governments with hilly and mountainous areas rich in wood resources. The know-how gained through this project will meet these needs, and by expanding such projects nationwide we will contribute to building a sustainable society.



#### Sustainavillage Naruko

A group of eco-friendly houses that use combined heat and power generation as a demonstration site for the VESTA Project, which aims for "coexistence and circulation." It strives to realize a sustainable lifestyle with a system that uses woody biomass generated from local forest resources.



Sustainavillage Naruko's exterior and interior

### Participation in a Solar Power Project: Kamaishi City, Iwate Prefecture

With the aim of decarbonizing society, we are working on activities including renewable energy facility development projects, smart communities, and projects to build hydrogen-powered communities.

In order to introduce renewable energy, we founded Kamaishi Naranokidaira Solar Power Generation Co., Ltd. (Tadakoecho, Kamaishi City), which is engaged in the solar power generation business. The solar farm is approximately 20,000 m<sup>2</sup> in size, with an output of 1,500 kW, and it began generating power in December 2016. This solar farm generated 1,620,000 kWh of

power in 2022, which is enough to power approximately 300 homes assuming four people per house.



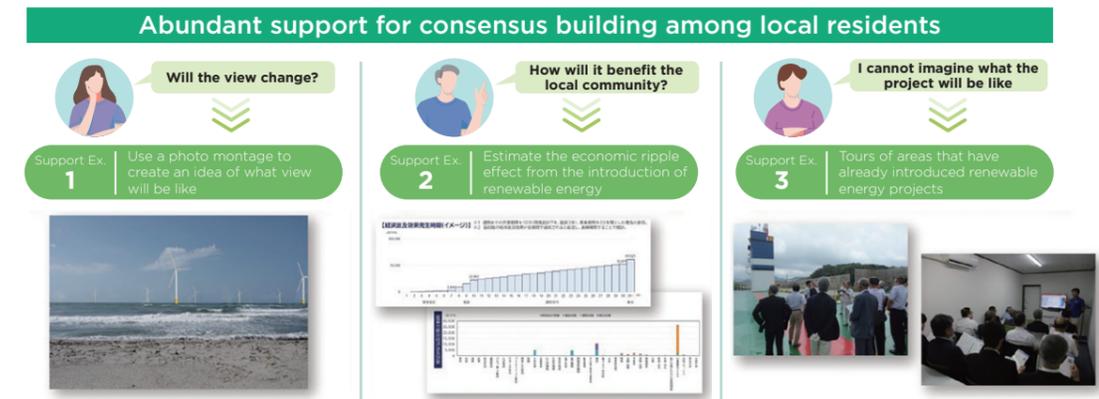
Kamaishi Naranokidaira Solar Plant

### Participation in Offshore Wind Power Projects

We are actively involved in the renewable energy business, and support private power generators, municipalities, and other entities by providing environmental impact assessments, business feasibility studies, and by preparing related materials. Offshore wind power projects based on the Act on Promoting the Utilization of Sea Areas for the Development of Marine Renewable Energy Power Generation Facilities involve relationships with local communities spanning approximately 30 years, from the research and development stage to construction, and finally to power generation.

In addition, since offshore wind power projects are large in scale, if a variety of local industries can be involved, these projects can have a significant economic effect on the local area.

In order to achieve carbon neutrality in 2050, the introduction of renewable energy will be promoted both domestically and internationally. Utilizing our abundant know-how, we will provide comprehensive consulting services ranging from studying local introduction policies including zoning, surveys, planning, design, and support for consensus building.



#### Operational Case Study: Study About Offshore Wind Power Projects and Promoting Understanding

Ichikikushikino City, Kagoshima Prefecture, is promoting green renewable urban planning combining energy and industrial revitalization, such as promoting the introduction of renewable energy into industrial parks and establishing a municipal power producer and supplier. We have conducted a variety of research studies on the expected effects and impacts of offshore wind power in the city, taking advantage of the abundant wind resources off the coast of Ichikikushikino City.



Image of what an offshore wind farm would look like from a main scenic viewpoint

### Creating a Future in Which Children Can Live Energetically

According to a survey by the Organization for Economic Co-operation and Development (OECD), approximately 30% of the children in Japan feel lonely, a significantly higher percentage than in other countries. One of the reasons for this is that there has been a dramatic drop in the places in which children can play outdoors, and along with that, there has also been a significant decline in opportunities for children to experience nature, opportunities which lead to physical and mental growth. On the other hand, when developing infrastructure that includes playground areas, the reality is that elements from a child's perspective, such as the mental and physical development benefits of the play experience there, are not taken into consideration.

We performed research based on the recognition

that a thorough discussion is needed about the nature and utilization of waterfront spaces from the perspective of children, and published a book summarizing the results of this research. In the book, we propose "playful infrastructure,"\* and explain the ideal form of playful infrastructure, focusing on "waterside," which is one of the play spaces that children especially love, and we made recommendations about the connection between urban development and waterside spaces.



\* Playful infrastructure refers to adding elements of "playful learning," in which children learn and grow on their own through play, to "infrastructure," which forms the foundation for people's lives and industrial activities, and represents the social foundation that fosters children's play and learning.

Waterside Playful Infrastructure that Fosters Self-Learning Among Children through Play (Published June 2022, edited by the Research Center for Sustainable Societies (Kokudobunka Kenkyujo)) (Only in Japanese)

# CTI Engineering Group's Value Creation Story

## Sustainability ESG (Social)

### Human Resources Policy

#### 1. Our people are our capital

Our goal is to contribute to the creation of a safe and enriching society through the actions of each and every employee. In other words, our greatest capital is our people. We aim to be a company where all employees are highly aware of this and strive for self-improvement toward their own goals, and backed by strong organizational support, are able to demonstrate their full potential.

#### 2. Integrity is our core value

Since our founding, we have built a corporate culture of integrity by respecting humanity and valuing their independence and freedom. This corporate culture encourages us to serve local residents and clients in good faith and be diligent in our approach to technology. In keeping with this, we aim to increase the vitality of our employees and become a healthy, relaxed, dynamic, and open company.

#### 3. We aim to become professionals of societal development

Our employees aim to become professionals in "creating a safe, comfortable, and enriching society." To this end, we must acquire highly specialized skills and knowledge (specialized technical skills), develop the ability to apply them in practice using the most optimal methods and means (skill application or engineering design ability), and maintain a high level of professional awareness, including understanding the professional environment and complying with laws and regulations (professional ethics). We believe that only by doing these things will we be able to become a company

trusted by our clients, local residents, and other stakeholders. This is the basic image we have of our employees and engineers as professionals, and we have established a variety of career development support programs and training programs to foster such professionals in a variety of fields and duties.

#### 4. We seek out these people

In order for us to continue making appropriate proposals in an increasingly sophisticated, complex, and uncertain socio-economic environment, our people must possess the initiative to forge their own paths with a sense of purpose and to keep improving themselves, the flexibility to respond to various situations and changes, the adaptability to communicate with diverse stakeholders, and a sense of responsibility that allows them to be aware of their own positions within teams and fulfill their roles as team members. We seek out people who have such qualities and attitudes, and who understand and agree with our Human Resources Policy.

#### 5. The power of teamwork and placing the right people in the right jobs

Placing the right people in the right jobs in order to fully leverage each employee's aptitudes and abilities—we consider this to be the fundamental principle of human resource utilization and organizational management. We aim to manage our organization in order to produce synergy through the division of roles and teamwork, so that "1 + 1 = 3" when each individual is able to fully demonstrate his or her strengths.

### Well-Being at CTI Engineering

We are committed to well-being at CTI Engineering encompassing health management, diversity & inclusion, and employee growth. Accordingly, we have established the CEO's Declaration and CTI Engineering

Basic Policy on Well-Being. With this, we are advancing various initiatives targeting the happiness of our employees as a significant management issue.

#### CTI Engineering Well-Being Declaration

At CTI Engineering Co., Ltd., people are our greatest management resource. On the basis of our Business Philosophy of "We strive to create a safe, comfortable and enriching society using world-class technology and expertise," we believe that all of our diverse employees should be able to fulfill their roles in the Company, work with enthusiasm while fully demonstrating their abilities, and grow with a sense of purpose. We believe that this will lead to our further growth as a company and to the creation of a sustainable

and prosperous society.

In order to achieve this, we need to provide an environment where employees can work with peace of mind, and all of our employees must be in a state of well-being or happiness, in which they are healthy both physically and mentally.

We hereby declare that we have established the CTI Engineering Basic Policy on Well-Being with the aim of achieving the happiness of all of our employees, and that we will promote various initiatives necessary to achieve this aim.

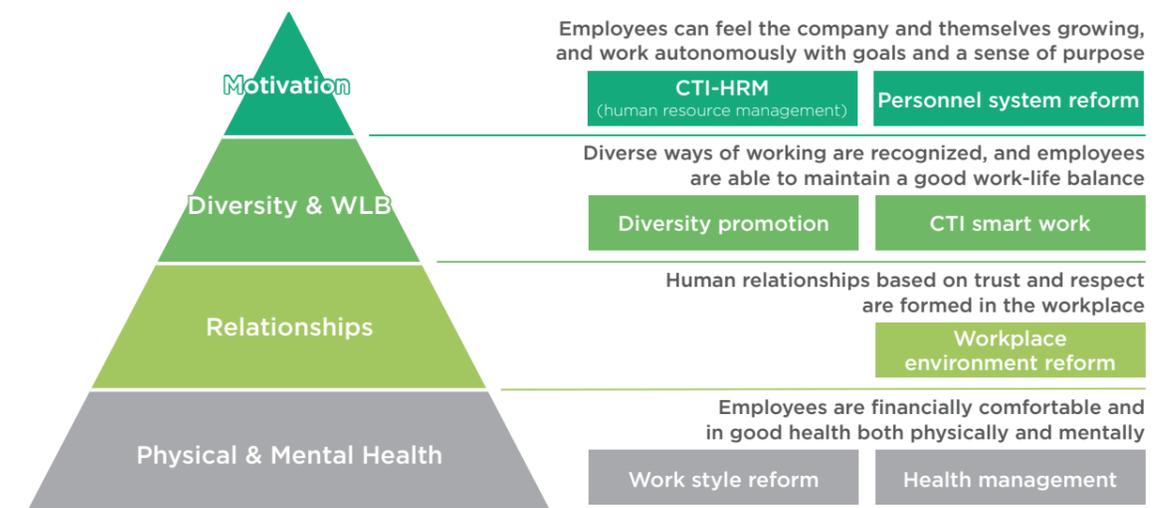
Tetsumi Nakamura  
Representative Director and President, CEO,  
CTI Engineering Co., Ltd.

### CTI Engineering Basic Policy on Well-Being

As a company that contributes to society through technology, our greatest management resource is our people. Therefore, it is essential for us to invest in hiring, training, and revitalizing our people. When employees are happy, it drives their creativity and productivity, which in turn attracts more talented people. For this reason, we regard well-being as our most important challenge and will promote it as a significant management issue.

- (1) Create a state of mental and physical health
- (2) Create a work environment based on trust and respect
- (3) Build a system that accepts diverse work styles and enhances work-life balance
- (4) Foster a corporate culture in which employees feel their own growth and work autonomously with goals and a sense of purpose

#### <CTI's Vision for Employees' Well-Being and Initiatives>



### Reform of Personnel Treatment System

In April 2023, the Company introduced a new personnel management system with a completely revamped job grade, performance review, and compensation system including an average 6% increase in monthly wages.

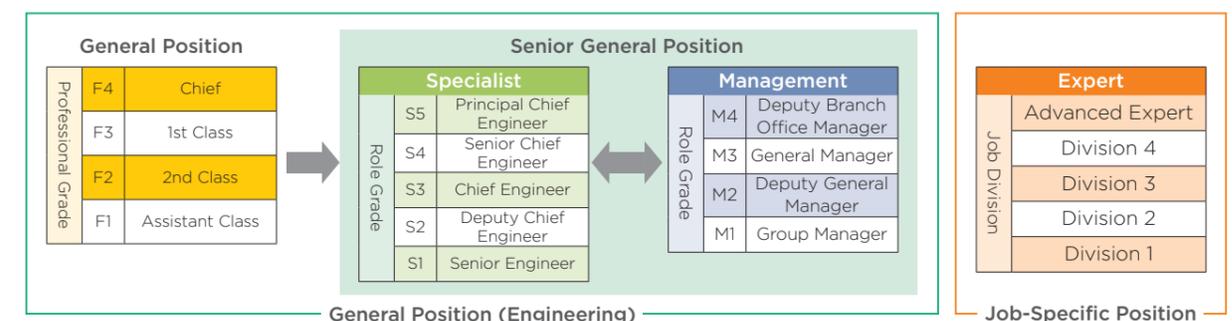
Based on our unique human resources policy where "our greatest capital is our people," we aim to be a company where all employees strive for self-improvement toward their own goals, and backed by

strong organizational support, are able to demonstrate their full potential. Also, we have designated "transforming HR systems" as one of the action plans in our Mid-Term Management Plan covering 2022 to 2024. Going forward, we will continue to strengthen our human resources by investing in human capital, with the goal of enhancing our employees' autonomous growth and engagement.

#### 1. Job Grade System

We revised our seniority-based treatment of personnel hitherto, and newly introduced a job grade system that treats employees in senior general positions in a manner that is commensurate with the magnitude of

their roles. In addition, we reorganized specialized occupational groups into job-specific positions to facilitate fair treatment.



# CTI Engineering Group's Value Creation Story

## Sustainability ESG (Social)

[Key Points]

- For senior general positions, the system aims to enable employees to take on promising management positions at an early date while continuing to actively participate as specialists by promoting their development in both management and specialist directions.
- For engineering specialists, the system has established the position of Chief Engineer, which is the same rank as a General Manager, and strengthened the career path to becoming an executive-level Principal Chief Engineer.
- For job-specific positions, the system incorporates the concept of job-based employment, establishing job divisions according to the characteristics and level of difficulty of the job, and clarifies job descriptions to encourage non-permanent employees to take on such roles.
- To recruit and retain outside personnel to handle highly specialized areas where in-house personnel development is difficult, we have established an Advanced Expert job division for job-specific positions.

### 2. Performance Review System

For general positions, we will continue to use a job performance grading system as a stage focused on development. For engineering roles in particular, we put into full operation a performance review system linked to the Initial Professional Development (IPD)

system to promote the growth of globally competent engineers with a broad outlook and perspective, and enable them to promptly acquire Professional Engineer certification.

[Key Points]

- To promote effective skill development, we will create career roadmaps clarifying the skills that need to be developed for each job grade based on the IPD system.
- We will determine promotions using assessments of abilities that are based on career roadmaps, and are separated from single-year business results, which are affected by market conditions. This will enable talented employees to be promoted at an early date.
- We will promote growth through training offerings linked to career roadmaps, the IPD supporter system, and so forth.

### 3. Compensation System

The compensation system discontinues seniority-type age-based pay, while increasing compensation for important roles, resulting in an average 6% increase in monthly wages for employees overall. Also, we introduced a framework for bonuses for senior general positions that is more closely linked to performance by expanding the range of fluctuation for bonuses.

Moreover, we are raising monthly starting salaries

for new graduate employees (general positions) from April 2024 by ¥13,000 from the current levels to secure talented personnel.

	Currently	After Increase
Graduate school graduates	¥275,000	¥288,000
University and "KOSEN" (colleges of technology) advanced course graduates	¥266,000	¥279,000

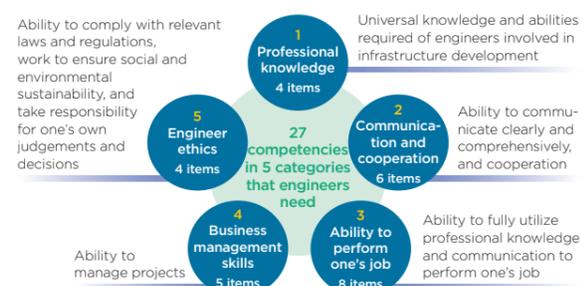
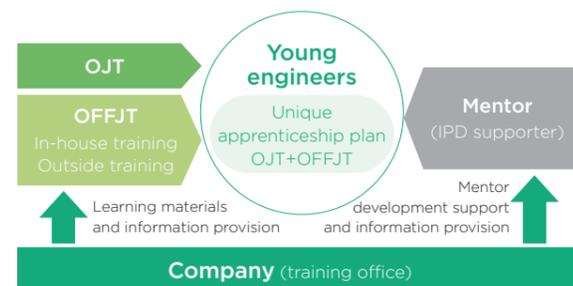
## Initial Professional Development (IPD)

With society and technology undergoing significant transformation, nurturing Professional Engineers to be leaders in consulting engineering with competencies outside the specialized field of engineering, such as broad perspectives, interests, internationality, leadership, communication skills, management, and ethics, has become a pressing task.

To speed up the growth of young engineers and foster engineers with the competencies necessary to succeed internationally, we started a trial of an IPD

system from fiscal 2022 with an eye to utilizing IPD in developing the abilities of young engineers. Based on the results of the trial, we began full-scale operation of the IPD system in April 2023.

As for competencies that young engineers should acquire, we have established our own unique 27 skill development items in 5 categories, taking into consideration the standards set by the International Engineering Alliance (IEA) and the characteristics of construction consultant business.



## Training and Programs

Based on a fundamental understanding that "human resources are our single greatest management resource," we aim to develop professionals who can practically apply highly specialized technical skills using the best means and methods. We actively invest

Training and Seminars	Systems and Support						
<ul style="list-style-type: none"> <li>• New recruit training</li> <li>• Training for new mid-career recruits, etc.</li> <li>• Rank-based training</li> <li>• Follow-up training one year after joining the Company</li> <li>• General Manager training</li> <li>• Group Manager training</li> <li>• Discipline-specific training</li> <li>• CTI Engineering Group technical workshops</li> <li>• Overseas HR development training</li> </ul>	<ul style="list-style-type: none"> <li>• Women's career conference</li> <li>• Business management training</li> <li>• Communication training for young employees</li> <li>• One-on-one meeting training</li> <li>• Life plan seminars</li> <li>• Compliance training</li> <li>• Information security training</li> <li>• IT literacy training, etc.</li> </ul>						
	<ul style="list-style-type: none"> <li>• New recruit support system</li> <li>• Professional Engineer certification support system</li> <li>• Investment system for business launch support</li> <li>• Graduate school admission support</li> <li>• e-learning video distribution, etc.</li> </ul>						
Hours of training per person	<table border="1"> <thead> <tr> <th></th> <th>KGI 2030</th> <th>2022 result</th> </tr> </thead> <tbody> <tr> <td></td> <td>25h</td> <td>24.6h</td> </tr> </tbody> </table>		KGI 2030	2022 result		25h	24.6h
	KGI 2030	2022 result					
	25h	24.6h					

in human resource development, including through a Professional Engineer certification support system and graduate school for working adults. Currently, over 1,300 engineers and 70 PhD holders are actively contributing at the Company.

### Number of Professional Engineers

\* CTI Engineering (non-consolidated)

Number of employees with Professional Engineer qualifications (as of August 2023)	
* Holders of multiple qualifications are counted by the number of qualifications held.	
Mechanical Engineering	5
Electrical & Electronics Engineering	24
Civil Engineering	862
Water Supply & Sewerage	55
Environmental Engineering	13
Agriculture	7
Forest	5
Fisheries	10
Industrial Engineering	3
Information Engineering	14
Applied Science	33
Environment	38
Engineering Management	311

### Average age of Professional Engineers who have passed the second stage examination (20 disciplines + Engineering Management)

	FY2021	FY2022
Entire CTI Engineering Group	37.6 (53 people)	37.9 (65 people)
CTI Engineering Co., Ltd. (non-consolidated)	36.9 (44 people)	37.6 (57 people)
Nationwide average*	42.5 (2,659 people)	42.8 (2,632 people)

\* Number who passed the test in parenthesis ( )  
 \* Source: Statistical information for the second stage examination of the Professional Engineer, The Institution of Professional Engineers, Japan website

## Diversity Promotion

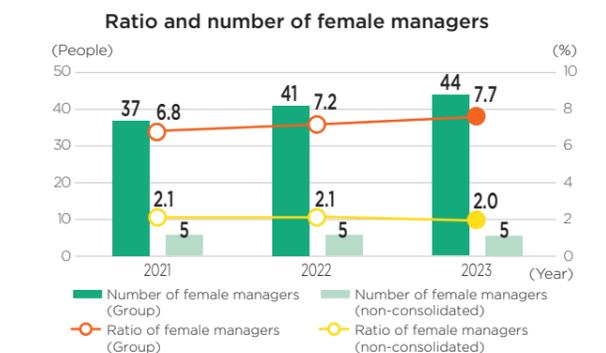
Within a society marked by a declining working-age population and amid rapid globalization, promoting diversity is essential in order to survive as a growing company. Having diverse employees, which means those with many ways of thinking and values and those with various conditions, work actively and contribute to the Company or society is the ideal of a consulting engineer company responsible for infrastructure development.

We accept diverse ways of working, and have various systems and initiatives in place to improve work-life balance.

- Promotion of CTI Smart Work, a new way of working independently of location and time
- Flexible work system that accommodates diverse work styles
- Promotion of Diversity & Inclusion to support the career development of diverse employees
- Benefits that improve employees' work-life balance

Number of non-Japanese employees (as of January 1, 2023)/ratio	26/1.40%
Number of employees with disabilities (as of June 1, 2023)/ratio	54.5/2.26%
Ratio of rehired employees (past three years)	85.7%

\* CTI Engineering Co., Ltd. (non-consolidated)

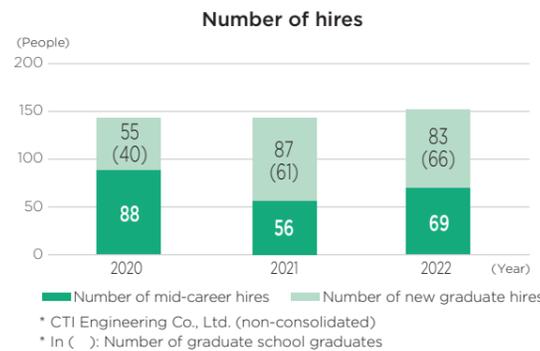


# CTI Engineering Group's Value Creation Story

## Sustainability ESG (Social)

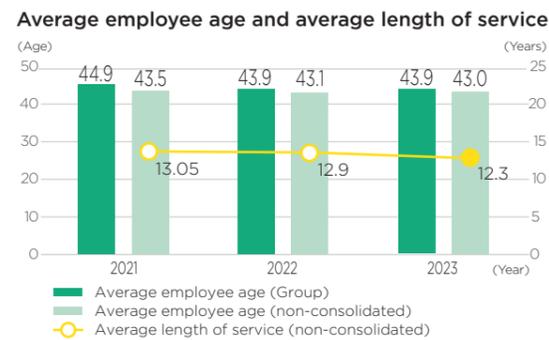
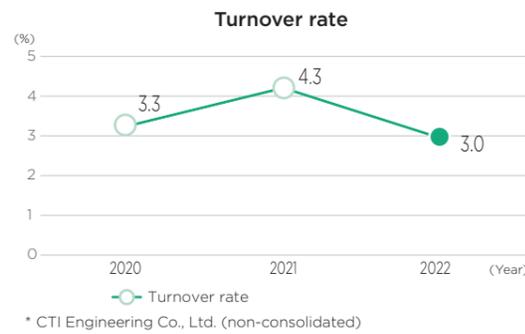
### Workplace Environment Reform

- We implement various initiatives to create a work environment based on trust and respect.
- Positive evaluation of people who respect the human rights of each individual and emphasize teamwork
  - Utilization of one-on-one meetings and the thanks point system
  - Coaching, communication training



#### Eruboshi Certification

The Company received the Two-Star Eruboshi certification (Grade 2) from the Minister of Health, Labour and Welfare for being an outstanding company based on its promotion of female participation. We will continue to actively promote female participation while working to create a workplace environment where diverse human resources can thrive.



### Health Management

Well-being is a cornerstone of sustainability management at CTI Engineering.

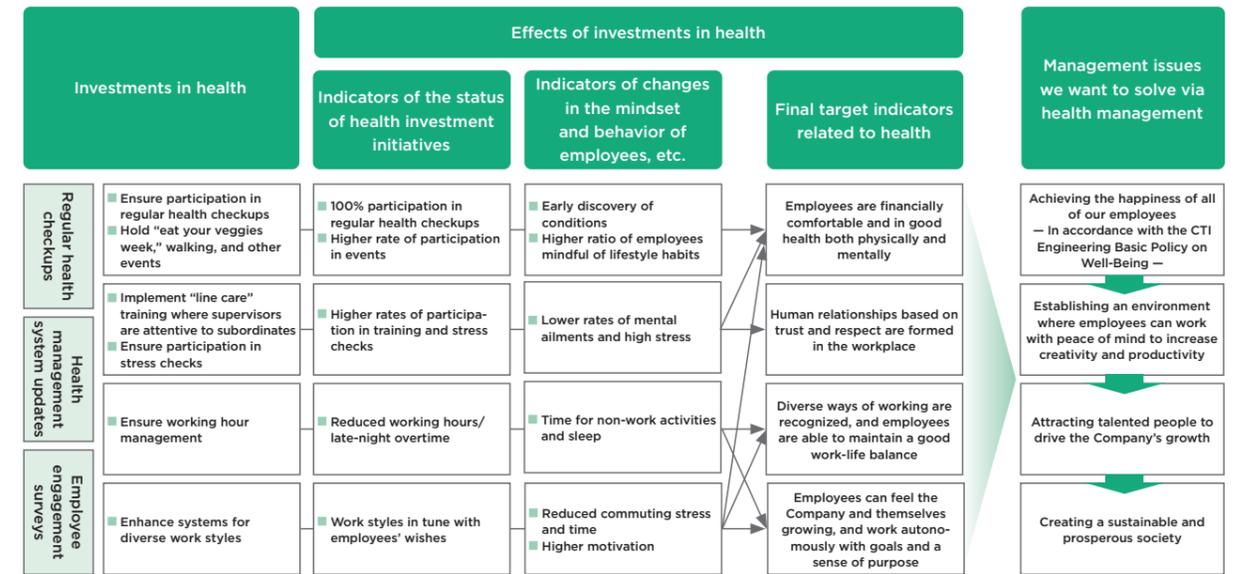
The Sustainability Committee, chaired by the Representative Director and President, CEO, oversees the promotion of well-being. The Well-Being Promotion

Council has been established under it to devise concrete measures, conduct monitoring using KPIs, and lead initiatives to promote health management at the Company.

#### Health Management Promotion Diagram



### Health Management Strategy Map



### Employee Benefits System, etc.

Financial support	Being prepared for injury or illness	Asset building for retirement	Compensation for surviving family members and children
<b>Injury and illness benefits</b> <ul style="list-style-type: none"> <li>● Injury and illness condolence money: Additional benefits to injury and illness allowances (statutory benefits)</li> <li>● Comprehensive workers' accident compensation insurance (additional benefits to statutory workers' accident compensation insurance)</li> <li>● Group cancer insurance (newly joined in FY2023)</li> </ul>	<b>Injury and illness benefits</b> <ul style="list-style-type: none"> <li>● Injury and illness condolence money: Additional benefits to injury and illness allowances (statutory benefits)</li> <li>● Comprehensive workers' accident compensation insurance (additional benefits to statutory workers' accident compensation insurance)</li> <li>● Group cancer insurance (newly joined in FY2023)</li> </ul>	<b>Retirement allowance and stock ownership plan</b> <ul style="list-style-type: none"> <li>● Robust retirement system               <ul style="list-style-type: none"> <li>• Defined benefit corporate pension</li> <li>• Defined contribution pension system</li> <li>• Corporate pension fund</li> <li>• Management and retirement age-related additional benefits</li> </ul> </li> <li>● Employee stock ownership plan</li> </ul>	<ul style="list-style-type: none"> <li>● Comprehensive group welfare term insurance</li> <li>● Allowance for orphans (unique benefits)</li> </ul>

#### Systems to support diverse ways of working

- Home working
- Shift work
- Satellite offices
- Hourly paid leave
- Paid vacation (more days than required by law)
- Rehiring after mandatory retirement age
- In-house daycare center "Kakehashi nursery"

#### Employee health management

- Occupational physician (all main offices)
- Nurse (full-time at the Tokyo Main Office, Osaka Main Office, and Kyushu Office)
- Consultation service
- Health checkup items
- Health and Productivity Management Outstanding Organization
- Contracted recreational facilities

#### Paid vacation used in FY2022 (as of May 31, 2023)

Average number of days provided	23.5
Average number of days used*1	16.0
Average ratio used	67.8%

\*1 Total of regular paid vacation (1 day) + half-day paid vacation + hourly paid vacation  
\* CTI Engineering Co., Ltd. (non-consolidated)



Creation of a good working environment



	KGI 2030	2022 Result
Number of employees (people)	2,500	1,826
Total annual work hours (h)	1,900	2,138
"Line-care" training participation rate	100%	88.4%
Ratio of absenteeism*1	2.0% or less	2.4%
Regular health checkup participation rate	100%	97.8%
Stress check participation rate	100%	97.0%
Ratio of childcare leave taken	Men 50%	42.0%
	Women 100%	100%
Employee turnover rate*2	3.0%	3.2%
Turnover rate within three years of joining the Company	5.0%	3.6%

\*1 Excludes employees taking childcare and family care leave  
\*2 Excludes retirement upon mandatory retirement age  
\* CTI Engineering Co., Ltd. (non-consolidated)

# CTI Engineering Group's Value Creation Story

## Sustainability ESG (Governance)

### Messages from External Directors

The Company's four external directors provide messages about the CTI Engineering Group's future direction from a variety of perspectives, including decision-making and governance, the improvement of technology and trust, and work styles and diversity.



Shuichi Ikebuchi  
External Director

#### Effectiveness of the Board of Directors

Under the Basic Policy on Corporate Governance, we are working to achieve sustained growth and increase our corporate value over the mid- to long-term. When deciding on important management and business execution matters, members of the Board of Directors and other forums actively discuss issues and improvements, and guidelines and rules, as well as basic policies, are formed based on those discussions. Committees and

other bodies work on specific implementation. These efforts help to increase the effectiveness of the Board of Directors. However, there are certain shortfalls in ensuring knowledge of these matters and making them more widely known, as well as in raising awareness of them. I expect the Company to strengthen efforts to make these issues more widely known and raise awareness of them by, for example, providing clear-cut briefings that place special emphasis on the priority issues.

#### CTI Engineering Group Challenges for Sustainability

There are calls for CO<sub>2</sub> emissions to be reduced in infrastructure development too. It is crucial to seek the types of methodologies and technologies that prove effective in various fields and processes, and to make progress alongside the use and implementation of existing infrastructure. More and more opportunities to contribute to the CTI Engineering Group Challenges for Sustainability are emerging. Examples include developing river

ecosystems and green infrastructure as a means of sustaining the flood control, water use, and environmental functions of rivers and dams. Other opportunities include the control and suppression of sediment production and runoff and green infrastructure to increase the hydropower generation capacity of existing dams and recover and increase the flood control and water storage capacity of dams, as well as reservoir desilting and conversion of dredged sediment into resources.

#### Utilization of AI and DX

AI is a superior technology for duplicating and estimating the real world in a simulated and approximate manner. I would like the Company to use AI by clearly defining its purpose in terms of what kinds of situations it will be used in, while keeping in mind considerations such as factor selection, collecting the necessary amounts of data, and the potential for mistakes and intrinsic margins of error in data. In addition, encouraging the use of AI and digital transformation (DX) is effective in optimizing construction at construction sites, assisting in the resolution of engineer shortages and improving productivity. In consultant work too, I expect that the Company will be able to develop a framework for utilizing AI and DX that will allow it to respond flexibly to changing circumstances, based on extensive experience and knowledge and aided in part by an increase in the available data and the accumulation of existing data.

#### Human Resource Development

A motivating environment that allows people to harness their creativity by improving their skills, working actively, tackling challenges, and creating something new can be a source of strength that leads to an improvement in their abilities. I would urge the Company to continue working to mitigate and alleviate the psychological strain that employees may experience as a result of excessive workloads.



Atsuko Ogasawara  
External Director

CTI Engineering's brand slogan is "Enriching Life Through Engineering." In my former position at a newspaper company, I was mostly assigned to the business desk. I have also reported on natural disasters such as storms and floods, as well as major earthquakes, disaster mitigation and public works projects. In these situations, people's attention is drawn to the impact on our current everyday lives and the importance of developing infrastructure that will serve as the foundation for

our children's future. Infrastructure must provide solid "safety and security." I'm honored to be joining CTI Engineering this fiscal year, a company that works on the frontlines of such infrastructure development as a consulting engineer.

The CTI Engineering Group has earned trust in many different business domains through its advanced technology. However, society and the markets are voicing stronger expectations

for sustainability management and efforts to strengthen corporate governance. The CTI Engineering Group has already developed the Mid- to Long-Term Vision SPRONG 2030 and Mid-Term Management Plan, and it is making steady strides toward achieving them. To ensure steady execution of its growth strategies, the CTI Engineering Group must increase its corporate value sustainably from a mid- to long-term perspective.

Furthermore, human resources are the foundation of consulting. Recently, there has been a growing number of people who believe that human capital management, which views human resource development as an investment rather than a cost, and improving workers' work-life balance and well-being through work style reforms and other means, are vital components of corporate value.

As business reporter, I have covered not only business cycles and corporate management, but also the work styles of women for many years. Currently, I feel that companies that can provide an environment in which all employees, regardless of gender, can work in excellent mental and physical health, find meaning and satisfaction in their work, and have a sense of accomplishment, are the ones that are truly sustainable. I would be delighted if my experience might help the CTI Engineering Group in any way.



Fumiko Kosao  
External Director

Based on CTI Engineering's Business Philosophy of "We strive to create a safe, comfortable and enriching society using world-class technology and expertise," the CTI Engineering Group is committed to supporting the creation of a safe, secure and comfortable society while further enhancing the trust it has earned so far. With integrity and technology as its corporate creed, the CTI Engineering Group intends to contribute to the lasting well-being and happiness of each and every

member of the community.

Japan currently faces numerous social issues, including the frequent occurrence of natural disasters, infrastructure aging, and the need to address global environmental problems. As public investment is restricted amid a declining population, an aging society with fewer children, and efforts

to achieve fiscal soundness, there are increasingly stronger calls for careful vetting of infrastructure development projects, along with providing enhanced and multiple infrastructure functions, as well as national resilience.

In this environment, the Company must maintain quality and strengthen governance so that it can contribute to society while further enhancing the trust it has earned to date.

The Company must deal with a diverse array of challenges that emerge one after the other under ever-changing social conditions in a careful and error-free manner. In order to do so, the Company must constantly reaffirm its Business Philosophy. When conducting business, the Company will need to return to basics and faithfully follow its basic beliefs.

Thinking about why the Business Philosophy and corporate creed exist in the first place, it might be to remind you of your basic beliefs so that you always remember the goals you set out to achieve and how you felt when you started.

In addition, strengthening governance provides a framework for companies to increase their corporate value and grow sustainably, rather than just a means of preventing misconduct. For this reason, the Business Philosophy and strengthening governance have overlapping objectives.



Yoshihisa Sonobe  
External Director

CTI Engineering's Business Philosophy is "We strive to create a safe, comfortable, and enriching society using world-class technology and expertise." I believe that this statement concisely expresses the Company's mission, reason for being, and relationship with society. Moreover, in the Code of Corporate Conduct, sustainability is a core concept, and one of its precepts is to increase the sustainability of society by working on infrastructure development, the Company's core

business, with integrity. With these ideas as unwavering basic management principles, the CTI Engineering Group's Mid- to Long-Term Vision SPRONG 2030 lays out the following vision statement: "The Company aims to make great strides forward as a 'Global Infrastructure Solutions Group' that can resolve all sorts of issues related to infrastructure in Japan and overseas, and contribute to the sustainable development of society."

I expect the Company to create social value by helping to solve numerous social issues such as the frequent occurrence of natural disasters, infrastructure aging, and global environmental problems. Alongside those efforts, I expect the

Company to sustainably increase its corporate value by creating economic value. To do so, I believe that the Board of Directors (through teamwork between internal and external directors) has a duty to rigorously manage, support, and promote PDCA and other management cycles, to ensure that the strategies of Mid-Term Management Plan 2024, the CTI Engineering Group's action plan, are completed, and its targets are achieved.

It has been just over one year since I was appointed as an external director. I view the Company positively as one that is steadily evolving by listening to the opinions of external directors with varied backgrounds and taking their proposals into consideration. The effectiveness of the Board of Directors has continuously improved through cycles of identifying issues, establishing response measures, and assessing the outcomes of those measures. Moving forward, I believe it is imperative that we improve effectiveness even further by taking steps such as conducting more reviews of standards for proposing agenda items and enhancing overall strategy discussion. In regard to matters such as enhancing and broadening dialogue with stakeholders, the Company has rapidly expanded IR meetings and other forums. From the perspective of further enhancing dialogue, I would like to assist in increasing our corporate valuation by holding dialogues between external directors and investors, and identifying any perception gaps that might exist between the Company and its investors.

# CTI Engineering Group's Value Creation Story

## Sustainability ESG (Governance)

### Corporate Governance

The Company will continue to be a company trusted by society through a policy of transparent, fair, prompt and bold decision-making in corporate management.

#### Basic Policy on Corporate Governance

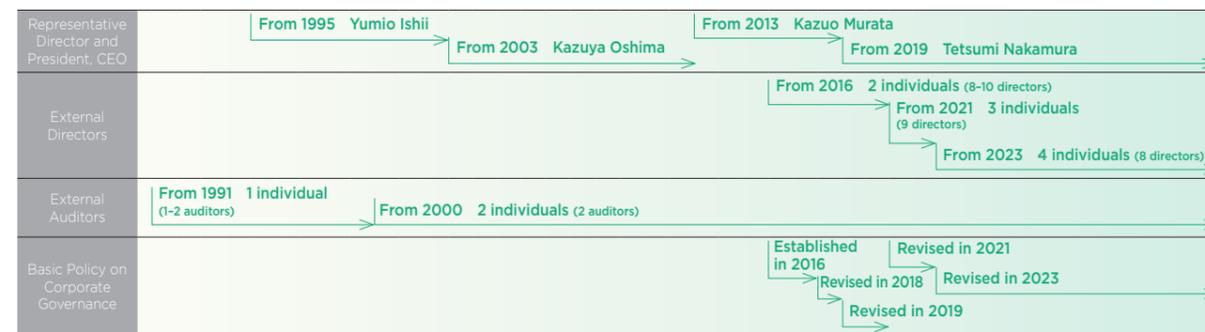
We have established a Code of Corporate Conduct to realize our Business Philosophy of "We strive to create a safe, comfortable, and enriching society using world-class technology and expertise." Our corporate culture—based on integrity and technology—guides us as we fulfill our social mission. In the spirit of Japan's Corporate Governance Code, we have also established a Basic Policy on Corporate Governance in order to achieve transparent, fair, timely and bold decision-making in corporate governance. In line with this Basic Policy, we will strive to achieve sustainable growth as a company and increase our corporate value over the mid- to long-term. The following is an overview of our Basic Policy on Corporate Governance.

1. We will develop an environment in which shareholders can exercise their rights, and will give adequate consideration to securing the effective equal treatment of shareholders.
2. We will strive to sustainably grow the CTI Engineering Group and increase its corporate value over the mid- to

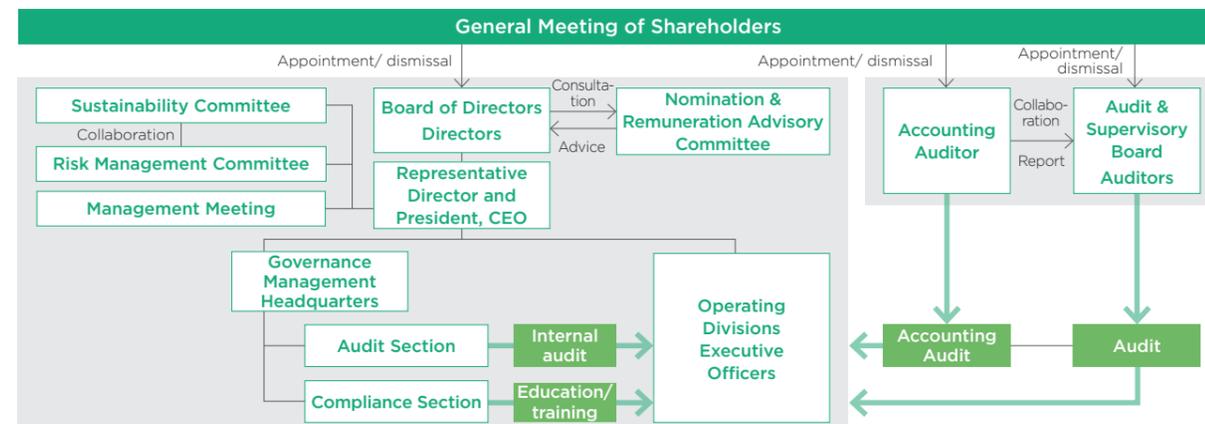
long-term through appropriate cooperation with its stakeholders, including shareholders, employees, clients, business partners, and local communities.

3. We will appropriately disclose financial and non-financial information related to the management of the CTI Engineering Group in compliance with relevant laws and regulations, and will also strive to actively provide information beyond that required by law.
4. Given its fiduciary responsibility and accountability to shareholders, the Board of Directors will appropriately fulfill its roles and responsibilities to enhance profitability, capital efficiency, and other aspects of the CTI Engineering Group with the aim of promoting sustainable growth and increasing corporate value over the mid- to long-term.
5. In order to grow the CTI Engineering Group sustainably and increase its corporate value over the mid- to long-term, we will engage in constructive dialogue with shareholders even outside of the General Meeting of Shareholders.

#### Main Efforts to Strengthen Corporate Governance



#### Corporate Governance System



Names of Meeting Bodies	Purpose	Frequency	Composition	Chaired by
Board of Directors	The Board of Directors resolves matters stipulated in the "Regulations of the Board of Directors," in addition to matters prescribed in laws and regulations and the Articles of Incorporation.	Monthly	12 directors (including 4 external directors)	Tetsumi Nakamura, Representative Director and President, CEO
Nomination & Remuneration Advisory Committee	The Nomination & Remuneration Advisory Committee deliberates on matters related to the appointment and remuneration of directors and reports to the Board of Directors. In doing so, the Committee enhances the fairness and transparency of management and strengthens the independence, objectivity, and accountability of the functions of the Board of Directors.	4-5 times a year	4 external directors Representative Director and President, CEO	Shuichi Ikebuchi, External Director
Management Meeting	Prior to deliberations by the Board of Directors, the Management Meeting holds substantive discussions on matters necessary for the execution of business in response to consultations by the Representative Director and President, CEO. The Management Meeting also decides the agenda items and proposals to be reported to the Board of Directors in a flexible manner to enhance management efficiency.	Monthly	Representative Directors Chiefs at headquarters Chiefs of branch offices and others	Tetsumi Nakamura, Representative Director and President, CEO
Executive Officers' Meeting	The Executive Officers' Meeting promotes collaboration among the executive officers by informing participants of decisions reached at the Board of Directors' meetings, and reporting on matters such as instructions from the Representative Director and President, CEO and the status of business execution. Through these initiatives, the Executive Officers' Meeting strengthens the Board of Directors' decision-making and business supervisory functions, in order to improve its management efficiency including accelerating the decision-making process.	Monthly	Representative Director and President, CEO Executive officers	Tetsumi Nakamura, Representative Director and President, CEO
Group Management Meeting	The Group Management Meeting deliberates or reports on necessary matters related to Group management, thereby strengthening collaboration in Group management.	Quarterly (four times a year)	Representative Directors Presidents of consolidated subsidiaries Directors responsible for supervising consolidated subsidiaries	Tetsumi Nakamura, Representative Director and President, CEO
Audit & Supervisory Board	In light of its fiduciary responsibility to shareholders, the Audit & Supervisory Board appropriately performs operational and accounting audit functions based on the Auditing Standards by Auditors stipulated by the Audit & Supervisory Board, exercises its authority from the perspectives of promoting the CTI Engineering Group's sustained growth and the enhancement of the Group's corporate value, and proactively and vigorously audits the Board of Directors and the management team.	Monthly	4 auditors (including 2 external auditors)	Keizo Mitsuke Full-time Auditor
Sustainability Committee	The Committee has two main goals: (1) increasing corporate value by promoting sustainability, considering measures that contribute to the creation of a sustainable society, and overseeing information related to ESG that should be disclosed; and (2) supervising activities of the CTI Engineering Group Challenges for Sustainability, while proposing and evaluating measures related to sustainability management (mainly non-financial information such as ESG), and promoting sustainability management.	3 times a year	Representative Directors Chiefs at headquarters Chiefs of branch offices and others	Tetsumi Nakamura, Representative Director and President, CEO
Risk Management Committee	The Committee ensures appropriate risk management for the CTI Engineering Group, formulates policy measures related to risk management, identifies risks, assesses the extent of damage, formulates countermeasures, etc. and provides guidance and supervision.	2 times a year	Risk management leads, individuals appointed by the Chairperson	Tetsumi Nakamura, Representative Director and President, CEO

#### Initiatives to Increase Effectiveness

##### Conducting Evaluations of the Board of Directors

The Company analyzes and evaluates the overall effectiveness of the Board of Directors, using the results of each director's self-evaluation. A summary of the results of this analysis and evaluation are disclosed as part of efforts to improve the Board of Directors' functions.

During the previous fiscal year, the Company conducted an anonymous questionnaire survey of all directors and auditors from November 2022 to December 2022 to comprehensively self-evaluate the Board of Directors' composition, functions, operation and other aspects, and external directors and auditors were interviewed. The evaluation results and issues to be addressed are as follows.

- In the Company's Board of Directors, a culture has been instilled in which open and active discussions are held, and the opinions expressed and problems raised by external directors and auditors are accepted with integrity. However, in order to more thoroughly discuss significant directions (Vision, Mid-Term Management Plan, global strategy, etc.), agenda items should be narrowed down to more critical issues.

- A system needs to be built to centrally and comprehensively manage risks for the whole CTI Engineering Group and to enable the Board of Directors to monitor implementation of the system.
- Furthermore, there is room for improvement in the way the Board of Directors operates for these issues.

As a result of these findings, focusing on agenda items to be discussed by the Board of Directors and deliberation of missing items, the effectiveness of the Board of Directors will be enhanced by reviewing the division of roles among various meetings, such as the Executive Officers' Meeting and the Management Meeting and a review of the operational structure of the Board of Directors carried out. Moreover, in the fiscal year ended December 31, 2022, the Company held group training for all directors, including from Group companies, led by experts on the revision of the Corporate Governance Code and financial affairs. The Company will continue in the fiscal year ending December 31, 2023 to improve the training curriculum while increasing the frequency of training.

##### Initiatives to Improve the Board of Directors and Audit & Supervisory Board

The Company implements the following initiatives as training for directors and auditors.

- To enable directors, including external directors, and auditors to fulfill their roles and responsibilities, the Company will implement a system to assist directors and auditors in obtaining useful information and seeking advice from external experts as needed at the Company's expense.
- When and after directors and auditors are appointed, the Company will conduct activities such as the necessary training related to those roles and responsibilities, including legal responsibility, to ensure that the directors and auditors, including new appointees, can fulfill the roles and responsibilities expected of them.

- The Company will work to create an environment in which directors and auditors, including external directors and auditors, can gain a better understanding of their roles and responsibilities while also obtaining essential knowledge about the Company's business, financial affairs, organization and other aspects, including the provision of materials such as textbooks.
- In the event that laws, regulations, and other rules concerning corporate management are amended, or there are major shifts in the social environment, the Company will provide opportunities to participate in training and seminars held internally or externally as needed at the Company's expense.

# CTI Engineering Group's Value Creation Story

## Sustainability ESG (Governance)

### Risk Management

#### Risk Management Basic Policy

##### (1) Basic Philosophy

The Group's risk management approach, which includes crisis management, is defined by its risk management regulations as follows: "Identification and control of risks that could negatively impact our business operations before such risks materialize, with prompt action taken to minimize potential losses should a risk materialize."

The Group operates based on five fundamental principles of corporate management: 1) enhancing corporate value, 2) preserving and effectively utilizing managerial resources, 3) ensuring sustainable and stable business continuity, 4) maintaining stakeholder trust while ensuring

profitability, and 5) safeguarding the well-being of our employees and related parties. To achieve the above, we believe it is essential to accurately recognize risks and opportunities that warrant our attention. This involves implementing strategies to decrease the likelihood of risks occurring, along with preparing measures in advance to mitigate potential losses should these risks materialize. We also believe that taking decisive action to limit the impact on all involved parties during emergency situations is an essential aspect of risk management.

##### (2) Action Plan

To put this basic philosophy into practice in concrete terms, we have established a comprehensive risk management framework throughout the organization. We aim to actively and continuously advance risk management as a Group in accordance with the following action plan:

- (1) We recognize the Group's societal obligations and public mission, and we shall manage a variety of risks in a responsible manner to promote ethical and fair corporate activities.
- (2) By providing education, training, and sharing information, we shall strive to cultivate each employee's sensitivity to risk and enhance their risk response capabilities.

- (3) We shall encourage stakeholder engagement, forge trustful relationships with stakeholders, and ensure that our actions do not compromise their interests.
- (4) During emergencies, we shall act promptly and appropriately to limit damage to involved parties and undertake decisive action to bring about a rapid recovery.
- (5) In emergency situations, we shall prioritize the safety of our staff and related parties, and strive to ensure the continuity of our operations wherever possible.
- (6) We shall aim for proactive and impartial disclosure of risk-related information and foster open communication with the broader society.

#### Risk Management System

To uphold its risk management principles, the Group has established a Risk Management Committee, chaired by the Representative Director and President, CEO, to promote appropriate risk management in accordance with the above-mentioned Risk Management Basic Policy. The Risk Management Committee works in concert with the Sustainability Committee, annually formulating policies and strategies related to the Group's risk management. In addition to identifying risks from a mid- to long-term perspective and evaluating the nature of said risks, the

expected scenarios, the frequency of occurrence, and the extent of the damage, it also analyzes the impact on our business and operations, formulates response strategies based on these considerations, and keeps track of the status of individual risk management efforts while providing guidance and supervision. Moreover, it reports on the state of initiatives to the Board of Directors, which holds discussions about said initiatives, thus exercising oversight and control over all risk management activities.

##### Risk Management System Diagram



#### Compliance Basic Policy

The CTI Engineering Group has established its principles of conduct for all directors, auditors and employees in the Code of Corporate Conduct in order to realize its Business Philosophy. One of these essential principles is compliance, which can be said to be the foundation of a company's survival. For us, compliance means "promoting honest, fair, and responsible corporate activities as an independent and autonomous company by abiding by legal, ethical, and social standards to maintain longstanding relationships with our stakeholders, such as by utilizing the whistleblowing system and other measures." The CTI Engineering Group will work together to implement compliance management based on the basic policies

listed below.

- We recognize the social responsibilities and public duties we have assumed, and promote sincere, fair, and responsible corporate activities.
- We comply with all laws, regulations, and internal regulations, and act in accordance with social norms and ethics.
- We respect human rights and create fair and healthy work environments.
- We strive to disclose management information in a proactive and fair manner in order to communicate with society at large.

#### CTI Engineering Group Whistleblowing System

By May 2021, we had revised the Compliance Regulations and Regulations on Whistleblowing Procedures of CTI Engineering Group companies. Each company has established in-house whistleblowing contact points. If an in-house whistleblowing contact point receives a report, the matter must be relayed to CTI Engineering's Compliance Section, and this process is codified into our regulations. Our whistleblowing system is available to all CTI Engineering Group employees, as well as temporary

employees and business partners. In the fiscal year ended December 31, 2022, consultations on harassment and staff members' speech and behavior accounted for roughly 70% of whistleblowing reports received.

Going forward, we will continue working to encourage the use of the whistleblowing system through such means as making it widely known, and promote measures such as whistleblowing surveys by each branch office and CTI Engineering Group company.

#### Promoting Compliance Education

To improve the compliance awareness of the whole CTI Engineering Group, we provide a variety of training for all CTI Engineering Group directors, auditors and employees, with mandatory and elective themes set each year. We made "Prevention of Various Forms of Harassment" and "Prevention of Noncompliance in Marketing Activities, including Technical Sales," the CTI Engineering Group's

mandatory themes for the fiscal year ended December 31, 2022. (Attendance rate: 98%)

We will disseminate information on overall compliance to promote understanding and raise awareness throughout the CTI Engineering Group to comply with various compliance requirements, not limited to harassment prevention.

#### CTI Engineering Group Information Security Policy

In recent years, the amount of information handled via electronic media and networks has expanded, triggering concerns about the possibility of incurring enormous losses when information is lost, destroyed, or leaked due to disasters, malfunctions or failures, negligence, intentional misconduct, and other risks. We believe that promoting information security measures is not only our responsibility to our clients, but also our responsibility to society as a company that plays a role in the creation and maintenance of public works.

The CTI Engineering Group is always aware of threats that may arise due to the improper operation and management of information and information systems. We have established the CTI Engineering Group Information Security Policy, with which we comply.

##### Positioning of the information security policy

In order to protect our information assets from the threat of security risks, the CTI Engineering Group enforces the CTI Engineering Group Information Security Policy as its most basic and universal measures for information security.

##### Proper operation and management of information systems

The CTI Engineering Group complies with all applicable laws and regulations, properly operates and manages the various information and information systems handled in the course of its business activities, and protects its information assets from external and internal risks.

##### Staff responsibilities

All staff who use the CTI Engineering Group's information assets are fully aware of the seriousness of information risks and the importance of information security in their daily business activities.

##### Instruction of subcontractors

The CTI Engineering Group also instructs subcontractors who use the Group's information assets on the proper operation and management of information assets and systems owned by the Group.

##### Responsibility structure and systems

The Representative Director and President, CEO, as the Chief Information Security Officer (CISO) of the CTI Engineering Group, guides the operation and management of information assets and systems. In addition, the Information Security Council is established in order to build a Group-wide information security system.

##### Implementation of training

The CTI Engineering Group improves information security literacy by providing information security training to staff and related personnel who handle the Group's information assets so that they are able to respond to changes in the information environment. We also recommend information security training to our subcontractors.

##### Practice of the PDCA cycle

The CTI Engineering Group evaluates the implementation of information security measures and new risks, etc., reviews the operation and protection of information assets and information systems as well as the structures for their management when appropriate, and also reviews the CTI Engineering Group Information Security Policy on an as-needed basis.

# CTI Engineering Group's Value Creation Story

## Sustainability ESG (Governance)

### Remuneration Policy for Officers

#### 1. Basic Policy

##### (1) Remuneration for Directors (Excluding External Directors)

Remuneration for directors (excluding external directors) consists of fixed remuneration (monthly remuneration) as remuneration for the execution of duties, remuneration linked to consolidated business performance in the fiscal year under review (monetary bonuses), and non-monetary remuneration (restricted stock remuneration) as long-term incentive remuneration. The standard ratio of each remuneration is as per the table to the right.

Remuneration items	Fixed remuneration		Variable remuneration	
	Monthly remuneration	Monetary bonuses	Restricted stock remuneration	
Setting standard (percentage)	67.5%	20.0%	12.5%	

##### (2) Remuneration for External Directors and Auditors

###### 1) Remuneration for External Directors

Remuneration for external directors shall consist solely of fixed remuneration (monthly remuneration) from the perspective of their roles and independence. The specific amount of remuneration shall be determined in accordance with the method of determining fixed remuneration in the remuneration of internal directors.

###### 2) Remuneration for Auditors

From the perspective of high independence, remuneration shall consist of monthly remuneration only. The specific amount of remuneration shall be determined through consultation among the auditors.

#### 2. Method of Determining Remuneration for Directors (Excluding External Directors), etc.

##### (1) Fixed Remuneration

Fixed remuneration (monthly remuneration) shall be appropriately calculated in accordance with a predetermined table of monthly remuneration standards for executives within the range of maximum amount of remuneration of directors which was determined by the resolution of the General Meeting of Shareholders, and shall be

determined by resolution of the Board of Directors after deliberation by the Nomination & Remuneration Advisory Committee. In addition, part of the fixed remuneration (monthly remuneration) shall be allocated to the acquisition of the Company's shares under the executive stock ownership program.

##### (2) Performance-linked Remuneration (Monetary Bonuses)

With regard to performance-linked remuneration (monetary bonuses), the base amount of bonuses shall be set according to the consolidated business performance of the fiscal year, and the specific amount of each director shall be set within the range of remuneration, after evaluation by the Managing Director and Chief Executive

Officer of the degree of contribution of each director for each type of operating profit, ROE and ESG using the following calculation formula, and shall be resolved at the Board of Directors meeting after deliberation by the Nomination & Remuneration Advisory Committee.

	Payment Category	Method of Payment Calculation
Monetary bonuses	Payments as short-term incentives	1) Basic bonus amount × 50% × 2) Operating profit factor
	Payment as long-term incentive	1) Basic bonus amount × 50% × 3) ROE evaluation factor
		1) Basic bonus amount × 20% × 4) ESG evaluation factor

(1) Fixed remuneration × 0.3 months

(2) Consolidated operating income for the year (yen) ÷ Planned consolidated operating income (yen) = Operating income achievement rate (%)

(3) Consolidated ROE (%) for the current fiscal year ÷ Standard value of 10.0% = ROE achievement rate (%)

(4) In accordance with the CTI Engineering Group Challenges for Sustainability, which stipulates that the Company will work on various proposals to realize sustainability through infrastructure development, ESG indicators will be incorporated as additional factors when calculating compensation. The evaluation coefficient is evaluated on an S-D basis by a Representative Director and other Officers in charge at the end of each fiscal year.

##### (3) Non-monetary Compensation (Restricted Stock Compensation)

With regard to non-monetary compensation (restricted stock compensation), the number of shares granted shall be calculated according to the position, and shall be determined by resolution of the Board of Directors after deliberation by the Nomination & Compensation Advisory Committee. In addition, the transfer restriction period shall expire at the time of retirement of officers.

With regard to non-monetary compensation (restricted stock), provisions shall be established to the effect that

the Company may, after deliberation by the Board of Directors, acquire all shares granted without consideration in the following cases: (i) cases where the director has been engaged in the business of a company that competes with the Group without the consent of the Company, (ii) cases where the director has caused damage to the Group due to fraudulent accounting or large losses, etc., or (iii) other cases where the Company has judged that the shares should be acquired without consideration.

#### ● Skill Matrix

	Name	Management	Engineering Quality	Business Strategy Marketing	HR HR Development	IT DX	Sustainability ESG	Finance Accounting Tax Affairs	Legal Affairs Risk Management	Global
Directors	Tetsumi Nakamura	●	●	●		●	●			
	Tatsuya Nishimura	●	●	●			●			●
	Yoshiaki Nanami	●	●		●				●	●
	Hiroshi Kiuchi	●	●	●						
	Naoto Suzuki	●	●		●		●	●	●	
	Nobuyuki Maeda	●	●			●				
	Toshihide Uemura	●	●	●						
	Naoki Fujiwara	●	●	●		●				●
	Shuichi Ikebuchi	●	●							●
	Fumiko Kosao	●			●			●		
Auditors	Yoshihisa Sonobe	●		●		●		●	●	●
	Atsuko Ogasawara	●			●		●		●	
	Keizo Mitsuke	●	●				●	●	●	
	Shigeo Nakashita	●	●						●	
	Yasuro Tanaka								●	●
	Go Ishikawa	●					●	●	●	●

##### (1) Selection of items

The CTI Engineering Group Board of Directors should aim to further strengthen its supervisory function, deepen discussions on the following matters concerning the direction of the Company, and monitor the decisions it makes. The skills are what the Board of Directors believes is necessary for the following discussions.

- 1) Discussions related to management policy, such as the mid- to long-term vision and business portfolio transformation
- 2) Discussions related to capital policy and capital cost
- 3) Discussions related to risk management, internal control system and global Group governance
- 4) Discussions related to dialogue with shareholders, sustainability and ESG

##### (2) Skill items and reasons for their selection

Skill Item	Reasons for Their Selection
Management	Directors with knowledge and experience of executive management and overall corporate management to formulate growth strategies and supervise their promotion are needed at a time of significant change in the business and management environments to realize the sustainable growth of the CTI Engineering Group.
Engineering Quality	Directors with abundant knowledge and experience in the fields of technology and quality related to our business are needed to identify issues arising from changes in the social and economic environment and to provide appropriate direction for the Group's business.
Business strategy Marketing	Directors with knowledge and experience in business strategy or marketing are needed to identify issues arising from changes in the social and economic environment and to formulate and supervise appropriate business strategies.
HR HR development	Directors with knowledge and experience in the field of HR development and training, including the promotion of diversity, are needed to formulate and supervise HR strategies that enable each employee to reach their full potential.
Sustainability ESG	Directors with knowledge and experience of all aspects of sustainability, centered on ESG, are needed to realize sustainability management as a growth strategy.
IT DX	Directors with knowledge and experience in the IT and DX fields are needed to formulate and oversee the strategies for IT innovation necessary for our sustainable growth.
Finance Accounting Tax affairs	Directors with knowledge and experience in finance, accounting and tax affairs are needed to formulate and oversee capital policies and financial strategies with an awareness of capital cost to be able to build a strong financial base and achieve sustainable growth of corporate value.
Legal affairs Risk management	Directors with knowledge and experience in corporate governance, risk management and compliance are needed to improve the effectiveness of management oversight by the Board of Directors as the establishment of an appropriate governance structure is the foundation for sustainable improvement of corporate value.
Global	Directors with overseas work experience and knowledge and experience of overseas lifestyles, cultures and business environments are needed to formulate and oversee the promotion of growth strategies for the growth area of overseas business.

# CTI Engineering Group's Value Creation Story

## Directors and Auditors



**Tetsumi Nakamura**  
Representative Director and President, CEO

April 1979 Joined the Company  
April 2002 General Manager, River & Water Resources Div., Tokyo Main Office  
April 2006 Assistant Managing Principal, Tokyo Main Office  
April 2009 Deputy Managing Principal, Tokyo Main Office  
March 2010 Executive Officer  
April 2011 Managing Principal, Tohoku Office  
March 2013 Director  
March 2015 Managing Principal, Kyushu Office and Okinawa Office  
March 2016 Managing Executive Officer  
April 2017 Managing Principal, Tokyo Main Office  
March 2018 Senior Managing Executive Officer  
March 2019 Representative Director and President, CEO (present post)



**Tatsuya Nishimura**  
Representative Director, Executive Vice President

April 1985 Joined the Company  
April 2004 General Manager, Water Management & Research Div., Tokyo Main Office  
April 2006 General Manager, River & Water Resources Div., Tokyo Main Office  
April 2010 Assistant Managing Principal, Chubu Office  
March 2015 Executive Officer  
April 2015 Deputy Managing Principal, Tokyo Main Office  
March 2017 Managing Executive Officer  
April 2017 Managing Principal, Tohoku Office  
March 2019 Director and Senior Managing Executive Officer  
April 2019 Chief, Planning & Business Development Headquarters (present post)  
March 2021 Representative Director (present post)  
March 2022 Executive Vice President (present post)



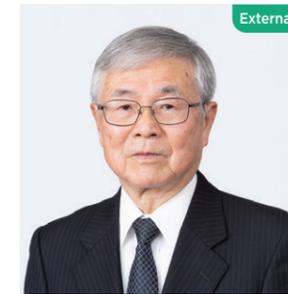
**Yoshiaki Nanami**  
Representative Director, Executive Vice President

April 1982 Joined Ministry of Construction (currently Ministry of Land, Infrastructure, Transport and Tourism)  
June 2016 Director-General, Shikoku Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism  
November 2017 Joined the Company as Executive Manager  
March 2018 Executive Officer and Deputy Chief, Engineering Headquarters  
March 2019 Director, Managing Executive Officer and Chief, Engineering Headquarters  
March 2021 Senior Managing Executive Officer and Managing Principal, Tokyo Main Office  
March 2023 Representative Director, Executive Vice President (present post) and Chief, Governance Management Headquarters (present post)



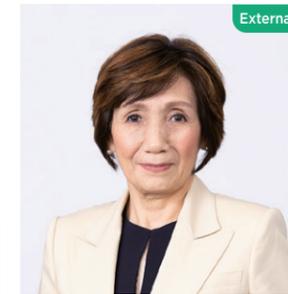
**Hiroshi Kiuchi**  
Director, Senior Managing Executive Officer

April 1981 Joined the Company  
April 2005 General Manager, River & Water Resources Div., Osaka Main Office  
April 2011 Assistant Managing Principal, Osaka Main Office  
March 2015 Executive Officer  
April 2015 Deputy Managing Principal, Tokyo Main Office  
November 2015 President & Representative Director, NISSOKEN ARCHITECTS & ENGINEERS Co., Ltd.  
March 2017 Managing Executive Officer  
March 2019 Director (present post)  
March 2019 Managing Principal, Osaka Main Office (present post)  
March 2023 Senior Managing Executive Officer (present post)



**Shuichi Ikebuchi**  
External Director

February 1979 Professor, Disaster Prevention Research Institute, Kyoto University  
April 1996 Chief, Water Resources Research Center, Disaster Prevention Research Institute, Kyoto University  
May 1999 Director, Disaster Prevention Research Institute, Kyoto University  
October 2004 Director and General Manager, Research Institute, Meteorological Engineering Center, Inc.  
April 2007 Professor Emeritus, Kyoto University and Research Advisor, Foundation for River & Watershed Environmental Management  
April 2013 Research Fellow, The River Foundation (present post)  
March 2017 Director (present post)



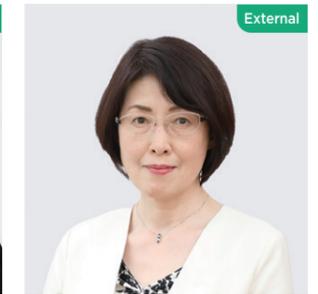
**Fumiko Kosao**  
External Director

April 1973 Employed by the National Tax Agency  
July 1997 Teacher, Tokyo Training Center, National Tax College  
July 2011 District Director, Gyoda Tax Office, Kanto-Shinetsu Regional Taxation Bureau  
July 2014 District Director, Nihonbashi Tax Office, Tokyo Regional Taxation Bureau  
August 2015 Registered as a Certified Public Tax Accountant and founded Fumiko Kosao Certified Public Tax Accountant Office (present post)  
June 2016 External Auditor, TOBISHIMA CORPORATION  
March 2017 Director (present post)  
June 2017 External Director, METAWATER Co., Ltd. (present post)  
July 2020 External Director (Audit & Supervisory Board Member), TOELL CO., Ltd. (present post)



**Yoshihisa Sonobe**  
External Director

April 1980 Joined TEIJIN LIMITED  
June 2009 Corporate Officer, Head of Corporate Planning, TEIJIN LIMITED  
April 2011 CFO and General Manager, Accounting and Finance Unit, TEIJIN LIMITED  
April 2014 General Manager, Corporate Strategy Unit, TEIJIN LIMITED  
June 2014 Deputy Director, TEIJIN LIMITED  
April 2016 Executive Officer, TEIJIN LIMITED  
April 2017 Chief Officer, Corporate Strategy and Chief Officer, Legal Affairs & Intellectual Property (Chief Officer, Global Business Strategy (in charge of overseas financial management companies (Europe, US, China))), TEIJIN LIMITED  
April 2019 Senior Executive Officer and Chief Financial Officer, TEIJIN LIMITED  
April 2020 Representative Director, TEIJIN LIMITED  
April 2021 Director and Part-Time Advisor, TEIJIN LIMITED  
June 2021 Retired as Director, TEIJIN LIMITED  
March 2022 Director (present post)



**Atsuko Ogasawara**  
External Director

April 1983 Joined The Mainichi Newspapers Co., Ltd.  
April 2006 General Manager, Okayama Bureau, The Mainichi Newspapers Co., Ltd.  
April 2008 General Manager, Economic Dept., Osaka Headquarters, The Mainichi Newspapers Co., Ltd.  
May 2011 General Manager, Kyoto Bureau, The Mainichi Newspapers Co., Ltd.  
July 2014 Deputy General Manager, Editorial Bureau, Osaka Headquarters, The Mainichi Newspapers Co., Ltd.  
April 2016 General Manager, General Business Bureau, The Mainichi Newspapers Co., Ltd.  
May 2017 Director, Japan High School Baseball Federation (present post)  
June 2018 Deputy Representative, Osaka Headquarters, The Mainichi Newspapers Co., Ltd.  
June 2018 Director, The Daido Life Foundation (present post)  
April 2020 Executive Director (part-time), National University Corporation Osaka University (present post)  
June 2020 Outside Director, Senshu Ikeda Holdings, Inc. (present post)  
June 2020 Non-Executive Director (part-time), The Senshu Ikeda Bank, Ltd. (present post)  
February 2021 Director, Kansai Innovation Center (present post)  
March 2023 Director (present post)



**Naoto Suzuki**  
Director, Managing Executive Officer

April 1987 Joined Yachiyo Engineering Co., Ltd.  
May 1991 Joined the Company  
April 2006 General Manager, Road & Transportation Engineering Div., Osaka Main Office  
April 2011 General Manager, Sales & Marketing Div., Osaka Main Office  
April 2012 Assistant Managing Principal, Osaka Main Office  
March 2017 Executive Officer  
April 2017 Deputy Chief, Administration Headquarters and General Manager, Personnel Div., Administration Headquarters (present post)  
March 2020 Director (present post) and Chief, Administration Headquarters (present post)  
March 2022 Managing Executive Officer (present post)



**Nobuyuki Maeda**  
Director, Managing Executive Officer

April 1982 Joined the Company  
April 2006 General Manager, Road & Transportation Engineering Div., Tokyo Main Office  
April 2010 Assistant Managing Principal, Tohoku Office  
April 2014 President & Representative Director, Japan Urban Engineering Co., Ltd.  
March 2016 Executive Officer  
March 2019 Managing Executive Officer (present post)  
April 2019 Managing Principal, Tohoku Office  
April 2021 Chief, Engineering Headquarters (present post)  
March 2022 Director (present post)



**Toshhide Uemura**  
Director, Managing Executive Officer

April 1982 Joined the Company  
April 2007 General Manager, Waterworks Engineering Div., Kyushu Office  
April 2011 Assistant Managing Principal, Kyushu Office  
April 2014 Deputy Chief, Planning Headquarters and General Manager, Corporate Planning Div., Planning Headquarters  
March 2016 Executive Officer  
March 2019 Managing Executive Officer (present post)  
April 2019 Managing Principal, Chubu Office  
March 2022 Director (present post) and Managing Principal, Kyushu Office and Okinawa Office (present post)



**Naoki Fujiwara**  
Director, Managing Executive Officer

April 1989 Joined the Company  
April 2007 General Manager, Water Management & Research Div., Tokyo Main Office  
April 2012 General Manager, River & Water Resources Dept., Tokyo Main Office  
April 2014 Assistant Managing Principal, Chubu Office  
April 2016 General Manager, International Div.  
June 2017 Executive Director, Waterman Group Plc (present post)  
March 2018 Executive Officer  
April 2019 Deputy Chief, Planning & Business Development Headquarters (present post)  
March 2020 Director, CTI Engineering International Co., Ltd. (present post)  
March 2021 Managing Executive Officer (present post)  
March 2023 Director (present post)



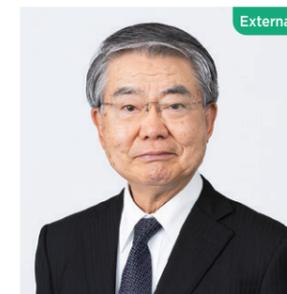
**Keizo Mitsuke**  
Full-time Auditor

April 1986 Joined TOKEN C.E.E. Consultants Co., Ltd.  
January 1990 Joined NIKKEN Consultants, Inc. (currently IDEA Consultants, Inc.)  
June 2009 General Manager, Public Relations Section, Administration Headquarters  
April 2017 General Manager, General Affairs Div., Chubu Office  
April 2020 Deputy Chief, Administration Headquarters, General Manager, General Affairs Div.  
March 2023 Full-time Auditor (present post)



**Shigeo Nakashita**  
Auditor

April 1984 Joined the Company  
April 2003 Manager, Tohoku Geology Office, Geology Center, Headquarters, Business Promotion Dept.  
April 2012 General Manager, Public Relations Section, Administration Headquarters  
April 2017 Assistant Managing Principal, Chubu Office  
March 2021 Full-time Auditor  
March 2023 Auditor (present post)



**Yasuro Tanaka**  
External Auditor

April 1971 Appointed as Assistant Judge  
April 1981 Judge, Tokyo District Court  
April 1985 General Manager, Training Div., United Nations Asia and Far East Institute for the Prevention of Crime and the Treatment of Offenders  
April 1994 General Judge, Tokyo District Court  
February 2003 Director, Morioka District and Family Courts  
February 2005 General Judge, Tokyo High Court  
March 2009 Director, Sapporo High Court  
February 2011 Registered as an attorney  
April 2011 Professor, Graduate School of Law, Meiji University  
March 2015 Auditor (present post)



**Go Ishikawa**  
External Auditor

April 1995 Registered as an attorney  
July 1998 Partner, Kakimoto Law Office  
September 2008 Partner, Kasumigasaki Law & Accounting Office  
March 2011 External Auditor, MEDIAFLAG Inc. (currently ImpactHD Inc.)  
February 2012 Outside Auditor, ALTECH CO., LTD. (present post)  
March 2015 Senior Partner, SAKURADA DORI PARTNERS (present post)  
March 2016 External Auditor, MEDIAFLAG Inc. (currently ImpactHD Inc.) (present post)  
April 2016 Deputy Chairman, Dai-ichi Tokyo Bar Association  
March 2019 Auditor (present post)  
April 2022 Executive Governor, Japan Federation of Bar Associations (present post)

# Management and Financial Information

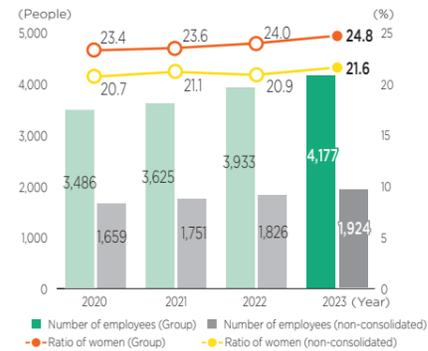
## Financial and Non-Financial Information

### Human Resources

#### Number of Employees

(As of January 1, 2023)

Group: **4,177** Non-consolidated: **1,924**

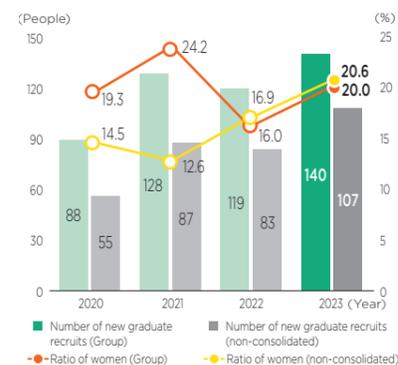


#### Number of New Graduate Recruits

(FY2023)

Group: **140** Non-consolidated: **107**

\* Excludes Waterman Group Plc

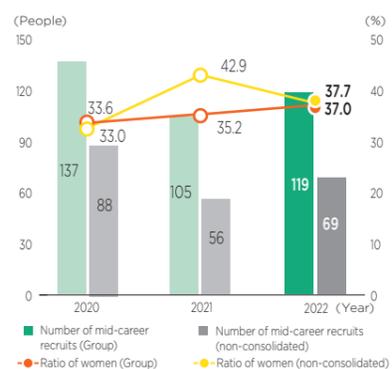


#### Number of Mid-Career Recruits

(January 1 to December 31, 2022)

Group: **119** Non-consolidated: **69**

\* Excludes Waterman Group Plc



### Engineering

#### Number of Employees with Professional Engineer Qualifications

(As of August 2023)

\* Those holding multiple qualifications are counted by the number of qualifications held.

Group: **1,573** Non-consolidated: **1,380**

Commendations from the Ministry of Land, Infrastructure, Transport and Tourism (MLIT)	FY2019 Operations	FY2020 Operations	FY2021 Operations
Director-Generals' commendations (including commendations from the Director-General of the National Institute for Land and Infrastructure Management)	19	33	22
Office managers' commendations (including commendations from department general managers)	31	61	55

\* CTI Engineering Co., Ltd. (non-consolidated)

Other Commendations (2022)	Applicability
2022 Civil Engineering Design Grand Prize	Shirakawa River Severe Disaster Countermeasures Special Emergency Project (Between Ryujin Bridge and Ozeki Bridge)
2022 Civil Engineering Design Prize Outstanding Achievement	Disaster Restoration Works at Miyagaharu district in The Hoshino River
2022 Civil Engineering Design Prize Honorable Mention Award	Ongagawa River Fishway Park
15th Minister of Land, Infrastructure, Transport and Tourism Award (Junkan no michi Sewage System Award) in the Asset Management Division	Heavy Rain Sewage Management System (jointly developed with Tomakomai City)
2022 Japan Society of Civil Engineers Outstanding Civil Engineering Achievement Award (Group 2)	Introduction of flood mitigation dam construction technology overcoming complex geological conditions of Aso pyroclastic flow deposits in Tamarai Dam Project
2022 Japan Society of Civil Engineers Outstanding Civil Engineering Achievement Award (Group 2)	River Embankment Construction Project with Integrated PM/CM Management (2011-2021 Kyukitakami-gawa River Mouth Restoration and Reconstruction Project)
2022 Japan Society of Civil Engineers Technical Achievement Award	Recipient: Koichi Obata, Principal Chief Engineer, Engineering Headquarters
2022 Minister's Encouragement Award for Outstanding International Infrastructure Engineer (Minister of Land, Infrastructure, Transport and Tourism)	Recipient: Go Ozawa, Water Management & Research Div., Tokyo Head Office

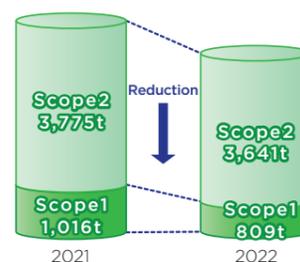
\* CTI Engineering Co., Ltd. (non-consolidated)

### Environment

#### 2022 CO<sub>2</sub> Emissions

\* Figure in parentheses is for 2021

- Scope 1: **809 tons** (1,016 tons)
- Scope 2: **3,641 tons** (3,775 tons)
- Scope 3\*: **23,103 tons (-)**



\* Non-consolidated

### Financial Highlights

(for the fiscal year ended December 31, 2022) (Consolidated)

#### Orders Received

¥**85,887** million

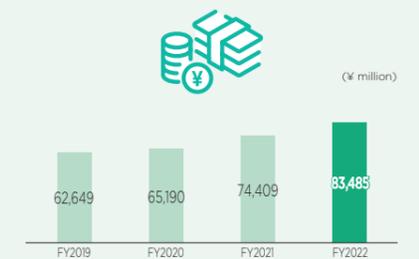
(Domestic ¥58,191 million / Overseas ¥27,696 million)



#### Sales

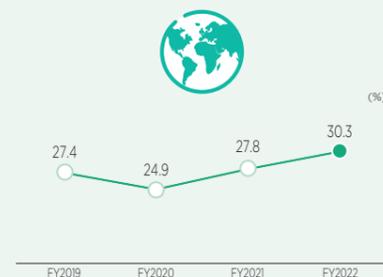
¥**83,485** million

(Domestic ¥58,160 million / Overseas ¥25,325 million)



#### Overseas Sales Ratio

**30.3%**



#### ROE

**13.1%**

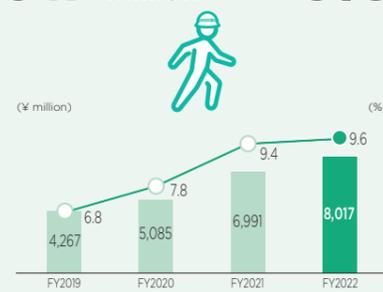


#### Operating Income

¥**8,017** million

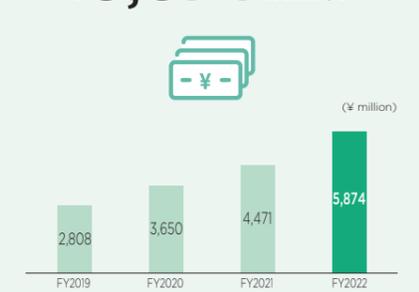
#### Operating Income Margin

**9.6%**



#### Net Income Attributable to Owners of the Parent

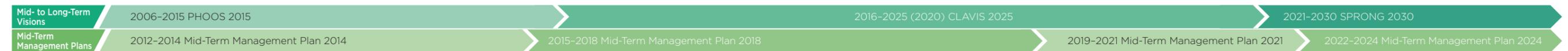
¥**5,874** million



# Management and Financial Information

## Consolidated Financial Summary

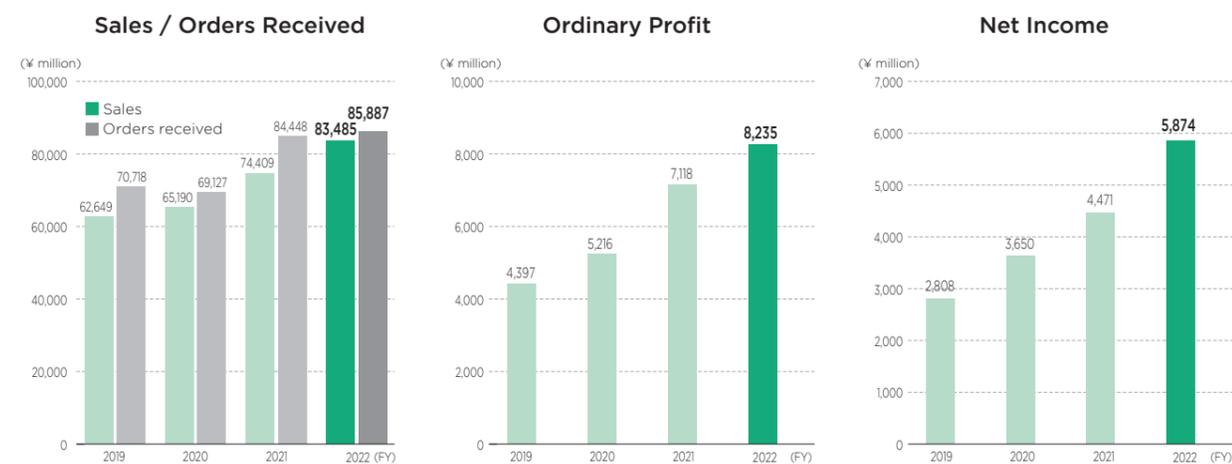
### Changes in Mid- to Long-Term Visions and Mid-Term Management Plans



	2012	2013	2014	2015	2016
<b>Income Statement</b>					
Orders received (¥ million)	37,707	43,082	40,348	40,353	42,481
Sales (¥ million)	32,515	36,435	39,524	40,220	42,033
Operating income (¥ million)	942	1,519	2,388	2,598	2,378
Operating income margin (%)	2.9	4.2	6.0	6.5	5.7
Ordinary profit (¥ million)	1,076	1,638	2,525	2,734	2,433
Net income attributable to owners of the parent (¥ million)	550	982	1,490	1,633	1,447
Comprehensive income (¥ million)	701	1,270	1,584	1,891	1,259
<b>Balance Sheet</b>					
Net assets (¥ million)	20,350	21,392	21,870	23,816	24,793
Total assets (¥ million)	32,319	37,132	41,011	43,937	42,644
Net assets per share (¥)	1,429.83	1,504.86	1,539.79	1,675.40	1,746.31
Net income per share (¥)	38.91	69.46	105.38	115.51	102.37
Net worth ratio (%)	62.6	57.3	53.1	53.9	57.9
Return on equity (ROE) (%)	2.8	4.7	6.9	7.2	6.0
Return on assets (ROA) (%)	3.4	4.7	6.5	6.4	5.6
<b>Cash Flows</b>					
Cash flows from operating activities (¥ million)	921	3,012	3,591	1,613	(201)
Cash flows from investing activities (¥ million)	(167)	(962)	568	(1,766)	(163)
Cash flows from financing activities (¥ million)	(476)	89	(108)	(196)	(683)
Cash and cash equivalents at end of period (¥ million)	6,448	8,592	12,659	12,310	11,244

	2017	2018	2019	2020	2021	2022
Orders received (¥ million)	52,775	60,117	70,718	69,127	84,448	85,887
Sales (¥ million)	49,301	58,443	62,649	65,190	74,409	83,485
Operating income (¥ million)	2,420	3,046	4,267	5,085	6,991	8,017
Operating income margin (%)	4.9	5.2	6.8	7.8	9.4	9.6
Ordinary profit (¥ million)	2,500	3,167	4,397	5,216	7,118	8,235
Net income attributable to owners of the parent (¥ million)	1,615	1,893	2,808	3,650	4,471	5,874
Comprehensive income (¥ million)	2,237	1,299	3,766	3,656	6,082	6,196
Net assets (¥ million)	26,885	27,810	30,929	34,016	38,820	47,719
Total assets (¥ million)	49,444	50,854	59,013	63,980	71,880	73,296
Net assets per share (¥)	1,881.01	1,950.54	2,169.53	2,393.36	2,734.99	3,360.83
Net income per share (¥)	114.22	133.94	198.59	258.17	316.25	415.49
Net worth ratio (%)	53.8	54.2	52.0	52.9	53.8	64.8
Return on equity (ROE) (%)	6.3	7.0	9.6	11.3	12.3	13.1
Return on assets (ROA) (%)	5.4	6.3	8.0	8.5	10.5	11.7
Cash flows from operating activities (¥ million)	2,834	1,873	4,798	8,687	5,344	3,804
Cash flows from investing activities (¥ million)	(6,857)	(1,475)	(1,051)	(779)	(671)	(752)
Cash flows from financing activities (¥ million)	(739)	(76)	(545)	(1,185)	(1,128)	(1,291)
Cash and cash equivalents at end of period (¥ million)	6,515	6,722	9,873	16,684	20,527	22,589

### Consolidated Financial Data \* Fiscal year from January 1 to December 31



# Company Information

## Status of the Company

(As of December 31, 2022)

### Status of Shares

(1) Total number of shares to be issued	40,000,000 shares
(2) Total number of issued shares	14,159,086 shares
(3) Number of shareholders	3,276

### Top 10 Shareholders

Name	Number of shares held (thousand)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (trust account)	1,508	10.7
HIKARI POWER LIMITED	1,361	9.6
CTI Engineering Employees' Stock-sharing Association	1,123	7.9
Custody Bank of Japan, Ltd. (trust account)	495	3.5
Yasumitsu Shigeta	396	2.8
MUFG Bank, Ltd.	371	2.6
Mitsubishi UFJ Trust and Banking Corporation	354	2.5
Sumitomo Life Insurance Company	300	2.1
Dai-ichi Life Insurance Company, Limited	269	1.9
DFA INTL SMALL CAP VALUE PORTFOLIO	210	1.5

Note: Calculation of shareholding ratio excludes treasury stock (19,478 shares).

## ISO Certification

### Quality Management System

**JIS Q 9001:2015 (ISO 9001:2015) Certification No. MSA-QS-4**

Certification scope: Consulting services related to rivers and sand erosion control, coasts and marine waters, ports and airports, power engineering, roads, railroads, water supply and industrial water supply, sewerage, agricultural engineering, forest engineering, fishery engineering, waste, landscaping, urban and regional planning, geology, soil and foundations, steel structures and concrete, tunnels, construction planning and construction equipment and estimations, construction environments, machinery, electricity and electronics, and information

Certified organizations: Main Office Environment, Quality & Safety Management Division, Tokyo Main Office, Hokkaido Office, Tohoku Office, Hokuriku Office, Chubu Office, Osaka Main Office, Chugoku Office, Shikoku Office, Kyushu Office, Okinawa Office

### Environmental Management System

**JIS Q 14001:2015 (ISO 14001:2015) Certification No. MSA-ES-10**

Certification scope: Consulting services and office activities related to the construction business

Certified organizations: Main Office Environment, Quality & Safety Management Division, Tokyo Main Office, Hokkaido Office, Tohoku Office, Hokuriku Office, Chubu Office, Osaka Main Office, Chugoku Office, Shikoku Office, Kyushu Office, Okinawa Office

## Corporate Information

### Company Overview

<b>Company name</b>	CTI Engineering Co., Ltd.
<b>Address of Main Office</b>	Nihombashi Hamacho F Tower, 3-21-1, Nihombashi Hamacho, Chuo-ku, Tokyo, Japan 103-8430
<b>Established</b>	April 1963
<b>Capital</b>	¥3,025,875,010
<b>Stock exchange listings</b>	Tokyo Stock Exchange, Prime Market
<b>Services</b>	Provides professional consulting services related to civil engineering and construction works, including planning, research, design, and supervision

- Registered Civil Engineering Consultant, Reg. No. 01-133
- Registered Geological Surveyor, Reg. No. 04-19
- Registered Compensation Consultant, Reg. No. 01-1002
- Registered Surveyor, Reg. No. (15)-848
- Registered First Class Architect's Office, Governor of Tokyo, Reg. No. 4330
- Registered First Class Architect's Office, Governor of Osaka Prefecture, Reg. No. 12091
- Registered First Class Architect's Office, Governor of Aichi Prefecture, Reg. No. 13738
- Registered Measurement Certification Business (Concentration) (Tokyo), Reg. No. 1424
- Designated Investigation Institution No. 2003-8-2022, based on Article 3 (1) of the Soil Contamination Countermeasures Act
- Weather Forecasting Services License (Meteorological, etc.), License No. 192

### Information Security Management System

**JIS Q 27001:2014 (ISO/IEC 27001:2013) Certification No. MSA-IS-62**

Certification scope: Consulting services and office activities related to the construction business

Certified organizations: Main Office, Tokyo Main Office, Hokkaido Office, Tohoku Office, Hokuriku Office, Chubu Office, Osaka Main Office, Chugoku Office, Shikoku Office, Kyushu Office, Okinawa Office

### Asset Management System

**JIS Q 55001:2017 (ISO 55001:2014) Certification No. MSA-AS-13**

Certification scope: Consulting services related to asset management of general public infrastructure (river and coastal facilities, bridges, tunnels) and utilities (water supply, sewerage)

Certified organizations: Tokyo Main Office: Waterworks Engineering Division, Infrastructure Management Division, Water and Sewerage Division, Osaka Main Office: Water and Sewerage Section

## Group Companies

### CTI Engineering Co., Ltd.

<https://www.ctie.co.jp/english/>

Nihombashi Hamacho F Tower, 3-21-1 Nihombashi Hamacho, Chuo-ku, Tokyo, Japan 103-8430

Tel.: +81-3-3668-0451

**Other offices** Research Center for Sustainable Societies (Kokudobunka Kenkyujo), Hokkaido Office, Tohoku Office, Tokyo Main Office, Tokyo Main Office (Saitama Office), Research Center Tsukuba, Hokuriku Office, Chubu Office, Osaka Main Office, Chugoku Office, Shikoku Office, Kyushu Office, Okinawa Office

**Branch offices** Aomori, Morioka, Akita, Yamagata, Fukushima, Kamaishi, Tokyo, Ibaraki, Yokohama, Chiba, Yamanashi, Kanto, Saitama, Gunma, Tochigi, Nagano, Toyama, Kanazawa, Shizuoka, Gifu, Mie, Nanshin, Osaka, Fukui, Shiga, Kyoto, Nara, Kobe, Wakayama, Okayama, Yamaguchi, Tottori, Shimane, Matsuyama, Tokushima, Kochi, Saga, Nagasaki, Kumamoto, Oita, Miyazaki, Kagoshima

### CTI Engineering International Co., Ltd.

<https://www.ctii.co.jp/en>

Tachibana Annex Building, 2-25-14 Kameido, Koto-ku, Tokyo, Japan 136-0071

Tel.: +81-3-3638-2561

**Other offices** Philippine Branch, Islamabad Branch Office, Phnom Penh Branch Office

**Overseas offices** Manila Liaison Office (Philippines), Ulaanbaatar Liaison Office (Mongolia), Phnom Penh Liaison Office (Cambodia), Jakarta Liaison Office (Indonesia)

**Overseas subsidiaries** Philippines, Myanmar

### Waterman Group Plc

<https://www.watermangroup.com>

Pickfords Wharf Clink Street, London SE1 9DG UK  
Tel.: +44-207-928-7888

**Branch offices** UK (13 offices), Australia, Ireland

### Japan Urban Engineering Co., Ltd.

<http://www.cticd.co.jp>

Matsudo Honcho Center Building, 14-1 Honcho, Matsudo, Chiba Prefecture, Japan 271-0091

Tel.: +81-47-703-6033

**Offices** East Japan Office, West Japan Office, Tohoku Office, Kitakanto Office, Chubu Office, Kansai Office, Okinawa Office

**Branch offices** Aomori, Fukushima, Ibaraki, Saitama, Chiba, Kanagawa, Shizuoka, Gifu, Kyoto, Nara, Shimane, Hiroshima, Saga, Nagasaki, Kumamoto, Oita, Miyazaki, Kagoshima

### Chi-ken Sogo Consultants Co., Ltd.

<http://www.chiso-con.co.jp>

Nippori UC Building, 2-26-2 Nishi-Nippori, Arakawa-ku, Tokyo, Japan 116-0013

Tel.: +81-3-6311-5135

**Other offices** Sapporo Office, Sendai Office, Tokyo Office, Chubu Office, Shikoku Office, Kyushu Office

**Branch offices** Yamagata, Saitama, Yamanashi, Ibaraki, Matsuyama, Kochi

### NISSOKEN ARCHITECTS & ENGINEERS Co., Ltd.

<http://www.nissoken.co.jp>

Takara Building, 1-34-14 Hatagaya, Shibuya-ku, Tokyo, Japan 151-0072

Tel.: +81-3-5478-9700

**Branch offices** Tohoku, Yokohama, Chubu, Osaka, Hiroshima, Kyushu

### Environmental Research & Solutions Co., Ltd.

<http://www.ctiers.co.jp>

2-3-9 Hikaridai, Seika-cho, Soraku-gun, Kyoto Prefecture, Japan 619-0237

Tel.: +81-774-41-0200

**Branch offices** Keihanna Branch Office, Chubu Branch Office, Tokyo Branch Office

**Sales offices** Osaka, Nara, Kobe, Shiga, Uji, Nagoya, Shizuoka, Mie, Gifu, Toyohashi, Yokohama, Chiba, Saitama, Ibaraki

### CTI Frontier Co., Ltd.

Nihombashi Hamacho F Tower, 3-21-1 Nihombashi Hamacho, Chuo-ku, Tokyo, Japan 103-8430

Tel.: +81-3-3668-0451

**Kuki Branch Office (Shobu Farm)**

769-1 Kamiozaki, Shobu-cho, Kuki, Saitama Prefecture, Japan 346-0011

Tel.: +81-480-53-4666

### CTI Ascend Co., Ltd.

74 Machi, Tamano, Soma City, Fukushima, Japan 976-0154

Tel.: +81-244-34-2050

### CTI REED Co., Ltd.

<http://www.reed.ctie.co.jp>

CTI Saitama Building, 1-14-6 Kamikizaki, Urawa-ku, Saitama, Saitama Prefecture, Japan 330-0071

Tel.: +81-48-833-2049

**Research Center Tsukuba**

1047-27 Onigakubo, Tsukuba, Ibaraki Prefecture, Japan 300-2651

Tel.: +81-29-847-4712

### CTI Wing Co., Ltd.

<https://www.ctie.co.jp/company/group/ctiwing/>

Kitahama NEXU BUILD, 4-33 Kitahama Higashi, Chuo-ku, Osaka, Osaka Prefecture, Japan 541-0031

Tel.: +81-6-6755-4007

**Sales offices** Hyogo, Wakayama, Nara, Shiga, Tokyo

### CTI Ground Planning Co., Ltd.

<https://www.ctie.co.jp/company/group/ctigp/>

CTI Fukuoka Building, 2-4-12 Daimyo, Chuo-ku, Fukuoka, Fukuoka Prefecture, Japan 810-0041

Tel.: +81-92-737-5333

**Sales office** Okinawa