Integrated Report

2019

Fiscal Year Ended
March 31, 2019

CTC
Challenging Tomorrow's Changes

ITOCHU Techno-Solutions Corporation

Editorial Policy

CTC's corporate mission is "leveraging IT's potential to change the future for the Global Good." In *Integrated Report 2019*, we explain how our value creation model provides the path toward sustainable growth that will enable us to fulfill this mission.

From the perspective of value creation, CTC's forte lies in supporting the IT lifecycle and a corporate culture cultivated through business activities conducted over many years. Leveraging these attributes, through its business CTC strives to enhance corporate value for its clients and help resolve social issues. Though an overview of the Company's corporate activities, this report provides general financial and non-financial information selected in view of its importance.

Scope of Report

This report covers ITOCHU Techno-Solutions Corporation (CTC) and its consolidated subsidiaries and includes information about non-consolidated subsidiaries and affiliates.

Notes on Financial Amounts

Figures less than one unit have been rounded down, based on IFRS.

Forward-Looking Statements

Statements made in this report with respect to CTC's plans, strategies, and beliefs, and other statements that are not historical facts, are forward-looking statements about the future performance of CTC based on management's assumptions and beliefs in light of information available at the time of publication and involve certain risks and uncertainties. CTC assumes no obligation to publicly update these forward-looking statements to reflect events, changes in the operating environment, or unforeseen developments that occur after the date of publication.

Website Information

This report is designed to provide in-depth information about CTC's management strategy, messages to stakeholders, and other topics. For the latest financial data and news about our business initiatives and projects, please visit the following links.

▶ IR Information

🖥 www.ctc-g.co.jp/rose/en/index.htm

◼ IR documents such as financial results and securities filings, as well as the latest IR news

▶ CSR

🖥 www.ctc-g.co.jp/en/corporate/csr/

◼ Detailed information about the Group's relationships with clients, business partners, employees, and communities, as well as corporate governance and environmental initiatives

▶ Corporate Governance Report (Japanese only)

🖥 www.ctc-g.co.jp/rose/profile/pdf/cor_gov.pdf

▶ Project Reports (Japanese only)

🖥 http://www.ctc-g.co.jp/report/index.html

◼ Project case studies, event reports, and articles

▶ Best Engine

🖥 http://www.ctc-g.co.jp/en/corporate/pr/

◼ This publication describes the Company's initiatives related to the most recent IT trends and technologies.

▶ **Challenging Tomorrow's Changes**

SLOGAN

FUTURE FACTORY

ENTERPRISE

TECHNOLOGY

START UP

Human resources are the type of management resource most critical to the IT business. Diverse human resources who are highly capable and motivated take on new challenges and perpetuate our DNA. We have introduced a host of HR policies to enhance our environment.

▶ Human Resource Strategies 📖 P.35

MISSION

▶ **Leveraging IT's potential to change the future for the Global Good**

People have diverse values, and "Global Good" can mean different things to different people. As a company, we define this term as the role society demands of us and our responsibilities to society, and we reflect the voice of broader society in our corporate activities.

Once 5G is fully commercialized, the utilization of 5G to create new business will become a new pillar of activity. By taking advantage of our long-standing track record in the configuration of telecommunications networks, we will showcase our ability to create new businesses with clients.

▶ Horizon 2 Go Forwards: Sharpen our Advantages P.29

VALUES

▶ **Challenge the Change**
Are you determined? Are you constantly trying new things without ever giving up?

▶ **Challenge the Value**
Are you creative? Do you create value that exceeds customers' expectations?

▶ **Challenge the Future**
Are you free thinking? Do you strive to map out a brighter future?

VISION
Our Vision for CTC

CTC Group Philosophy

Take responsibility for the evolution of the IT industry, as the industry's leading company

▶**Slogan**

Challenging Tomorrow's Changes

▶**Mission**

Leveraging IT's potential to change the future for the Global Good

▶**Values—**Action Guidelines

● **Challenge the Change**
Are you determined? Are you constantly trying new things without ever giving up?

● **Challenge the Value**
Are you creative? Do you create value that exceeds customers' expectations?

● **Challenge the Future**
Are you free thinking? Do you strive to map out a brighter future?

▶**CTC Group Code of Conduct**

We at CTC will endeavor to fulfill our corporate social responsibility in accordance with the CTC Group Philosophy, and always conduct ourselves with a strong sense of ethics and responsibility based on an understanding of the code set forth below:

1. **Full Commitment to Compliance**
2. **Offering Services and Products Useful to the World**
3. **Fair Trade and Prevention of Corruption**
4. **Strict Management of Information**
5. **Creation of a Work Environment with Respect for Human Rights**
6. **Consideration for a Sustainable Environment**
7. **Contribution to Society**
8. **Standing Against Antisocial Forces and Organizations**
9. **Reporting and Preventing the Recurrence of Violations**
10. **Taking the Initiative and Setting Good Examples**

SLOGAN

MISSION

VALUES

Contents

Message from the President

Opening
New Horizons

President & CEO

Satoshi Kikuchi

Maintaining a Client Perspective and Taking On New Challenges

This is already my eighth year since having been appointed president—time has passed quickly. Rather than to change things at CTC, I see it as my role to propel the Company forward in its areas of strength. This reasoning stems from my belief that even though it operates in the fast-changing IT sector, the values and DNA that the Company has built up over the years have earned it the unwavering support of its clients.

At the root of the values CTC holds dear are its focus on maintaining a client perspective, which is expressed in the Company's marketing capabilities across a wide range of job categories. We strive to gain a deep understanding of our clients' needs and issues and provide optimal solutions to resolve them. To achieve this, my sense is that throughout the Company we remain constantly attuned to information on the latest technologies, honing our technological capabilities.

Having observed this working environment, I became convinced that flexibility and elasticity are the secrets to management in our industry. Rather than being firmly wedded to specific modes of operation in certain fields, I believe the ability to accept new ideas and respond flexibly to the needs of our clients and society are essential to sustained growth.

Infrastructure business related to 5G mobile communications systems is expected to finally gain momentum in fiscal 2019, with a view to commercial rollout in 2020. Over many years, CTC has built up expertise in providing solutions centered on configuring networks for Japanese carriers. By aligning our perspective with those of our clients, we will embrace new businesses that clients are working to realize through 5G technologies and the issues they are seeking to resolve.

Another value CTC holds dear is the spirit of challenge. Reflected in the Company slogan of "Challenging Tomorrow's Changes" is a deep-rooted Groupwide culture of trying new things and seeing them through to the end. In addition to achieving sustainable growth for the Company, through our business we aim to help realize a sustainable society. To that end, we aim to continue taking on the challenge of helping resolve the issues society faces.

August 2019
President & CEO

Satoshi Kikuchi

Message from the President

▶ Expressing Things in My Own Words and Engaging in Dialogue

When I was first appointed president, the field of IT was new to me. Still, a president's job is to improve a company that may still be in operation 100 years in the future before passing it on to the next generation. Although I needed to acquire some specialist expertise, I did have experience as the president of an operating company. I have also realized that rather than following along and working according to my superiors' instructions, I am better suited to using my own discretion in managing a company. A manager's tasks are essentially the same, whatever the industry. First, I put in place some of the practices from my previous workplace, so I started and have steadily continued to use my own words to express my thoughts in an easy-to-understand manner and engage proactively in dialogue with frontline employees.

▶ Leveraging CTC's Strengths, Built by Taking a Client Perspective

Going out onto the front lines, I saw that employees were closely involved with clients and working from the same perspective. Many times I heard clients say things like "First, let's consult with the people at CTC" and "I'd like to work with Person X at CTC." I recognized that the concept of working from a client perspective was deeply rooted in our employees' psyche, and that building strong client relationships was a distinctive strength for CTC. In fact, these traits underlie the Company's business model.

Originally, the Company's business focused on sourcing leading-edge products from the United States and other countries for sale in Japan. Even after that point, we continued to build up our business by providing optimal proposals that combined products and services to fulfill the functions clients required. As a result, we accumulated the tangible and intangible assets an IT company needs to grow: the ability to handle a large number of products and services, partnerships with suppliers, and the technological capabilities to combine these products and services optimally to meet specifications.

By providing clients with a variety of products, we also cultivated expertise among our employees in providing after-sales maintenance, operations, and other support. We consequently built up a business model that is unique in our industry. We became able to handle operations across the IT lifecycle—from proposing products to configuring systems and providing support—without being tied to specific manufacturers and products.

In other words, because client perspective was the origin of our business, it naturally became a strength that fueled our growth in the IT field. I strive to keep this viewpoint at the top of my mind when considering our business and human resource strategies.

▶ Opening New Horizons

Turning now to the management environment surrounding the IT industry, it is clear that IT is playing an ever greater role in supporting society and resolving society's issues. As the term "Society 5.0" suggests, initiatives that utilize digital transformation (DX), artificial intelligence (AI), and the Internet of Things (IoT) to address such issues as a falling birthrate and aging population, an unevenly distributed population, and the reduction of environmental impact are gaining currency in society. Companies are also becoming more aware that combining their own businesses with leading-edge technologies to respond to society's new needs is essential to their sustainable growth.

The full-scale launch of 5G mobile communications systems is imminent. If we can put in place the infrastructure for achieving enhanced Mobile Broadband (eMBB), Ultra-Reliable and Low Latency Communications (URLLC), and massive Machine Type Communication (mMTC), IT will be called on to perform far more functions for society than ever before as it connects people with things and things with other things, as well as people to other people.

The new Medium-Term Management Plan we formulated in April 2018 is named "Opening New Horizons." This plan indicates the fields in which CTC will leverage its own strengths to take up challenges in an era where IT is playing an ever more important role. We have defined the directions for broadening our horizons as "Go upwards: Challenge business transformation," "Go forwards: Sharpen our advantages," "Go outwards: New coverage, new region in globe" and "Consolidate footholds: Stabilize management infrastructure."

We have positioned each of the plan's three years differently. We explain that fiscal 2019, the second year, is our "breakthrough" year both internally and externally. The naming of the years of the plan in Japanese corresponds to artistic modulations in traditional Japanese performance art. The first year corresponds to the introduction, beginning steadily (intro). The second year, the breakthrough phase, is more rhythmic (breakthrough), and the third year, or acceleration, rushes toward the climax (accel). Although we conceived the idea based on concepts we are familiar with in Japan, this expression of a cycle from beginning to end is universal, and is found in Western theater as well.

In fiscal 2018, the "intro" year, projects connected to IoT and other next-generation businesses were realized and started contributing to earnings. We also made progress on building an earnings model in which maintenance, cloud, and other legacy businesses created a stable earnings base.

> **Because client perspective was the origin of our business, it naturally became a strength that fueled our growth in the IT field.**

The "breakthrough" year of fiscal 2019 will mark the full-fledged start of initiatives for "Opening New Horizons." We will focus in particular on three key measures: 5G, DX, and global. Let me briefly outline our direction in each of these areas.

▶ Please see pages P.23–38 for details on the Medium-Term Management Plan.

5G: Leveraging Our Know-How in Building Infrastructure
In addition to its business of building carriers' 5G networks, CTC needs to acquire usage-based businesses, creating new businesses that leverage 5G.

We expect to steadily expand our building-based business, buoyed by our many years of experience in working with Japan's leading carriers. I am confident that our track record of providing solutions optimized to each carrier's individual needs has earned us the trust of our clients and earnings opportunities.

The Telecommunication Group has been central to our initiatives in the building-based business. By comparison, all business groups will have the opportunity to take on new challenges in usage-based businesses. Such businesses are possible in a wide range of industrial fields, from remote medicine and autonomous vehicles to smart factories that utilize local 5G networks. In building-based businesses, by virtue of its technology for building high-speed networks, CTC is uniquely positioned to provide numerous sorts of proposals. In particular, we should be able to leverage this strength in the area of local 5G networks. I am convinced that the Company's style of business holds the key to major opportunities.

DX: Making the Most of a Keen Eye and Technological Capabilities
CTC offers a number of strengths to clients striving to use IT to propel themselves to the next stage: business expertise accumulated through business with a wide range of clients, a keen eye for the latest technologies honed by providing some of the best products in the world, and the technological capabilities to combine these technologies.

The research activities of an R&D center we set up on the West Coast of the United States in 1990 support our efforts to keep a keen eye on information related to breaking technologies. This center keeps our antennae outstretched and liaises with our front lines to uncover leading-edge technologies that meet our clients' needs.

Message from the President

Also, in 2017 we established the Institute of Open Innovation Research "MIRAI" to leverage the leading-edge technologies of startup companies in Japan and overseas. In October of the same year we opened DEJIMA, a dedicated space in Tokyo for open innovation, providing an environment where we can work with startup companies to create new businesses.

As part of an organizational reform in April 2019, we set up a new structure with a group of top-level engineers led by the Chief Technology Officer (CTO). By cultivating and verifying leading technologies near the front lines, as well as by nurturing the human resources to utilize these technologies, we are maintaining our keen eye and honing our technological capabilities to meet the needs of clients in the DX generation.

Leveraging these technologies marks the manifestation of digital businesses—IoT and AI. To illustrate, CTC is providing full-fledged backup for the digital businesses that the ITOCHU Group is promoting. We are expanding earnings opportunities by creating new businesses through value chain optimization, the digitalization of payments, and the linking and analysis of customer data.

Global: Expanding Our Scale of Business, Including through M&A

5G and DX are breaking down the borders of business even more than ever before. Even IT companies are likely to become unable to grow sustainably through domestic business alone. As in the past, our global business involves strengthening support structures as Japanese companies develop their businesses overseas and building business through collaboration with companies in areas slated for high economic growth, particularly the ASEAN region.

In fiscal 2018, we entered a capital alliance with SYSCOM (USA) INC. of the United States and a business alliance with Newton Information Technology Ltd. of the United Kingdom. In fiscal 2019, we will endeavor to expand our scale of business efficiently, including through M&A. We will also recruit local personnel overseas, concentrating first on building a network spanning the ASEAN region.

▸ Stabilizing Our Management Infrastructure

To this point, I have explained our growth strategy in the context of reinforcing CTC's strengths. Of course, management cannot simply press down on the accelerator forever. If, through verification, we find some risks that are strategically critical and cannot be ignored, we have to formulate measures to address those risks.

With Japan affected by a labor shortage, recruiting human resources is an urgent issue for the IT industry as well. As 5G and DX progress, we will need to recruit and cultivate as many people as possible with strong technological capabilities and put in place an environment that encourages them to maximize their potential with us for as long as possible. It almost goes without saying that cultivating good human resources is our most important priority over the medium to long term. To date, CTC has focused mostly on hiring mid-career professionals. Recently, we have been transitioning toward the hiring and development of new graduates. We recognize the need for work-style reforms and other ongoing measures to put in place a working environment that encourages excellent human resources to remain with us for a long period of time.

> " I believe CTC's raison d'être is to provide value that makes society more bountiful. "

As part of our efforts to stabilize our management infrastructure, we revamped our corporate governance structure in June 2019. We slimmed down the Board of Directors from nine members to six, two of whom are independent outside directors. Both are women, helping to ensure the Board's diversity. We increased membership of the Board of Corporate Auditors from three to four, with two members being independent outside auditors. Having put the structures in place, now is the time to focus on content. To ensure CTC's sustainable growth, we will endeavor to fortify the governance system, facilitating energetic exchanges of opinion and swift decision-making.

▶ **Ensuring Sustainable Growth for Society and the Company**

Our numerical targets for the period of the Medium-Term Management Plan are aimed at simultaneously boosting profit and increasing capital efficiency. We are targeting return of equity (ROE) of 12% or more by fiscal 2020. We will divide the cash provided by operating activities mainly among shareholder returns and the investments in growth I have mentioned—particularly M&A and human resources. In line with its basic policy on providing dividends to return profits to the shareholders who support the Company, CTC works to secure stable dividend payments and stresses the return of profits according to business performance, while carefully considering the balance of internal reserves and the actual amount distributed to shareholders. Targeting a consolidated dividend payout ratio of approximately 45%, we raised dividend distributions for the 10th consecutive year.

That said, measuring the success of corporate activity on the basis of earnings growth and dividends alone seems insufficient. Our vision for CTC is to "take responsibility for the evolution of the IT industry, as the industry's leading company," and our mission is "leveraging IT's potential to change the future for the Global Good." I believe CTC's raison d'être is to provide value that makes society more bountiful.

To realize our vision and mission, we signed up to the United Nations Global Compact (UNGC), and support its 10 principles in four key areas: human rights, labor, the environment, and anti-corruption. Also, in March 2016 we identified areas of materiality to help realize a sustainable society through our business. These areas of materiality are linked with the United Nations' Sustainable Development Goals (SDGs) to help our employees see a clear connection between their roles and the SDGs.

I mentioned that flexibility and elasticity were the secrets to management in the fast-changing IT industry. I think this style of work is particularly apt for CTC, which is dedicated to combining and providing superior products from around the world. I invite our stakeholders to join us on the journey to see how CTC grows and keeps pace with a changing society.

▶ Fiscal 2018 Results

			(¥ billion)
	FY2017	FY2018	FY2019 Plan
Revenue	429.6	451.9	480.0
Operating income	32.6	35.8	39.0
Net profit attributable to CTC's shareholders	23.5	24.6	27.0
ROE	11.8%	11.5%	—

▶ Fiscal 2020 Numerical Goals

3: Strengthen profitability

Net profit attributable to CTC's shareholders _____ ¥**30.0** billion

6: Drive growth in core businesses

Cloud and IT outsourcing business _____ ¥**60.0** billion

Global business _____ ¥**60.0** billion

12: Increase capital efficiency

ROE _____ **12** % or more

The CTC Group's History of Embracing

Challenges

The CTC Group's corporate culture is distinguished by the word "challenges." Since establishment, the role we are called upon to perform in the IT industry has changed, but we have consistently worked to provide optimum solutions to meet clients' requirements by cultivating leading-edge technologies and enhancing our technological capabilities. Our mindset of embracing challenges, nurtured over many years, is evident in our corporate slogan, "Challenging Tomorrow's Changes," and our corporate brand, "CTC."

1972 ▶

Established as a business operator within the ITOCHU Group

CTC's predecessor, C. ITOH Data Systems Co., Ltd., was established in 1972. As a subsidiary of a trading company, the new company's business revolved around customizing and selling the best products from around the world to Japanese clients. The company derived a higher proportion of sales from products than other system integrators, and CTC's business model, which emphasizes the building of infrastructure, carries forward to this day.
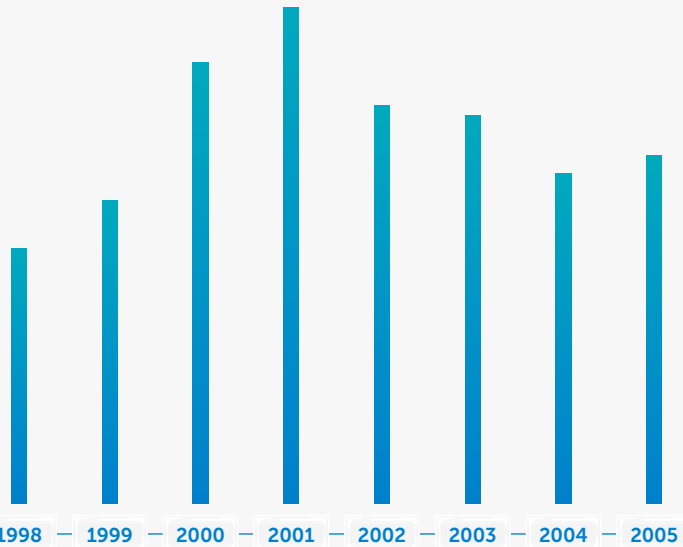
1970- — 1980- — 1990- — 1998 — 1999 — 2000 — 2001 — 2002 — 2003 — 2004 — 2005

1980s

▶ Started sales of Oracle products

In 1983, CTC concluded a sales agent contract for the Japanese market with Sun Microsystems (now Oracle).

CTC and Sun Microsystems subsequently built up a solid partnership, with CTC becoming the world's largest reseller of Sun Workstations in 1995 on the back of Sun Microsystems' dramatic global growth.

This project illustrates our penchant for bringing the best products from around the world to Japan as quickly as possible.

1990

▶ Established ITOCHU Technology, Inc. as U.S. research hub

Established as a research and development hub in the United States, the company is tasked with monitoring market trends and conducting research into the latest technologies, services, and products. The company became a subsidiary in 2012*[1]. In addition to leading the CTC Group's research and development activities, the company helps tech start-ups move into the Japanese market and works to grow the Group's business with Japanese businesses based in the United States.

1990s

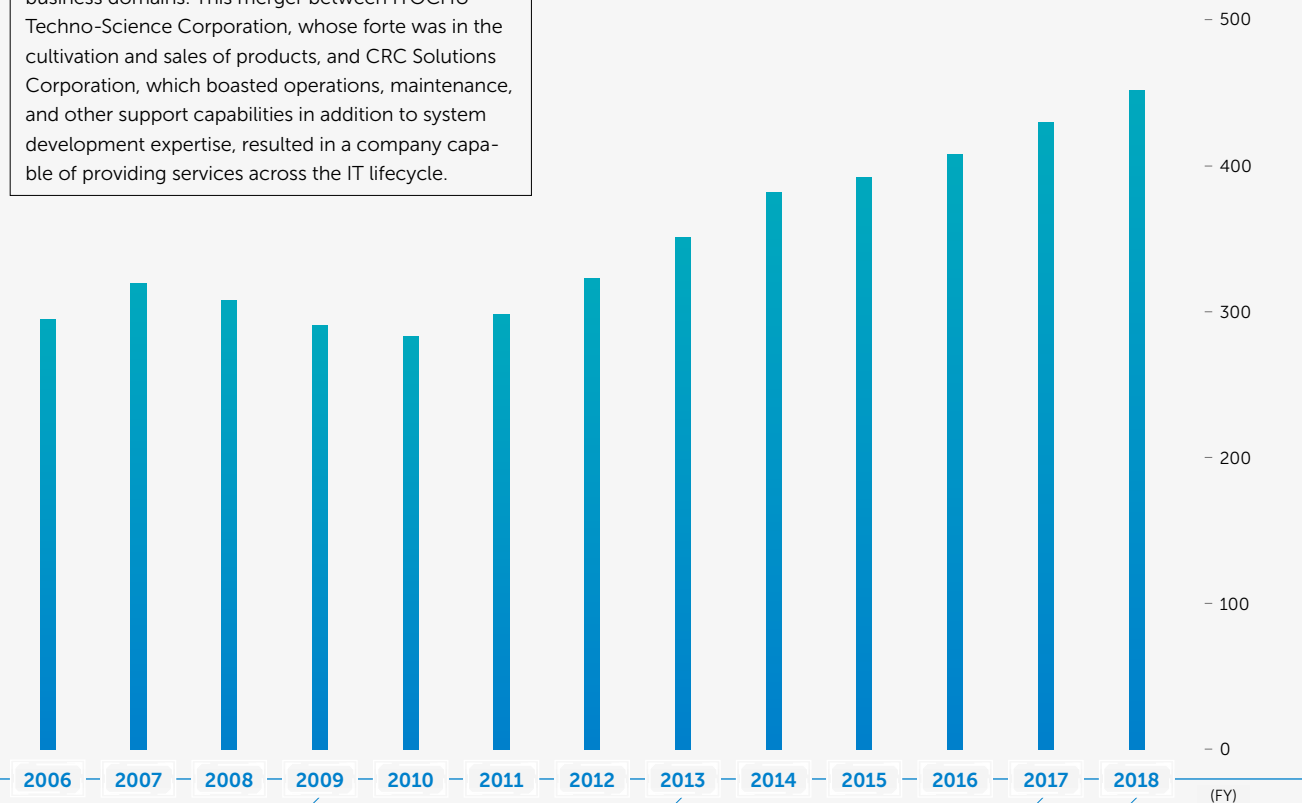### ▶ Launched a business targeting carriers

Our involvement in carrier networks began in the 1990s, and our introduction of mobile Internet services in 1999 was ahead of the curve. Our ability to consistently meet carriers' sophisticated and complex requirements by providing optimal solutions featuring state-of-the-art technologies has led to the carrier business becoming a major pillar of earnings today.

2006 ▸ Conducted a management integration

October 2006 marked the birth of ITOCHU Techno-Solutions Corporation through the management integration of two companies with strengths in different business domains. This merger between ITOCHU Techno-Science Corporation, whose forte was in the cultivation and sales of products, and CRC Solutions Corporation, which boasted operations, maintenance, and other support capabilities in addition to system development expertise, resulted in a company capable of providing services across the IT lifecycle.

Fiscal 2018 Revenue ¥ **451.9** billion

Engineers: over **6,300** in 2019

Revenue bar chart (¥ billion), FY 2006–2018:

FY	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018

(FY)

TechnoCUVIC
ElasticCUVIC
CUVICmc2

2009

▸ **Took first steps in cloud computing**

CTC began providing cloud services, starting with the provision of Techno-CUVIC, a public cloud service utilizing its data centers in Japan. We currently provide two cloud services developed in-house, Elastic-CUVIC and CUVICmc2. We have also built relationships with numerous cloud vendors, establishing our superiority as a multi-cloud vendor.

2013

▸ **Acquired two companies in the ASEAN region, and began globalizing**

To provide our clients with global support and expand our business on a global scale, we acquired CSC Automated and CSC ESI*², which have extensive client bases in Singapore and Malaysia. This move launches us into the ASEAN market, which is expected to grow at one of the fastest rates within the IT industry, and spearheads CTC's efforts to develop its global business.

2017

▸ **Established Institute of Open Innovation Research "MIRAI"**

We established the Institute of Open Innovation Research "MIRAI" with an organizational mission to cultivate and develop leading-edge technologies and create a new business model. In October, we opened DEJIMA, a dedicated space for open innovation, to facilitate the creation of new businesses among clients and startup companies.

2018

▸ **Opened a space dedicated to agile development**

As one of our initiatives in the area of agile development, which aims to enhance development speed and respond flexibly to change, we set aside dedicated locations in Tokyo and Aichi Prefecture. Agile development is a new methodology aimed at responding to client needs in a timely manner by developing applications capable of responding to an ever-changing operating environment. CTC's ability to respond to this methodology for making development faster and more efficient sets the Company apart in the development and system integration (SI) domains.

*1 Name changed to ITOCHU Techno-Solutions America, Inc.
*2 Renamed CTC GLOBAL PTE. LTD. and CTC GLOBAL SDN. BHD.

The CTC Group's Value Creation Model

The CTC Group's business model leverages the strengths it has cultivated to date to provide optimal solutions for clients in a wide range of industries. This business model is supported by our thorough dedication to maintaining a client perspective and an ongoing emphasis on embracing challenges. Through this model, we aim to maximize corporate value for our clients, realize our mission to "change the future for the Global Good," and achieve sustainable growth as a company.

- Falling childbirths and an aging population, decrease in the working population
- Growing environmental awareness, increase in natural disasters
- Replacement of core systems in response to the "2025 digital cliff"
- Rising information security risks
- Workstyle reforms, need for higher worker productivity
- Urban concentration, depopulation of outlying areas

Management Environment, Social Issues

▶ 📖 P.23–24
CTC's Position and Changes in the Operating Environment

Business Domains

Manufacturing, transportation, retail and distribution, information and communications, public sector and utilities, finance, educational and research institutions

▶ 📖 P.39–53
Main Business Strategies

Maintenance and Operation Data Center

Introduction and Transition

Strength 1:
The Ability to Create New Businesses with Clients
▶ 📖 P.17

The CTC Group's Material Topics (Materiality)

▶ 📖 P.57–58
The CTC Group's Materiality

1 Provide trusted IT services
- Ensure rigorous information security
- Improve quality
- Compliance

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

2 Cultivate personnel who can change society for the better
- Conduct personnel development and training
- Promote diversity and change work styles
- Help cultivate people who can be a bridge to the next generation

4 QUALITY EDUCATION
5 GENDER EQUALITY
8 DECENT WORK AND ECONOMIC GROWTH

3 Harness IT to build a sustainable society
- Address issues related to an aging society
- Reduce environmental impact
- Contribute to regional economies

3 GOOD HEALTH AND WELL-BEING
7 AFFORDABLE AND CLEAN ENERGY
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
11 SUSTAINABLE CITIES AND COMMUNITIES
13 CLIMATE ACTION

IT Lifecycle CTC Provides

- Business Strategies
- Planning and Design
- Procurement
- Development and Construction

Client Perspective

Challenges

▶ 📖 P.7–8

Strength 2:
The Ability to Build New Businesses by Harnessing IT

Mission

_____

To change the future for the Global Good

Resolve social issues

**Enhance corporate value for clients**

Business Outcomes

▶ Unique business model backed by capabilities in IT infrastructure construction

▶ Stable business portfolio with broad exposure to different sectors

▶ Strong, stable profits and shareholder returns

▶ One of Japan's best track records working with world-class IT vendors

▶ Healthy, motivating workplaces that enrich the lives of employees

CTC Group Strength 1:

The Ability to Create New Businesses with Clients
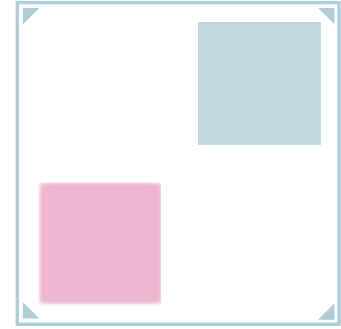
With IT slated to play an ever greater role in society, companies in a wide range of industries are searching more energetically for ways to create new businesses through technological innovation. System integrators are called on to help clients realize these aims by connecting their growth strategies with leading-edge technologies. The CTC Group, which has clients and has amassed operational know-how across a host of industry sectors, collaborates with myriad partners to foster its innovative capabilities and help create new businesses to support society.

Broad Client Base
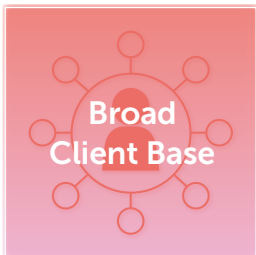
▶ Clients and Operational Know-How Spanning a Host of Sectors

CTC's clients span a broad range of industries—including telecommunications, finance, manufacturing, and public-sector entities with large-scale systems—that rely on 24/7 uptime. The sophisticated operational expertise and specialized knowledge we have amassed through our business in these areas over the years is the wellspring of our ability to respond to new client issues and a source of strength.

Client base:

8,951
companies

Ratio of top-10 customers, by sales:

40%

Innovation Capabilities
▶ Institute of Open Innovation Research "MIRAI"

▶ Future-Oriented Service Focused on Creation in Collaboration with Clients

CTC works with clients to create new businesses and expand their lines of business by leveraging the relationships with a wide range of partners and the leading-edge technologies we have cultivated in Japan and overseas.

To further prepare the groundwork for innovation, in 2017 we established the Institute of Open Innovation Research "MIRAI," developed an open innovation platform called CTC Future Factory, and established CTC Innovation Partners as a corporate venture capital (CVC) firm.

Visitors to the DEJIMA open innovation space (Fiscal 2018):

Approximately

2,500

Investments by CTC Innovation Partners:

5 projects
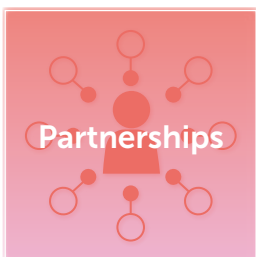
Partnerships

▶ Strong Relationships with Partners in Japan and Overseas

In addition to joint ventures with clients, we have built robust relationships with our own Group companies in Japan and overseas, as well as with members of the ITOCHU Group. We also collaborate with universities to engage in human resource development and conduct research that leverages our mutual strengths. Such collaboration enables us to proactively create a framework that welcomes change with new businesses that we would be unable to embrace solely with our own resources.

Subsidiaries and affiliates in Japan and overseas:

20

The Ability to Build
New Businesses by Harnessing IT

Compared with other Japanese system integrators, the CTC Group derives a higher percentage of sales from products and is stronger in infrastructure development. Over the years, we have forged relationships with excellent Japanese and overseas vendors. The leading-edge products and technological information we glean from them helps us hone the technological skills that infrastructure development calls for. This wide-ranging knowledge and technological expertise is the source of the CTC Group's competitiveness.

Multi-Vendor

Multi-Cloud

▶ A Keen Eye for the Latest Technologies and an Unrivaled Choice of IT Products

We maintain a vigilant lookout for superior vendors in Japan and overseas, fueling our efforts to deploy numerous products, technologies, and cloud and other services in Japan. In addition to knowledge of individual products and services developed since establishment, we have honed our ability to bundle multiple products and created a niche as a "multi-vendor" system integrator. We have one of the strongest track records with leading vendors of any company in Japan, which also leads to solid advantages on the pricing front.   ▶ 📖 P.19−20

Silicon Valley relationships:

29 years

Vendor partners:
More than

300 companies

Technological Capabilities

Full Stack Engineering

▶ Teams of Engineers That Can Integrate the Latest Technologies

CTC has built up its technological capabilities by embracing the challenges posted by new technologies and pursuing measures to resolve the true issues that clients face. This approach has earned us trust from our clients and led to the accumulation of expertise. CTC applied its ability to build IT infrastructure in a multi-vendor environment, cultivated over many years, to the carrier-oriented business it launched in the 1990s. We harness these skills to develop services and applications that bolster our clients' competitive advantages.   ▶ 📖 P.19−20

Engineers:
13,898

Development partners: Approximately

980 companies

People with vendor certifications:

7,111

Support Framework

▶ Support Framework Linked with New Business

As a multi-vendor, the CTC Group goes beyond just procuring products and building infrastructure. We also provide post-installation operational and maintenance support, which requires us to understand the features of deploying products from multiple vendors across complex system environments. The support capabilities of the CTC engineers who facilitate the stable operation and maintenance of extremely complex systems earn a high degree of trust and provide an important reference point for new business.
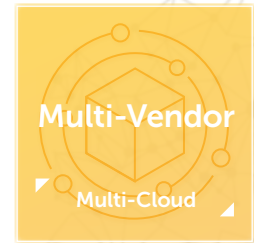
Nationwide maintenance and support network

Overseas support structure:

626 people in

5 countries

Source of the CTC Group's Strength:

The Ability to Respond in the Era of Cloud Computing

Strong relationships with numerous excellent IT vendors underpin the competitive edge the CTC Group has built up over the years. Another factor is our development of applications for high-end IT environments and the provision of quality maintenance and operation services.

Now that cloud computing has become commonplace, in addition to solid relationships with cloud vendors CTC has continued to leverage its strengths and provide the same level of quality that has become its hallmark in a hybrid, multi-cloud, and multi-vendor environment. We will also continue to apply such traditional CTC strengths as **a keen eye** and **sourcing and integrating technologies**.

Multi-Vendor

Multi-Cloud

Technological Capabilities

Full Stack Engineering

▶ Partnerships and CTC's Technological Prowess in the Era of Cloud Computing

Since the time of its founding, the CTC Group has continued to build solid relationships with superior IT vendors in Japan and overseas. The CTC Group deploys IT services and more than 300 products to support them, consistently making it a leading Japanese company on a transactional basis. In addition to such hyper-scale cloud vendors as Amazon Web Services (AWS), we also form partnerships with major vendors that develop numerous application services, such as SAP and Box. We meet on a regular basis with some of the world's foremost IT vendors, sharing clients' requests and comments from Group engineers in deliberations to help them develop high-quality products and services.

In 1990, we set up an R&D base in the United States, which has led to the ongoing discovery of emerging products and leading-edge technologies. As a result, we have also commenced research in Shenzhen and continue to research and discover technologies at our global bases.

▶ Main Vendors and Services

aws partner network
Premier Consulting Partner

Azure

box

cisco Gold Partner

Vendors for which
CTC is the largest seller
in Japan:
16 companies

Vendors that accord
top partner ranking
to CTC:
22 companies

DELL EMC PARTNER TITANIUM BLACK

Google Cloud

Hewlett Packard Enterprise

JUNIPER NETWORKS

NetApp®

ORACLE Platinum Partner Cloud Standard

outsystems

SAP Silver Partner

vmware®

▶ CTC Wins Award at OutSystems InStep APAC 2018

At an event in August 2018 hosted by OutSystems—which provides low-code development environments—we earned high marks from the company's engineers for our system configuration and service provision and were cited as having the "most certified professionals."

▶ CTC Receives Award at Box Japan Partner Award 2018

In February 2018, CTC was named "Best Channel Partner" for the third consecutive year by Box as the top seller of its cloud services in Japan. Going forward, we will continue to support corporate work-style reforms via Box, leveraging CTC's capabilities in such areas as proposal-making, installation support, consulting, and support services.

▶ Full-Fledged Efforts to Introduce SAP ERP

In recent years, we have steadily built up a reputation for the configuration of large-scale systems utilizing products from SAP, a leading vendor enterprise resource planning (ERP) software. Based on the backbone system configuration and operational experience we have accumulated in the process, we are responding to the demand for transitioning to SAP S/4 HANA® after SAP stops providing ERP maintenance support for the previous version in 2025.

U.S. Base and Research Efforts

We established U.S. subsidiary ITOCHU Techno-Solutions America, Inc. in 1990 to stay alert for the leading-edge technologies that tend to surface in the United States. In the nearly 30 years since, the company has expanded its operations to include bases on both the east and west coasts, facilitating one of the biggest lineups among Japanese system integrators.

Staff come from various industrial domains across CTC's business groups, looking for emerging technological information to connect to actual business. They gather information at trade shows, meet regularly with superior IT vendors, and conduct searches based on the needs of clients and CTC Group engineers. This resource provides CTC with access to breaking technology trends without needing to be physically present in the United States. Through this company, we are also strengthening our relationships with local companies.

We have begun sending personnel to conduct research in Shenzhen, China, which is experiencing rapid IT growth. We also expect to begin sending such personnel to Europe.

Full Stack and System Integrators for the DX Era

Digital transformation (DX) refers to the accelerating ability to use IT resources easily at any time. In addition, the emergence of 5G mobile communications systems will lead to enhanced Mobile Broadband (eMBB), Ultra-Reliable and Low Latency Communications (URLLC), and massive Machine Type Communication (mMTC), facilitating the exploding volume of data as IoT becomes a reality. We will need to make progress on AI for the analysis and analytics on this data, as well as transitioning to a new business model suited to this environment.

As no single service will be able to meet all the needs arising in this environment, customers will need to make use of multiple cloud services (multi-cloud environment) and employ various analysis and analytics tools. The data amassed and cultivated at data centers can be utilized. We also anticipate the emerging need to analyze, perform analytics on, and process streaming data even closer to end-users (edge computing environment).

In addition to the infrastructure to support 5G, we will provide environments to control the aggregation of cloud-native microservice software such as software-defined networking (SDN) and network function virtualization (NFV) and provide dynamic infrastructure control in response to application needs.

Creating services that offer stable quality in such multi-cloud, edge computing environments will be no easy task. Nor will it be simple to develop high-quality applications and perform maintenance and conduct operations on these systems. Accordingly, we will need to

Tadataka Okubo

Director & Senior Managing Executive Officer
Assistant to the President (Special
appointment for Advanced IT Strategy)
CTO

form teams with full stack technologies, including a knowledge of infrastructure environment operations and control methods; expertise on the products and technologies that employ these methods; and an understanding of application development environment, application development tools, and application programming interfaces (APIs) through microservice architecture.

Fortunately, the CTC Group is one of the few system integrators with full stack engineers equipped with network, IT infrastructure, cloud, application development, and project management technologies.

Through our sourcing and integrating technologies, we will provide the human resources and skills with the flexibility to respond in the DX era and foster their ongoing development. As a full stack system integrator, we will respond across the IT lifecycle to the needs of the new era.

Key Financial and Non-Financial Data

▶ Revenue (by Business Model)

(¥ billion)

FY	2014	2015	2016	2017	2018
Total	381.9	391.6	407.8	429.6	451.9
Products	147.8	155.6	155.7	167.1	177.8
SI Development	79.0	77.6	87.1	91.5	94.9
Services	155.0	158.3	164.9	170.9	179.1

■ Services ■ SI Development ■ Products
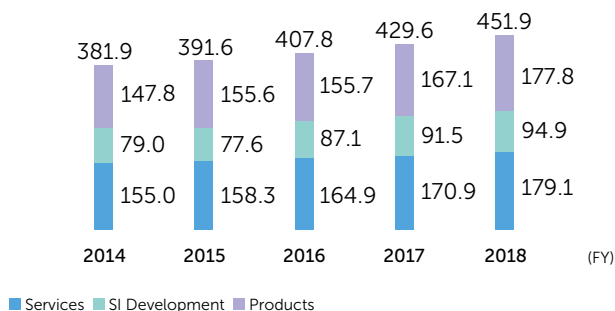
▶ Orders Received / Backlog

(¥ billion)

FY	2014	2015	2016	2017	2018
Orders Received	388.0	398.3	437.5	435.2	470.1
Backlog	201.6	208.3	238.0	243.6	262.9

■ Orders Received ■ Backlog

▶ Operating Income / Operating Income Margin

(¥ billion / %)

FY	2014	2015	2016	2017	2018
Operating Income	29.3	27.9	31.1	32.6	35.8
Operating Income Margin	7.7	7.1	7.6	7.6	7.9

■ Operating Income ● Operating Income Margin
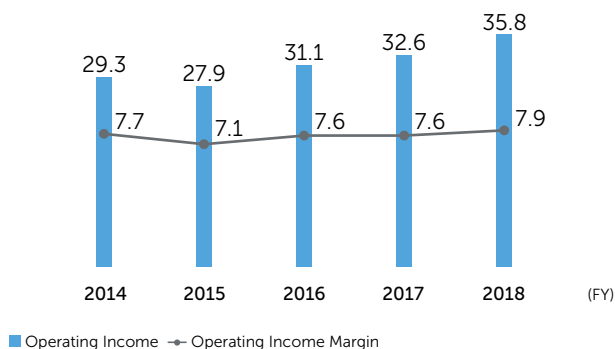
▶ Net Profit Attributable to CTC's Shareholders / EPS

(¥ billion / ¥)
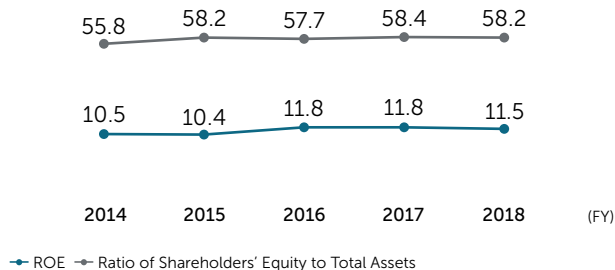
FY	2014	2015	2016	2017	2018
Net Profit Attributable to CTC's Shareholders	17.4	18.0	21.8	23.5	24.6
EPS	74	77	94	102	106

■ Net Profit Attributable to CTC's Shareholders ● EPS

▶ ROE / Ratio of Shareholders' Equity to Total Assets

(%)

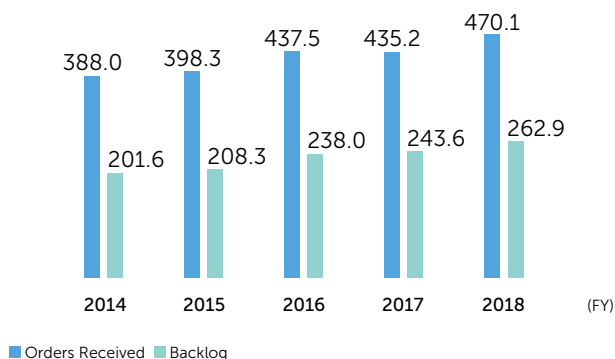| FY	2014	2015	2016	2017	2018
Ratio of Shareholders' Equity to Total Assets	55.8	58.2	57.7	58.4	58.2
ROE	10.5	10.4	11.8	11.8	11.5

● ROE ● Ratio of Shareholders' Equity to Total Assets

▶ Annual Dividends per Share* / Dividend Payout Ratio
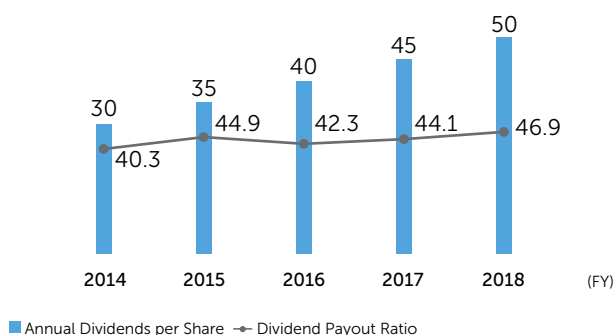
(¥ / %)

FY	2014	2015	2016	2017	2018
Annual Dividends per Share	30	35	40	45	50
Dividend Payout Ratio	40.3	44.9	42.3	44.1	46.9

■ Annual Dividends per Share ● Dividend Payout Ratio

* CTC conducted two-for-one stock splits of common shares on April 1, 2015 and April 1, 2018. Amounts for fiscal 2014 to fiscal 2017 in the above table have been retroactively adjusted to reflect the stock splits.

Note: In fiscal 2018, revenue, all profit items, orders received, and the backlog reached the highest levels since the merger between ITOCHU Techno-Science Corporation and CRC Solutions Corporation in 2006.

▶ Employees

(People)

	2014	2015	2016	2017	2018
Total	7,857	7,993	8,100	8,175	8,359
Women	1,170	1,176	1,222	1,256	1,327
Men	6,687	6,817	6,878	6,919	7,032

(FY)

■ Men ■ Women

▶ Monthly Average Overtime Work (Non-Consolidated)

(Hours)

2014	2015	2016	2017	2018
18	18	16	14	14

(FY)

* Hours in excess of statutory working hours

▶ Annual Average Number of Holidays Taken / Ratio of Taking Holidays (Non-Consolidated)

(Days / %)

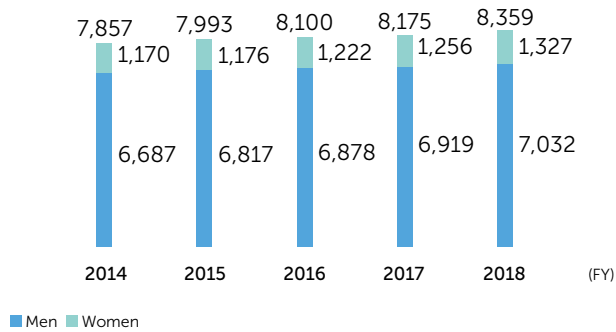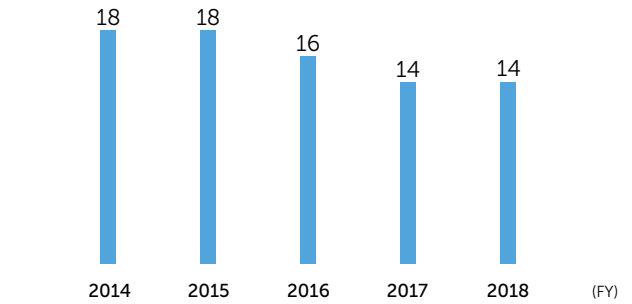|	2014	2015	2016	2017	2018
Ratio of Taking Holidays	63	67	70	72	75
Annual Average Number of Holidays Taken	12.3	13.0	13.5	13.9	14.5

(FY)

■ Annual Average Number of Holidays Taken ─●─ Ratio of Taking Holidays
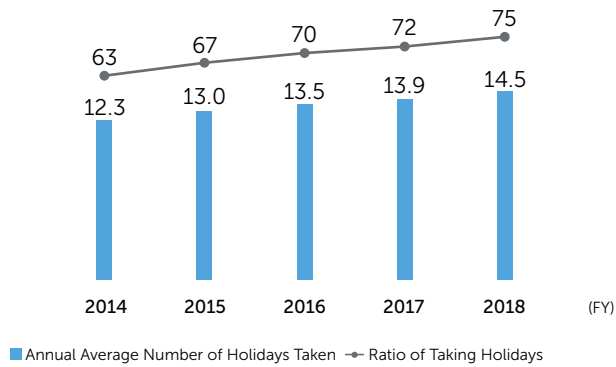
▶ Turnover Rate (Non-Consolidated)

(%)

	2014	2015	2016	2017	2018
Women	3.3	3.4	3.0	2.9	4.0
Total	2.6	2.8	3.0	2.8	3.0
Men	2.4	2.7	3.0	2.8	2.8

(FY)

─●─ Total ─●─ Men ─●─ Women
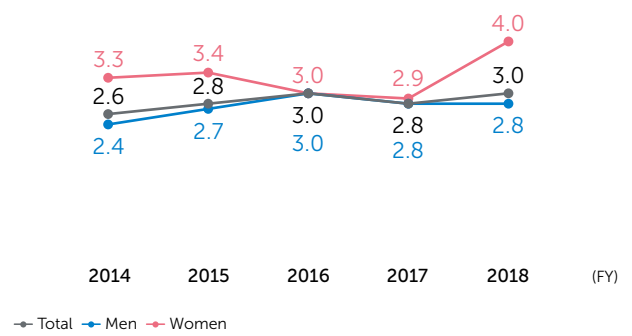
▶ Childcare Leave System Users (Non-Consolidated)

(People)

	2014	2015	2016	2017	2018
Childcare Leave System Users	64	67	82	120	128
Male Employees	4	2	17	54	59

(FY)

■ Childcare Leave System Users ■ Male Employees
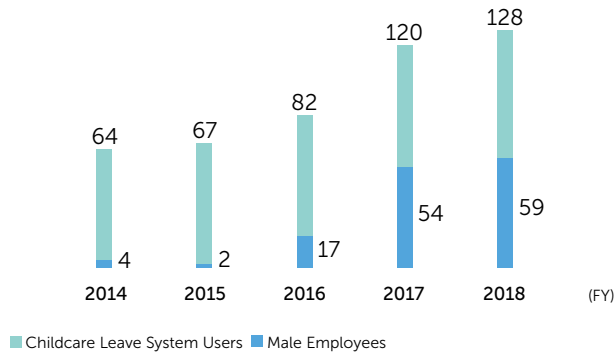
▶ Greenhouse Gas Emission Volume / Energy Used

(t-CO$_2$ / kl)

	2014	2015	2016	2017	2018
Greenhouse Gas Emission Volume	68,668	67,586	65,647	61,749	58,074
Energy Used	33,029	33,472	33,007	31,749	31,562

(FY)

■ Greenhouse Gas Emission Volume ─●─ Energy Used
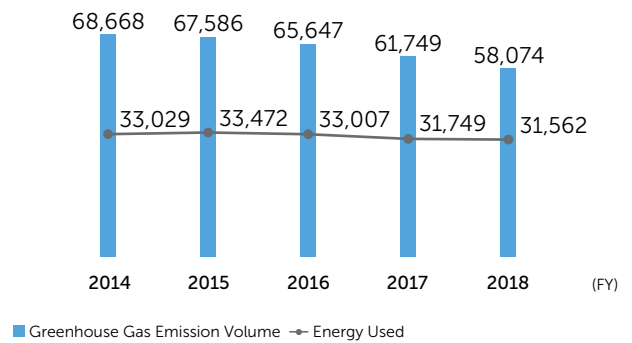
* Sum of the figures of offices and data centers

Medium-Term Management Plan

— Opening New Horizons —

▶ CTC's Position and Changes in the Operating Environment

The most important factors underpinning the CTC Group's competitiveness are the relationships built with many outstanding IT vendors over the years, numerous high-quality products and technologies, and a wealth of expertise on handling these products and technologies in cloud environments. Our multi-vendor and technological expertise are strengths that play together to enhance these factors in a virtuous cycle.

Business Model Characteristics

▶ By Model

One characteristic is the high degree of trust we have earned in infrastructure construction by selling products and combining numerous products and the cloud. As our clients' businesses grow more digital, we are stepping up our 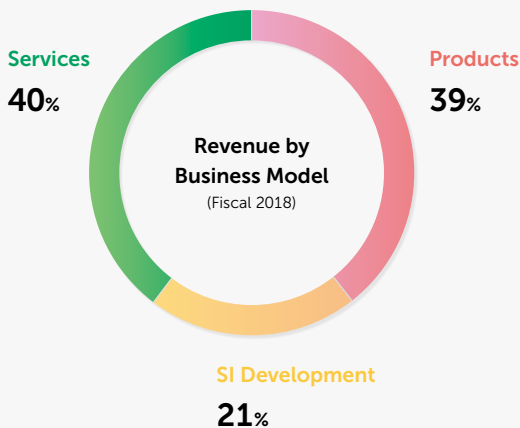responsiveness to application development. At the same time, to stabilize earnings we are focusing on the service sector—chiefly in areas of recurring business.

▶ By Business Segment

We are strong in the telecommunications business, thanks to a track record spanning many years in the design and configuration of communications networks for carriers. Even so, we have built up a business portfolio that is relatively balanced by industry sector, generating stable earnings.

Services
40%

Products
39%

Revenue by Business Model
(Fiscal 2018)

SI Development
21%

IT Services
3%

Other
8%

Financial Services
9%

Distribution & Enterprise
32%

Regional & Social Infrastructure
11%

Revenue by Business
(Fiscal 2018)

Telecommunication
37%
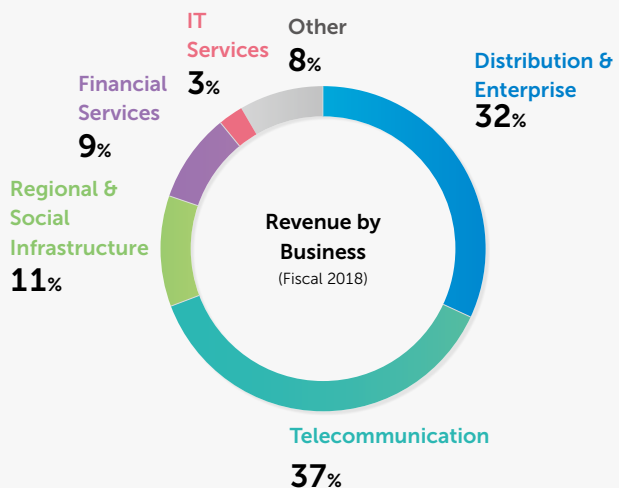
Market Trends

▶ Expected Expenditures in the Japanese IT Market, by Industry (2018–2023)

Average annual growth between 2018 and 2023 is forecast at **2.4%**

(100 million ¥)

	2018年	2019年	2020年	2021年	2022年	2023年

- ■ Finance
- ■ Manufacturing
- ■ Logistics
- ■ Information services
- ■ Services
- ■ Government agencies
- ■ Other

Source: IDC Japan Press Release on May 23, 2019
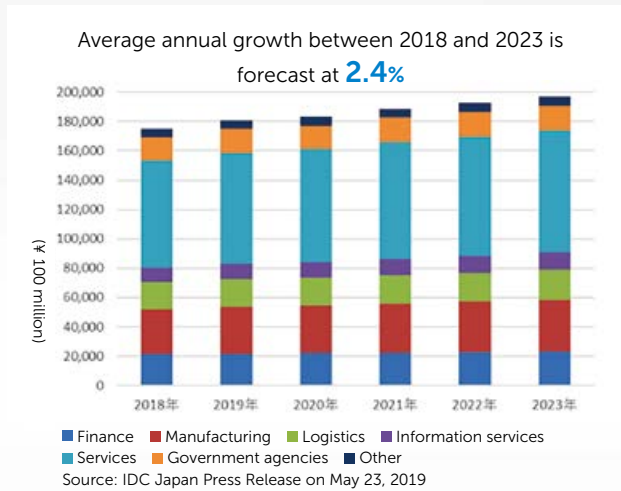
▶ Forecast for the Japanese Public Cloud Services Market (2018–2023)

Average annual growth between 2018 and 2023 is forecast at **20.4%**
Market scale to grow by **around 2.5 times**

Sales (¥ billion) / *Year-on-year growth rate (%)*

2018	2019	2020	2021	2022	2023

Source: IDC Japan Press Release on March 27, 2019
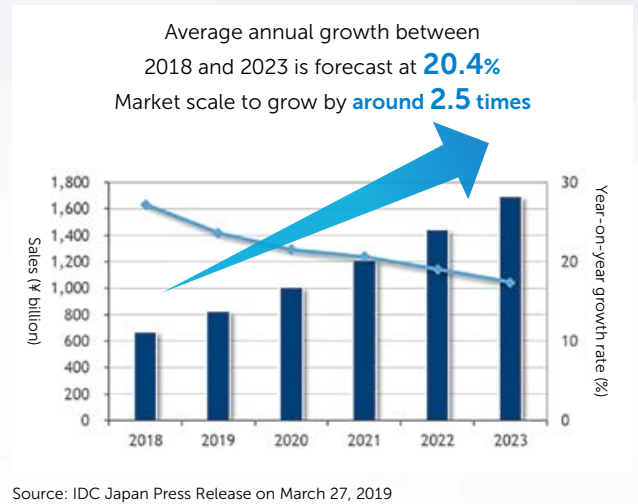
Market Changes

The operating environment surrounding the IT industry is changing rapidly. Other trends we follow closely include clients' operating environments and global economic trends, particularly in the ASEAN region. When executing its strategies, the CTC Group mainly takes the following environmental changes into consideration.

▶ PEST Analysis

	Opportunities	Factors Limiting Growth
P (Political)	▶ Introduction of laws and regulations related to information security ▶ Establishment of finance-related laws and regulations and growth of cashless payments ▶ Demand for higher labor productivity in keeping with work-style reforms	▶ Restrictions on the use of specific products due to worsening relations between countries
E (Economical)	▶ Growth in emerging-market economies, centered on the ASEAN region ▶ Acceleration of IT investment centered on DX	▶ Slow economic growth in Japan and other developed countries
S (Social)	▶ Demand for large-scale social infrastructure as populations concentrate on urban areas ▶ Demand for regional innovation and revitalization of local economies ▶ Globalization of business	▶ Decreases in the working population
T (Technological)	▶ Full-fledged commercialization of 5G ▶ Outsourcing needs accompanying growing system complexity and sophistication	▶ Product commoditization ▶ Shortage of highly skilled IT personnel, rising human resource expenses

Medium-Term Management Plan — Opening New Horizons —

Plan Overview and Progress

Amid accelerating technological innovation and ongoing business digitalization, the CTC Group is working to capitalize on its strengths to ensure sustainable growth. At the same time, we recognize the need to transform in tandem with the operating environment and embrace change in new business fields. Against this backdrop, in April 2018 we formulated a medium-term management plan named "Opening New Horizons." During the plan's three-year period, from fiscal 2018 to fiscal 2020, we are undertaking activities in four areas we have defined as "horizons."

Outline of Fiscal 2018 to Fiscal 2020 New Medium-Term Management Plan

Horizon 1

Go Upwards!:
Challenge Business Transformation

- Co-Creation of Digital Transformation Businesses with Major Clients
- Expand Businesses in Application Services Layer

Horizon 2

Go Forwards!:
Sharpening our Advantages

- No. 1 Cloud-Computing Integrator
- No. 1 IT Infrastructure & Network Environment Provider
- Accelerate Expanding of Recurring Businesses

Horizon 4

Consolidate Footholds!:
Stabilize Management Infrastructure

- Skill Transition & Work-Style Transformation
- Consolidate CTC Group Governance
- Quality First & Customer-Centric
- Keep Shareholders' Value & Returns

Horizon 3

Go Outwards!:
New Coverage, New Region in Globe

- Expand Global Activities
- Create Open Innovation Activities as New Business Models

Performance in Fiscal 2018 and Progress on the Plan

In fiscal 2018, we made steady progress against our quantitative benchmarks for the recurring business and the global business, pursuing initiatives outlined in our medium-term management plan. As one aspect of our efforts to stabilize management infrastructure, we worked to curtail unprofitable development projects, ensuring a clear path from orders to higher profit levels.

Review of Priority Measures for Fiscal 2018

Horizon 1

Go Upwards!

- Expanded the DX Businesses
- Strengthened Agile Development Capability

Horizon 2

Go Forwards!

- Strengthened Next-Generation Network Technology
- Expanded Recurring Businesses

Horizon 3

Go Outwards!

- Business Partnership in U.S. and Europe
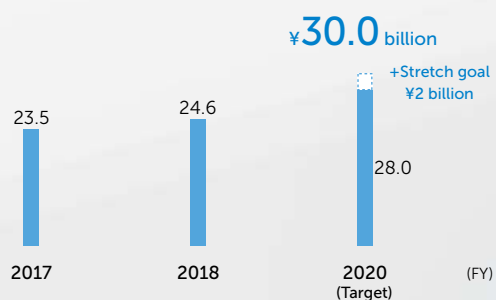- Invested in Four Open Innovation Projects

Horizon 4

Consolidate Footholds!

- Controlled and Reduced Unprofitable Projects
- Increased Dividends for 10 Consecutive Years

Progress in Numerical Targets

▶ Net Profit Attributable to CTC's Shareholders
(¥ billion)

¥**30.0** billion

+Stretch goal ¥2 billion

2017	2018	2020 (Target)	(FY)
23.5	24.6	28.0	

▶ Recurring Business
(¥ billion)

¥**60.0** billion

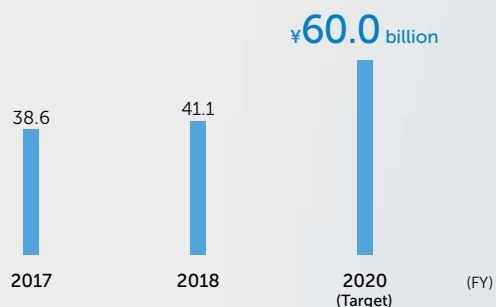| 2017	2018	2020 (Target)	(FY)
48.6	55.9		

Recurring business: Total of revenues from cloud services, operating system applications, and managed security services

▶ Global Business
(¥ billion)

¥**60.0** billion

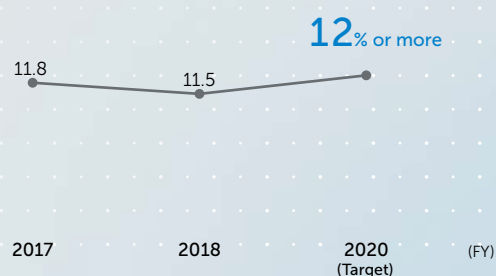| 2017	2018	2020 (Target)	(FY)
38.6	41.1		

Global business: Total of revenues from overseas operating companies, overseas projects in Japan, and overseas associated companies

▶ ROE
(%)

12% or more

2017	2018	2020 (Target)	(FY)
11.8	11.5		

Medium-Term Management Plan — Opening New Horizons —

Horizon 1

Go Upwards!:
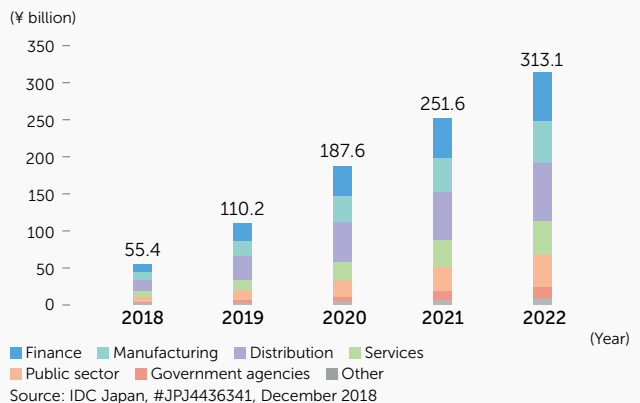# Challenge Business Transformation

Creating New Businesses That Leverage Data

Companies' digital strategies are shifting from an emphasis on raising productivity through the introduction of mission critical systems to digitalization of the businesses themselves. Rather than following conventional growth trajectories, the key to corporate growth strategies of the future will be to create new businesses that leverage the data companies already possess and new businesses that generate synergies with partner companies having strengths in other areas.

While taking advantage of our strengths in product sales and infrastructure construction, we will support the business transformation of our clients by increasing our business knowledge and our understanding of the AI business.

▶ AI Systems Market Forecast

(¥ billion)

Year	Value
2018	55.4
2019	110.2
2020	187.6
2021	251.6
2022	313.1

(Year)

■ Finance ■ Manufacturing ■ Distribution ■ Services
■ Public sector ■ Government agencies ■ Other
Source: IDC Japan, #JPJ4436341, December 2018

Case01 **Cultivating Human Resources to Contribute to Business Transformation**

To support the DX of our clients, we are developing human resources with AI and other leading-edge technologies, in addition to expertise on system configuration, application development, and operations. In November 2017, we set up the AI Business Development Department to invigorate our AI business by taking charge of expanding our AI solutions, cultivating business, and pursuing the development of AI-related human resources across the Company.

In July 2018, we signed an academic exchange agreement with Waseda University aimed at cultivating human resources in the data science field. Partnerships between industry and academia promote corporate data analysis and AI development, along with the development of human resources in these fields. Meanwhile, in November 2018 we began core AI training for salespeople and engineers. Targeting some 3,000 people, including salespeople and engineers, this training is designed to enhance Groupwide proposal-making capabilities and augment project quality over the medium to long term.

Case02

Launching ITOCHU Corporation's Next-Generation Groupwide Digital Platform

As part of the complete overhaul of ITOCHU Corporation's mission critical systems, in August 2018 we built and deployed a next-generation Groupwide digital platform (Data Lake) to support the analysis of business data. Using CUVICmc2*, CTC's cloud service for mission critical systems, the system achieves higher processing speeds and features an added data analysis function. As a result, in addition to accounting data the new system facilitates the integration and analysis of a host of data related to business transactions. The ability to combine business data the ITOCHU Group has accumulated individually in a wide range of business fields expands the potential for creating new businesses. Going forward, we plan to continue providing proactive support as part of the CTC Group's "Go Upwards!" initiative.

* CUVICmc2, a proprietary IaaS we developed especially for SAP solutions and other backbone systems, is a pay-per-use solution providing guaranteed performance and high security. Highly regarded for its security measures and operational structure, CUVICmc2 has received ISO/IEC 27017, international certification related to cloud security.

Case03

Supporting the Digitalization and Next-Generation Shift of the Distribution Business

Retail/distribution is an industry sector where clients are urged to quickly leverage their customer data to make their businesses more efficient and move to the next generation. The combination of customer attributes gleaned from purchasing data obtained through daily settlements can be used to formulate marketing and sales strategies, contributing to store operation and overall business strategies. By digitalizing settlement functions and facilitating the use of purchasing data, the CTC Group is supporting multifaceted digital strategies in these fields. Moving forward, customer information will be used as a management resource to generate new sources of earnings, and these fields will undergo a full-fledged business transformation as face recognition and the automation of settlements enables stores to operate with fewer staff. The CTC Group will take advantage of the business know-how it has cultivated to date to help the retail and distribution businesses make the shift to the next generation.

Case04

Strengthening Agile Development

As DX gains traction, demand for ever faster and more efficient application development will also grow. The CTC Group is reinforcing its framework for responding to demand for agile development, which handles repeated change flexibly.

In 2015, we introduced OutSystems development infrastructure, which is provided by a Portuguese company of the same name, and began adopting cloud-native architecture. In 2018, we opened dedicated "agile office" spaces in two locations (Tokyo and Aichi Prefecture) to facilitate meetings among engineers in charge of clients and development and other related parties. Going forward, an organization focused on promoting agile development will play a central role in cultivating engineers and stepping up agile development efforts.
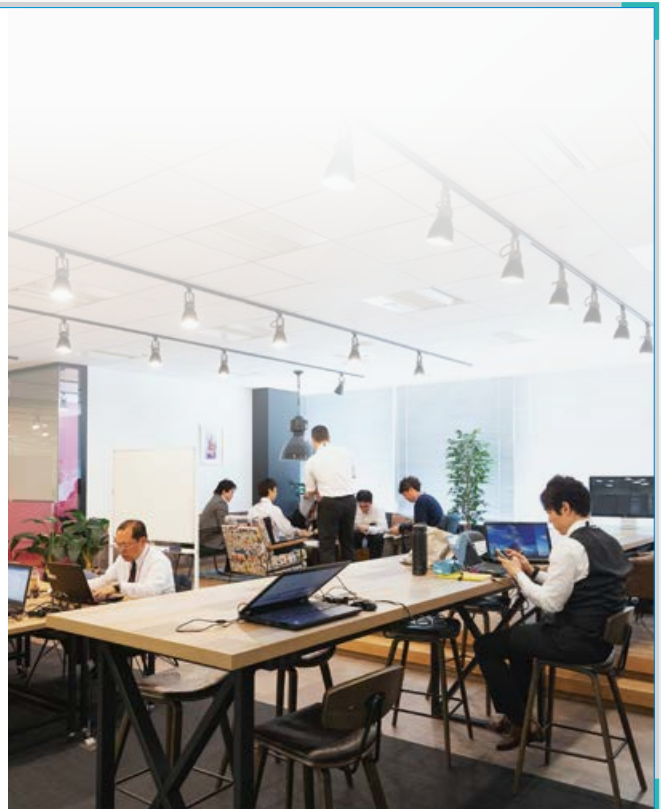
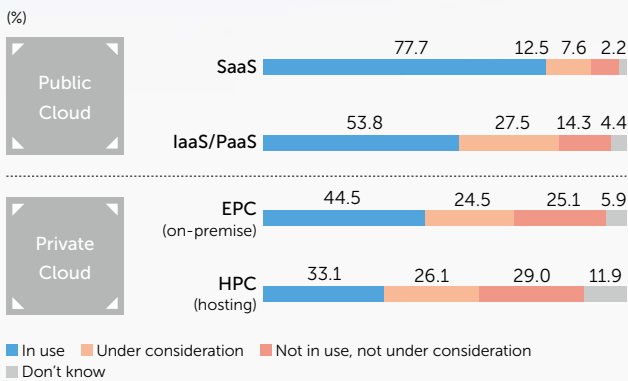Medium-Term Management Plan — Opening New Horizons —

Horizon **2**

Go Forwards!:
Sharpen Our Advantages

Leveraging Strengths Cultivated by Building Infrastructure
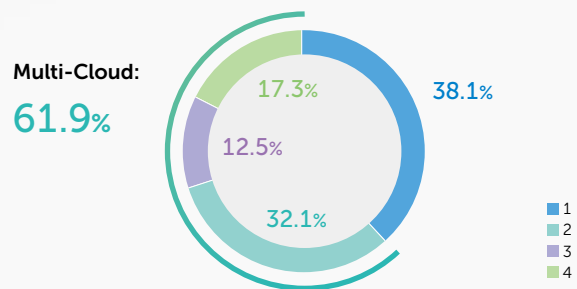
For many years, we have followed a business model of procuring products from Japan and overseas and combining them into optimal configurations to create the solutions clients require. As a result, the CTC Group has developed infrastructure construction capabilities as a unique strength. Honing this unique differentiating factor has allowed us to establish an overwhelming presence in the infrastructure and networking fields. We are using this strength as a foothold into the cloud-based business, which we are combining with on-premise systems we have built to strengthen our response to moves toward the hybrid cloud and establish ourselves as a multi-cloud integrator. By strengthening our overall recurring business, including the cloud business, we will stabilize our earnings base and create new business opportunities.

▶ Use of the Cloud by Deployment Model (Japan)

(%)

Public Cloud

	In use	Under consideration	Not in use, not under consideration	Don't know
SaaS	77.7	12.5	7.6	2.2
IaaS/PaaS	53.8	27.5	14.3	4.4

Private Cloud

	In use	Under consideration	Not in use, not under consideration	Don't know
EPC (on-premise)	44.5	24.5	25.1	5.9
HPC (hosting)	33.1	26.1	29.0	11.9

■ In use ■ Under consideration ■ Not in use, not under consideration ■ Don't know

▶ Deployment Models in Use

Multi-Cloud:
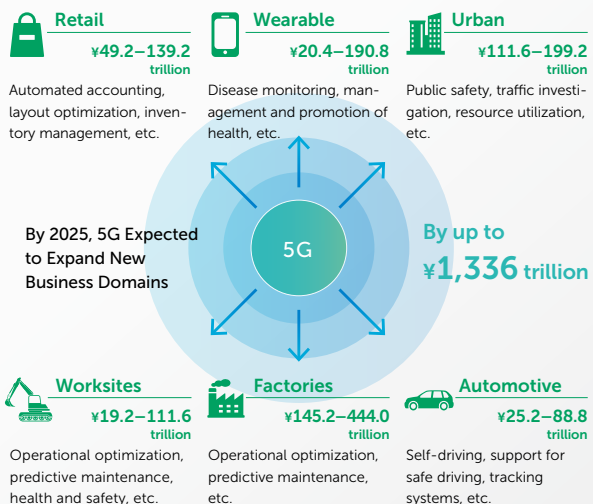## 61.9%

38.1%
17.3%
12.5%
32.1%

1
2
3
4

Note: Figures indicate use of each deployment model, so multiple uses of Saas would be shown as 1 unless other deployment models were also used.
Source: IDC's Japan Cloud User Survey, September 2018 (n = 1,500)

Case01 ## Changing Lifestyles with 5G

5G refers to next-generation mobile communications systems that feature enhanced Mobile Broadband (eMBB), Ultra-Reliable and Low Latency Communications (URLLC), and massive Machine Type Communication (mMTC). As 5G will support higher communications speeds, greater communications quantity, a sharp increase in the number of devices that can be connected at one time, and a decrease in communications delays, this technology is expected to pave the way to adoption by industries whose IT adoption has so far been limited. As well as responding to the building of 5G networks (the business of building 5G networks), the CTC Group sees major opportunities for using 5G to create new solutions (businesses using 5G). We are preparing by enhancing our responsiveness on projects that require greater technological expertise and are increasingly complex.

▶ New Markets through 5G (Expected Global Economic Impact of IoT by 2025)

Retail
¥49.2–139.2 trillion
Automated accounting, layout optimization, inventory management, etc.

Wearable
¥20.4–190.8 trillion
Disease monitoring, management and promotion of health, etc.

Urban
¥111.6–199.2 trillion
Public safety, traffic investigation, resource utilization, etc.

By 2025, 5G Expected to Expand New Business Domains

5G

By up to
¥1,336 trillion

Worksites
¥19.2–111.6 trillion
Operational optimization, predictive maintenance, health and safety, etc.

Factories
¥145.2–444.0 trillion
Operational optimization, predictive maintenance, etc.

Automotive
¥25.2–88.8 trillion
Self-driving, support for safe driving, tracking systems, etc.

Source: Trends in Mobile Communications Policy toward the IoT Era (November 2016), Ministry of Internal Affairs and Communications
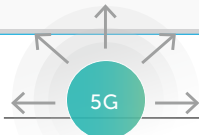
5G · Case02 · **Network-Building Businesses**

The adoption of 5G will lead to a massive increase in data transmission volume, and IoT will result in a seemingly infinite number of terminals being connected to 5G. Processing this complex and vast quantity of data will call for the configuration of even more flexible networks than in the past.

Network virtualization technology is expected to help address these needs. Technology allowing the centralized control of equipment on a network (software-defined networking, or SDN) and technology to virtualize network functions (network function virtualization, or NFV) will be essential for 5G networks.
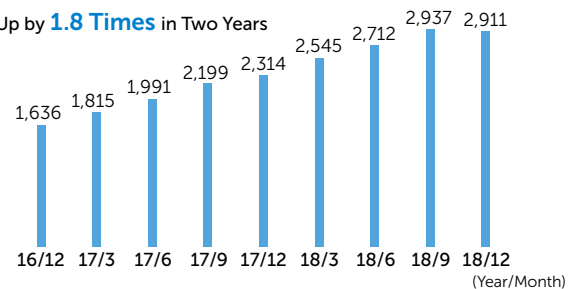
The competitive landscape is expected to change once the use of virtualization technology to build networks becomes mainstream. This technology will enable the virtualization of certain functions on systems related to base stations—an area the Company has not been involved in to date. Companies like CTC that have expertise in this technology will become able to enter this business more easily. However, as the shift to 5G leads to the complete virtualization of all networks, the boundaries between business domains will blur, and global vendors from other businesses are likely to enter this area of business. We will combine the trust we have cultivated among our clients since the 1990s with our knowledge of network equipment for carriers and the configuration of their individual networks, as well as network virtualization technology to expand opportunities in the business of creating 5G networks.
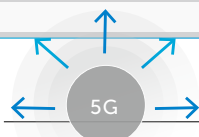
▶ **Average Monthly Mobile Data Traffic**

(Gbps)

Up by **1.8 Times** in Two Years

16/12	17/3	17/6	17/9	17/12	18/3	18/6	18/9	18/12
1,636	1,815	1,991	2,199	2,314	2,545	2,712	2,937	2,911

(Year/Month)

Source: CTC, based on the Ministry of Internal Affairs and Communications' Database of Statistics on Information and Communications

5G · Case03 · **Businesses Using 5G**

Once 5G is adopted widely, we expect to enter a new phase in which businesses will be created to take advantage of such 5G characteristics as enhanced Mobile Broadband (eMBB), Ultra-Reliable and Low Latency Communications (URLLC), and massive Machine Type Communication (mMTC). It will become possible to accumulate data and link information on a host of physical and virtual items in real-time, giving rise to a range of services that will change our lifestyles, such as IoT, self-driving vehicles, and remote healthcare.

Local 5G networks, which use 5G technologies to create a dedicated network within a limited area, are expected to be a powerful force driving the expansion of 5G. Companies other than carriers will be able to allocate 5G frequencies within a certain area—such as within a factory. The use of 5G communications networks that provide highly secure environments that are separate from public networks are likely to be adopted by industries seeking confidentiality and safety.

Clients have high expectations for using 5G for innovation and new business creation and are seeking partners who can do so swiftly. The CTC Group has a track record in building communications networks and knowledge of business across a wide range of industries. We expect to build a new business foundation by working with clients to create businesses making use of 5G.

Medium-Term Management Plan — Opening New Horizons —

Horizon 3

Go Outwards!:
New Coverage, New Region in Globe

Creating New Business Domains

To achieve ongoing business growth, we must aim beyond revenue increases in existing fields of business. We also need to utilize existing management resources to proactively cultivate new fields and regions to develop into earning pillars.

We have identified the global business, centered on the ASEAN region, as having market growth potential and being an area we can tap into to support our own growth. We are also emphasizing open-innovation-style business to utilize leading-edge technologies and connect them to new businesses.

Case01

Expanding Our Locations, Centered on the ASEAN Region

Expanding our bases in the ASEAN region will be pivotal to our global business. This region is expected to continue experiencing high levels of economic growth. Also, personal consumption is robust, and the public sector, finance, distribution, and other growth industries are investing proactively in IT. However, as the IT industry is on its way to maturity, we believe we can capture business opportunities through horizontal expansion in our tried-and-true approach of utilizing leading-edge technologies from overseas to generate business in Japan. Furthermore, as globalization by Japanese companies accelerates we anticipate demand from local clients to construct and support IT infrastructure. Another reason for concentrating on this region is that we also expect demand for the creation of new businesses by making use of leading-edge technologies.

CTC began its full-fledged development of global business in 2013. Since then, we have opened offices in Singapore, Malaysia, Thailand, and Indonesia. Our primary approach going forward will be to enter into capital and business alliances with powerful local companies and expand our bases in these areas as we work to grow our global business.

▶ Recent Events

2012 Acquired ITOCHU Technology, Inc. of the United States, making it to a consolidated subsidiary, and renamed the company ITOCHU Techno-Solutions America, Inc.
Invested in Netband Consulting Co., Ltd. in Thailand

2013 Acquired shares of CSC ESI Sdn. Bhd. of Malaysia and CSC Automated Pte. Ltd. of Singapore, making them consolidated subsidiaries, and changed their names to CTC GLOBAL SDN. BHD. and CTC GLOBAL PTE. LTD.

2017 Established Indonesian subsidiary PT. CTC Techno Solutions Indonesia
Converted Netband Consulting Co., Ltd., a joint venture in Thailand, to a subsidiary, and changed its name to CTC Global (Thailand) Ltd.

2018 Entered capital participation in SYSCOM (USA) INC.

Thailand · United States · Indonesia · Malaysia · Singapore

Case02   **Embracing the Challenge of Developing Business through Open Innovation**

In the aim of leveraging leading-edge technologies to expand our digital business, we are pursuing open-innovation-style business with companies and clients from other sectors, as well as startups. To enhance these initiatives, in 2017 we established the Institute of Open Innovation Research "MIRAI" as a new organization for constructing the "MIRAI Platform." Through this platform, we aim to create services and solutions to resolve the problems faced by companies, industries, and society. One such open innovation platform has been CTC Future Factory, a platform that connects companies and public agencies involved in open innovation with venture companies to develop new ideas. Here, we have set aside DEJIMA as a dedicated space to provide consulting services at each level, conduct ideathons and hackathons, and engage in prototype development. Similarly, we have opened the Open Innovation Lab at ITOCHU Techno-Solutions America, Inc., our U.S. subsidiary. This lab will work with DEJIMA to support global open innovation.

To further promote the development of open-innovation-style business, in December 17 we established CTC Innovation Partners as a corporate venture capital (CVC) firm. By providing capital and participating in the businesses of promising startup companies, CTC Innovation Partners supports their growth and helps to expand its business fields through joint business with clients. As of July 2019, the firm had invested in five projects, including character recognition technology using AI and a food-sharing service.

▶ **Investments to Date**

▶ **Cinnamon**
Development of an AI-based engine for reading documents (AI, OCR)

▶ **CoCooking**
Operation of TABETE, a food-sharing service

▶ **Active SONAR**
Online distribution platform for reselling branded items

▶ **INTUMIT**
Development of an AI chatbot engine

▶ **DeCurret**
Provision of digital currency transaction and settlement services

▶ **MIRAI Platform**

Open Innovation

Open innovation platform
CTC Future Factory

SPACE (Innovation space)	**Engineering** (Agile and scrum development approaches)
▶ Workspaces for corporate innovators ▶ Residency for startups and business accelerators ▶ Support platforms (cloud, AI, IoT, and other resources)	▶ Support for PoC using agile and scrum development approaches ▶ Joint prototype development ▶ Hands-on advanced technology development ▶ Ideathons, hackathons
Producing (Cooperation / enablement)	**Community** (Community and events)
▶ Support cooperation between business partners ▶ Planning, technology research, market studies ▶ Cooperation with startups, accelerators, external partners	▶ Communities for innovators ▶ Events to encourage interaction between different industries ▶ Community marketing

Lean Startup

Framework to support new business creation
CTC NewBiz Framework

GATE management system

Internal business creation program

Corporate Venture Capital (CVC)

CVC using open innovation
CTC Innovation Partners

Investment in startup firms / investment in joint business creation

Medium-Term Management Plan — Opening New Horizons —

Horizon 4

Consolidate Footholds!:
Stabilize Management Infrastructure

The Foundation of All Corporate Activities

As we embrace challenges in growing fields of business by going upwards, forwards, and outwards, we recognize that achieving ongoing increases in corporate value requires us to build a robust management foundation and generate expected returns for our stakeholders, including clients and shareholders. Creating a workplace that provides fulfillment for its human resources—the CTC Group's most important management resource—is a topmost management priority. To this end, we have introduced work-style reforms and otherwise striven to enhance our personnel measures. We will continue working to be a company that is fulfilling and healthy for employees, and that suits individual employees' working styles. Maximizing the potential of our employees and increasing the quality of the products and services we provide leads to client trust, business growth, and increased corporate value. We believe we can further stabilize the management infrastructure by sharing these benefits with shareholders and employees. With respect to corporate governance, which supports corporate sustainability, we will continue to monitor social trends and undertake initiatives to ensure transparency and fairness.

ITOCHU Techno-Solutions Corporation

CTC

Ensuring Quality and Enhancing Client Satisfaction

In April 2019, CTC updated its Quality Policy for the first time in six years. With this policy, we aim to further enhance the leading-edge IT expertise and quality that are cornerstones of CTC's success and ensure the ongoing provision of safe and secure systems and services that provide peace of mind to our clients. To augment quality, we are stepping up our efforts at failure analysis and recurrence prevention to keep similar issues that arose from project activities or during operational services from happening again. We have in place an internal, third-party organization that reviews the status of highly difficult, large-scale projects at the estimate and planning stages, as well as when projects are in process, monitoring for risks on an ongoing basis.

To improve customer satisfaction, we listen to client feedback, which we incorporate into improvements and new proposals. The CS Improvement Committee leads efforts to enhance customer satisfaction, such as conducting client satisfaction surveys. Client evaluations and opinions are shared throughout the Company. Each part of the Company considers appropriate measures, which are reflected in its sales, project, and service activities. We plan to continue these initiatives going forward, as we aim to remain a trusted business partner for our clients.

Quality Policy
(Amended April 1, 2019)

We support clients' IT systems with reliable technologies and quality.

ISO 9001
JQA-QMA15845

UKAS
MANAGEMENT
SYSTEMS
091

MS
JAB
CM009

Results of Fiscal 2018 Client Satisfaction Survey

▶ **Overall evaluation for the year**
(compared with previous evaluation period)
Year-on-year improvement

▶ **Assessment by category**
(35 categories)
High assessment
• Sales capabilities (enthusiasm and integrity)
• Proposal-making capabilities (understanding of client issues and requests)
• Team technological capabilities
• Flexibility in responding to requests
• Incident responsiveness

Room for improvement
• Cost competitiveness
• Free thinking

Strengthening Relationships with Development Partners

Alliances with Japanese and overseas partners are essential for meeting increasingly diverse and sophisticated client needs in an environment marked by a domestic situation where IT personnel are in short supply. High-quality IT systems are essential, and preserving information—client property—is of topmost importance. For this reason, when selecting partners we pay close attention to their management foundation, technological expertise, operating performance, information security systems, and management systems. With excellent partners, which we call CTC Alliance Partners, we share information about leading-edge technologies and quality-related initiatives. We also strive to enhance relationships by sharing opinions on development environments and quality standards. We make available the training curriculum used by the CTC Group support human resource development at individual partner companies.

Medium-Term Management Plan — Opening New Horizons —

Horizon **4** ▶ Consolidate Footholds!:
Human Resource Strategies

▶ Basic Stance on Human Resource Strategies

As indicated by our corporate philosophy and slogan of "Challenging Tomorrow's Changes," embracing challenges is a fundamental part of the Company's DNA. By cultivating human resources who continue to take on the challenges inherent in IT's potential, we link this growth with increases in corporate value.

With human resource shortages currently endemic across the IT industry, providing comfortable working environments and promoting measures that make us a favorite in labor markets are of urgent importance. Being convinced that the happiness of employees is as important as the Company growth, CTC believes in "work in life," which positions work within life. On this basis, we strive to provide a healthy, motivating workplace that enriches the lives of employees. Human resource policies that encourage employees to embrace challenges as they enjoy change and continue to grow are being introduced in tandem with CTC's Long-Term Strategy. Specifically, we provide opportunities for growth in the course of their duties. We provide intangible support in the form of personnel systems and frameworks, as well as IT tools, office environments, and other infrastructure.

In recent years, we have focused in particular on enhancing systems that encourage employees to develop skills on their own initiative.

Hisashi Sawanobori
Executive Officer
General Manager,
Human Resources
Management & General Affairs Division

▶ HR Strategies Linked with Overall Strategy

Medium-Term Management Plan	Fiscal 2013–2014 Human resource cultivation, diversity		Fiscal 2015–2017 Investment in human resources and technologies, establishment of multi-path personnel management system, doubling percentage of women in leadership roles			Fiscal 2018–2020 Human resource development and work-style reforms
	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017	Fiscal 2018
Personnel System Reform			▶ New personnel system			
Work-Style Reforms	▶ Stronger measures to reduce overtime work		▶ Slide work, mobile work, time-based paid leave systems		▶ Participation in Telework Day / Days, expansion of telework	
		▶ Start of morning-focused working system				▶ Start of employee engagement survey
Diversity and Inclusion ■ Empowering women in the workplace Promoting the employment of seniors ■ Childcare and nursing care ■ People with disabilities			▶ Formulation of manager training plan based on Companywide targets for number of female managers		▶ Reform of post-retirement re-employment system	
				▶ Strengthening of mentor/mentee system, launch of the *Chorus* diversity website		
				▶ Start of Company-wide management meetings		
			▶ Work-at-home system, reform of child-rearing and nursing care systems			
		▶ Start of Iku-boss/Iku-men seminars				
	▶ Establishment of HINARI Corporation in 2010 as a special subsidiary					
Health Management	▶ Health promotion measures: Regular health checks and thorough post-checkup measures ▶ Health promotion activities: Prevention of lifestyle diseases, prevention of shoulder stiffness and pain, support for smoking cessation, mental health care		▶ Stronger promotion of health management	▶ Establishment of the CTC Group Health Insurance Association		▶ Enhancement of measures to support workers with cancer: Early detection of and response to cancer and enhancement of measures to support workers with cancer
Support for Human Resource Training and Career Development	▶ Global human resource training: Global Leader (GBL) Training Short-term overseas language study ▶ Selective education: Section of next-generation leaders		▶ Training system reforms in tandem with human resource system reforms: Newly established training for management candidates ▶ Cultivation of motivation toward career development: Start of career development support system Start of individual career support interviews		▶ Enhancement of management capabilities: Introduction of multifaceted observation (executives and employees) ▶ Cultivation of motivation toward career development: Expansion and reworking of career design training	
						▶ Reconfiguration of training system for engineers: Integration of engineering skill inventory Companywide training on AI and introduction of collaborative measures between industry and academia
			▶ Promotion of work-style reforms: Training for all management members			▶ Cultivation of professional global human resources: Dispatch for language study in ASEAN countries

Topics 01 Promoting Further Work-Style Reforms

To date, our work style reforms have concentrated on improving working conditions for employees. For instance, in 2014 we introduced a morning-focused working system. In 2016, we launched "slide work," a system that allowed employees flexibility on their start time without changing the number of hours worked. We also encouraged mobile work and introduced infra-structure to improve working conditions. As a result, in fiscal 2018 our monthly average overtime work was 14 hours, down nearly 10 hours over a five-year period, and significantly lower than the industry average.
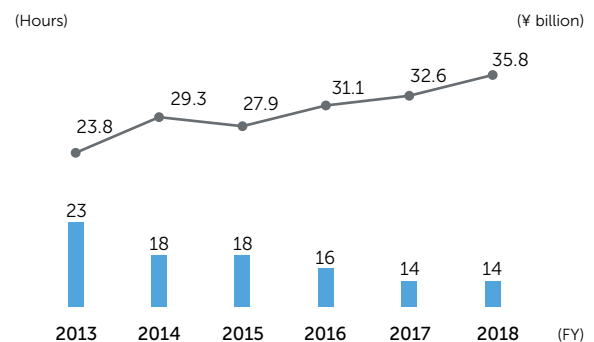
In fiscal 2019, the theme of our work style reforms underwent a major shift, from improving working condi-tions to making work fulfilling. Incorporating the improvement of working conditions, making work fulfill-ing also involves cultivating a culture in which employees are actively motivated to work toward growth, and our policies have taken on even more flexibility in terms of work location and timing. One example is the active use of teleworking. With the understanding of our clients, we have rolled out teleworking across the Company, which we believe has boosted productivity further. Through efficient working styles and by supporting spontaneous activities, we are making the working environment more flexible and increasing employee satisfaction as we strive to provide an environment where employees can remain fulfilled in their work for a long period of time.

▶ Utilization of Flexible Work Styles*

(%)

FY	Value
2016	72.7
2017	76.9
2018	78.0
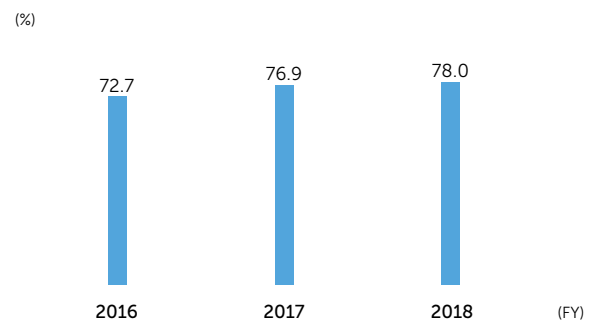
* Percentage of employees making use of the morning-focused working system, time-based paid leave, or slide work

▶ Monthly Average Overtime Work* (Non-Consolidated)/Operating Income

(Hours)   (¥ billion)

Operating income: 23.8, 29.3, 27.9, 31.1, 32.6, 35.8

FY	Monthly average overtime work
2013	23
2014	18
2015	18
2016	16
2017	14
2018	14

* Hours in excess of statutory working hours

■ Monthly average overtime work   ●— Operating income

Topics 02 Health Management

CTC considers health management an important aspect of providing an environment where employees can make the most of their capabilities for a long period of time. Accordingly, we hold health-related seminars, have intro-duced mental support, and are expanding other health-maintenance systems. In fiscal 2018, we took a step forward through the full-scale introduction of a system for providing support to employees fighting cancer.

Nowadays, it is becoming more common to con-tinue working while fighting cancer as an outpatient. We believe advances in medical technology combined with enhanced corporate systems make it possible to provide a working environment in which people with cancer can remain optimistic rather than growing despondent.

In addition to regular health checks, specific initiatives include working with such organizations as the National Cancer Center to offer comprehensive cancer screening, specialized examinations, and expand other supplementary systems for screening targeting cancer in specific diagnostic categories. If cancer is diagnosed and treatment becomes necessary, we have in place support systems to help with the costs of med-ical treatment for leading-edge healthcare, and we have taken out umbrella cover with an insurance com-pany for this purpose. In recognition of these health management initiatives, we were certified as an Excellent Enterprise of Health and Productivity Management 2019 (White 500) by Japan's Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi for a third consecutive year.

Medium-Term Management Plan — Opening New Horizons —

Horizon 4 Consolidate Footholds!: Human Resource Strategies

Topics 03   Recruitment and Development

Japan faces a shortage in the working population across all industries. Personnel shortages continue in the IT industry, as well, where the shortfall of people handling leading-edge IT activities is projected to reach 550,000 by 2030. Given these circumstances, CTC is striving to make its workplace more attractive, both by improving working conditions and by making work more fulfilling. We also endeavor to recruit human resources from diverse channels.

Our recruiting efforts concentrate on hiring the sophisticated and specialized human resources essential to future business growth. In the AI and security fields, we use an internship system to be certain of attracting people with advanced skills.

Our training programs for new employees are flexible, meeting the needs of the times. As we are nearing an era where people may soon commonly live to be 100, we have changed our programs to emphasize teaching highly generalized basic skills to young employees to give them more flexibility as engineers over a long period of time. In addition to acquiring engineering skills, we work to cultivate communication capabilities and augment problem-solving skills. We also offer career development support that encourages employees' ongoing self-improvement and the ability to think on their own.

Evaluating human resources fairly and allocating them optimally are also important management priorities. We strive to build a system to assess employees' skills objectively and form a skill portfolio. By ascertaining employees' skill proficiencies and level of growth, we encourage them on to further growth and strive to allocate human resources strategically.

The fields of AI and data science require sophisticated and specialized knowledge, and we recognize that early-stage training is an essential element of speed in technical innovation. In the AI field, for example, we set skill targets for several thousand people and conduct concentrated training on such topics as machine learning and data science. To raise proposal-making capabilities throughout the Company, we provide AI-related educational opportunities to salespeople as well as engineers.

In the data science field, we conduct human resource development via partnerships between industry and academia. Combining the actual data companies possess with universities' knowledge of data analysis helps to cultivate data analysis expertise that can be used in actual business settings. This approach also helps in cultivating human resources capable of taking the lead in the data science field.

Diversity and Empowering of Women in the Workplace

We promote human resource diversity because we believe that employees from diverse backgrounds working together inspires synergies and enhances skills that foster innovation. In particular, we recognize the importance of measures to empower women in the workplace. To this end, we are working to increase the number of women we hire and are emphasizing measures to raise the percentage of female employees in leadership positions.

In the past, the people in charge of individual divisions and the HR department selected female management candidates. It was commonplace to prepare and implement uniform training plans according to years worked and work responsibilities. Looking at this approach operationally, from differences in departmental affiliation and attitudes toward their occupations and other reasons, motivation and appropriateness for leading position of each candidate differs. Taking these factors into consideration, we created a framework to boost motivation by taking individual situations and skills into account, meeting with the individual employees

and providing training to help them move up in the workplace. As of April 1, 2019, the number of women in leading positions among employees originally hired by CTC was around 70. We aim to increase this figure to approximately 90 by fiscal 2020.

We are expanding our child-rearing, nursing-care, and other systems that allow both male and female employees to continue working at different stages of their lives. We offer a number of systems to facilitate a balance between work and child-rearing or nursing care. For instance, we have a system of shorter working hours for employees engaged in childcare, and have raised the age of children to which this system is applicable, as well as on our system of staggered working hours, and we have a system that encourages fathers to take leave for child-rearing. We also hold seminars targeting employees in leadership positions whose subordinates are returning from child-rearing leave. In these ways, we seek to foster a deeper understanding of balance among life events and careers across the workplace.

Target number of women in leading positions
(employees originally hired by CTC)

▸ **90** by 2020

▸ Fiscal 2018 actual: **59**
(As of March 31, 2019)

Target percentage of female regular employees
(CTC, non-consolidated)

▸ **20**% or more by 2023

▸ Fiscal 2018 actual: **16**%
(As of March 31, 2019)

Target percentage of women among new graduates hired
(CTC, non-consolidated)

▸ **35**% or more of women among new graduates joining the Company in fiscal 2019

▸ Fiscal 2019 actual: **37.6**%
(Joined on April 1, 2019)

Seminar for people returning to work after childcare leave

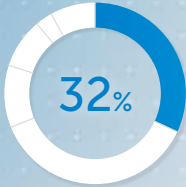Card making work departure times visible

Main Business Strategies

Business Segments at a Glance

Fiscal 2018 Results (Before Organizational Restructuring)

▶ **Revenue by Business Group** (Fiscal 2018) ▶ **Fiscal 2018 Results** ▶ **Revenue** (¥ billion) ▶ **Profit before Tax** (¥ billion)
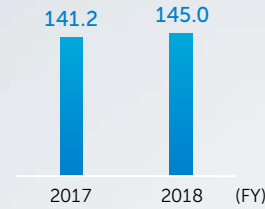
Distribution & Enterprise

32%
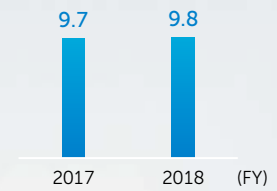
Revenue and profit grew, due mainly to an increase in operations in the distribution sector and more infrastructure development and maintenance projects in the manufacturing sector.
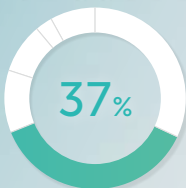
	Revenue		Profit before Tax	
2017	141.2		9.7	
2018		145.0		9.8

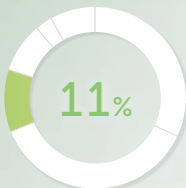Revenue: 2017 / 2018 (FY) — Profit before Tax: 2017 / 2018 (FY)

Telecommunication

37%

Revenue and profit rose, reflecting growth mainly in network and infrastructure development projects for the communications sector.

Revenue: 151.1 (2017), 168.8 (2018) (FY)
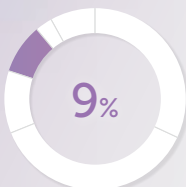Profit before Tax: 12.5 (2017), 14.9 (2018) (FY)

Regional & Social Infrastructure

11%
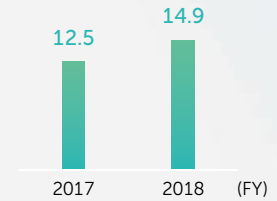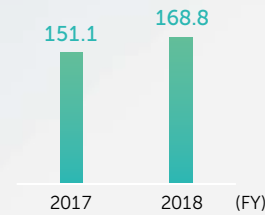
Revenue fell, mainly due to a decline in projects for the public business sector. Profit decreased due to lower revenue and higher SG&A expenses.

Revenue: 53.8 (2017), 49.2 (2018) (FY)
Profit before Tax: 1.8 (2017), 1.1 (2018) (FY)

Finance

9%
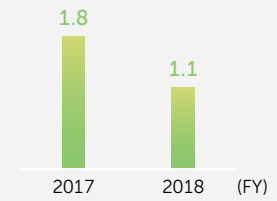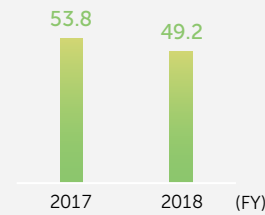
Revenue and profit were up, reflecting growth in infrastructure development projects for the finance sector.

Revenue: 39.1 (2017), 40.5 (2018) (FY)
Profit before Tax: 2.3 (2017), 2.5 (2018) (FY)

IT Services

3%
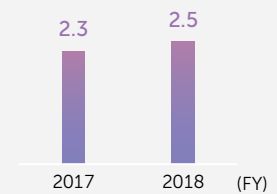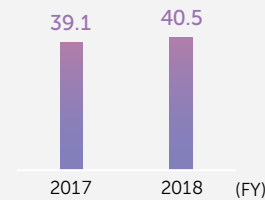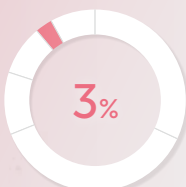
* This segment offers comprehensive services that focus on cloud-related business and maintenance and operation to other organizations Companywide. Accordingly, most revenue is between segments; those amounts are excluded from the figures shown on this graph.

Revenue: 10.8 (2017), 11.3 (2018) (FY)
Profit before Tax: 7.4 (2017), 9.2 (2018) (FY)

Other

8%
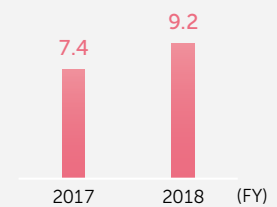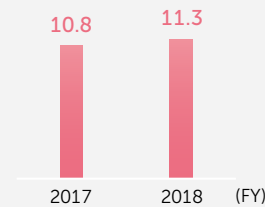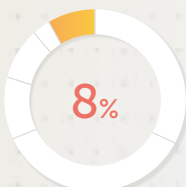
Revenue and profit grew, mainly due to an increase in projects at certain overseas subsidiaries.

Revenue: 33.3 (2017), 36.9 (2018) (FY)
Profit before Tax: 0.9 (2017), 2.2 (2018) (FY)
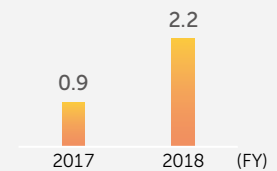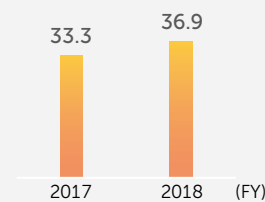
Note: Abovementioned revenues exclude intersegment revenues and transfers.

Enterprise ▸📖 P.41, 54

Business units comprising the segment:

Enterprise Group
CTCSP CORPORATION
Asahi Business Solutions Corp.

Distribution ▸📖 P.43

Business unit comprising the segment:

Distribution Group

Telecommunication ▸📖 P.45

Business unit comprising the segment:

Telecommunication Group

Regional & Social Infrastructure ▸📖 P.47

Business unit comprising the segment:

Regional & Social Infrastructure Group

Financial Services ▸📖 P.49

Business unit comprising the segment:

Financial Services Group

IT Services ▸📖 P.51, 54

Business units comprising the segment:

IT Services Group
CTC TECHNOLOGY CORPORATION
CTC SYSTEM MANAGEMENT CORPORATION
CTC FACILITIES CORPORATION

Other ▸📖 P.52–53

Business units comprising the segment:

Service Design Group
Global Business Division
Overseas Group Companies, etc.

The Company reorganized on April 1, 2019

▸ **Objectives of the Organizational Restructuring**

To respond to the rapid digitalization of business, mainly in the enterprise and distribution fields

▸ **Overview of the Organizational Restructuring**

- We divided the Distribution & Enterprise Group into the Enterprise Group and the Distribution Group

- To reinforce our support for the digital business transformation of our clients, such as the utilization of digital settlement and purchasing information, we combined the Distribution Group, which is in charge of the retail and distribution fields, and a portion of the Financial Services Group, which handles card business and other types of retail finance.

- To increase sales of analysis and analytics solutions and expand our digital business domain, we transferred the Science & Engineering System Division, which strengthens analytics and simulations, to the Enterprise Group, which is in charge of manufacturing.

Enterprise Group

Leveraging the know-how and technologies that we have accumulated over many years to support the evolution of businesses in a wide range of industries including manufacturing

CTC's Strengths and Challenges

▶ **Strengths**

- Strong customer base covering a wide range of business fields
- Know-how derived from our broad customer base
- Ability to build strong infrastructure as a multi-vendor
- Technological prowess in the areas of analysis, simulation, and AI

▶ **Challenges**

- Speedily leverage leading-edge technologies and provide solutions
- Training employees to respond to the rapid pace of technological innovation

Business Climate

▶ **Opportunities**

- Changes in the structure of industries driven by accelerated data communication speeds
- Growth in demand for corporate customers to respond to DX of their business environments

▶ **Factors Limiting Growth**

- Reining in of IT investment in response to global economic slowdown
- Shortage of qualified IT professionals

Accurately read changes in the market to help clients take advantage of new earnings opportunities in the digital era

Takanori Minatohara
Managing Executive Officer
COO, Enterprise Group

▶ **Medium- to Long-Term Initiatives**

Responding to Changes in the Structure of Industries Driven by Accelerated Data Communication Speeds

The Enterprise Group has corporate clients in a wide range of fields including manufacturing, especially auto manufacturing, and transportation, food, and energy. Our goal is to support the evolution of our clients' businesses and grow alongside them. The next generation of telecommunications technology (5G) will catalyze the creation of new businesses in a wide range of business fields, and we will face the challenges of these new fields side-by-side with our clients. We will develop new 5G services by creating local 5G infrastructure and using key technologies such as edge computing, AI, and blockchain to support our clients' businesses.

We will also enhance our ability to conduct agile development that allows the flexible adoption of different specifications. We have already collected information on practical solutions allowing us to implement this type of development at key clients, and plan to apply this knowledge in other fields and secure more projects.

Leveraging the Strengths of the Group to Meet the Challenges of the Digital Era

As part of the organizational restructuring carried out in April 2019, the Science & Engineering System Division, which was formerly part of the Advanced IT Strategy Group, was integrated into the Enterprise Group. Much like companies in the manufacturing sector, our mainstay clients in the construction and electric power industries are facing rapid digitalization of their business domains. Amid rising demand for business digitalization solutions using AI and IoT technologies, the Enterprise Group will integrate high-value-added services based on the analysis capabilities developed by the Science & Engineering System Division with the Group's IT knowledge to face the challenges of the digital era together.

Column

Cooperating with Toyota Systems to Increase Productivity of App Development for Toyota Motor Corporation

The Enterprise Group cooperated with Toyota Systems to create mission critical systems for Toyota Motor Corporation. We used agile development methods to build these systems as well as low-code platform OutSystems, which allows rapid development and increased efficiency and AgileRoom, a work space that allows close communication among development staff. This allowed us to increase development productivity by up to 40%. We hope to continue working with Toyota Systems to increase the productivity of the Toyota Group's systems in Japan and overseas.

Distribution Group

Strengthening our business digitalization support capabilities to support our customers' new businesses, such as futuristic stores

CTC's Strengths and Challenges

▶ Strengths

- Strong relationships with mainstay customers nurtured through mission critical system construction and systems operation
- Knowledge in the field of retail finance gained from our settlement and contact center business
- Synergies with the ITOCHU Group

▶ Challenges

- Continuous improvement in quality and productivity
- Training of employees to use leading-edge technologies

Business Climate

▶ Opportunities

- Growth in demand for business digitalization support solutions
- Demand for upgrading mission critical systems to make them compatible with next-generation technologies
- Expectations regarding increased IT investment in response to shortage of qualified IT professionals
- DX Scenario proposed by the Ministry of Economy, Trade and Industry*

▶ Factors Limiting Growth

- Decline in consumer spending owing to economic slowdown
- Difficulty in procuring IT resources, especially qualified IT professionals

* By 2025, Japanese companies should organize existing, closed, overly specific, and outdated systems and determine which systems should be abolished. In parallel with this, they should renovate necessary systems and implement a DX strategy. This is expected to improve Japan's real GDP in 2030 to over ¥130 trillion.

> We will maximize synergies between the distribution and finance businesses to contribute to the creation of business opportunities for our clients.

Noboru Omoto
Managing Executive Officer
COO, Distribution Group

▶ Medium- to Long-Term Initiatives

Digitalization of Retail and Distribution Businesses

As part of the organizational restructuring carried out in April 2019, retail distribution business and the organization which operates card and other retail finance businesses were integrated to form a business group that supports the development of our clients' digital businesses by achieving synergies between distribution and finance businesses. We are establishing a presence in the rapidly developing field of next-generation business digitalization centered on leveraging of digital settlement and purchasing information by 1) developing and operating mission critical systems and business systems in the field of distribution, 2) using know-how gained from our experience from settlement and security projects in the field of finance, and 3) using new technologies such as fintech.

Expansion of Mission Critical Systems Business

We will continue to focus on construction and operation of mission critical systems and business systems. In addition to supporting our clients' businesses by safely running and operating a wide range of systems, we are proactively moving to secure ERP package installation projects. For example, we are leveraging the experience and know-how gained by being one of the first in the Japanese market to handle SAP S/4 HANA® migration to aggressively expand our SAP business.

Acquisition of New Technologies and Improving Quality

We view strengthening relationships with our corporate clients and accumulation of knowledge regarding new technologies as essential amid the trend of acceleration in business digitalization. We will leverage internal and external resources to enhance the abilities of our employees and focus on continuously improving quality and productivity, thereby evolving to become a business group that can provide high-value-added products and services.

Column

Rebuilding of FamilyMart's Ordering System

In fiscal 2018, our project to rebuild FamilyMart Co., Ltd.'s ordering system improved functionality and reduced running costs. This project, which involved the upgrading of a mission critical system that handled ordering data from roughly 16,500 stores, went smoothly and had no impact on day-to-day operations. We have been able to support this client's business by leveraging our systems construction and operation know-how to safely and smoothly complete the project.

Telecommunication Group

We aim to leverage our infrastructure building know-how to not only build 5G but also use 5G to help our partners create new businesses.

CTC's Strengths and Challenges

▶ Strengths
- Large-scale infrastructure building capabilities that support telecommunications networks
- Ability to develop and operate mission critical systems

▶ Challenges
- Achieve rapid response and differentiation when introducing new technologies
- Nurture and secure high-value-added human resources

Business Climate

▶ Opportunities
- Rapid growth in data volumes on mobile networks
- Full-scale preparation for 5G ahead of 2020
- Full-scale cooperation with telecom carriers and companies to prepare for growth in the 5G market

▶ Factors Limiting Growth
- Heating up of competition for telecom carrier projects
- Slow adoption of new technologies

> **We will support infrastructure that empowers telecom carriers in the 5G era while leveraging the strength of the entire Company to take on the role of a business partner connecting telecom carriers and other industries.**

Yasuhiko Terada
Managing Executive Officer
COO, Telecommunication Group

▶ Medium- to Long-Term Initiatives

The Telecommunication Group contributed to the development of telecommunications services by providing telecom carriers with leading-edge technologies that connect mobile devices to the Internet and building backbone networks that allow devices such as smartphones to transmit massive volumes of data as mobile telecommunications systems became more advanced.

5G technology is expected to accelerate the digitalization of businesses in all industries by connecting a wide range of devices to networks. In response, telecom carriers are shifting away from business strategies focused on their conventional telecommunications businesses and toward strategies focused on supporting business model revolutions in other industries by leveraging 5G infrastructure to cooperate with other companies.

Businesses that Build 5G and Businesses that Use 5G

In response to the abovementioned trends, the Telecommunication Group has for quite some time been conducting surveys and research on virtual network technologies and has given top priority to the securing and execution of projects ahead of the full-scale launch of 5G services in 2020. More specifically, we aim to work on projects that make the existing networks of telecom carriers compatible with 5G technology and set up the appropriate operations and support systems.

We will not only support 5G infrastructure but will also position ourselves as strong business partners for our telecom carrier clients and assist them in DX projects using 5G technology so that they can empower their customers in all industries. We will also leverage the capabilities of the entire Company to build 5G infrastructure at the local level (local 5G).

Column

Construction of Data Communication Connection System for SoftBank's Mobile Access Services

The CTC Group built the data communication connection system for Security Mobile Access (SMA), a mobile access service for business customers provided by SoftBank Corporation. SMA is a service that meets diverse needs including the development of environments that employees working from home can access from outside their company via mobile terminals and the construction of systems to integrate with many IoT devices. When building the data communication connection system, the CTC Group used NFV technology and achieved high scalability which can handle high volumes of connection.

Regional & Social Infrastructure Group

Winning the trust of local governments and our corporate partners by integrating and delivering leading-edge technologies

CTC's Strengths and Challenges

▶ Strengths

- ■ Large-scale SI capabilities acquired in the social infrastructure sector
- ■ Network of partner companies covering all regions
- ■ Business know-how gained from our broad customer base
- ■ Know-how regarding labor productivity improvement tools such as AI and RPA

▶ Challenges

- ■ Improving management efficiency over a range of business domains

Business Climate

▶ Opportunities

- ■ Full-scale use of AI and IoT technologies to improve business efficiency and services
- ■ Demand for shift to cloud computing in the public sector
- ■ Need to improve labor productivity owing to decline in rural populations

▶ Factors Limiting Growth

- ■ Reining in of IT investment in response to global economic slowdown
- ■ Shortage of qualified IT professionals owing to decline in working population

Supporting social infrastructure and regional revitalization with IT and business ideas

Hisashi Eda
Managing Executive Officer
COO, Regional &
Social Infrastructure Group

Focus on Businesses with Awareness of Issues Facing Society as a Whole

The Regional & Social Infrastructure Group partners with local governments, social infrastructure companies, and regional banks impacted strongly by major social changes such as aging and urbanization of the population and maldistribution of industry. We leverage the know-how accumulated by the Group to help resolve problems that impact society as a whole through labor productivity improvement and regional revitalization.

Our near-term strategy is to strengthen relationships with our existing customers and focus on expanding our business in the key fields of electric power, local governments, regional banks, and education. We will also respond to the needs of local corporations and local governments for labor productivity improvement and leverage digital technologies to assist social infrastructure companies in upgrading to next-generation systems by providing solutions utilizing IoT, AI, big data, and agile development.

Evolving to Become a Group that Contributes to Regional Revitalization

The Regional & Social Infrastructure Group's operations span multiple industries and regions, and we work to solve a wide range of problems for our customers. It is therefore essential for us to bring to bear leading-edge technologies while maintaining high management efficiency. In addition to working to improve profitability by carefully monitoring the progress and profitability of each project, we will address these issues by deepening the connections between our offices and businesses and focusing on efficiently sharing our know-how and solutions. Through these activities, we will also contribute to regional revitalization and the revitalization of regional economies.

Column

Nurturing Human Resources in the Field of Data Science by Signing an Academic Exchange Agreement with Waseda University

In July 2018, CTC signed an academic exchange agreement with Waseda University with the goals of nurturing human resources and promoting collaboration between industry and academia in the field of data science. In this field, academics face the issue of insufficient access to big data that can be commercialized while companies in the industry face a shortage of human resources. This agreement provides a platform to coordinate efforts to simultaneously address these issues. This agreement is expected to lead to advancements in data analysis and AI development and broaden the range of applications to which data science can be applied.

Financial Services Group

Leveraging CTC's global network and infra-structure building experience to support financial institutions' efforts to make their operations more globalized and digitalized and quickly comply with regulations

CTC's Strengths and Challenges

▶ Strengths

- ■ Ability to construct large-scale IT infrastructure and develop business applications that use cloud comput-ing and virtualization technologies in the field of finance
- ■ Expertise in the field of RegTech*, where we have considerable experience
- ■ CTC Group's global network that supports financial businesses in Asia, North America, and Europe

▶ Challenges

- ■ Developing the ability to flexibility respond to the needs of diversifying financial businesses
- ■ Acquisition of rapidly evolving finan-cial industry IT and securing of human resources

* RegTech = Regulation + Technology (the applica-tion of technology to help ensure regulatory compliance)

Business Climate

▶ Opportunities

- ■ Support our clients' business reforms by leveraging leading-edge digital technologies
- ■ Supporting our clients in our areas of strength: Risk management and international financial regulatory compliance
- ■ Accelerated global expansion by clients

▶ Factors Limiting Growth

- ■ Reining IT investment in business model reforms by major financial institutions

Provide secure, high-quality IT technologies on a continuous basis to support critical social infrastructure businesses that clients need to protect

Masaaki Matsuzawa

Executive Vice President
Assistant to the President
(Special appointment for Overall Management
of the Groups and Operating Companies)
In charge of Enterprise Group / Distribution Group
/ Telecommunication Group / Regional & Social
Infrastructure Group / Financial Services Group
COO, Financial Services Group

▶ Medium- to Long-Term Initiatives

Deepening Our Existing Business and Taking Up the Challenge of Broadening Our Business Domains

As part of the organizational restructuring carried out in April 2019, we were established as a business group to serve financial institutions, mainly major banks. In the field of RegTech, which is one of CTC's strengths, there is strong demand from financial institutions for assistance in handling risk management issues and compliance with international regulations such as Basel III and this remains one of our areas of focus. We also expect a gradual reemergence of IT investment by financial institutions, which had been reined until last year, in line with plans to strengthen business digitalization efforts in the medium-term business plans of our customers.

Amid the evolution of fintech, a variety of financial services have been created in the financial industry based on new technologies and our clients see business restructuring as an urgent challenge. In order to encourage this trend, in our recent organizational restructuring we have concentrated on the Financial Services Group functions promoting the acquisition of the newest financial IT, such as digital technology, and efficient SI development. We aim to increase our ability to provide support for leading-edge technologies and financial services and expand the range of our business operations.

Supporting Overseas Expansion of Our Customers' Operations

We expect major banks to aggressively expand their global businesses in Asia.

We will leverage the CTC Group's global network to support our client's overseas businesses by expanding our operations in Asia based on our success in installing overseas account infrastructure in Singapore and strengthening our businesses in North America through cooperation with our partners.

Column

Increased Convenience and Security by Upgrading the IT Infrastructure of the Japan Bank for International Cooperation (JBIC)

The Financial Services Group upgraded the IT infrastructure that operates the core systems of public financial institution JBIC. The main objectives of this project were to install cloud computing functionality, improve security, and integrate the bank's overseas and domestic operations under one system. We leveraged the synergies of each company in the CTC Group, focusing on making a user-friendly system while creating an IT environment to allow our customer to operate with peace of mind in Japan and overseas. We made full use of our capabilities as a multi-vendor to assist this client in a wide range of business domains that require the use of leading-edge technologies.
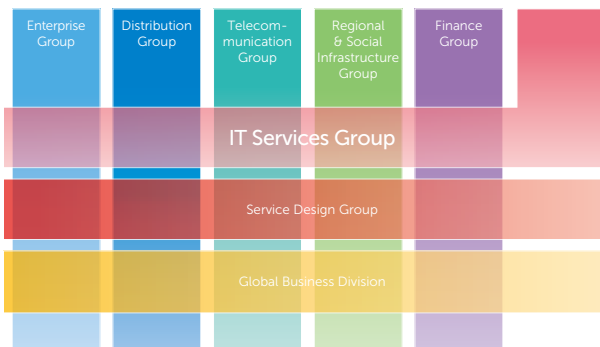
IT Services Group

We contribute to the expansion of our customers' businesses by using leading-edge IT to provide competitive services ahead of other companies in the industry.

Toshiyuki Awai
Managing Executive Officer
COO, IT Services Group

▶ Organizational Positioning

Enterprise Group	Distribution Group	Telecom-munication Group	Regional & Social Infrastructure Group	Finance Group

IT Services Group

Service Design Group

Global Business Division

The IT Services Group integrates cloud computing, security, and data center businesses, expanding businesses by bringing together these elements and proposing and promoting strategies that involve providing high-value-added services. We not only support other business groups by planning cloud integration projects and providing technological support but also handle sales of the services we provide to customers.

▶ Mission
Proactively install leading-edge technologies in overseas countries such as the United States and promote the creation and delivery of new services in the domains of cloud computing, security, and data centers.

▶ Medium- to Long-Term Initiatives

The IT Services Group contributes to the stable management of the Company by supporting our recurring fee businesses with a focus on cloud computing. We expect growth in the public cloud market and see this as an area that we must strengthen. One of CTC's strengths is its ability to provide services as a multi-vendor including IT infrastructure construction, maintenance, operation, and cloud services. We are building up a wealth of experience not only with CTC's CUVIC series of cloud services but also with major public cloud services such as AWS. We are leveraging this strength to assist our customers to shift their IT infrastructure to cloud or hybrid environments. In the field of hybrid cloud computing, where we expect to see growth, we will focus on creating new business models to take advantage of business opportunities. In addition to expanding the scale of our businesses through our sales promotion efforts, we are improving the operations quality of our cloud, security, and data center services, working to increase efficiency, and aiming for further growth.
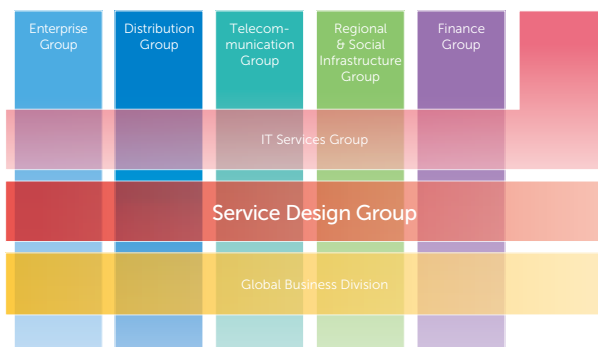
Service Design Group

For the establishment of a prosperous and safe future society, leverage leading-edge IT to contribute to resolving social issues and to the creation of innovative businesses

Eiji Haraguchi
Managing Executive Officer
COO, Service Design Group
CIO

▶ Organizational Positioning

Enterprise Group	Distribution Group	Telecom-munication Group	Regional & Social Infrastructure Group	Finance Group
		IT Services Group		
		Service Design Group		
		Global Business Division		

The Service Design Group consists of the Institute of Open Innovation Research "MIRAI," which creates new business models and the Corporate IT System Division, which reforms business processes. Collaboration between these two sub-groups allows us to provide our clients with leading-edge services and also improve the labor productivity and competitiveness of the CTC Group.

▶ Mission
- Collaborate to create new businesses
- Support the DX of our customers
- Put into practice business process reforms using leading-edge IT and propose new work styles

▶ Medium- to Long-Term Initiatives

At MIRAI, we use DEJIMA, a dedicated space for open innovation that encourages collaboration. We also bring in corporate venture capital and cooperate with venture businesses to create joint ventures. We focus on businesses that have potential synergies with the ITOCHU Group and businesses that address social issues as outlined in the United Nations' SDGs. We also proactively assist the Group's existing customers to digitalize their businesses and guide them to the next generation with the aim of rapid commercialization and profit generation.

The Corporate IT System Division installs next-generation IT infrastructure with the aim of controlling IT systems and promoting diverse work styles. In order to be able to adapt to a rapidly diversifying and constantly changing environment, we install leading-edge systems that use cloud services to provide both convenience and security and conduct operations while assessing their effectiveness. The division not only works toward the goal of the CTC Group of contributing to improvement of labor productivity but also contributes to the creation of new services by CTC.
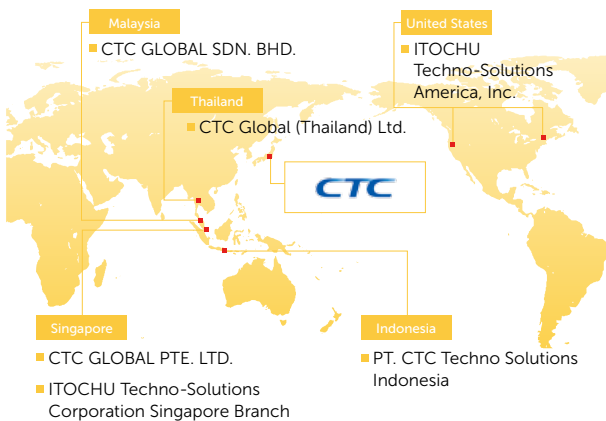
Global Business Division

Building a business infrastructure to acquire excellent goods and services from around the world and deliver them to our clients on a global scale

Junji Hirooka
Executive Officer
COO, Global Business
General Manager,
Global Business Division

▶ CTC's Overseas Network

Malaysia
■ CTC GLOBAL SDN. BHD.

United States
■ ITOCHU Techno-Solutions America, Inc.

Thailand
■ CTC Global (Thailand) Ltd.

Singapore
■ CTC GLOBAL PTE. LTD.
■ ITOCHU Techno-Solutions Corporation Singapore Branch

Indonesia
■ PT. CTC Techno Solutions Indonesia

▶ Organizational Positioning

The Global Business Division strengthens cooperation in Japan, the United States, Europe, and the ASEAN region, and promotes the growth of the Group's existing overseas operating companies, cooperation among partner companies from around the world, and strategic business investment.

▶ Mission

- Develop leading-edge technology in the United States, Europe, and Asia
- Provide solutions in the United States, Europe, and the ASEAN region
- Support the global development efforts of Japanese companies

▶ Medium- to Long-Term Initiatives

Strengthen Earning Abilities of Existing Overseas Operating Companies

We are focusing on continuously expanding the businesses of the Group's existing overseas clients in the telecommunications and finance industries and also securing new clients in the automotive and healthcare industries. In addition, we aim to expand our service businesses by shifting to high-margin development and services businesses and support the global development efforts of Japanese companies by strengthening cooperation with our Japanese clients.

Development and Enhancement of Leading-Edge Technologies

We will develop leading-edge technologies, products, and services and expand CTC's lineup of multi-vendor solutions. We will also leverage the relationships we have developed at our R&D* center in Silicon Valley to enhance our ability to identify promising new businesses in Shenzhen and Europe.

Expanding Our Operations

We will expand our global businesses operations, especially in the United States, Europe, and the ASEAN region by creating new business foundations through M&A, capital tie-ups, and business alliances.

* R&D includes the identification of trends related to leading-edge technologies and IT markets and development of new products.

Major Group Companies in Japan As of July 2019

Business Strategies

Planning and Design

Maintenance and Operation Data Center

IT Lifecycle CTC Provides

Introduction and Transition

Procurement

Development and Construction
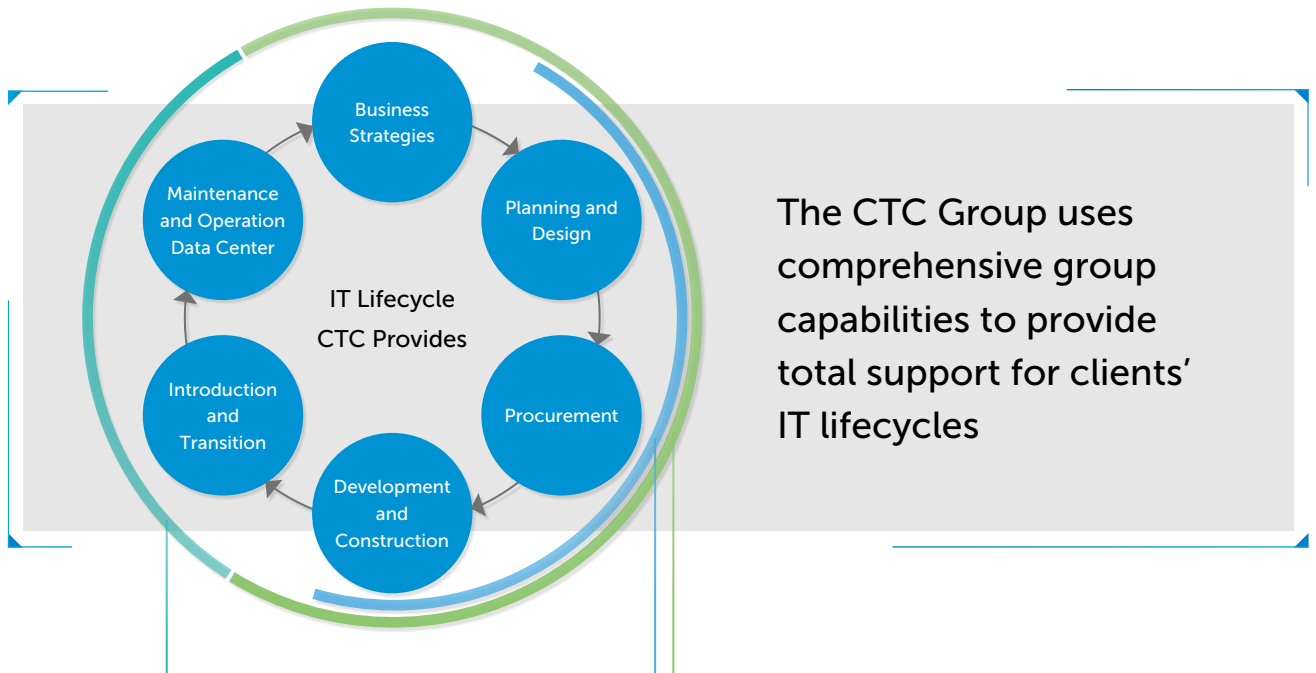
The CTC Group uses comprehensive group capabilities to provide total support for clients' IT lifecycles

▶ Maintenance & Operations Services

Maintenance & Operations Services provide a variety of necessary technological capabilities, from product maintenance to the management of infrastructure and operation of backbone system application and the ongoing management of data centers. Each operational specialization of CTC Group companies supports clients' IT lifecycles.

CTC TECHNOLOGY CORPORATION
System Maintenance and Support Business
Established: Apr. 6, 1990

Provides a range of services including assembly, transfer, and installation of equipment, 24-hour maintenance and systems operation, and comprehensive IT engineer training services. We aim to contribute to the continuity of our customers' businesses and become a company that supports the society of the future through IT.

CTC SYSTEM MANAGEMENT CORPORATION
System Operations and Support Business
Established: Jul. 1, 2008

Provides specialized operations services, such as satellite communications controls and the operation management of IT infrastructure, backbone systems, and data centers for clients in the financial, distribution, telecommunications, and manufacturing industries. Also carries out IT infrastructure construction, develops ERP-related software, and provides maintenance services.

CTC FACILITIES CORPORATION
Data Center Facility Management Business
Established: Jul. 7, 2000

Provides operations, maintenance, construction, and management services for CTC's data centers. Also leverages the experience and know-how it has accumulated to provide a wide variety of facilities-related services including construction and operations support and upgrade consulting for customers' data centers and server rooms.

▶ Developing Businesses Specialized for Client Companies and Industries

Develops businesses specialized for client companies and industries, providing systems developed for clients' unique operating processes and industry-specific solutions.

Asahi Business Solutions Corp.
Established: Jan. 5, 1989

Since being established as an information systems subsidiary for Asahi Breweries, provides total solutions to the Asahi Group, from IT solutions planning, proposal, and development to maintenance and operations.

▶ Solutions Business Using Distinct Products

Laying out the framework to offer a variety of IT-related products and top global vendors to provide the best solutions to client needs.

CTCSP CORPORATION
Established: Apr. 1, 1990

We offer the best IT services that meet the needs of clients by adding "proposal capability" value to leading-edge and unique solutions from Japan and abroad.

Message from the CFO

We will continuously increase corporate value by improving business portfolio management and achieving steady profit growth.

Director & Executive Vice President
Assistant to the President & CAO
In charge of Corporate Administration
Group / Global Business Development
CFO & CCO

Toru Matsushima

▶ Shoring Up Our Strategy to Open New Horizons

Our current Medium-Term Management Plan (please see page 25), which began in April 2018, is called Opening New Horizons. Under the plan, we will reinforce our strengths while following a strategy of entering new business domains by creating businesses that leverage 5G and DX technologies and expanding our operations bases around the world. I believe it is my role as CFO to support many aspects of management, not only our financial strategy, so that we can carry out our corporate strategy and achieve continuous growth. In order to open new horizons, it is essential for us to participate in products using new technologies that we have not worked with before and proactively enter new business fields that are ahead of their time. Such projects have the potential to develop into businesses that form earnings pillars for the Company. Of course, we must be extremely cautious when agreeing to take on such projects as they can be very difficult and result in temporary profit declines. However, I believe not giving up on these projects and doing what it takes to create an environment wherein the Company can nurture businesses that will contribute to growth over the medium and long term is an essential part of my role as CFO in supporting management.

Under our current Medium-Term Management Plan, we are aiming for net profit attributable to CTC's shareholders of ¥30.0 billion and ROE of 12% or more in fiscal 2020. In our plan, we target profit growth with a focus on profit

margin improvement. Each of our business groups has customers from a wide range of sectors and we operate using multiple business models with different earnings structures. Although each business is able to achieve earnings on their projects, efforts to improve profit margins have varied from group to group. I think it is essential for us to reevaluate the earnings potential of each of our business models and further optimize allocation of our management resources. In this way, I hope to improve CTC's business portfolio management.

▶ Focus on Investments Aimed at Future Growth and Resolving Social Issues

We view the IT sector as an industry that continuously creates new businesses to produce social change and resolve social issues. Continuous investment is essential in order to maintain and improve our completive strength in a rapidly changing environment. From the point of view of business portfolio management, when deciding which investments to make, we must not only consider the best fit for the CTC Group but also think about how to meet the needs of society. We aim to invest in ways that allow us to contribute to the solution of social issues while achieving continuous growth.

We have established investment criteria based on capital costs in order to ensure that investment in our businesses leads to steady profit growth. In recent years, our M&A has been focused overseas and we have established criteria for
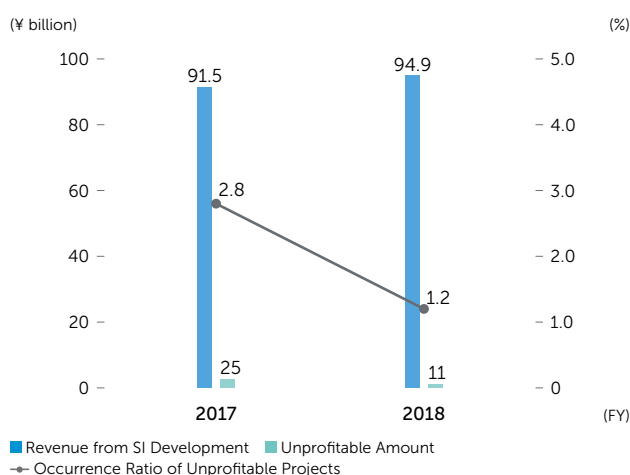
each country, taking into consideration factors such as country risk and economic indicators. We use these criteria to ensure that we maintain financial discipline when making investment decisions. As capital costs form the basis for these criteria, we review capital costs annually, report them to the Board of Directors, and share this information with the entire management team.

When making investment decisions, we must never forget that our most valuable resources are our human resources. We view securing the outstanding human resources of companies we acquire and gaining access to their knowledge and expertise as essential to boosting our competitiveness. Also, to strengthen our ability to work with leading-edge technologies, we must not only secure competent human resources but also give them access to the appropriate training and nurture them as employees. In order to have employees live up to their full potential, it is essential to evolve our human resources policies and systems (please see page 35) by, for example, implementing work-style reforms and flexible compensation systems.

▶ **Leveraging Profit Growth to Increase Corporate Value**
In fiscal 2018, the first year covered by the current Medium-Term Management Plan, sales to telecommunications companies and manufacturers were strong and the ratio of unprofitable projects declined to 1.2%, from 2.8% in fiscal 2017. Net profit attributable to CTC's shareholders rose to ¥24.6 billion, reaching a record high for the fifth consecutive fiscal year. As part of our efforts to increase shareholder returns, we increased our dividend payout ratio from roughly 40% to approximately 45% and distributed dividends of ¥50 per share (up ¥5 per share year on year). This was the 10th consecutive year we increased dividend distributions.

As a result of the above, ROE declined by 0.3 percentage point year on year, to 11.5%, but remained at a high level. We are making steady progress toward the target in our current Medium-Term Management Plan of ROE of 12% or more in fiscal 2020, the final year covered by the plan.

In fiscal 2019, we will continue to reinforce our strengths and proactively seek challenges in new business domains, targeting net profit attributable to CTC's shareholders of ¥27.0 billion.

In order to live up to the trust our shareholders have placed in us, we plan to speedily carry out the abovementioned measures and thereby achieve stable profit growth and make dividend distributions that are stable and at a high level. We always take into consideration the option of repurchasing shares as a means to increase shareholder returns. While we have not rejected the possibility of repurchasing shares, we plan to use dividend distributions as our primary method of returning value to shareholders.

■ **Basic Policy on Profit Distribution**
CTC recognizes the return of profits to shareholders as an important management issue. In line with its basic policy of increasing dividend levels, CTC works to secure stable dividend payments and stresses the return of profits according to business performance, while carefully considering the balance of internal reserves and the actual amount distributed to shareholders.

As we believe that, with the support of our stakeholders, the continuous growth of CTC will contribute to the Global Good, we will continue to do our best, always keeping in mind the spirit of mutual benefit.
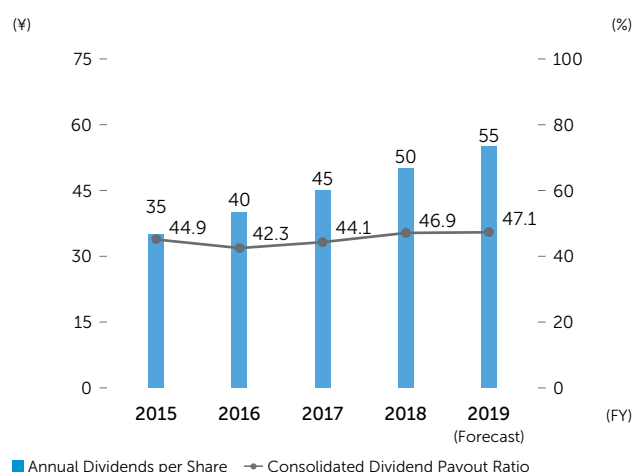
▶ **Revenue from SI Development and Unprofitable Amount**

(¥ billion) / (%)

■ Revenue from SI Development ■ Unprofitable Amount
━ Occurrence Ratio of Unprofitable Projects

▶ **Annual Dividends per Share* / Dividend Payout Ratio**

(¥) / (%)

■ Annual Dividends per Share ━ Consolidated Dividend Payout Ratio

* CTC conducted two-for-one stock splits of common shares on April 1, 2015 and April 1, 2018. Amounts for fiscal 2015 to fiscal 2017 in the above have been retroactively adjusted to reflect the stock splits.

The CTC Group's Materiality

With a view to achieving its mission of "leveraging IT's potential to change the future for the Global Good," the CTC Group has identified material topics (materiality), which are priority social issues and themes on which the Group should focus efforts and address by utilizing its mainstay IT business. Accordingly, we are embedding efforts to address these material topics into our corporate activities.

Further, to enable each employee to understand the connection between their work and society, we inform employees about our corporate philosophy and initiatives.
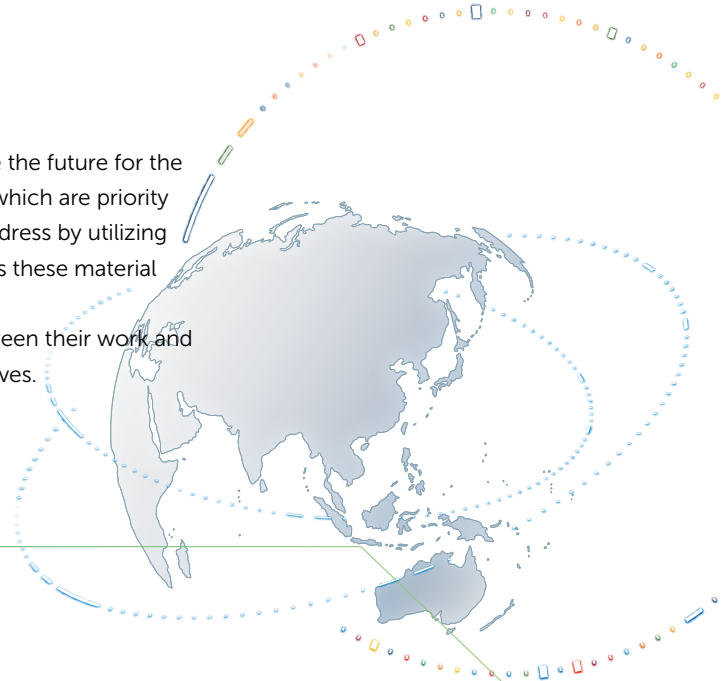
▶ The SDGs and Materiality

The Sustainable Development Goals (SDGs) were adopted by the United Nations Sustainable Development Summit in September 2015 and comprise 17 goals to be addressed in the period through to 2030 for the future of the earth. Increasingly, society expects companies to participate proactively in initiatives aimed at reaching these goals, which apply to the whole of international society. The CTC Group endorses the philosophy of the SDGs and will contribute to their achievement through its materiality initiatives.

SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD

1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

SUSTAINABLE DEVELOPMENT GOALS

Column

Initiatives to Help Reach the SDGs

The CTC Group is advancing an array of initiatives with the aim of contributing to the realization of the SDGs.

In-house, we take measures to ensure that all employees understand our initiatives related to the SDGs. For example, we explain and report on the initiatives at events attended by approximately 4,000 employees, and we hold "Morning SDGs Seminars" before employees begin work.

In addition, the CTC Group disseminates information on its SDGs-related initiatives through a public relations (PR) magazine, external seminars, and the hosting of workshops for clients and contributes to the achievement of the SDGs through the Group's mainstay business.

An in-house seminar

▶ Identification of Materiality

In March 2016, the CTC Group identified its material topics (materiality) by aggregating and analyzing various types of international guidelines on sustainability, the SDGs and other social issues emphasized by corporate social responsibility evaluation bodies, and feedback from internal and external stakeholders. For each of the identified material topics, we have established specific targets and key performance indicators (KPIs). We continuously improve our initiatives by annually reviewing and evaluating our performance in relation to respective material topics and identifying issues.

1 Provide trusted IT services	Ensure rigorous information security	▶ 📖 P.80 Ensuring Rigorous Information Security
	Improve quality	▶ 📖 P.34 Ensuring Quality and Enhancing Client Satisfaction
	Compliance	▶ 📖 P.78 Internal Control and Compliance
2 Cultivate personnel who can change society for the better	Conduct personnel development and training	▶ 📖 P.37 Recruitment and Development
	Promote diversity and change work styles	▶ 📖 P.36 Promoting Further Work-Style Reforms ▶ 📖 P.38 Diversity and Empowering of Women in the Workplace
	Help cultivate people who can be a bridge to the next generation	▶ 📖 P.48 Nurturing Human Resources in the Field of Data Science by Signing an Academic Exchange Agreement with Waseda University
3 Harness IT to build a sustainable society	Address issues related to an aging society	▶ 📖 P.42 Cooperating with Toyota Systems to Increase Productivity of App Development for Toyota Motor Corporation
	Reduce environmental impact	▶ 📖 P.63–64 Environmental Initiatives
	Contribute to regional economies	▶ 📖 P.47–48 Regional & Social Infrastructure Group

▶ For details, please visit our website. 🖥 http://www.ctc-g.co.jp/en/corporate/csr/policy/materiality.html

▶ Initiatives to Obtain Feedback from Society

Since identifying our material topics, we have continued to actively obtain and reflect feedback from stakeholders. For example, through dialogues between external experts and our senior management team, we clarify the social issues that we should tackle and the stances we should adopt as a company.

In June 2019, we held a dialogue themed on how best to achieve the "Global Good" called for by our mission, and the audience comprised interested employees.
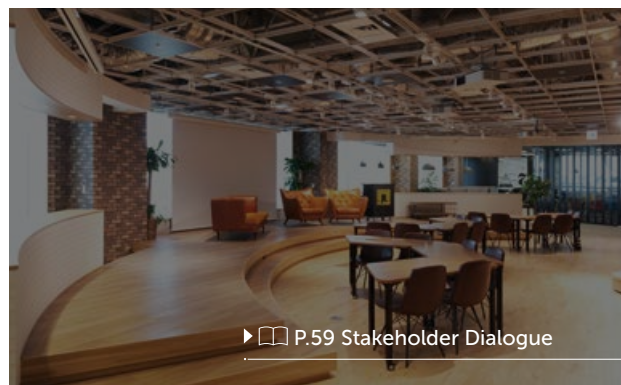
▶ 📖 P.59 Stakeholder Dialogue

Stakeholder Dialogue

Realizing a sustainable society:

What sort of abundance will be needed for the future?

The CTC Group's mission is "leveraging IT's potential to change the future for the Global Good." By fulfilling this mission, through its operations the CTC Group plays an important role in working to realize a sustainable society in accordance with the thinking behind the SDGs.

Here, we explore what we—as a company handling leading-edge technologies—are being called upon to do in these rapidly changing times, when values with respect to "abundance" (which is described in our Group mission as the "Global Good") are growing more diverse.

To this end, we hosted a dialogue between experts from the perspectives of Buddhism and technology.

Realizing Abundance

Joining us today are Mr. Ryojun Shionuma, a Buddhist monk holding the title of Dai Ajari who speaks extensively at companies and educational institutions in Japan and overseas, and Dr. Shigeki Goto, a professor emeritus of Waseda University who has contributed over a long period of time to developments in the computer science field, notably in telecommunications engineering.

First, we would like to ask a question about today's theme, "abundance." Would each of you please describe what abundance means from your own perspective?

Shionuma: People have different values and they don't need to be always related with money and physical items. But, in situations that truly enrich the soul? This is the theme that called me to the vocation of priesthood. Our lives involve relationships with other people and whenever we interact with someone, we become aware of that

person's physical condition and our own mood as well. When two people truly communicate and understand each other in this situation, we feel enriched. The simple presence of someone who understands you impacts the power of perseverance despite any pain or difficulty.

In that sense, I think abundance refers to the ability of naturally understanding what other people need and what would make them happy. "Half a word to a wise man is enough" states a Japanese proverb, which my mother repeated when I was young—she was strict with my upbringing. During the teenage years, when a person's feelings and personality are forming, becomes the basis of their behavior and interaction with others. Thinking of others and acting in a way that will make others happy is a way to experience a meeting with the heart. Such experiences enrich the soul and lead to abundance.

Goto: One major thing that differentiates people from animals is the fact that people interact and form societies. What connects us is communication.

Means of communication have grown more sophisticated as science and technology have evolved. But society has not necessarily become more abundant in the true sense as a result. Globalization means that the economics of individual countries and regions affect other regions, so it has become possible for one region to grow richer while another becomes poorer. Communication always has both positive and negative aspects. Technology can be used for war as well as peace. Considering how they can be utilized to achieve abundance, I agree with Mr. Shionuma that the way people interact with one another is key.

Ryojun Shionuma
Founder of Jigenji Temple
in Akiu, Sendai
Dai Ajari, Omine Thousand Day
Circumambulation Practice

Realizing Abundance through Technology

You noted that the way technology is used is being called into question. How is the CTC Group, which is active in the fields of IT and telecommunications, being called upon to achieve abundance?

Satomi: An abundant society must be safe and secure. A society in which you must always be in a state of high alert is not abundant. The CTC Group has been involved with telecommunications for many years, and the CTC Group will continue to play an important role in supporting society in the future. Negative aspects have been pointed out with respect to such technologies as AI and cybersecurity, but by taking a forward-looking approach and improving negative aspects, we can contribute to society's safety, security, and abundance.

I think another important aspect is that clients and the ultimate end-users enjoy using the products we provide in their work. It is important to have common values by sharing joy in this way.

Matsushima: My experience of management has taught me to constantly be comparing things. I compare our profits with competitors' and think of what needs to be done to make our company a better place to work. I wonder, though, whether it is possible to go too far in comparing one's own abundance and happiness with that of others. Rather than money and physical items, as Mr. Shionuma has

Shigeki Goto
Professor Emeritus, Waseda University
President, Japan Network Information
Center (JPNIC)
Chairman, Research Committee for R&D
Strategy, National center of Incident readiness
and Strategy for Cybersecurity (NISC)

Stakeholder Dialogue

Toru Matsushima
Director & Executive Vice President
Assistant to the President & CAO
In charge of Corporate
Administration Group / Global
Business Development
CFO & CCO

noted, interactions between people are surely more enriching and provide more of a sense of abundance.

I think we can contribute toward the realization of an abundant society by providing the underpinnings to support IT systems and ensure that people are firmly connected with each other. I would like to see our company aim for this sort of support and connection to help achieve greater abundance.

Shionuma: Earlier I mentioned the sentence: "Half a word to a wise man is enough." I think that proverb describes the way AI is evolving. AI will not move forward in a positive direction without human intervention. The evolution of AI also requires that progress needs to be made by the people who developed it and those who use the technology.

Goto: I believe that people have capabilities suitable to making progress in AI. People differ from other animals in the way we acquire the vast majority of our learning after we're born. That sense is behind the phrase "Half a word to a wise man is enough," and is how we develop ethics. Whether ethics can be taught to AI depends on people.

Shionuma: If value is attributed to something existing, then people will not change. AI exists to fill in the gaps, but we as human beings must be clearly aware of the goals behind its use. We need to think about the reason behind its development and how it will be used. Rather than just a few specific people having the right to make such decisions, other communities need to be involved by providing their input, like religious communities, economic communities, and politicians. If the initial target is off by as little as a single millimeter now, down the road it could have a major,

100-meter impact. Our future goals for how people and technology coexist cannot be at odds. Otherwise, we will not move toward for an altogether better future.

Satomi: I am also against the idea of using technologies unless the ethics and objectives are clear. For instance, research is being conducted to help AI learn emotional awareness. This is being done so that when it is not possible to understand what older people are saying, AI can analyze a person's speech characteristics to recognize the meaning. Introducing AI without having a clear sense of how it will be used invites confusion into society. When conducting and applying basic research and adapting it to society, we need to have sufficient reasons for doing so and be clear about its role when using it.

Goto: I would like to make one additional point. Going forward, I think it will become more common for companies and research institutions to openly share the information they possess and make use of this collective knowledge. When this happens, I hope the institutions involved will do so without trying to hide negative information. For instance, an organization may not want to disclose the fact that it has been the victim of a cyberattack, but that information has value because lessons can be learned from it. I think we need to create information-usage frameworks that do not penalize the people providing information. Along with clarifying their objectives, I would like the people responsible for technologies to take this into consideration. In order to do so, it is important for people to communicate with one another and develop trust-based relationships.

Hidetoshi Satomi
Fellow, General Manager, CTO Office
Advanced IT Strategy Division
Assistant to COO, Service Design Group

A Company Working to "Change the Future for the Global Good"

In addition to their own growth, companies are increasingly being called upon to conduct corporate activities in cooperation with society and address social issues. Going forward, what should the CTC Group, which is working to achieve abundance through technology, be doing?

Shionuma: As a company, you need to generate profit. However, rather than rushing to compare with other companies and with your own performance in the previous year, I think it would be better to grow slowly. Self-interest and philanthropy must be pursued cyclically. It is better to grow gradually and over the long term, both for your company and for society. You should not lose the desire to improve. However, I undertook a difficult training to earn the title of Dai Ajari, but when I look back after I completed that training it made me realize I wanted to maintain the passion for the priesthood I felt when I was 19 years old. Still always remaining humble to the end of my days. I want to be able to always grow in whatever environment I am placed in and am always taking on new challenges. I would like to see the CTC Group maintain that same sort of energy.

Satomi: In order for a company to grow, its people need to grow as well. What level of growth is appropriate is not just a question for the management team; it also requires consensus from employees. The ability to contribute to society on a business front, as well as frameworks for making proposals that are appropriate or optimal, also need to be worked out in conjunction with employees.

Goto: Regardless of how hard you work, there are limits to what a single person can achieve. When a job is shared, information on the positive and negative aspects of the parts that individuals have been responsible for is gathered together. This is possible because humans are in charge. A society that uses IT to enhance trust between people will be more robust. Although difficult in the past, it will become possible to interact with people who are located far away. I think you have an important role to play in your work toward building a society capable of trust and in which trust can be shared.

Matsushima: The CTC Group believes in the importance of contributing to the SDGs via its business. Ideally, rather than by making the SDGs the objective we would naturally work toward those 17 goals as we go about our business. The SDGs are connected with the goal of "abundance," and I believe it is meaningful to keep this in mind as we go about our business.

The ITOCHU Group has its roots with the merchants of Ohmi, who understood the concept of *sampo yoshi* (good for the seller, good for the buyer, and good for society). In Japanese, the characters for "company" and "society" are the same, just in reverse order, which illustrates their interconnectedness. Companies must always take society into consideration, and management needs to think about contributing toward the abundance of all stakeholders. To contribute toward the common good of society, the Company must achieve sustainable growth. As we do so, our management will take the words of you experts to heart. Thank you for your time today.

Environmental Initiatives

The CTC Group is doing its part to pass on a sustainable global environment to future generations. We are cutting energy consumption, using resources effectively, and taking other steps to prevent global warming. Also, recognizing the importance of maintaining biodiversity, we are working to improve the natural environment.

Environmental Activities Policy

The CTC Group aims to keep its businesses in harmony with the global environment, addresses issues including climate change, the effective use of resources, and the preservation of biodiversity, and strives to improve environmental management systems in a sustained manner.

| 1 |▶ Provision of Value through the Solution of Issues Faced by Customers

The CTC Group offers value by helping address environmental and social issues. For example, we utilize IT to enable environmental load reduction and eco-efficiency improvement.

| 2 |▶ Reduction of Environmental Footprint in Business Activities

The CTC Group proactively promotes such initiatives as those for saving energy, saving resources, reducing waste, and greening procurement and works to reduce the environmental footprint of the Group and prevent pollution in its business activities.

| 3 |▶ Compliance with Relevant Laws, Regulations, etc.

The CTC Group observes laws and regulations associated with environmental preservation and other items to which it agrees.

| 4 |▶ Cultivation of an Awareness of the Need for a Sustainable Society

The CTC Group increases employees' environmental awareness through environmental education and other awareness-raising initiatives. Also, the Group cultivates an awareness in each employee of the need for a sustainable society.

▶ Environmental Management Structure

The CTC Group has established an Environmental Activities Policy based on its corporate philosophy and has established an environmental management structure.

We engage in Groupwide environmental improvement activities under the management of the CSR and Compliance Committee chairman and Environmental Control Manager; with our Environmental Managers and Eco Leaders and Deputy Eco Leaders (who are responsible for driving environmental activities) in their particular departments, including at Group companies, taking a central role in these activities. We have attained ISO14001 certification at a total of 22 business locations (19 offices and 3 data center locations).
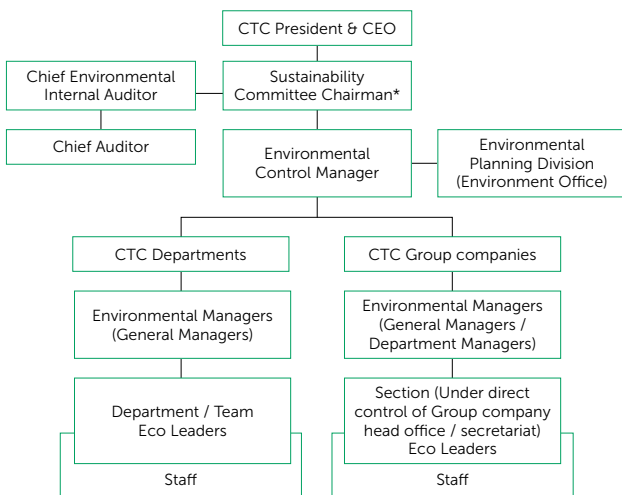
* For fiscal 2019, Director & Executive Vice President is assigned to Sustainability Committee Chairman.

▶ Environmental Education

The CTC Group provides environmental education through e-learning for all employees once a year. Environmental Managers and Eco Leaders are also offered training to promote their activities.

▶ Environmental Improvement Activities

We are helping reduce CO_2 emissions by rolling out virtualization hosting services that provide IT infrastructure via cloud computing and by offering comprehensive services that encompass the efficient introduction of renewable energy through to its utilization. Further, we are encouraging employees to change their attitude to work styles and reducing overtime work and energy use by introducing a morning-focused working system. Under this initiative, we have prohibited working overtime after 8pm in principle as well as working late at night and on days off. If there is a need for employees to perform duties outside normal working hours, we recommend that they perform these duties in the morning.

▶ Environmental Preservation Activities

As a supporter of the Chinju no Mori Project, which creates forests that help prevent disasters and preserve the environment, we regularly participate in tree planting and supplementary planting activities. Also, we support and take part in the environmental preservation activities of the "MOTTAINAI Campaign," which promotes the establishment of a sustainable recycling-based society.

Establishment of the 2050 CTC Environmental Declaration

In April 2019, the CTC Group established the 2050 CTC Environmental Declaration, which calls for a 30% reduction in the CO_2 emissions of the Group's business activities compared with their 2015 level by 2030 and the elimination of these emissions by 2050.

The Group will collect knowledge on the reduction of CO_2 emissions, form a task force comprising representatives of all segments of the Group, and regularly examine concrete measures. In these efforts, we will focus on such areas as the use of IoT, AI, and other leading-edge technologies to save energy, the utilization of IT in the formulation of innovations, and the use of renewable energy.

Through this declaration and initiative, we will contribute to the realization of a carbon-free society and help clients address the issues they face.

> On the occasion of our establishment of the 2050 CTC Environmental Declaration, we received a message from World Wide Fund for Nature Japan's Masako Konishi, who provided suggestions for the setting of medium- to long-term targets at the fiscal 2018 Stakeholder Dialogue.

First, I would like to express my sincere respect with regard to the CTC Group for establishing the 2050 CTC Environmental Declaration and setting clear medium- to long-term environmental targets. Specifically, the deceleration calls for a 30% reduction in the CO_2 emissions of the Group's business activities compared with their 2015 level by 2030 and the elimination of these emissions by 2050. I remember the cautious attitude of the representatives of the CTC Group when I participated in its Stakeholder Dialogue in August 2018 and spoke about the importance of having a medium- to long-term vision. To be honest, I was filled with admiration when, less than a year later, the Group committed itself to eliminating emissions by 2050.

The October 2018 issuance of the Special Report on Global Warming of 1.5 °C of the Intergovernmental Panel on Climate Change (IPCC) made it widely known that aiming to limit global warming to 1.5 °C requires zero emissions by 2050 (limiting global warming to 2 °C requires zero emissions by around 2075). Consequently, at a stroke, aiming to limit global warming to 1.5 °C became a world-wide trend at COP24 (the 2018 United Nations Climate Change Conference) and other international negotiations. One of the CTC Group's strengths is IoT, which will be an integral part of a carbon-free society. By taking the lead and rolling out initiatives and services in Japan and overseas, the Group will show the way to a carbon-free society, and setting targets in alignment with limiting global warming to 1.5 °C befits such a leader.

Meanwhile, the Group has not yet clarified the concrete measures that it will take to reach the medium- to long-term targets. Therefore, I look forward to the Group's preparation of specific measures. In the era of the Paris Agreement, companies, municipal authorities, and other non-national actors are playing very active roles worldwide. By participating in initiatives that promote global climate change countermeasures and which originate from non-national actors, the Group will learn about the types of concrete measures available as well as the areas where it should exercise care. Moreover, the Group will be able to pursue

Masako Konishi
Ph.D. (Social Governance), Meteorologist
Expert Director, Conservation and Energy,
WWF Japan

measures that earn it a favorable international reputation. For example, in relation to Science Based Targets, RE100 (business activities based on 100% renewable energy) is particularly recommended for corporate groups such as the CTC Group that have relatively large amounts of indirect emissions (Scope 2). Also, as a corporate group that not only aims to become carbon free itself but also to help others become carbon free, the Group would benefit from setting out a future scenario for its business activities in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). With the growing trend toward investment that focuses on environmental, social, and governance factors, the aforementioned initiatives will encourage investors worldwide to choose the Group.

Further, I would like the Group to be a corporate group that speaks up. For example, the Group could issue such messages as "the CTC Group's technologies can increase the use of renewable energy to 50% by 2030." I look forward to the CTC Group's further development as a leader driving us toward a carbon-free society in the era of the Paris Agreement!

Contributing to Society

As a member of local communities, the CTC Group aims to create an affluent society by using its personnel, information technology, and other resources to conduct proactive social contribution activities and provide support across a wide range of fields, including the environment, welfare, nurturing the next generation of young people, supporting the international community, and contributing to local communities and cultural activities. CTC is also actively involved in activities to help communities recover from natural disasters. On this page, we look at some of CTC's activities.

Local Community and Society Initiatives

▸ Support for Fostering the Next Generation of Young People

Enabling Children to Develop Their Potential and Have Fun while Learning about IT

Since fiscal 2015, the CTC Group has held the Children's Technology Challenge IT workshop classes to give children, who will lead the future, opportunities to encounter IT. In preparation for the start of compulsory programming education at elementary schools in 2020, we also developed Minna de Challenge! (Everyone Take on the Challenge!) IT Engineer classes, which we began conducting at schools in fiscal 2018. The new classes teach programming-based thinking by having children act as IT engineers, develop hypotheses, and make verifications to derive the optimal delivery route. In fiscal 2018, we conducted these classes for 395 students at six elementary schools.

Also, we held six workshops focused on using tablet devices to create "stories for playing," and 111 children participated in the workshops.

Conducted by our employees on a pro bono basis, these classes and workshops help foster the next generation of IT personnel.

▸ Support Activities for Disaster Areas

Continuing Trips in Support of Areas Damaged by the Great East Japan Earthquake

Since fiscal 2014, we have been supporting the restoration of areas damaged by the Great East Japan Earthquake by conducting trips that enable employees who want to contribute to the happiness of those living in the Tohoku region to learn about current conditions in the disaster area. In fiscal 2018, we conducted three trips, in which a total of 123 employees and family members of employees participated. Going forward, we will continue taking measures to support the restoration of the disaster area.

Moreover, we provide special leave[1] and financial support[2] to employees who participate in volunteer activities in areas that have been catastrophically damaged by disasters.

[1] Special leave for disaster area support volunteers: Paid leave that can be taken seven days per year (taking leave in half-day increments possible)
[2] Subsidy for the cost of volunteer activities in support of disaster areas: To cover such costs as return travel and accommodation, subsidies of between ¥35,000 and ¥50,000 paid each time an employee participates in activities, with each employee able to use the subsidy five times in each fiscal year

▸ Welfare Activities

Supporting Facilities That Foster Children's "Power for Living"

We endorse the "Third Place" facilities project of The Nippon Foundation, which takes measures to counter child poverty, and have concluded an official partnership for child poverty countermeasures with the foundation. As part of this partnership, we donate rice and tea for children's meals.

Every month, the CTC Group's special subsidiary HINARI Corporation[3] provides 13 facilities with rice and tea from commercial farms with which it has contracts. In fiscal 2018, we donated a total of 1.6 tons of rice and nine kilograms of tea.

The Nippon Foundation plans to open 100 "Third Place" facilities throughout Japan.

Going forward, we will continue supporting such welfare activities.

[3] HINARI Corporation is a special corporation that contracts farmers to perform light agricultural work and which sells agricultural and processed products.

External Recognition

ESG indicators selected by the Japanese Government Pension Investment Fund (GPIF)

▶ FTSE Blossom Japan Index

CTC was selected for the FTSE Blossom Japan Index, a stock market index developed by FTSE Russell, a wholly owned subsidiary of the London Stock Exchange Group (LSEG), consisting of Japanese companies that demonstrate strong ESG practices.

▶ MSCI Japan Empowering Women Index (WIN)*

CTC was selected for the MSCI Japan Empowering Women Index (WIN), a stock market index developed by MSCI Inc., the largest ESG research company in the world, consisting of Japanese companies in the MSCI Japan IMI Top 500 Index that exhibit a commitment toward promoting and maintaining a high level of gender diversity among their workforce.

* THE INCLUSION OF ITOCHU Techno-Solutions Corporation IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF ITOCHU Techno-Solutions Corporation BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.

▶ FTSE4Good Index Series

CTC was selected for inclusion in the FTSE4Good Index Series, a series of stock market indices for ESG investors developed by FTSE Russell, consisting of global companies demonstrating strong ESG practices.

▶ ISS-oekom Corporate Rating

CTC's information security and environmental management practices have been rated as "Prime Status" by ISS-oekom, one of the world's leading sustainability rating institutions.

▶ Member of SNAM Sustainability Index2019

CTC was selected for inclusion in the SNAM Sustainability Index, a stock market index developed by Sompo Japan Nipponkoa Asset Management Co., Ltd. based on ESG evaluation conducted by research companies and a proprietary equity valuation method (fundamental value).

▶ JPX-Nikkei Index 400

CTC was selected for inclusion in the JPX-Nikkei Index 400, a stock market index developed by the Japan Exchange Group and Nikkei Inc. composed of 400 companies with high appeal for investors and which meet requirements of global investment standards, such as efficient use of capital and investor-focused management perspectives.

▶ Competitive IT Strategy Company Stock Selection program

Under the Competitive IT Strategy Company Stock Selection program, the Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange (TSE) jointly select companies that create new value and implement management innovation and proactively leverage IT to improve productivity. CTC has been selected for three consecutive years for its use of leading-edge digital technology to increase productivity and its efforts to nurture human resources.

▶ 2019 White 500/Health & Productivity Outstanding Entities Recognition program

In this program, METI recognizes large enterprises conducting excellent health and productivity management. Certified in the large enterprise category (dubbed the "White 500"), CTC was selected as a member for 2019, recognizing its efforts in health management by managing the health of employees from a business standpoint.

▶ Nikkei Smart Work

This project aims to promote growth in the Japanese economy by improving the productivity of corporations through the introduction of leading-edge technologies, innovation, and work-style reforms achieved through restructuring. CTC was selected as a leading-edge corporation for its efforts to improve productivity through work-style reforms and received a 4-star rating in the second Nikkei Smart Work survey.

▶ Semi-Nadeshiko Brand

Semi-Nadeshiko brands are listed corporations selected by METI and the TSE as enterprises that are outstanding in terms of encouraging the empowerment of women in the workplace. CTC was selected for the first time in fiscal 2018 for its efforts in the areas of hiring and support for the career advancement of women, work style, and integration of child-rearing and nursing care.

▶ "Kurumin" certification for nurturing future generations

CTC was recognized by the Ministry of Health, Labour and Welfare (MHLW) as a "company that supports child-rearing." CTC has received certification under the Law for Measures to Support the Development of the Next Generation, which was enacted in April 2005. The certification recognizes our efforts and track record in nurturing future generations through our action plans (general business owner action plans).

▶ "Eruboshi," a symbol of certification based on the Act on Promotion of Women's Participation and Advancement in the Workplace

CTC received the highest rank, being highly rated in all five criteria (hiring, continuous employment, work styles such as working hours, percentage of managers, and various career courses) provided by the MHLW, based on the Act on Promotion of Women's Participation and Advancement in the Workplace.

▶ Certification as Tokyo Sports Promotion Corporation

CTC has been recognized by the Tokyo metropolitan government for four consecutive years as a company that demonstrates excellence in its efforts to promote the sports activities of its employees and in its support of sports.

▶ Sports Yell Company

CTC's efforts to encourage the use of holiday leave and funding for participation in sports events that support disaster-affected areas, and its support for company sports clubs have been recognized for two consecutive years.

Corporate Governance

Messages from Outside Directors

> **As an independent outside director, I will strive to help CTC increase corporate value and contribute to society.**

Naoko Iwasaki
Independent Outside Director

With issues such as the aging of society and labor shortages becoming more urgent, global uncertainty is on the rise driven by the emergence of global problems. In the information age, which brings with it tremendous evolution and development, I believe business system innovation and aggressive ICT investment aimed at creating added value will prove to be the key to solving many problems.

My specialty is in ICT management strategy and helping CIOs to leverage leading-edge technologies, and I believe CTC is making dynamic progress in ICT management focused on DX. In addition, CTC's global perspective has also led to the Company aggressively expanding its business in the United States, Europe, and the ASEAN region and implementing measures designed to increase diversity. Amid accelerated adoption and application of leading-edge technologies such as 5G, AI, and IoT, I think it is essential to apply these technologies with a focus on service innovation. It is also essential to secure and nurture ICT professionals that can strategically leverage these technologies.

I firmly believe that, under the leadership of President Kikuchi, CTC will come together to increase corporate value based on the SDGs and that contributing to society will promote the further growth of the Company's businesses.

CTC has maintained an excellent balance in terms of its management and, based on the strong teamwork of the Board of Directors and the Company's highly regarded corporate governance processes, I hope to fulfill my duties as outside director by representing the shareholders and ensuring that the Company continues to conduct sound and transparent governance.

April 2017
Professor, Institute of e-Government, Waseda University (current position)

President, International Academy of CIO Japan (current position)

Member of Ageing Research Institute for Society and Education (ARISE) Advisory Board, Nanyang Technological University, Singapore (current position)

April 2018
Visiting Research Fellow, Peking University (current position)

September 2018
Member of "Committee on Standardization of Business Processes/Systems and Utilization of AI/Robotics in Local Governments," Ministry of Internal Affairs and Communications (current position)

January 2019
Project Overseer, APEC project on Smart Silver Innovation (current position)

From an independent perspective, I will strive to help CTC remain a trusted company.

Aya Motomura
Independent Outside Director

I am pleased to have recently taken a position as an outside director at CTC. I have mainly worked as an attorney in the fields of finance and legal compliance, and served as an external member of the compliance committee of a listed asset management company and a member of the environmental real estate investment screening committee of a government–industry fund. This experience has given me the opportunity to consider how corporations can conduct sound operations and development from the viewpoints of a diverse range of investors.

CTC currently supports a wide range of IT systems that serve societies and industries around the world. Therefore, being a trusted company is in the shared best interests not only of the Company's shareholders but also of all its stakeholders, including customers, employees, trading partners, and local societies. Amid the recent robust debate regarding the strengthening of corporate governance in response to the changing environment faced by companies including globalization and changes in the financial environment and employment conditions, I think the importance of the role of outside director in ensuring the continued growth of CTC is increasing. I believe my role is to increase the transparency and fairness of management by considering the question of who a company should serve and by gathering and analyzing information and making proposals from an objective position independent of the Company.

In order to help CTC to continue to grow and "change the future for the Global Good," in my position as outside director I will do my best to make use of my knowledge as an attorney and my perspective as a woman to increase corporate value over the long term.

October 2002
Registered as an attorney
(Dai-Ichi Tokyo Bar Association)
Joined Nagashima Ohno & Tsunematsu

September 2008
Worked for Cleary Gottlieb Steen & Hamilton LLP (New York Office)

February 2009
Registered as a member of New York State Bar Association

July 2009
Worked for Financial Markets Division, Planning and Coordination Bureau, Financial Services Agency

October 2013
Partner, Inaba & Partners
(current position)

December 2013
Member of Screening Committee for Seismic-resistant/Environmentally-friendly Real Estate Development Promotion Project, Real Estate Sustainability & Energy-Efficiency Diffusion (RE-SEED) (current position)

March 2014
Outside Member of Compliance Committee, AEON Reit Management Co., Ltd. (current position)

Efforts to Strengthen Corporate Governance

▶ CTC's New Initiatives Related to Governance (Fiscal 2015–2018)

Fiscal 2015
- Establishment of Nomination Committee, Remuneration Committee and Governance Committee as advisory committees for the Board of Directors
- Commencement of evaluation of the effectiveness of the Board of Directors
- Establishment of liaison meeting between Audit & Supervisory Board Members and non-executive directors
- Establishment of information-sharing meeting for nonexecutive directors
- Provision of opportunities for outside directors to take part in training (external seminars)

Fiscal 2016
- Invited outside speakers and conducted ESG study sessions for directors

Fiscal 2017
- Introduction of performance-linked stock-based remuneration plan
- Invited outside speakers and conducted SDGs training sessions for directors

Fiscal 2018
- Invited outside speakers and conducted compliance training sessions for director

▶ Reformation of Governance Systems

At the 40th Annual General Meeting of Shareholders, held on June 19, 2019, it was decided to reform the Company's governance system so that one-third of the Company's directors would be independent outside directors and half of the Company's Audit & Supervisory Board Members would be independent outside Audit & Supervisory Board Members.

To ensure that the Board of Directors contributes to the continued medium- to long-term growth of corporate value, we believe the Board of Directors must have an appropriate balance of knowledge, experience, and abilities as well as a balance in terms of genders and high-level specializations, including persons with relevant knowledge and experience, attorneys, and certified public accountants.

With the reform of the Company's governance system, the number of directors was reduced from nine to six, two of whom meet the requirements for independent officers established by the Tokyo Stock Exchange. Both independent outside directors are women; one is a university professor and the other is an attorney. While none of the directors are citizens of a country other than Japan, some of them have resided abroad, worked with overseas vendors, or have extensive overseas business experience and have an international perspective. We therefore believe the Company's governance system is sufficiently diverse.

The number of Audit & Supervisory Board Members was increased from three to four, two of whom are independent Audit & Supervisory Board Members.

▶ Composition of the Board of Directors

■ Ratio of Outside (Independent) Directors

Fiscal 2018: 22% ▶ Fiscal 2019: 1/3
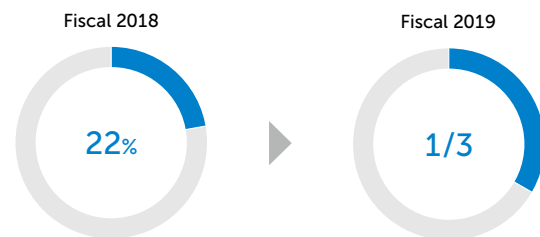
■ Ratio of Female Directors

Fiscal 2018: 11% ▶ Fiscal 2019: 1/3

■ Ratio of Outside (Independent) Audit & Supervisory Board Members

Fiscal 2018: 1/3 ▶ Fiscal 2019: 1/2
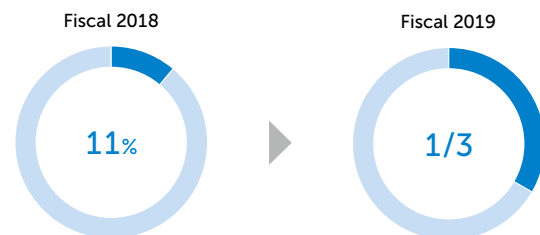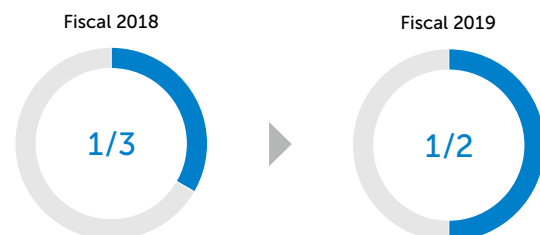
Overview of Corporate Governance System

▶ Basic Stance on Corporate Governance

Guided by the slogan "Challenging Tomorrow's Changes" and the CTC Group Philosophy, which sets out our mission of "leveraging IT's potential to change the future for the Global Good," we are working to reinforce corporate governance in order to enhance management transparency and fairness as part of our efforts to maximize the Group's corporate value.

■ Overview of the Corporate Governance System

Organization type	Company with corporate Audit & Supervisory Board Members (Audit & Supervisory Board)
Chairman of the Board of Directors	President & CEO
Number of directors (of which, outside directors)	6 (2)
Number of Audit & Supervisory Board Members (of which, outside Audit & Supervisory Board Members)	4 (3)
Executive officer system	Adopted
Existence of discretionary advisory bodies to the Board of Directors	Yes (Nomination Committee, Remuneration Committee, Governance Committee)

▶ Corporate Governance System
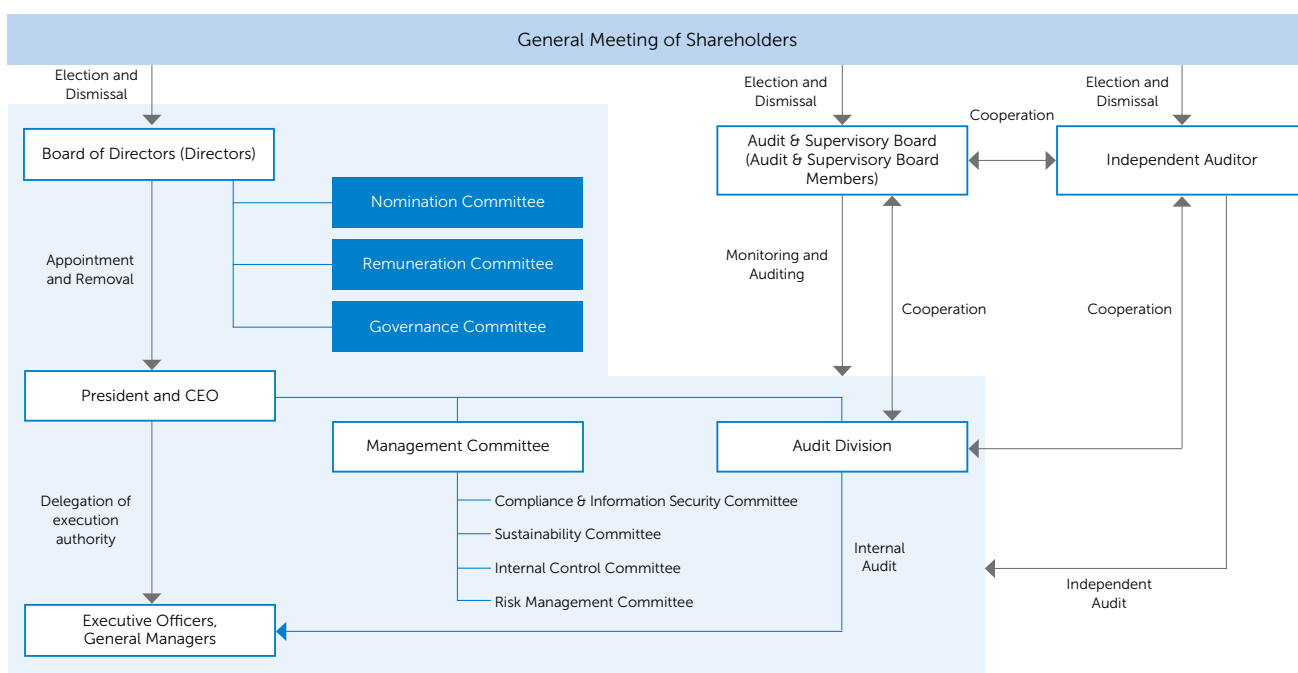
▶ Reasons for Selecting the Current Corporate Governance System

As a Company with Audit & Supervisory Board Members (Audit & Supervisory Board), through the monitoring of management by Audit & Supervisory Board Members, including outside Audit & Supervisory Board Members, CTC ensures that it has strong monitoring and auditing functions and transparency in its decision-making processes. In addition to establishing a corporate governance system based on the monitoring of management by Audit & Supervisory Board Members, the Company appoints outside directors who are independent from the parent company and major trading partners and regarding whom there is no concern that their interests will be in conflict with general shareholders, and ensures the appropriate decision-making by the Board of Directors and realization of the management monitoring function. We have determined that our corporate governance system, based on a Board of Directors that includes outside directors and Audit & Supervisory Board that includes outside Audit & Supervisory Board Members, is functioning effectively.

Selection and Appointment of Directors

▶ Reasons for Appointment of Directors and Audit & Supervisory Board Members

Name	Title	Age*	Inde-pen-dent	Reason for Appointment	Discretionary Committees		
					Nomina-tion	Remu-neration	Gover-nance
▶ Satoshi Kikuchi	President & CEO	66		Mr. Satoshi Kikuchi possesses personal qualities such as high ethical perspective and fairness as Director, and subsequent to assuming the office of President & CEO in June 2012, he is demonstrating leadership toward achieving the three-year Medium-Term Management Plan from fiscal 2018, in pursuit of continuous business growth and higher corporate value. Thus, the Company has reappointed him as Director.	◎		
▶ Toru Matsushima	Director & Executive Vice President Assistant to the President & CAO In charge of Corporate Administration Group / Global Business Development CFO & CCO	64		Mr. Toru Matsushima possesses personal qualities such as high ethical perspective and fairness as Director, and subsequent to assuming the office of Director in June 2014, he has served as CAO, CFO, CCO, etc. He has extensive knowledge and abilities regarding management, and the Company believes that he is necessary for the management of the Company. Thus, the Company has reappointed him as Director.		◎	◎
▶ Tadataka Okubo	Director & Senior Managing Executive Officer Assistant to the President (Special appointment for Advanced IT Strategy) CTO	63		Mr. Tadataka Okubo possesses personal qualities such as high ethical perspective and fairness as Director, and subsequent to assuming the office of Director in June 2014, he has been responsible for the IT Services Group, Advanced IT Strategy Group, and served as CTO in addition to possessing extensive knowledge and abilities regarding management, and the Company believes that he is necessary for the management of the Company. Thus, the Company has reappointed him as Director.			
▶ Naoko Iwasaki	Director	44	○	Ms. Naoko Iwasaki does not have past experience of being directly engaged in corporate management, yet she possesses personal qualities such as high ethical perspective and fairness as Director, as well as a high level of expertise and deep knowledge as an academic, and the Company believes that she is necessary for the management of the Company. Thus, the Company has appointed her as Outside Director.	○	○	○
▶ Aya Motomura	Director	40	○	Ms. Aya Motomura does not have past experience of being directly engaged in corporate management, yet she possesses personal qualities such as high ethical perspective and fairness as Director, as well as a high level of expertise as an attorney and deep knowledge on corporate legal affairs and the Company believes she is necessary for the management of the Company. Thus, the Company has appointed her as Outside Director.	○	○	○
▶ Kiyoshi Imagawa	Director	54		Mr. Kiyoshi Imagawa possesses personal qualities such as high ethical perspective and fairness as Director, and has fulfilled his duties as Director since assuming the office in June 2018. He possesses a high level of expertise and extensive knowledge regarding management as Chief Operating Officer of the ICT Division of ITOCHU Corporation, and the Company believes that he is qualified for the management of the Company. Thus, the Company has reappointed him as Director.	○	○	○
▶ Hiroshi Takada	Audit & Supervisory Board Member	61		Mr. Hiroshi Takada has experience with corporate management departments at the Company and in the Group companies multiple times across many years, and possesses an adequate level of knowledge toward corporate management of the Group. He also possesses appropriate knowledge regarding finance and accounting. Thus, the Company believes that he will appropriately audit the execution of duties by Directors, and has appointed him as Audit & Supervisory Board Member.			
▶ Yasuyuki Harada	Audit & Supervisory Board Member	60		Mr. Yasuyuki Harada has managerial experience in serving as Managing Executive Officer and President of the General Products & Realty Company of ITOCHU Corporation, as well as broad knowledge gained from many years of service at ITOCHU Corporation. The Company believes that he is well-qualified for Outside Audit & Supervisory Board Member, and thus has appointed him to that position.			
▶ Toshiaki Tada	Audit & Supervisory Board Member	51	○	Mr. Toshiaki Tada does not have experience of being directly engaged in corporate management except serving as an Outside Director or an Outside Audit & Supervisory Board Member, yet he possesses specialized knowledge and abundant experience regarding corporate judicial affairs as an attorney, and has provided comments to the Board of Directors and Audit & Supervisory Board from a specialist standpoint. Thus, the Company believes that he will appropriately audit the execution of duties by Directors, and has reappointed him as Outside Audit & Supervisory Board Member.	□	□	□
▶ Katsuhiko Hara	Audit & Supervisory Board Member	64	○	Mr. Katsuhiko Hara does not have experience of being directly engaged in corporate management except serving as an Outside Director or an Outside Audit & Supervisory Board Member, yet he possesses a high level of financial and accounting expertise and deep knowledge as a certified public accountant. The Company believes that he is well-qualified for Outside Audit & Supervisory Board Member, and has thus appointed him to that position.			

* As of July 30, 2019

◎: Chair / ○: Member / □: Observer

▶ Outside Director and Audit & Supervisory Board Member Nominations

Outside directors are nominated for their objectivity and specialized perspective on corporate management in an attempt to create the Board of Directors with the appropriate decision-making and management supervisory functions from a variety of perspectives. Outside Audit & Supervisory Board Members are nominated based on their wealth of knowledge and experience in their area of specialization and ability to conduct audits with an objective perspective to ensure management health and transparency.

Of the five outside directors and Audit & Supervisory Board Members, four are independent and not affiliated with CTC, our parent company, or any of our major suppliers, and have no inherent conflicts of interest with regular shareholders.

Director Remuneration

▶ Director Remuneration and Calculation Method

Director remuneration is paid according to the Director Remuneration System, which was established in consideration of the opinions from the Remuneration Committee. CTC decides monetary remuneration for directors of no more than ¥640 million per annum, monetary remuneration for Audit & Supervisory Board Members of no more than ¥100 million per annum and stock-based remuneration for directors of no more than ¥180 million for the three subject fiscal years. Remuneration comprises standard remuneration, which is fixed payments, bonuses, which are performance-linked cash compensation, and performance-linked stock-based remuneration* (paid upon retirement).

The amount of Audit & Supervisory Board Member remuneration is determined for each Audit & Supervisory Board Member based on a discussion among Audit & Supervisory Board Members. Audit & Supervisory Board Members and part-time directors, including outside directors, are not paid performance-based bonuses.

* Performance-linked stock-based remuneration plan: CTC introduced the plan for its directors and executive officers (excluding part-time directors, outside directors, and domestic non-residents) in June 2017. The plan replaces part of the amount calculated by the formula of the previous "performance-linked bonus" with stock, and is aimed at raising awareness of contributing to the improvement of medium- to long-term operating results and corporate value by further clarifying the link between directors' remuneration and CTC's operating results and equity value, as well as by directors sharing not only the advantages of rises in the share price with shareholders but also the risk of drops in the share price.

Performance-linked Stock-based remuneration	Performance-linked Cash remuneration (bonus)	Standard remuneration (Fixed payments)

Calculation Method of Performance-Linked Stock-Based Remuneration and Performance-Linked Cash Remuneration (Bonus)	Calculation Method of Standard Remuneration (Fixed Payments)
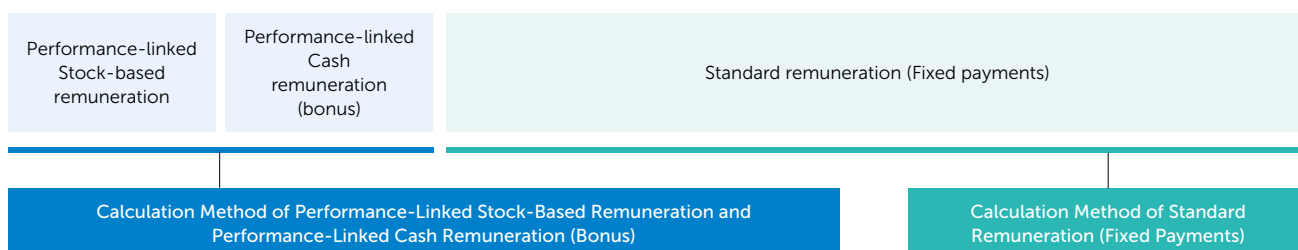
Total remuneration:
- Target achievement rate for the relevant fiscal year for net profit attributable to CTC's shareholders
- Year-on-year growth rate
- Total remuneration is calculated based on the predetermined ratio of the total fund amount of performance-linked remuneration and determined by the Board of Directors

Calculated by using the predetermined standard remuneration table for each position based on consideration of executive and non-executive work, responsibilities, and individual evaluation. The total amount to be paid is decided by the Board of Directors and the President and CEO determines the amount to be paid to each individual.

(¥ million)

Performance Indicator Used	Fiscal 2018 Target	Fiscal 2018 Results
Net profit attributable to CTC's shareholders	24,000	24,616

Individual remuneration:

Total remuneration is apportioned to directors, etc., based on performance evaluations for duties performed individually during the relevant fiscal year and is the total of performance-linked individual bonuses and performance-linked stock-based remuneration. Individual performance-linked bonuses and performance-linked stock-based remuneration amounts are determined by multiplying this total by the proportional division ratio.

Position	Bonus	Performance-Linked Stock-Based Remuneration
President & CEO	70%	30%
Executive Vice President	80%	20%
Senior Managing Executive Officer / Managing Executive Officer	85%	15%

■ Total Remuneration, Etc., of Each Director or Auditor Segment (Fiscal 2018)

Directors: 8 people (excluding outside directors)	Audit & Supervisory Board Members: 1 person (excluding outside Audit & Supervisory Board Members)	Outside Directors and Audit & Supervisory Board Members: 4 people
Basic remuneration: ¥194 million Bonus: ¥85 million Stock-based remuneration: ¥26 million (Performance-linked: approx. 40%)	Basic remuneration: ¥25 million	Basic remuneration: ¥54 million

Measures to Improve Effectiveness

▶ Analysis and Evaluation of the Effectiveness of the Board of Directors

Since fiscal 2015, CTC has been conducting a survey of directors and Audit & Supervisory Board Members to analyze and evaluate the effectiveness of the Board of Directors.

In order to elicit candid opinions, all directors and Audit & Supervisory Board Members conduct self-assessments, and the results of the assessments are submitted to the Governance Committee for deliberation.

Based on such analysis and evaluation, we intend to use this process to encourage the board to take a longer-term and more strategic perspective in discussions.

Main Survey Items in the Evaluation of the Board of Directors
• Participation in management strategy decisions • Monitoring of management strategy • Appropriateness of the contents of the distributed materials and the number of proposals • Matters concerning the operation of the Board of Directors such as the deliberation of proposals • The number of directors, diversity, and matters concerning the constitution of the Board of Directors based on consistency with the business strategy • Monitoring of execution of duties by directors • Status of deliberation at discretionary committees and matters concerning the constitution of each committee

Main Opinions in the Evaluation of the Board of Directors in Fiscal 2018
• The operation of the Board of Directors and discussions thereby are appropriate in general • The monitoring of the execution of the duties of directors is appropriate • The balance of non-executive directors and executive directors is appropriate in carrying out effective discussions • Progress was made in terms of information sharing regarding the Company's medium- and long-term strategy with non-executive directors • Discretionary committees have established an environment where outside directors and Audit & Supervisory Board Members can express their opinions • Matters discussed at the committees are appropriately reflected in the deliberation of proposals at Board of Directors' meetings

▶ Follow-Up System for Outside Directors

In order to ensure that directors and Audit & Supervisory Board Members can fully perform their management supervision and auditing functions, CTC has set up an information-sharing meeting for non-executive directors and a liaison meeting between Audit & Supervisory Board Members and non-executive directors.

By sharing information in advance and exchanging opinions, we aim to enhance the discussions at the Board of Directors' meetings while ensuring collaboration between Audit & Supervisory Board Members and non-executive directors.

Furthermore, to facilitate outside directors in fulfilling their functions sufficiently, CTC has continuously provided opportunities suitable for outside directors since their appointment so that they can acquire the necessary knowledge of the CTC Group's business, finance, and organization.

▶ Other Special Circumstances That May Have a Material Impact on Corporate Governance (Relationship with Parent Company)

CTC is a consolidated subsidiary of its parent company ITOCHU Corporation, which holds 58.24% of CTC's voting rights. CTC aims to increase Groupwide corporate value by leveraging its strengths and the strengths of its parent company in the information industry.

With the aim of sharing management information and know-how, an employee of the parent company serves in the post of director of CTC. However, while the director works to promote personnel exchanges between CTC and its parent company and strengthen collaboration in management activities such as making use of management information, the director's independence has been retained by aiming to expand operating results while maintaining and enhancing independence and autonomy in business operation.

When conducting business transactions with ITOCHU Corporation, CTC establishes transaction conditions fairly and appropriately based on reasonable judgment, just as it does when conducting business transactions with companies with which it has no capital ties and takes appropriate measures to ensure that the interests of minority shareholders are not harmed.

■ Ratio of Sales from Members of the ITOCHU Group

Fiscal 2018
Approx. 8%
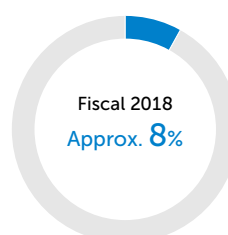
Strategic Shareholdings

CTC does not hold any shares purely for investment purposes. Investment securities held for purposes other than purely investment purposes fall into two categories: those held for general investment purposes and those held for investment in open innovation. Shareholdings that fall into these two categories are held for strategic reasons such as investment for the purposes of encouraging smooth transactions with partners, maintenance, expansion, or securing of system engineer (SE) resources, or the launching of new businesses.

Regardless of whether or not shareholdings are held for strategic purposes, the Company conducts an annual survey of the operations of all the companies in which it owns stock, and the Board of Directors determines whether it is appropriate to maintain these holdings based on the qualitative and quantitative investment criteria set forth in the Company's investment management regulations. In principle, the Company will reduce such holdings if they are found to conform to predetermined exit criteria.

Regarding the exercise of voting rights conferred associated with the Company's shareholdings, rather than basing our decisions on uniform criteria, we will give careful consideration to the management plans and strategies of the companies in question and make decisions based on whether we believe actions will contribute to growth in corporate value over the medium to long term.

Investment Criteria

Quantitative Criteria   Return on investment ≧ Expected rate of return

Qualitative Criteria

• Investment in customers (end-users, etc.)
Securing of business merits other than trade merits such as development of new businesses, securing of business know-how, etc.

• Investment in development / technology partners
Securing of business merits such as prioritized access to SE resources or securing of leading-edge technological know-how

• Investment in suppliers
Building of strategic relationships that yield business merits such as preferential terms of trade, prioritized access to new technologies, or development of new businesses

• Investment in startup companies
Has sufficient financing to remain a going concern for at least one year

Exit Criteria

1. Investment goals have been achieved
2. Trade merits as defined by our quantitative criteria or business merits as defined by our qualitative criteria are no longer present
3. For other reasons, the supervising department has determined that it is appropriate for the Company to exit (divest) from the investment

Main Activities in Fiscal 2018

Number of Meetings Held by Each Committee in Fiscal 2018

Governance Committee

5 meetings (attendance: 95%)
Deliberation on governance-related agenda below:
1. Stance on composition of the Board of Directors
2. Evaluation of the Board of Directors
3. Response to revision of Japan's Corporate Governance Code

Remuneration Committee

2 meetings (attendance: 100%)
Deliberation on design of remuneration system for executives and directors (individual remuneration decided by the president based on remuneration system)

Nomination Committee

3 meetings (attendance: 100%)
• Deliberation on election / dismissal agenda of candidates for executive officers, directors, and Audit & Supervisory Board Members
• Consideration of succession plan (deliberation on the qualities, abilities, and selection method of successor to the president)

Number of Meetings of Major Organizational Bodies Held and Attendance of Outside Directors and Audit & Supervisory Board Members

Number of Board of Directors' meetings held	18
Number of Audit & Supervisory Board meetings held	14
Attendance of outside directors at Board of Directors' meetings	100%
Attendance of outside Audit & Supervisory Board Members at Board of Directors' meetings	100%
Attendance of outside Audit & Supervisory Board Members at Audit & Supervisory Board meetings	100%

Main Comments by Outside Directors at the Board of Directors' Meetings

• **Proposal of organizational restructuring for fiscal 2019**
I want to confirm how deeply discussions have progressed regarding the expansion of business opportunities and resulting growth in sales and profit as a result of organizational restructuring.

• **Proposal regarding corporate separation**
I want to confirm whether it is common practice to not present at the General Meeting of Shareholders the proposal to have the Maintenance & Operations Services department of the IT Services Group absorbed by CTC TECHNOLOGY Corporation.

Corporate Governance

Directors and Audit & Supervisory Board Members As of June 19, 2019

▶ Back row, from left to right	**Toshiaki Tada**	**Hiroshi Takada**	**Tadataka Okubo**
	Audit & Supervisory Board Member[2]	Audit & Supervisory Board Member	Director & Senior Managing Executive Officer Assistant to the President (Special appointment for Advanced IT Strategy) CTO
▶ Front row, from left to right		**Naoko Iwasaki**	**Satoshi Kikuchi**
		Director[1]	President & CEO

Kiyoshi Imagawa	**Yasuyuki Harada**	**Katsuhiko Hara**
Director	Audit & Supervisory Board Member*²	Audit & Supervisory Board Member*²

Toru Matsushima	**Aya Motomura**
Director & Executive Vice President Assistant to the President & CAO In charge of Corporate Administration Group / Global Business Development CFO & CCO	Director*¹

*1 Outside director as defined in Article 2, Item 15 of the Companies Act
*2 Outside Audit & Supervisory Board Member as defined in Article 2, Item 16 of the Companies Act

Outside directors Naoko Iwasaki and Aya Motomura and outside Audit & Supervisory Board Members Toshiaki Tada and Katsuhiko Hara are independent from CTC, our parent company, and major suppliers. As independent officers, they have no inherent conflicts of interest with regular shareholders.

Communication with Stakeholders

▶ Institutional Investors and Analysts

In addition to investor relations (IR) presentations for institutional investors and analysts held at the time of announcement of our operating results, we hold small meetings and individual meetings to provide opportunities for constructive dialogue with our top management. In fiscal 2018, we also held technical study sessions in the IT field and on the subjects of leading-edge technologies and new businesses.

Small meetings

Number of Meetings with Institutional Investors and Analysts		**238**
▶ Number of top management meetings		**43**
Major Events	▶ **Number of IR presentations**	**4**
	▶ **Number of small meetings**	**2**
	▶ **Number of IR Days for domestic institutional investors**	**1**
	▶ **Technical study sessions**	**3**
	▶ **Number of overseas IR events**	**4**
	▶ **Number of conferences held by securities firms**	**2**

▶ Individual Investors

Since fiscal 2015, CTC has conducted IR activities targeting individual investors. In addition to holding briefings for individual investors around the country, we also provide information for individual investors on the CTC Power section of our website.

We will continue to communicate CTC's strengths to the market.

▶ For more information, please visit the CTC Power section of our website.
🖥 http://ctcir.ctc-g.co.jp/rose/personal/index.htm (in Japanese only)

Number of Presentations for Individual Investors and Participants

Fiscal 2017

16 / approx. **3,000**

Fiscal 2018

13 / approx. **2,500**

Presentations for individual investors

▶ General Meeting of Shareholders

Date of the General Meeting of Shareholders
Wednesday, June 19, 2019

Number of shareholders attended **533**

(Ratio of voting rights exercised: **89.7**%)

▶ Please visit our website for more detailed IR information.
🖥 http://ctcir.ctc-g.co.jp/rose/en/index.htm

Internal Control and Compliance

▶ Internal Control System

CTC has created an internal control system, comprising systems to ensure directors perform their duties in accordance with legal requirements and the Articles of Incorporation and systems to ensure business activities are conducted in an appropriate manner across the Group. The internal control system is continually improved through an ongoing review process designed to create a more adequate and efficient system.

Systems to Ensure Appropriate Financial Reporting

CTC is stepping up efforts to ensure appropriate financial reporting in accordance with the Group's accounting regulations, sales administration regulations, procurement administration regulations, and other internal company rules. CTC also has a CFO who is tasked with ensuring financial reporting complies with accounting standards and other relevant laws and regulations. In addition, the Internal Control Committee is responsible for establishing, regularly evaluating, and improving internal systems to ensure appropriate financial reporting.

▶ Full Commitment to Compliance

The CTC Group regards compliance as a topmost management priority. We observe all applicable laws, regulations, and internal rules related to our corporate activities and ensure that all employees conduct themselves with high ethical standards and a sense of responsibility. In this way, we aim to increase corporate value throughout the entire Group as a sound company to ensure we are trusted and held in high esteem by society.

To achieve these objectives, we engage in the following activities.

▶ Establish the CTC Group Code of Conduct and internal rules

▶ Form a compliance structure

▶ Acquire written oaths from all executives and employees (annually)

▶ Conduct compliance-related education and training, awareness activities, and disseminate information

▶ Operate, maintain, and improve an internal reporting system (helpline)

The CTC Group conducts regular monitoring and reviews of these activities, enabling us to make continuous improvements. We also conduct Compliance Awareness Surveys of all executives and employees every other year, analyzing the results to ascertain any issues and undertake new initiatives.

Compliance Structure
- Appoint a chief compliance officer
- Establish the Compliance and Information Security Committee
- Appoint compliance general managers for each business group and subsidiary

Internal Reporting System (helpline)

The CTC Group has put in place an internal reporting system (helpline) for reporting or consulting about compliance problems. We have registered our "self-declaration of conformity" (April 26, 2019) for this helpline, under WCMS* certification.

Reporting routes are internal and external (via attorneys). For both routes, the privacy of the person making a report and related personnel is managed, as is the content of the report. We make it clear that people making reports will not be subjected to disadvantageous treatment as a result of such reporting.

* WCMS: Whistleblowing Compliance Management System
Under this system, a company assesses its own internal reporting system and makes a "self-declaration of conformity" if it complies with the certification standards. Based on an application by the Company, the system's content is checked by an organization registration designated by the Consumer Affairs Agency, and the Company is registered.

Whistleblowing Compliance Management System

▶ 📖 **P.5** CTC Group Code of Conduct

▶ Response to Various Laws and Regulations

The CTC Group has created a framework for keeping up to date with the most recent information to ensure thorough compliance with various laws and regulations, ordinances, and industry guidelines. We have formulated the CTC Group Legal Guidelines to indicate laws and regulations Group companies should conform with. These guidelines are posted on an internal site so employees can view them at any time.

The supervisory departments for various laws and regulations cultivate the necessary awareness to ensure compliance through morning public announcements, e-learning, and regular group training.

Risk Management System

▶ Risk Management

In addition to individual risk management functions, we have established the Risk Management Committee to take an overall approach to risks that should be managed on a Group wide basis. In addition to comprehensively considering and identifying risks that should be managed on a Company wide level, this committee establishes management systems and rules, assesses effectiveness (conducts monitoring), and recommends corrective measures. We are building a risk management structure capable of responding to future changes in the operating environment and unforeseen circumstances.

Risk	Summary of Risk That Could Negatively Impact Earnings	Risk Mitigation Measures
1 Risks Concerning Changes in the Business Environment	• Risk of fluctuation in operating results due to changes in the business environment such as domestic and overseas economic conditions, information system investment trends among clients, and changes in various laws and regulations, tax systems, and accounting standards • Risk of intensification of price competition due to new entrants and competition with other companies	▶ Search for advanced products and services; optimize organizational structure in order to provide high-value-added solutions
2 Information Security Risk	• Risk of leak, alteration, or loss of information caused by a computer virus, unauthorized access, or human error, leading to claims for damage or loss of confidence	▶ Give highest priority to information management; established a specialized organization within the Company to obtain various certifications, provide information security training, and carry out security measures in our business infrastructure in an effort to reinforce information management systems
3 Compliance Risk	• Risk of a decline in the Group's social credibility or deterioration of the Group's earnings due to a serious breach of compliance or a violation of laws or regulations in conducting business	▶ Established a Group Code of Conduct and compliance programs; provide training and awareness-raising programs for executives and employees
4 Human Resources Risk	• Risk of personnel departures or a decline in productivity due to failure to secure personnel with high technical skills and expertise as planned or a deterioration of the labor environment, affecting the Group's earnings and business continuity	▶ Hire and develop high-quality personnel by respecting individuality and diversity and by fostering a liberal corporate culture where employees can exercise their creativity ▶ Focus on supporting work-life balance and developing an appropriate working environment by introducing various systems for work-style reforms, such as a morning-focused working system and a work-at-home system, and promoting use of paid leave
5 Project Management Risk	• Risk of additional costs that exceed plans being required due to failure to secure the intended quality or to complete the project within the development time frame amid heightened complexity and sophistication as well as faster delivery of development projects	▶ The Project Management Division and the project management organization of each business work in collaboration to examine projects prior to starting and monitor the progress and profitability of the projects
6 System Failure Risk	• Risk of a serious system failure in the operation service business caused by disasters or operational errors, leading to a drop in confidence or payment of claims for damages from clients	▶ Reinforce control activities in the provision of system operation services and monitor systems on a continuous basis
7 Investment Risk	• Risk of a drop in recoverability due to failure to achieve the expected results of investments such as in new business start ups, investments in or acquisitions of companies in Japan and elsewhere, and data centers and cloud services, caused by changes in the market environment and deterioration of revenues	▶ Fully examine the investment effects and risks beforehand as well as carry out management based on the investment criteria
8 Exchange Rate Risk	• Risk of a drop in profitability due to failure to adjust prices of products and services procured from overseas markets when sudden fluctuations in exchange rates or a medium-term depreciation of the yen occurs	▶ Carry out transactions related to procurement using forward exchange contracts at the time of order or denominated in Japanese yen
9 Risk of Large-Scale Disasters	• Risk of severe damage to facilities and infrastructure or injuries due to large-scale natural disasters such as earthquakes, terrorist attacks, and infectious diseases such as the H1N1 influenza	▶ Reinforce systems for business continuity by developing business continuity plans (BCPs), establishing safety confirmation systems, and developing backup functions

▶ Ensuring Rigorous Information Security

For the CTC Group, appropriate handling and safe management of information are important social responsibilities.

Each year, information security threats become more diverse and complex, owing to the use of new IT infrastructure such as IoT, AI, and blockchain; society's connections between cyberspace and physical space; and new working environments arising from work-style reforms.

Against this backdrop, the CTC Group has developed an information security & personal information protection management system integrating information security management and personal information protection systems in compliance with ISO 27001 (JIS Q 27001) and PrivacyMark (JIS Q 15001), which is responsible for:

- ▶ Creating various regulations, standards, and procedures
- ▶ Conducting education and awareness activities related to information security and personal information protection
- ▶ Conducting internal audits
- ▶ Conducting annual surveys of outsourcing contractors

At CTC, we handle all the information entrusted to us by our clients as confidential information; carrying out handover checks and exercising strict access management.

To handle the increase in cybersecurity risk countermeasures in recent years, we have established the CTC-SIRT*, which conducts the following activities.

- ▶ Training on responding to targeted attack email (annually)
- ▶ Vulnerability diagnosis of internal and public sites (annually)
- ▶ Monitoring for cyberattacks

We have obtained ISO 27017 (JIS Q 27017) certification for CUVICmc2, a cloud service specializing in mission critical systems, and promote the creation of services that ensure peace of mind among clients whose information we handle.

Moving forward, we will continue to implement further security measures against new threats, with the safe and secure handling of information entrusted to us by our clients as our highest priority.

* CTC-SIRT (CTC Security Incident Response Team) is an organization that copes with security incidents resulting from cyberattacks.

Information Security Basic Policy

By establishing the Information Security Basic Policy, the CTC Group has taken measures to handle information and practice security management properly.

All CTC officers and employees comply with this policy to ensure the appropriate handling, management, protection, and maintenance of information.

1. **Management and protection of information assets**
2. **Cybersecurity measures**
3. **Information Security and Personal Information Protection Management System**
4. **Information security training**
5. **Preventing and acting upon incidents impacting information security**
6. **Observation of laws and regulations**

▶ Human Resource Strategies

Recognizing that people are the management resource most important to our business, we strive to recruit and cultivate highly capable human resources and put in place human resource policies and systems to help them maximize their own capabilities while contributing to CTC's growth.

▶ Curtailing Unprofitable Projects

We monitor the percentage of losses from unprofitable projects to revenue in SI Development, as we aim to put in place a revenue model to ensure that profits grow along with revenues as we curtail unprofitable projects. In fiscal 2018, this percentage was 1.2%, down from 2.8% in fiscal 2017.

Financial Highlights

Fiscal years
* CTC adopted International Financial Reporting Standards (IFRS) from the first quarter of fiscal 2014.
  Figures for fiscal 2013 have been reclassified to reflect the new standards.

(¥ billion)

	JGAAP			
	2009	2010	2011	2012
Operating Results				
Net Sales	290.3	283.0	297.7	322.4
Cost of Sales	213.5	208.1	218.1	239.1
Gross Profit	76.8	74.8	79.6	83.2
(Gross Profit Margin)	26.5%	26.5%	26.7%	25.8%
SG&A Expenses	55.2	53.5	54.8	56.0
Operating Income	21.5	21.3	24.7	27.1
(Operating Income Margin)	7.4%	7.5%	8.3%	8.4%
EBITDA*[1]	27.5	28.0	32.3	33.2
Net Income	12.4	11.4	13.3	16.0
Orders Received	285.1	285.2	302.4	372.0
Backlog	129.6	131.8	136.6	186.2
(Backlog Turnover Ratio)*[2]	69.1%	68.2%	68.5%	63.4%
Financial Position at End of Fiscal Year				
Total Assets	233.2	238.1	252.7	270.0
Total Equity	154.6	155.4	158.3	164.6
Cash Flows				
Cash Flows from Operating Activities	25.2	14.9	21.2	9.6
Cash Flows from Investing Activities	(1.3)	(6.9)	(2.7)	(10.3)
Cash Flows from Financing Activities	(7.2)	(13.4)	(8.9)	(11.1)
Cash and Cash Equivalents at End of Period	73.8	68.3	77.8	66.1
Capital Investment	4.5	8.8	6.2	10.0
Depreciation and Amortization	5.9	6.7	7.5	6.0
Financial Index/Indicator (%)				
ROE*[3]	8.3	7.4	8.5	9.9
ROA*[4]	5.4	4.9	5.4	6.1
Equity Ratio	66.3	65.3	62.7	61.0
Dividend Payout Ratio	43.7	49.9	43.8	39.1
Per Share Data (yen)*[5]				
Net Income	48	45	54	67
Net Assets	603	623	651	691
Dividend	21.25	22.50	23.75	26.25
Per Capita Data (¥ million)*[6]				
Net Sales	41	40	41	42
Operating Income	3.1	3.0	3.5	3.5

*1 EBITDA = Operating Income + Depreciation and Amortization
*2 Backlog Turnover Ratio = Net Sales / (Backlog of the previous fiscal year + Orders received of this fiscal year) x 100
*3 ROE = Net Income / Average Total Shareholders' Equity
*4 ROA = Net Income / Average Total Assets x 100
*5 CTC conducted 2-for-1 stock splits as of April 1, 2015, 2018. For the past data, retroactive revisions were made accordingly.
*6 Figures are calculated on March 31.
*7 ROE = Net Profit Attributable to CTC's Shareholders / Average total shareholders' equity (which is based on total shareholders' equity at the beginning and end of the year) x 100
*8 ROA = Net Profit Attributable to CTC's Shareholders / Average total assets (which is based on total assets at the beginning and end of the year) x 100

	IFRS					
	2013	2014	2015	2016	2017	2018
Operating Results						
Revenue	350.5	381.9	391.6	407.8	429.6	**451.9**
Cost of Sales	(266.8)	(290.6)	(300.0)	(311.1)	(328.0)	**(344.2)**
Gross Profit	83.7	91.2	91.5	96.7	101.6	**107.7**
(Gross Profit Margin)	23.9%	23.9%	23.4%	23.7%	23.6%	**23.8%**
Other Income and Expenses	(59.8)	(61.9)	(63.5)	(65.5)	(68.9)	**(71.8)**
Operating Income	23.8	29.3	27.9	31.1	32.6	**35.8**
(Operating Income Margin)	6.8%	7.7%	7.1%	7.6%	7.6%	**7.9%**
EBITDA[1]	31.3	37.5	36.3	39.5	41.4	**44.7**
Net Profit Attributable to CTC's Shareholders	14.2	17.4	18.0	21.8	23.5	**24.6**
Orders Received	369.1	388.0	398.3	437.5	435.2	**470.1**
Backlog	195.4	201.6	208.3	238.0	243.6	**262.9**
(Backlog Turnover Ratio)[2]	63.1%	65.4%	65.3%	63.1%	63.8%	**63.3%**
Financial Position at End of Fiscal Year						
Total Assets	282.6	302.7	307.9	333.1	353.8	**378.9**
Total Shareholders' Equity	162.9	168.8	179.2	192.1	206.5	**220.7**
Cash Flows						
Cash Flows from Operating Activities	6.4	25.8	21.8	25.2	11.0	**20.6**
Cash Flows from Investing Activities	(8.0)	(17.3)	(18.1)	(14.1)	(2.3)	**(3.2)**
Cash Flows from Financing Activities	(9.5)	(13.5)	(8.4)	(7.8)	(5.9)	**(9.5)**
Cash and Cash Equivalents at End of Period	55.0	50.1	44.8	48.2	51.0	**58.8**
Capital Investment	6.9	7.9	11.0	10.7	5.2	**7.2**
Depreciation and Amortization	7.5	8.2	8.4	8.4	8.8	**8.8**
Financial Index/Indicator (%)						
ROE[7]	8.9	10.5	10.4	11.8	11.8	**11.5**
ROA[8]	5.1	5.9	5.9	6.8	6.9	**6.7**
Ratio of Shareholders' Equity to Total Assets	57.7	55.8	58.2	57.7	58.4	**58.2**
Dividend Payout Ratio	45.8	40.3	45.0	42.3	44.1	**46.9**
Per Share Data (yen)[5]						
Net Profit Attributable to CTC's Shareholders	60	74	77	94	102	**106**
Shareholders' Equity	692	730	775	831	894	**955**
Dividend	27.50	30.00	35.00	40.00	45.00	**50.00**
Per Capita Data (¥ million)[6]						
Revenue	45	48	48	50	52	**54**
Operating Income	3.1	3.7	3.5	3.8	4.0	**4.3**

Non-Financial Highlights

▶ Human Resources-Related Data

* Data calculation reference dates: Data calculated on March 31 of each fiscal year.
  However, employees with disabilities figures calculated on June 1 of each fiscal year.

■ Consolidated

		Unit	2015	2016	2017	**2018**
Employees	Men	People	6,817	6,878	6,919	**7,032**
	Women	People	1,176	1,222	1,256	**1,327**
	Total	People	7,993	8,100	8,175	**8,359**

■ Non-consolidated

		Unit	2015	2016	2017	**2018**
Employees	Men	People	3,326	3,345	3,478	**3,611**
	Women	People	592	613	639	**661**
	Total	People	3,918	3,958	4,117	**4,272**
Average years worked		Years	12.7	13.1	13.4	**13.5**
	(Female employees)	Years	12.7	12.9	12.6	**12.9**
Turnover[1]		People	108	115	123	**133**
	(Female employees)	People	20	18	20	**29**
Female employees in leading positions[1][2]	Number	People	50	49	56	**59**
	Percentage	%	4.2	4.0	4.5	**4.9**
Percentage of employees with disabilities		%	2.15	2.23	2.20	**2.50**
Annual average number of holidays taken		Days	13.0	13.5	13.9	**14.5**
Childcare leave system users		People	67	82	120	**128**
	(Male employees)	People	2	17	54	**59**
Rate of return from childcare leave		%	100	99	99	**100**
Reduced working hours system users		People	78	98	97	**97**
Nursing care holiday system users		People	137	165	202	**212**
Nursing care leave system users		People	1	2	1	**0**
Time off for caregivers system users		People	19	34	34	**32**
Number of training participants		People	111,553	115,451	111,260	**101,673**
Average hours of training per person		Hours	approx. 52	approx. 49	approx. 49	**approx. 48**

[1] Turnover and managers are for employees originally hired by CTC.
[2] Leading position means managers and specialists.

▶ Environmental Data from CTC Group Offices and Data Centers

		Unit	2015	2016	2017	**2018**
Offices	Energy used	kL	3,383	3,293	3,701	**3,724**
	Greenhouse gas	$t\text{-}CO_2$	6,706	6,437	7,044	**6,889**
	Specific energy consumption[1]		24.25	23.06	24.92	**25.63**
Data Centers	Energy used	kL	30,089	29,714	28,048	**27,838**
	Greenhouse gas	$t\text{-}CO_2$	60,880	59,210	54,705	**51,185**
	Specific energy consumption[2]		1.779	1.707	1.703	**1.697**
Major Overseas Offices	Greenhouse gas[3]	$t\text{-}CO_2$	695.4	722.8	397.9	**396.1**

[1] Energy used (kL) x Floor space/Number of employees
[2] Whole data centers' energy used (kL)/IT equipment energy used (kL)
[3] Calculated based on the emission factors by country officially announced by the Institute of Global Environmental Strategies (IGES)

Glossary

Agile Development
A rapid, incremental approach to software development based on close onsite collaboration with clients, early development of prototypes, and feedback from clients and the market.

AI-OCR (AI-Optical Character Recognition)
The use of AI to increase the accuracy of OCR systems, which read handwritten text, forms and documents, by utilizing deep learning to improve recognition of text with different fonts and image quality.

Big Data
A term for vast data sets that are too large to store, manage or analyze using traditional database management systems and processing applications. The ability to analyze big data is expected to yield new business insights and lead to the development of new services.

Blockchain
A new type of FinTech (see below) used to record transactions in virtual currencies such as Bitcoin. By dispersing data on computers distributed worldwide without centralized control, blockchains enable the creation of robust networks that are resilient to tampering and destruction.

Cloud Native
A system or application specifically designed to be used in cloud environments.

DX (Digital Transformation)
Defined in 2004 by Professor Erik Stolterman of Umeå University in Sweden as "the change associated with the application of digital technology in all aspects of human society." DX describes how companies can harness new digital technologies to develop new business models and create value.

Edge Computing
A network technology that reduces communication lag by installing application servers in close physical proximity to terminal devices.

ERP (Enterprise Resource Planning)
An integrated approach to managing and allocating business resources (personnel, funds, facilities, information, etc.) to improve operational efficiency and optimize management. ERP also refers to integrated software applications that help companies achieve those objectives.

FinTech
A portmanteau of the words "finance" and "technology," FinTech refers to new IT tools in the financial sector. Common examples include online settlement technology and cloud-based household budget services. FinTech has attracted growing attention in recent years amid growth in the number of relatively small companies providing new services.

Ideathon / Hackathon
The words "hackathon" and "ideathon" are portmanteaus of the words "hack" (adapting or improving computer programs), "idea," and "marathon." At hackathons, computer engineers and other participants compete intensively in a fixed timeframe to develop programs or services with new capabilities or outcomes. At ideathons, teams discuss new ideas and collaborate on problem-solving.

IoT (Internet of Things)
The embedding of various physical devices, not just computers, with Internet connectivity, creating networks that enable automated verification, control, and remote measurement.

Local 5G
System wherein companies other than telecom carriers are allotted 5G frequencies in a limited geographical area such as a manufacturing plant. This allows the use of a 5G network in a highly secure environment not connected to public networks.

Low-Code Development
A type of programming platform that requires minimal coding work. Low-code platforms have the potential to shorten application development times.

Microservice Architecture
The structuring of applications as a collection of microservices (such as settlement or ordering) and creating an architecture wherein microservices link to and communicate with each other. This offers high flexibility and adaptability as each individual microservice can be altered independently of the others.

MSS (Managed Security Service)
A security service that monitors firewalls and other security systems in real-time 24/7 all year round, gathering data to analyze and defend against threats.

NFV (Network Function Virtualization)
Virtualization technology that replicates network functions on standard servers. Currently, network functions are typically integrated with specialized servers, but NFV has the potential to virtualize network functions on standard servers without the need for specialized hardware.

Open Innovation
An innovation methodology for creating innovative products and business models by combining technologies and ideas of not only one company but also from outside that company.

RPA (Robotic Process Automation)
Initiatives that use cognitive technology including rule engines, AI, and machine learning to carry out, on humans' behalf, work that was traditionally done by humans.

SDN (Software-Defined Networking)
A technology that controls telecommunications devices on a network such as routers and switches using a single layer of software, thereby allowing flexible and speedy changes to network structures and settings.

Virtualization Technology
Technology that integrates or divides resources in servers and other hardware without any physical change in the hardware. The technology can create multiple virtual servers in a single physical server or create a single virtual hard disk from multiple disks.

Management Team As of June 19, 2019

Directors

▶ **Satoshi Kikuchi**

President & CEO

▶ **Toru Matsushima**

Director & Executive Vice President
Assistant to the President & CAO
In charge of Corporate Administration Group /
Global Business Development
CFO & CCO

▶ **Tadataka Okubo**

Director & Senior Managing Executive Officer
Assistant to the President (Special appoint-
ment for Advanced IT Strategy)
CTO

▶ **Naoko Iwasaki**

Director*1

▶ **Aya Motomura**

Director*1

▶ **Kiyoshi Imagawa**

Director

Audit & Supervisory Board Members

▶ **Hiroshi Takada**

Audit & Supervisory Board Member

▶ **Yasuyuki Harada**

Audit & Supervisory Board Member*2

▶ **Toshiaki Tada**

Audit & Supervisory Board Member*2

▶ **Katsuhiko Hara**

Audit & Supervisory Board Member*2

*1 Outside director as defined in Article 2, Item 15 of
   the Companies Act
*2 Outside Audit & Supervisory Board Member as
   defined in Article 2, Item 16 of the Companies Act

Outside directors Naoko Iwasaki and Aya Motomura
and outside Audit & Supervisory Board Members
Toshiaki Tada and Katsuhiko Hara are independent
from CTC, our parent company, and major suppliers.
As independent officers, they have no inherent con-
flicts of interest with regular shareholders.

CFO (Chief Financial Officer)
CCO (Chief Compliance Officer)
CTO (Chief Technology Officer)
CIO (Chief Information Officer)

Executive Officers

▶ **Masaaki Matsuzawa**

Executive Vice President
Assistant to the President (Special appoint-
ment for Overall Management of the Groups
and Operating Companies)
In charge of Enterprise Group / Distribution
Group / Telecommunication Group /
Regional & Social Infrastructure Group /
Financial Services Group
COO, Financial Services Group

▶ **Eiji Haraguchi**

Managing Executive Officer
COO, Service Design Group
CIO

▶ **Yasuhiko Terada**

Managing Executive Officer
COO, Telecommunication Group

▶ **Hisashi Eda**

Managing Executive Officer
COO, Regional & Social Infrastructure Group

▶ **Toshiyuki Awai**

Managing Executive Officer
COO, IT Services Group

▶ **Takanori Minatohara**

Managing Executive Officer
COO, Enterprise Group

▶ **Noboru Omoto**

Managing Executive Officer
COO, Distribution Group

▶ **Kazunobu Moriyama**

Managing Executive Officer
General Manager, Chubu Region
Deputy COO,
Regional & Social Infrastructure Group
General Manager,
Naka-Nihon Regional Division
Assistant to COO, Enterprise Group

▶ **Mamoru Seki**

Managing Executive Officer
Deputy CFO
General Manager,
Accounting & Sales Administrating Division

▶ **Yasuhide Masanishi**

Executive Officer
President & CEO,
Asahi Business Solutions Corp.
(Assistant to COO, Enterprise Group)

▶ **Hirohito Ohashi**

Executive Officer
General Manager, Nishi-Nihon Region
General Manager,
Nishi-Nihon Regional Division

▶ **Yasushi Morimoto**

Executive Officer
General Manager, Risk Management Division

▶ **Nagaki Fujioka**

Executive Officer
ITOCHU Techno-Solutions America, Inc.
President & CEO

▶ **Seiji Nagamatsu**

Executive Officer
General Manager,
Corporate IT System Division

▶ **Hiroshi Torigoe**

Executive Officer
Deputy COO, Enterprise Group

▶ **Tatsuya Matsumaru**

Executive Officer
Assistant to COO, Distribution Group
General Manager, Financial Services Division

▶ **Tadaaki Otsuka**

Executive Officer
General Manager, Audit Division

▶ **Junji Hirooka**

Executive Officer
COO, Global Business
General Manager, Global Business Division

▶ **Yoshinori Yoshida**

Executive Officer
Deputy COO, Financial Services Group
General Manager, Financial Services Business
Development Division

▶ **Shinichi Hirayama**

Executive Officer
General Manager, Corporate Planning Division

▶ **Hisashi Sawanobori**

Executive Officer
General Manager, Human Resources
Management & General Affairs Division

▶ **Katsuya Kami**

Executive Officer
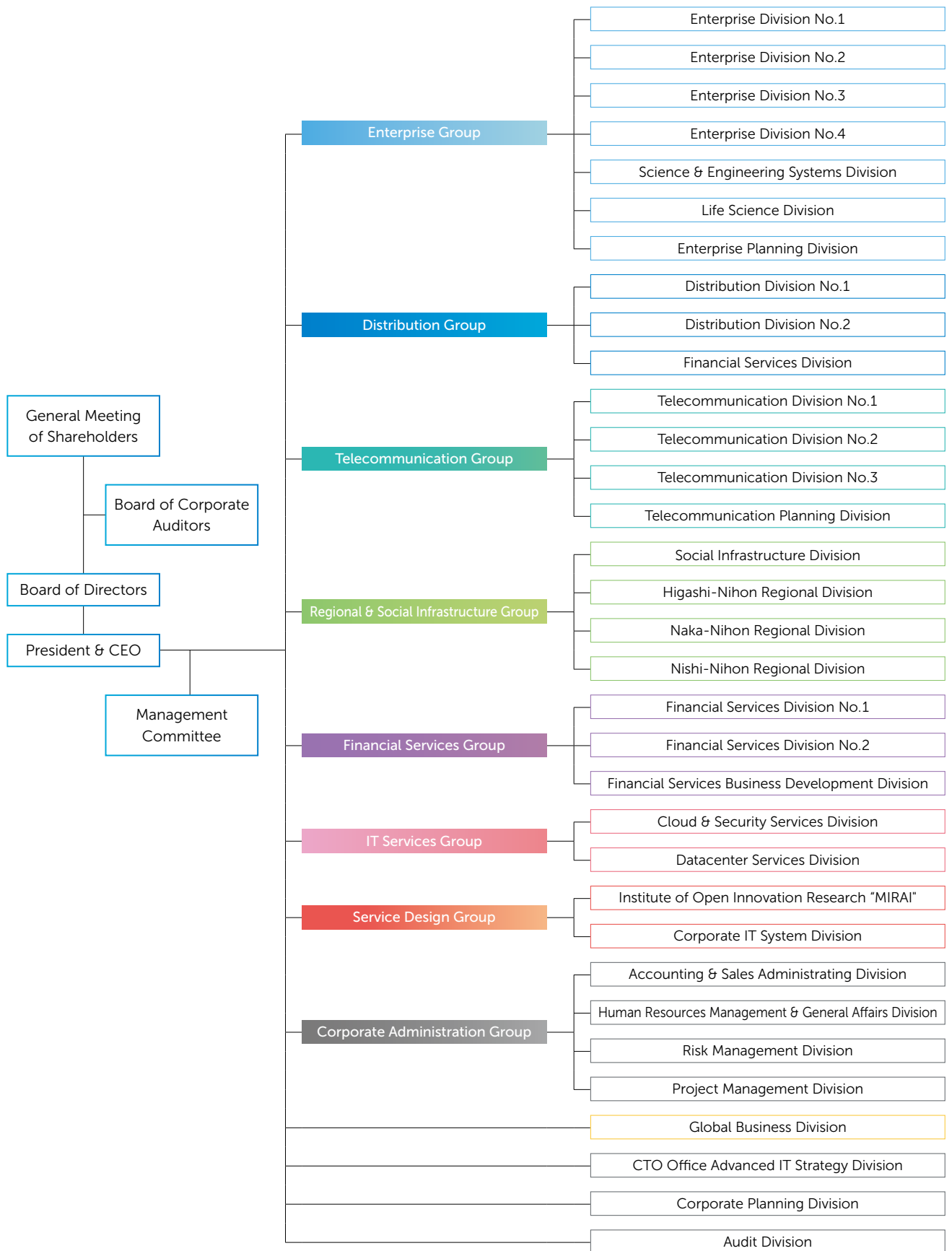General Manager,
Telecommunication Division No. 3

▶ **Kinya Matsuda**

Executive Officer
General Manager,
Cloud & Security Services Division
President & CEO, CTC Facilities Corporation

▶ **Toshihiro Nakaya**

Executive Officer
General Manager,
Telecommunication Division No. 1

Organization Chart As of April 1, 2019

```
General Meeting
of Shareholders
        │
        ├── Board of Corporate
        │        Auditors
        │
Board of Directors
        │
President & CEO ──────────┬─── Enterprise Group
        │                 │        ├── Enterprise Division No.1
Management                │        ├── Enterprise Division No.2
Committee                 │        ├── Enterprise Division No.3
                          │        ├── Enterprise Division No.4
                          │        ├── Science & Engineering Systems Division
                          │        ├── Life Science Division
                          │        └── Enterprise Planning Division
```

Group	Divisions
Enterprise Group	Enterprise Division No.1
	Enterprise Division No.2
	Enterprise Division No.3
	Enterprise Division No.4
	Science & Engineering Systems Division
	Life Science Division
	Enterprise Planning Division
Distribution Group	Distribution Division No.1
	Distribution Division No.2
	Financial Services Division
Telecommunication Group	Telecommunication Division No.1
	Telecommunication Division No.2
	Telecommunication Division No.3
	Telecommunication Planning Division
Regional & Social Infrastructure Group	Social Infrastructure Division
	Higashi-Nihon Regional Division
	Naka-Nihon Regional Division
	Nishi-Nihon Regional Division
Financial Services Group	Financial Services Division No.1
	Financial Services Division No.2
	Financial Services Business Development Division
IT Services Group	Cloud & Security Services Division
	Datacenter Services Division
Service Design Group	Institute of Open Innovation Research "MIRAI"
	Corporate IT System Division
Corporate Administration Group	Accounting & Sales Administrating Division
	Human Resources Management & General Affairs Division
	Risk Management Division
	Project Management Division
	Global Business Division
	CTO Office Advanced IT Strategy Division
	Corporate Planning Division
	Audit Division

Corporate Data As of April 1, 2019

Company Name: **ITOCHU Techno-Solutions Corporation (CTC)**

▶ **Head Office**
Kasumigaseki Bldg., 3-2-5, Kasumigaseki, Chiyoda-ku,
Tokyo 100-6080, Japan
📞 Phone: + 81-3-6203-5000   🖥 URL: http://www.ctc-g.co.jp/en/

▶ **Founded**
April 1, 1972

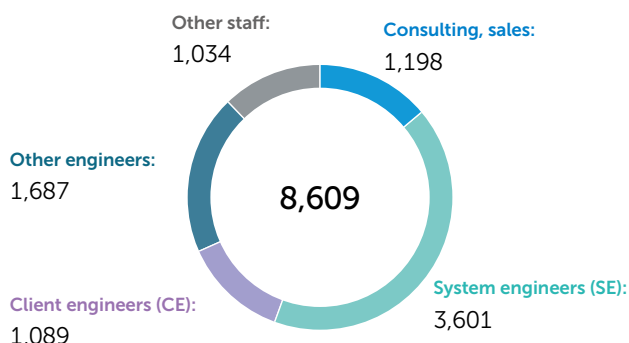▶ **Paid-in Capital**
¥21,763 million

▶ **Business Lines**
Sales, maintenance, and support of computers and network systems; commissioned software development; information processing services; information services-related to science and engineering; support; other

▶ **Employees**
8,609 (CTC Group total)

▶ **Composition of CTC Employees**

Other staff: 1,034
Consulting, sales: 1,198
Other engineers: 1,687
8,609
Client engineers (CE): 1,089
System engineers (SE): 3,601

▶ CTC Group Companies

Subsidiaries	Company	Paid-in Capital	Main Business Activities
	CTC TECHNOLOGY CORPORATION	¥450 million	System maintenance and support
	CTC SYSTEM MANAGEMENT CORPORATION	¥300 million	Maintenance and system management services, support services for systems and networks, system construction services, and IT-related training
	CTCSP CORPORATION	¥200 million	Sales of network and security-related equipment, storage devices and packaged software, and provision of related services
	CTC FACILITIES CORPORATION	¥100 million	Building facility operations management activities for computer centers (Yokohama, Kobe, Otemachi, Shibuya, and Mejirozaka)
	Asahi Business Solutions Corp.	¥110 million	Overall system development, maintenance, operation, and IT consulting
	CTC Global (Thailand) Ltd.	THB 165,000,000	Sales of network products and solutions
	PT. CTC Techno Solutions Indonesia	IDR 10,001,000,000	IT consulting service
	CTC GLOBAL SDN. BHD.	RM 62,118,000	Reselling hardware and software products and providing maintenance service
	CTC GLOBAL PTE. LTD.	S$2,000,000	Reselling hardware and software products and providing maintenance service
	ITOCHU Techno-Solutions America, Inc.	US$5,360,000	Maintenance and support of computers and network systems, exporting of IT products, and research into state-of-the-art technology and market trends

Four other companies (four in Japan)

Associated Companies	Company	Paid-in Capital	Main Business Activities
	CTC First Contact Corporation	¥50 million	Contact center operations, helpdesk services, IT training, and planning and implementation of IT training
	ITOCHU Technology Ventures, Inc.	¥100 million	Operation of investment funds of venture companies
	SYSCOM (USA) INC.	US$3,200,000	SI solution, system management, maintenance, and support services

Three other companies (one in Japan, two overseas)

▶ Facilities

Data Centers / Development Centers	
Data Centers	
Yokohama Computer Center East Wing / West Wing (YCC)	
Yokohama Computer Center North Wing (NYC)	
Kobe Computer Center (KCC)	
Otemachi Internet Data Center (OiDC)	
Shibuya Data Center (SDC)	
Meijirozaka Data Center (MDC)	
Development Centers	
Sapporo, Osaki	

Operations Centers

Remote Operation Center (ROC)

We provide remote system operation and monitoring services for client IT systems, 24/7 all year round (ROC monitoring services), which can also be linked to automated notification and system operation services.

CTC Security Operations Center (CTC-SOC)

Our facility that provides the CTC Managed Security Service (CTC-MSS), which offers 24-hour, 365-day remote monitoring of clients' security devices and integrated emergency response, equipment settings changes, operation, and other tasks.

▶ Major Vendors and Awards

AWS	**AWS Partner Network (APN) Premier Consulting Partner**
	AWS MSP Partner
	AWS Certification Award 2018
	• AWS Certification Award 2018 Practitioner
Cisco	**Gold Partner**
	Japan Award
	• Japan Partner of the Year 2018
	• Service Partner of the Year
DELL EMC	**Titanium Black Partner**
	DELL Technologies World 2019
	• Special Contribution-Japan APJ
	• Go Big-Win Big Services APJ
HPE	**Platinum Partner**
	The 2018 HPE Partner of the Year Awards
	• Global Solution Provider of the Year 2018
juniper	**Elite Partner**
	Juniper Japan Partner Award 2018
	• Japan Excellent DC Partner of the Year
	• Japan Excellent Cloud Partner of the Year
	• Japan Strategic Win of the Year
NetApp	**Star Partner**
	NetApp Japan Partner Award 2018
	• Partner of the Year
	• Support Partner of the Year
	• Technology Innovation Award
ORACLE	**Platinum Partner**
	Oracle Excellence Awards 2018
	• Advanced Cloud Service-Japan Oracle MySQL Partner Advisory Forum 2019
	• MySQL Partner of the Year 2019
VMware	**Solution Provider Premier Partner**
	VMware 2018 Partner Innovation Awards
	• Partner of the Year (Asia Pacific and Japan)
	• Hyperconverged Infrastructure Solution (Asia Pacific and Japan)

Stock Information As of March 31, 2019

▶ **Authorized** 492,000,000 shares

▶ **Issued** 240,000,000 shares
(includes 8,772,349 treasury shares)
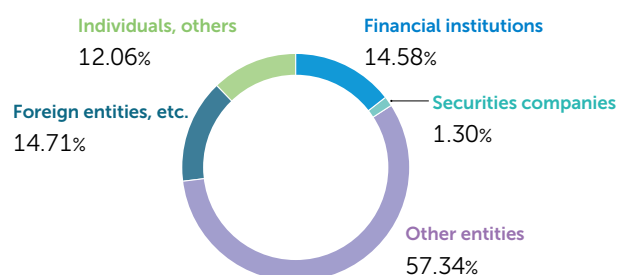
▶ **Shareholders** 14,930

▶ Major Shareholders

	Number of Shares	(%)
ITOCHU Corporation	134,661,600	58.24
Japan Trustee Services Bank, Ltd. (Trust Account)	12,593,800	5.45
The Master Trust Bank of Japan, Ltd. (Trust Account)	6,600,900	2.85
CTC Employee Shareholding Association	4,547,272	1.97
BBH FOR MATTHEWS JAPAN FUND	3,404,100	1.47
J.P. MORGAN BANK LUXEMBOURG S.A. 1300000	2,408,536	1.04
Trust & Custody Services Bank, Ltd. As trustee for Mizuho Bank, Ltd. Retirement Benefit Trust Account re-entrusted by Mizuho Trust and Banking Co., Ltd.	1,770,720	0.77
Japan Trustee Services Bank, Ltd. (Trust Account 5)	1,753,800	0.76
The Gibraltar Life Insurance Co., Ltd. (General Account Stock D)	1,492,400	0.65
JP MORGAN CHASE BANK 385151	1,481,911	0.64

Note: The Company holds 8,772,349 treasury shares, and those shares are excluded from the above list of major shareholders. These treasury shares do not include shares owned by the trust account related to the stock-based compensation program (Board Benefit Trust = BBT) for the Company's directors and officers. In addition, the ownership ratio was calculated by deducting the number of treasury shares.

▶ Breakdown by Number of Owners

Individuals, others 95.96%

Financial institutions 0.38%

Securities companies 0.35%

Other entities 1.05%

Foreign entities, etc. 2.26%
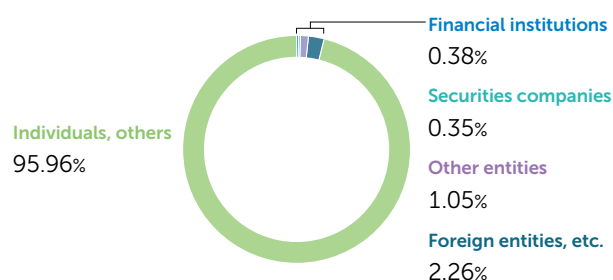
▶ Ownership by Percentage Shareholding

Individuals, others 12.06%

Financial institutions 14.58%

Foreign entities, etc. 14.71%

Securities companies 1.30%

Other entities 57.34%

Notes:
*1 In "Other entities," 48 units of stocks in the name of Japan Securities Depository Center, Inc. are included.
*2 Out of 8,772,349 shares of treasury stock, 87,723 units are stated in "Individuals, others" and 49 shares in "Status of odd stocks."

CTC

▰ *Challenging Tomorrow's Changes*

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