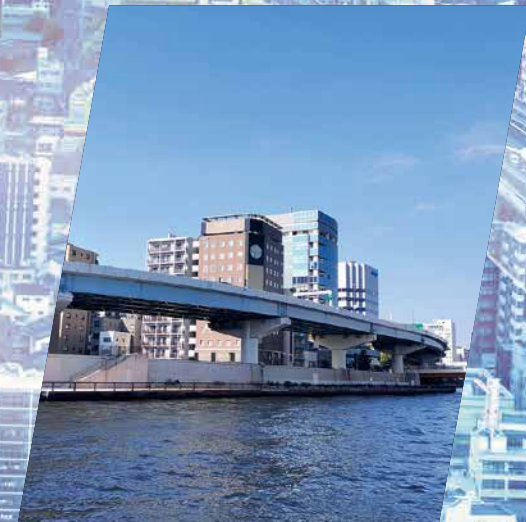
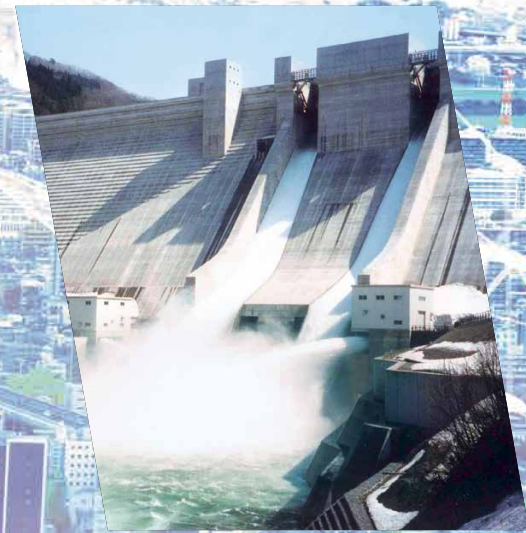




Enriching life
through engineering

CTI CHALLENGES FOR THE FUTURE



Our Continuous Striving Toward Safety and Security

Our mission is to use the power of technology with the aim of improving people's lives.
 To support society through the development of safe infrastructure so that people can live with security.
 To enable prosperous development where people can travel across roads and bridges.
 To harmonize with the natural environment and expand the richness of life.
 As Japan's first consulting engineer, we have been working under this philosophy for over 70 years.
 We will continue aiming to make great strides as Global Infrastructure Solutions Group,
 Creating a bright society where people can live with security using our advanced technologies and abundant wisdom.

The Business and Role of the Consulting Engineers

Consulting engineers support their clients by providing comprehensive guidance and advice on all aspects of infrastructure development.

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 engineers help to deliver safe and high-quality infrastructure that the public needs.

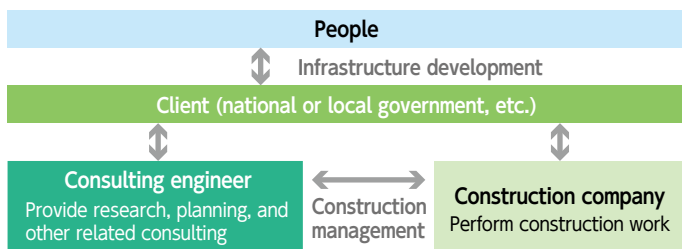


Figure: How the consulting engineer fits into the team

Consulting engineers must maintain a high level of technical expertise in order to perform their jobs, as their work significantly impacts the quality and cost of the facilities to be built. Consulting engineers play a key role in helping to resolve the growing number of problems we face in society today as infrastructure ages, natural disasters become more frequent, and global environmental problems worsen.

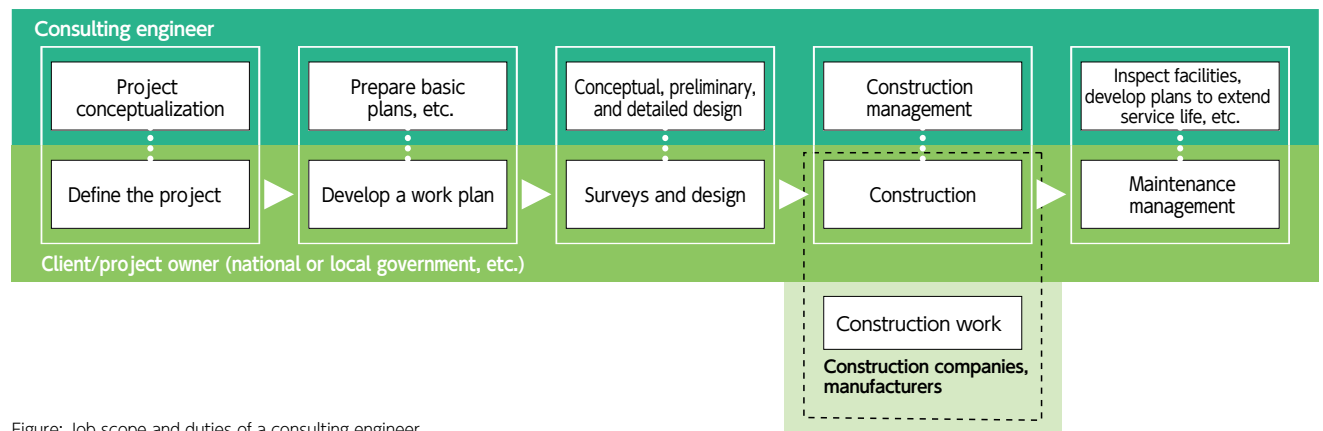


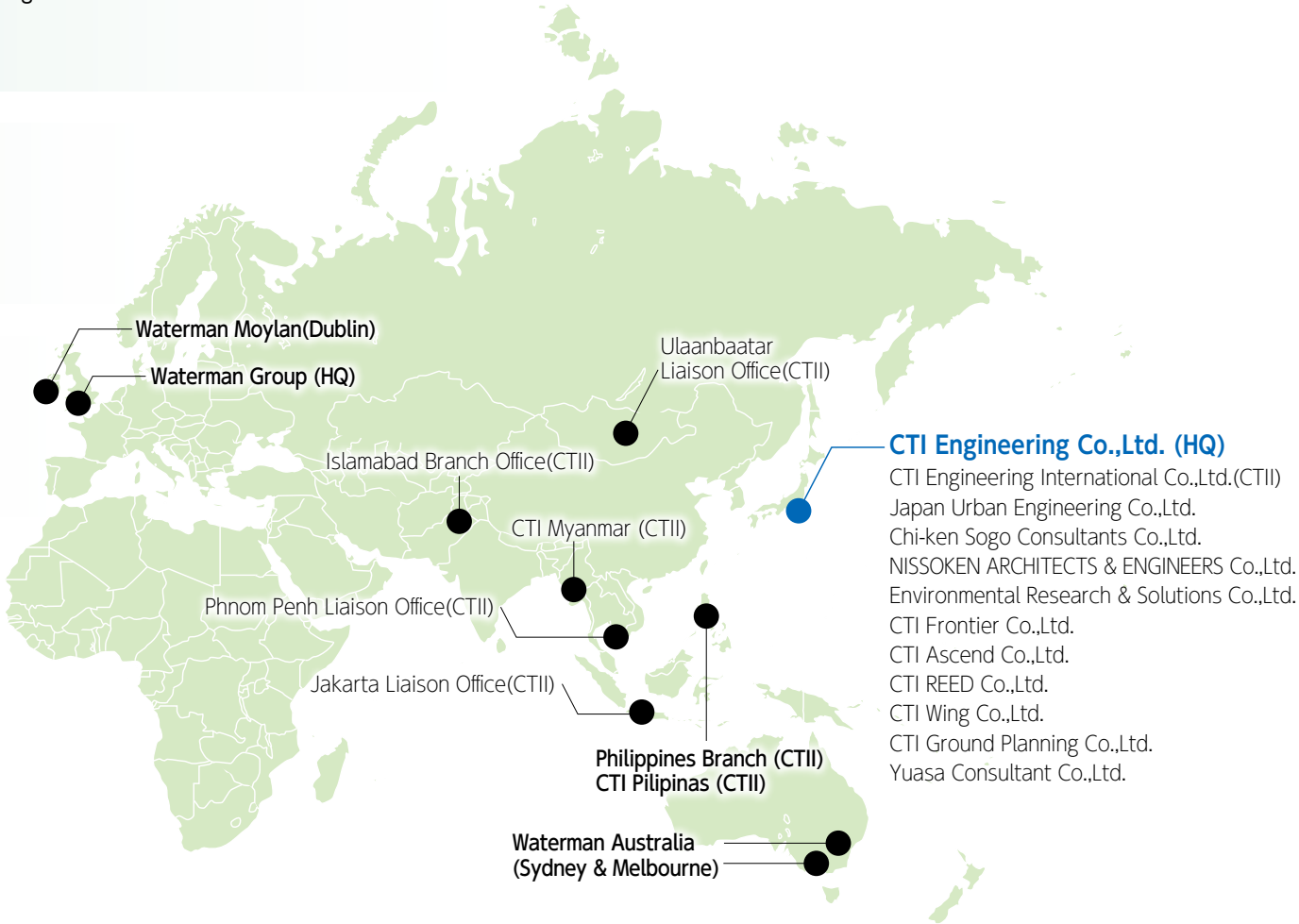
Figure: Job scope and duties of a consulting engineer

CTI Engineering Group Overview

First Established in 1945, CTI was the first engineering consultancy established in Japan.

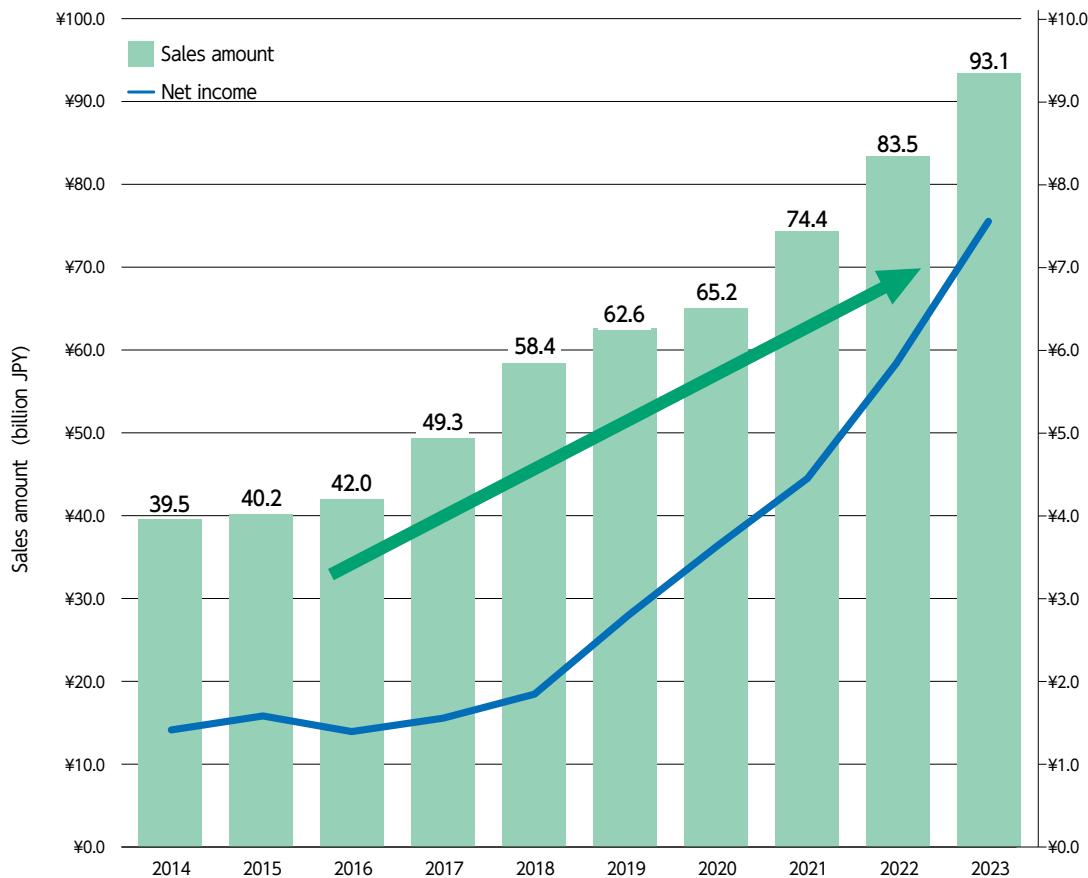
over 5,000 employees CTI Engineering Group employs over 5,000 people in 13 Group companies.

Top CTI Engineering Group has sales of ¥93.1billion (2023) and has the top share of sales to the government among consulting engineering companies in Japan.

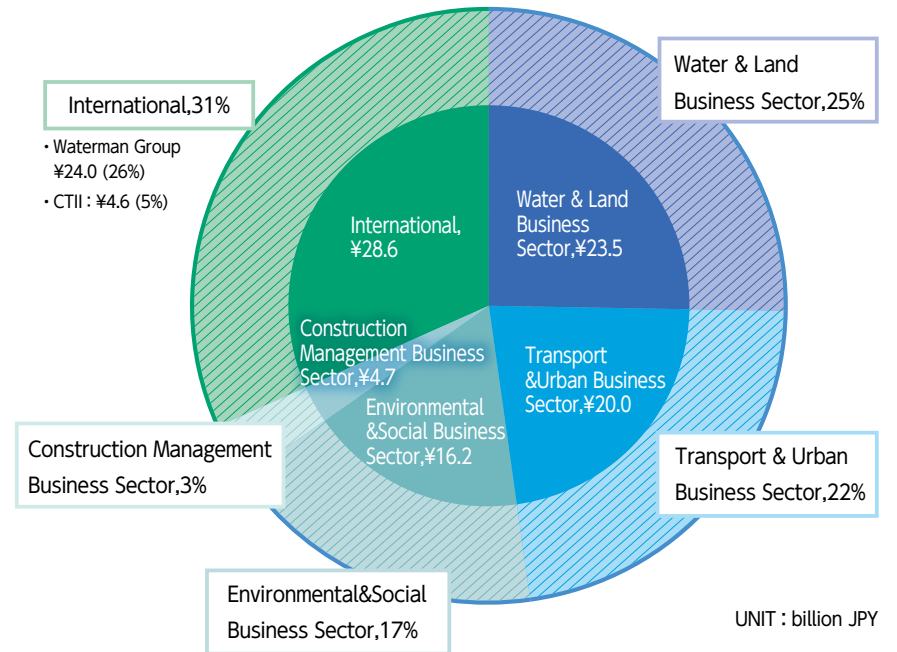


A Solid and Sustained Performance

- Number of Employees : 2,069 (parent company) and 5,000 (CTI Engineering Group)
- Annual Sales Amount in 2023 (consolidated): ¥93.1 billion JPY
- Annual Net Income in 2023 (consolidated): ¥7.53 billion JPY



Orders by Sector



Japanese market 69%

International market 31%

High Aspirations and Continuous Challenge

SPRONG 2030:CTI Engineering Group's Mid- to Long-Term Vision
(Established in June 2021)

Management Target Figures

Sales: 100.0 billion yen (Japan: 72.0 billion yen; overseas: 28.0 billion yen)
(CTIE*: 60.0 billion yen + main Group companies: 40.0 billion yen)
Operating income margin: 9% (CTIE: 10%; main Group companies: 7%)
Number of employees: 5,000 *CTIE: CTI Engineering Co., Ltd.

- Expand business processes
- Expand business fields
- Expand markets and clients in Japan

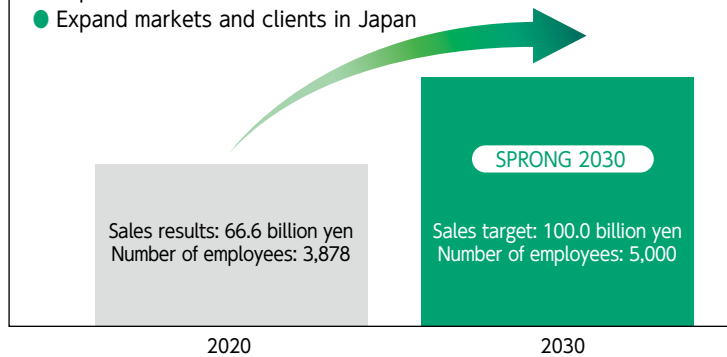
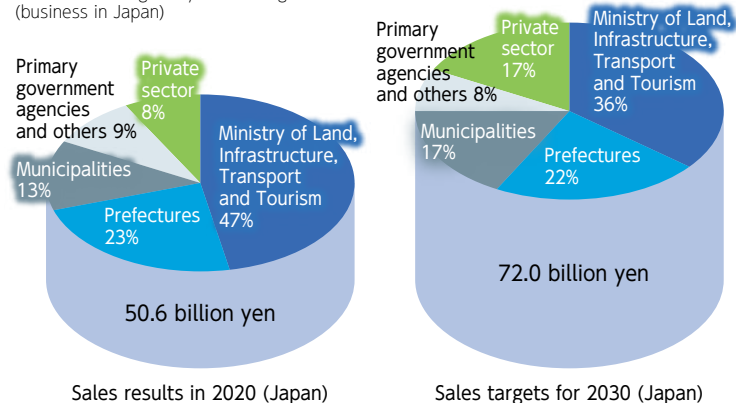


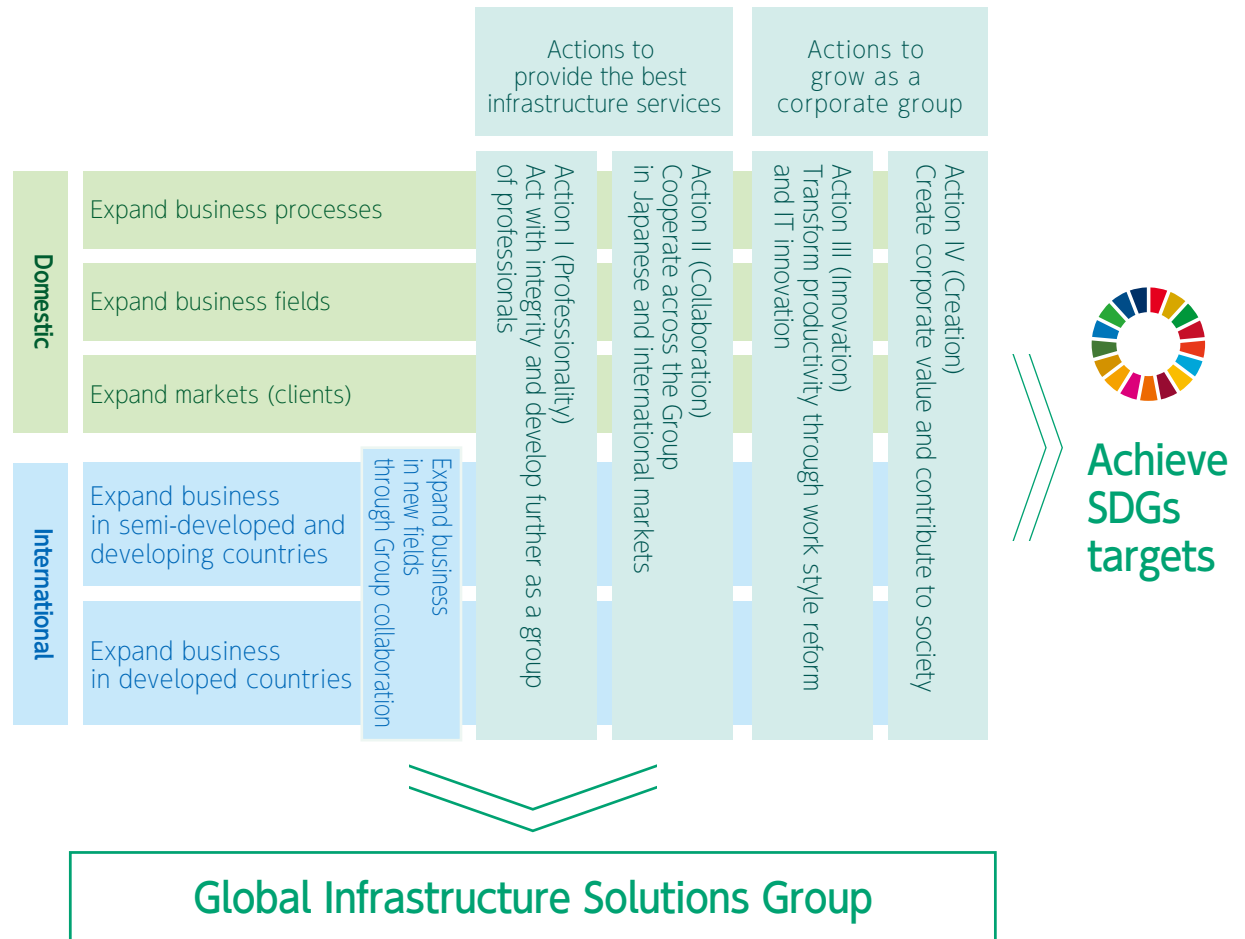
Figure: Mid- to Long-Term Vision results and business targets by market segment (business in Japan)



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

Direction of Business Expansion and Actions to Achieve Targets

- Expand business in Japan by improving business processes, deepening business fields, and widening markets (clients)
- Aim to achieve targets through four actions
- For international business, promote global expansion in developing, semi-developed, and developed countries



Water & Land Business Sector

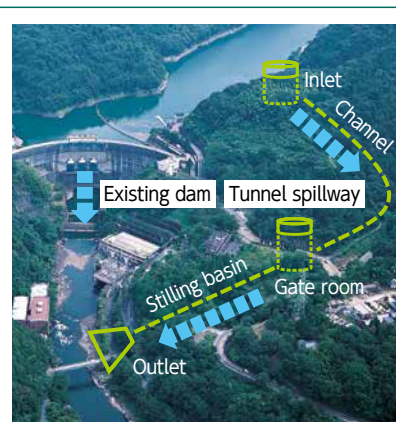
Achieving an affluent country that coexists with water

Photo taken by: Yukari Mitani (Kyushu Office)

Rivers/Water Resources/Coasts/Ports Sector

As general consulting engineers with advanced expertise related to rivers and coasts, we propose disaster prevention measures related to floods, tsunamis, and storm surges as well as measures related to watershed hydrology. We handle a wide range of business, including everything from river and coast-related research, analysis, experiments, planning, design, maintenance management.

In addition, we provide support related to implementing seismic measures for river management and coastal protection facilities, developing port and marine infrastructure, and taking disaster prevention measures for earthquakes, tsunamis, and other disasters.



Dam redevelopment (spillway expansion)

Dams Sector

In addition to the planning and design of new dams, we do business in a wide range of fields related to dam planning, design, operations, and management as we flexibly respond to the changing needs of the times, including planning and design related to dam upgrades, measures taken in response to sediment, and measures to extend the life of dams through dam-facility asset management.

Sabo Sector

To help prevent or mitigate sediment-related disasters, we propose comprehensive erosion control and landslide prevention measures, including disaster research and forecasts, the planning, design, and maintenance management of erosion control and landslide prevention facilities, and even non-mechanical measures.



▲ Erosion control facility planning and design

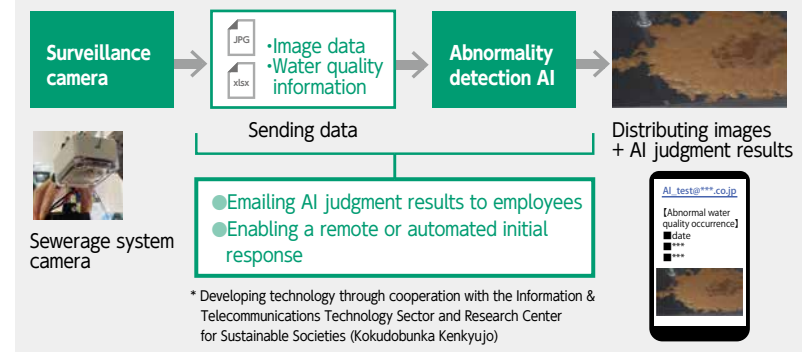


▲ Erosion control experiment with water

Water & Sewerage Sector

We provide support to enable sustainable water supply and sewerage service by resolving a wide range of business process issues related to everything from water supply and sewerage research, planning, and design to maintenance management and client support.

Increased maintenance management efficiency by utilizing images + AI technology



Mechanical & Electrical Equipment Sector

We devise optimal equipment plans, maintenance management plans, and other plans in response to society's changing needs in terms of mechanical and electrical equipment for dams, rivers, and water supply and sewerage systems in particular.

Transportation & Urban Business Sector

Creating a foundation for daily life and social activities

Roads & Transportation Sector

Building safe roads and managing their maintenance

We contribute to the construction and maintenance management of highly safe and reliable roads that can be used for years to come through the assessment, planning, and design of road projects based on consideration of social needs and the road traffic situation.

Proposing traffic plans and operations

We propose safe, reliable traffic plans and operations that are focused on the needs of diverse road users and logistics in order to contribute to regional revitalization and improved productivity.

Bridge planning, design, and maintenance management

We propose bridge structures optimized for user convenience, safety in terms of earthquakes and typhoons, harmony with the environment, scenery, and cost reduction as well as plans for managing the maintenance of such bridges to extend their service life.



Urban Planning/PFIs & PPPs/Architecture Sector

Community development that addresses social issues

We support the development of vital, affluent communities by applying a wide range of urban technologies to various problems that face cities, including Japan's aging population and declining birthrate, local development, regional improvement, safety and security, and urban landscapes.

Supporting urban transportation projects

We provide services that include the formulation of visions and operational plans for comprehensive regional transportation systems and public transportation, the consideration of land use and district transportation plans resulting from facility plans, and transportation project support utilizing MaaS (Mobility as a Service) and self-driving technology in cooperation with the Roads & Transportation Sector.

Supporting commercialization through PFI and PPP methods



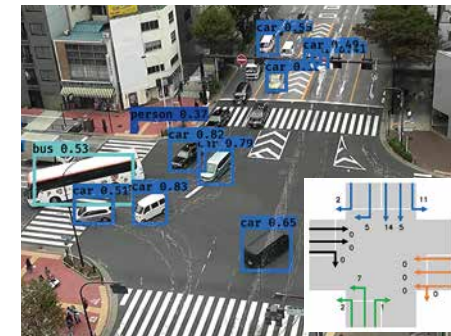
▲ City hall building design (Tatsuno city hall)



▲ Park and plaza planning and design (Nagano Omotesando Central Square)



▲Shin-Meishin Expressway while under construction (Shin-Yokkaichi Junction to Komono)
Opened in March of 2019



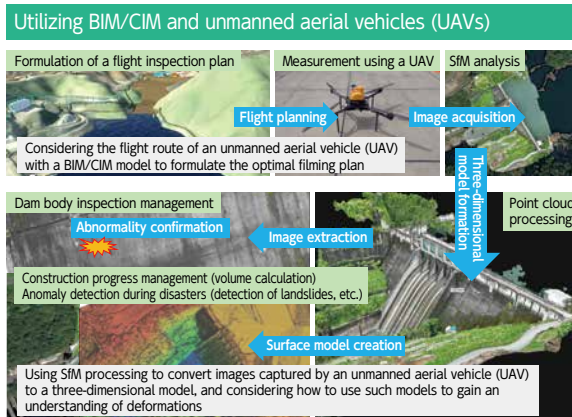
▲Development of an AI-powered traffic volume research system

Environmental & Social Business Sector

Serving as a foundation for various civil engineering fields

Information & Telecommunications Technology Sector

We help to achieve the advanced utilization of disaster-prevention and social infrastructure through considerations related to the utilization and introduction of AI, BIM/CIM, GIS, information systems, DX, and other technologies as well as the planning and design of electrical and telecommunications equipment.

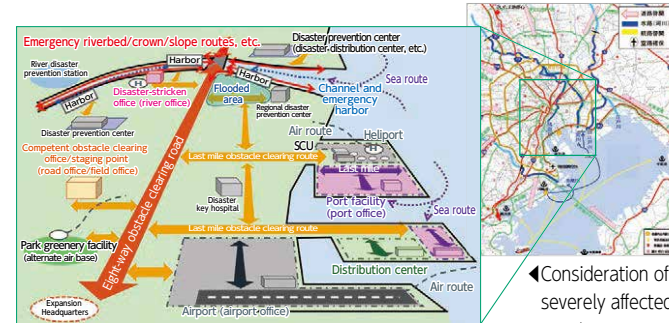


Example of construction management utilizing unmanned aerial vehicles (UAVs)



Disaster Mitigation Sector

We make proposals to ensure the safety of the nation and local communities through the formulation of regional, urban, and facility disaster prevention plans designed for large-scale, simultaneous, and complex disasters, the formulation of resilience-building measures and methods, including business continuity plans (BCPs) and relief plans for organizations, and the planning and design of various infrastructures.



◀ Four-route obstacle clearing (general obstacle clearing as stipulated in the Metropolitan Wide Area Regional Plan (March of 2016))

◀ Consideration of general obstacle clearing locations in a region severely affected by a disaster (roads, rivers, airport/coastal facilities, etc.)



Environment Sector

Proposing environmental research, planning, and utilization as well as conservation measures for infrastructure development

We provide technologies and measures to effectively utilize the environment for infrastructure development while also ensuring a balance between infrastructure development and environmental conservation.

Supporting planning and projects aimed at achieving a decarbonized and recycling-oriented society

We provide comprehensive consulting services that include planning, design, and construction supervision related to the new construction and core improvements of waste treatment facilities. In addition, to help achieve a carbon-neutral society, we support planning aimed at promoting decarbonization as well as renewable-energy equipment introduction plans.



▲ Solar power that utilizes idle land



Geo-environment Sector

We analyze the geological conditions necessary for the construction of civil engineering structures, the geological conditions of slopes to prevent or mitigate disasters, and groundwater utilization conditions. We also clarify geological risks at various stages, including the planning, design, construction, and maintenance management of civil engineering projects.



▲ An on-site field survey of collapsed land



Construction Management Business Sector

Supporting construction projects as a coordinator

Filming and construction: PENTA-OCEAN CONSTRUCTION CO., LTD.



Construction Management & Execution Management Sector

Construction project PM and CM*

During the design, ordering, and construction stages, we apply our technical know-how to the various kinds of management done by business operators while maintaining neutrality among them.

* PM stands for project management.

In terms of PM, we provide management services related to the business plan.

* CM stands for construction management.

In terms of CM, we provide management services related to the execution of business, including planning, design, land acquisition, and construction work.

Supporting construction project clients

We support the client, including creating materials that are necessary to execute the contracted work, verifying and confirming the construction status, and attending construction inspections, in an effort to ensure that business proceeds smoothly while also assuring quality.



▲ A road project utilizing CM



▲ A dam project utilizing CM



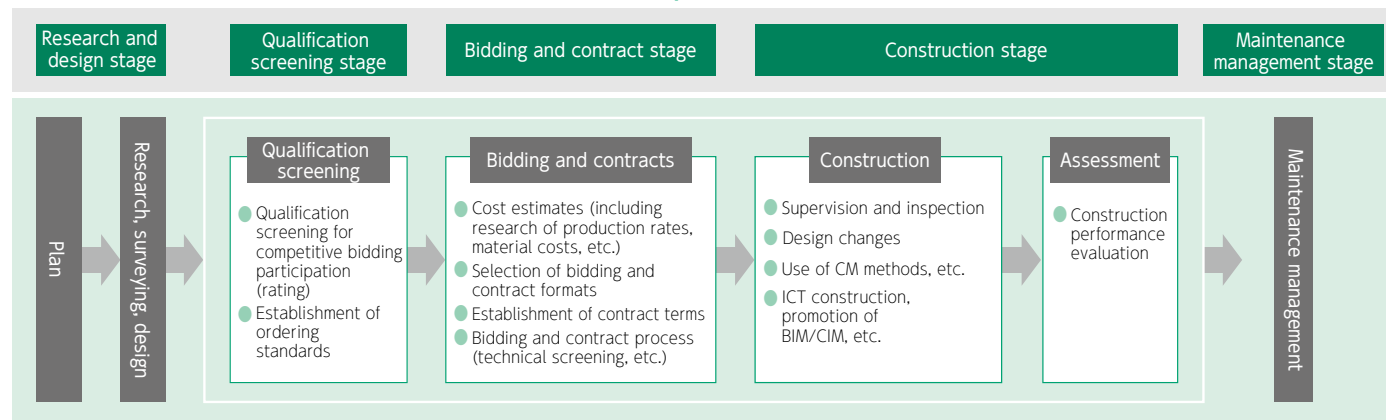
▲ A discussion with business operators concerning CM work



Public Procurement Assistance Sector

To ensure that public works projects are implemented properly and according to plan, we provide the right technologies and professionals in a timely manner, design systems related to bidding, contracts, and quality assurance, and prepare standards and conduct research related to the calculation of construction costs. We also provide support for project execution when new systems are introduced as well as assistance in post-introduction monitoring evaluation and suggesting improvements.

Overview of Public Procurement in Construction Production Systems



CTI International's Business Organization

In 1975, CTIE established an overseas division to cater to the international projects. CTII separated and became independent from CTIE in 1999. For a quarter of a century, CTII has been contributing to a safer and better life for people worldwide, especially in developing countries, as a professional consultant in extending Official Development Assistance (ODA) to these countries.



Water Resources & Disaster Management

River engineering, water resources development and disaster risk management (river improvement, gate structure, multipurpose dam, etc.)



Transport Development

Transport infrastructure and traffic engineering (roads/highways, bridges, tunnel, causeway, seismic design standards preparation, landslide and avalanche protection, city traffic management, etc.)



Urban Infrastructure

Urban planning, water supply and sanitation engineering



Environment

Environmental engineering, social consideration and safeguards

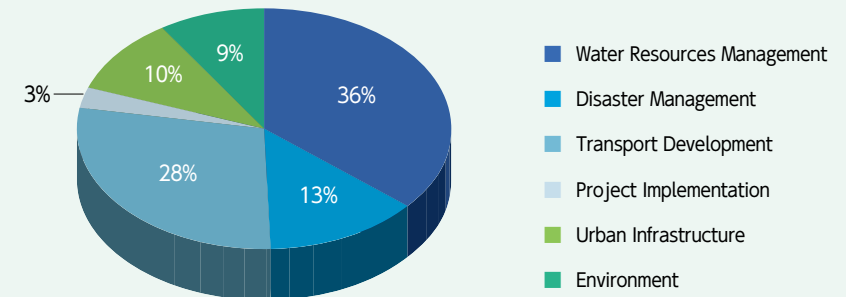


Project Implementation

Construction planning, supervision and administration

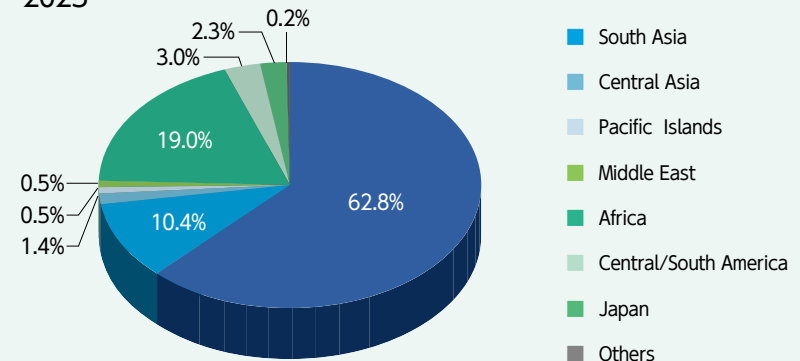
By sector

2023



By Region

2023



CTI Engineering Group Challenges for Sustainability

We announced the CTI Engineering Group Challenges for Sustainability as part of our commitment to achieving sustainability through infrastructure development. The CTI Engineering Group will actively promote sustainability management in accordance with the formulated plan to achieve our targets.

Challenges for Sustainability Promotion Goals 2030

- Achieve net zero greenhouse effect gas emissions in business activities by 2030 (Scope 1 and 2)
- Contribute to improving sustainability in communities

Challenges for Sustainability Promotion Goals 2050

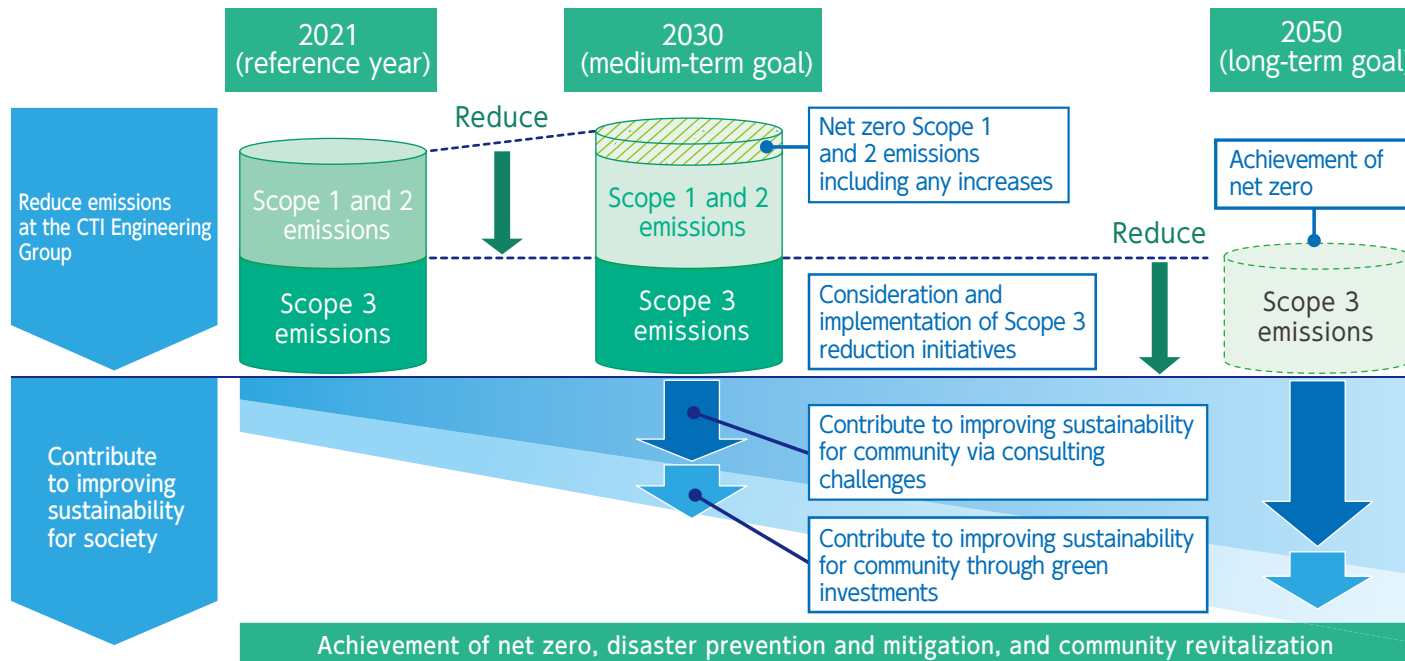
- Achieve net zero greenhouse effect gas emissions including the supply chain by 2050 (up to Scope 3)
- Contribute to improving sustainability in local communities

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 a sustainable community and society

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

*including any increases



Five Challenges in Consulting Services

- 1 Propose disaster prevention and disaster mitigation measures utilizing natural buffer powers and restorative forces against outside forces
- 2 Propose measures that contribute to reduced greenhouse effect gases across the infrastructure development life cycle
- 3 Propose measures that help reduce waste across the infrastructure development life cycle
- 4 Propose measures that contribute to coexistence with the natural environment across the infrastructure development life cycle
- 5 Propose measures that contribute to the revitalization of communities using ecosystem services brought about by natural capital

CTI Engineering's Branding Phrase

“Creating Safety and Security for the Future”

Brand Story

A pioneer among consulting engineers, CTI Engineering Co.,Ltd. has addressed societal issues with sincerity, honing our technological capabilities to solve wide-ranging challenges in infrastructure development.

We are a group of professionals who always strive to apply new technologies and provide the best infrastructure services.

In the midst of rapid technological innovation, we will continue to create safe and secure communities for the future.

CTI Engineering Co., Ltd.

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Tel: +81-3-3668-0451 (main number)

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

