

**Fujitsu Frontech Group  
Environmental Report  
2021**

Photographer: Takashi Yoshida

## Our Environmental Priority Themes

Based on “Fujitsu Frontech Group Environmental Policy”, we pursue the rich, beautiful nature and the sustainable social development, cooperating with society.

We, Fujitsu Frontech Group, decide on “Fujitsu Frontech Group Environmental Policy” based on the trend for global environmental issues around companies such as global warming issue and biodiversity conservation, Fujitsu Group Environmental Policy and Medium- to Long-term Environmental Vision, and establish “Fujitsu Frontech Group Environmental Action Plan” based on the policy, and practice it.

In “Stage X” (FY2021 – 2022), we have established a wide range of action items, such as “climate change” and “resource circulation” which are closely associated with SDGs, and take actions now.

### Fujitsu Frontech Group Environmental Policy

#### Philosophy

We, Fujitsu Frontech Group, follow Fujitsu Group Environmental Policy and define “eco-friendly business activity” as our basic philosophy. We also promote our efforts for the earth environmental protection, recognizing it as one of the most important business issues.

By utilizing our own technology and creativity as an ICT company, we contribute to the sustainable development of society. In addition, we not only comply with the environmental laws, regulations and standards applicable to our business activities, but also make efforts for the earth environmental protection activities by ourselves.

Moreover, we continuously pursue our advanced efforts by all groups and employees, in order to save a rich nature for future generations.

*Hironmu Kawakami*  
(President and Representative Director)

#### Principles

1. We reduce the environmental burden at every stage through the life-cycle of our products and service.
2. Through our ICT products and solutions, we help our customers and society to reduce their environmental burden and to enhance their environmental efficiency.
3. We create our top-runner products reinforcing the energy efficiency, resource saving and 3Rs (reduce, reuse and recycle).
4. We always recognize the impact on the environment by our activities, products and service, and comply with the applicable environmental laws, regulations, other requirements and our internal guidelines and so on, in order to fulfill our CSR (Corporate Social Responsibility).
5. Based on the results of the environmental impact assessments related to our activities, products and services, we implement pollution prevention and continuous improvement.
6. We set up and review our environmental objectives and targets on “Our Society” and “Our Business”, and each of us make efforts for the earth environmental protection including measures against climate change and protection of biodiversity with participation of all employees.

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#### Scope

This report applies to facilities and Group companies in and outside Japan, which are included in our consolidated statement, and we picked up information mainly on the sites whose environmental impacts are significant, taking into account stipulating relevant site(s) to the information in each page.

#### Report Period

This report discloses mainly the activities in FY2020 (2020/4 – 2021/3), and the indicated data are the final actual values. However, this report also includes some data from the period other than FY2020.

#### Referred Guideline

We refer to “Environmental Reporting Guidelines 2018” for our information, that Ministry of the Environment issued. (See the “Matrix” in page XXII.)

#### How to Report

Only PDF version is available on our Group Website, in terms of “paper-less” that we push forward with.

**Issue:** October 2021.

#### Representative of Issue:

Hironmu Kawakami, President and Representative Director.

#### Representative of Planning & Editing:

Takashi Fukui, General Manager of Environmental Management Center.

## Top Message

Based on the concept of “Touch, Connect and Change”, we will create more prosperous society with our DX.

### To Realize Sustainable and More Prosperous Society

In 1940, the company, a predecessor of Fujitsu Frontech Limited, was founded in present Tsubame-shi, Niigata Prefecture, Japan, under the name of “Kanaiwa Kosakusho Co., Limited” as a manufacturer of western style metal tableware. Since then, while expanding our business into solutions & services based on reliability cultivated by hardware and manufacture, we have supported innovation at front area of customers’ businesses in the wide range of businesses such as in financial, retail, public, medical and manufacturing fields. 2020 was not only our 80th anniversary but a turning point, because Fujitsu Frontech Limited became a wholly-owned subsidiary of Fujitsu Limited, with the aim of creating synergies through strengthened alignment between Fujitsu Group companies and so on.

From a global standpoint, the spread of COVID-19 has no obvious sign of the end. And, due to this, we face paradigm shifts in many scenes like our lifestyle and working styles. In other words, we have already entered into an uncertain world, “new normal” which does not accept conventional common sense.

Under such circumstance, in April 2021, we reformed our organization to a vertical integration in each business field, which is newly composed of 2 Business Groups, that is, “Solution & Service” and “Global Business”, aiming to be “DX (Digital Transformation) Company at the Forefront of Customer”. From now on, we will offer best solutions to customers in each business field such as financial, retail, public, manufacture and global, more speedily than before.

We are going to create sustainable society that companies and people live more prosperous with our DX, under the concept of “Touch, Connect and Change” that customers “Touch” our products, then they “Connect” companies and society and finally it comes to “Change” into the world where people can enjoy services which has never existed.

### Actions on Material Environmental Issues

We evaluate environmental aspects such as climate change and resource circulation, so as to identify crucial issues for us. After that, we establish “Fujitsu Frontech Group Environmental Action Plan” to address the issues and practice it, so as to protect the earth environment sustainably.

In the “Environmental Action Plan X” (FY2021 – 2022), we made plan to take actions on the 3 categories consisting of “Actions on Climate”, “Promotion of Resource Circulation” and “Original Themes”. We set the targets such as “Reduce greenhouse gas emissions in our business facilities by 24% or more compared to FY2013”, “Introduce renewable energy equivalent to 8% of total energy use in the whole Group” and “Reduce CO<sub>2</sub> emissions derived from product use by 17% or more compared to FY2013” in “Climate”, “To improve resource efficiency of products newly developed by 10% or more compared to FY2019” in “Resource Circulation”, and “To reduce the amount of waste by 27% or more compared to average level of FY2012 – FY2014”, “Development & delivery of SDGs Contribution Solutions” and “Social activities as good corporate citizenship” in “Original Themes”. Now, we push forward with these activities as a unit.

Furthermore, we also make efforts on Fujitsu Group Medium/Long-term Environmental Vision “FUJITSU Climate and Energy Vision”, whose goal is to bring the Fujitsu Group’s CO<sub>2</sub> emissions to zero by 2050. We are going to accelerate actions mainly by introducing renewable energy, because we need to address the renewed aggressive target of “Reduce CO<sub>2</sub> emissions to 71.4% by the end of 2030”, accompanied by the modification to 1.5°C scenario in SBTi. In addition, we are also planning to assess risks and opportunities in terms of adapting to climate change, so that we are able to make resilience of our Group stronger.



**Hiromu Kawakami**  
President and Representative Director

## Corporate Profile

- Name**  
 FUJITSU FRONTECH LIMITED
- Corporate Headquarters**  
 1776 Yanokuchi, Inagi-shi, Tokyo  
 206-8555 Japan  
 TEL: +81-42-377-5111
- Established**  
 November 9, 1940
- Capital**  
 8,457 million yen  
 (as of March 31, 2021)
- Employees**  
 3,842 (Consolidated)  
 1,575 (Non-consolidated)  
 (as of March 31, 2021)
- History**
- Management**  
 Representative Director **Hiromu Kawakami**  
 Director **Naoki Yoshida**  
 Director **Hiroshi Watabe**  
 Audit & Supervisory Board Member **Koichi Takahashi**
- List of Certificate of ISO14001**

Fujitsu Frontech Limited Certificate No. : EC98J2005-D050
Totalizator Engineering Limited Certificate No. : EC07J0072
Fujitsu Die-tech Corporation of the Philippines Certificate No. : 10000352049-MSC-JAS-ANZ-PHL
Fujitsu Frontech North America Inc. Certificate No. : 10000332136-MSC-ANAB-USA
Fujitsu Frontech (Shanghai) Limited Certificate No. : QAC0041095

1940	Found in Tsubame-machi, Nishikambara-gun (current Tsubame-shi), Niigata prefecture, under the name of KANAIWA KOUSAKUSHO CO., LIMITED.
1944	FUJI TSUSHINKI Manufacturing Corporation (current Fujitsu Limited.) undertakes all shares and changes the company name to KAMBARA KIKAI KOGYO LIMITED.
1962	Establishes the Yoshida Plant (current Niigata Plant) in Yoshida-machi, Nishikanbara-gun (current Yoshida Higashi Sakae-cho, Tsubame-shi), Niigata prefecture.
1963	Establishes the Yanokuchi Plant (current Headquarters/Tokyo Plant) in Inagi-machi, Minamitama-gun (current Inagi-shi), Tokyo.
1974	Begins development, manufacture and sales of financial terminal systems.
1980	Begins development, manufacture and sales of retail terminal systems.
1988	Qualifies for listing in the 2nd section of the Tokyo Stock Exchange.
1996	Establishes a subsidiary FUJITSU DIE-TECH CORPORATION OF THE PHILIPPINES in Philippines.
2002	Changes the company name to FUJITSU FRONTECH LIMITED.
2004	Begins development, manufacture and sales of palm vein authentications and related software.
2005	Begins development, manufacture and sales of UHF RFID tags.
2009	Establishes Fujitsu Frontech North America Inc. as a base of development, procurement and manufacturing in the U.S.A. (FUJITSU FRONTECH LIMITED purchases 100% shares of FUJITSU TRANSACTION SOLUTIONS INC. and institutes it as a subsidiary company.)
2020	Becomes a wholly-owned subsidiary of Fujitsu Limited.

Detail of our History:  
<https://www.fujitsu.com/jp/group/frontech/en/about/history/>

## Business Profile

We develop business at the point of contact (front) where our customers and consumers meet, in business fields such as financial, retail and industrial and public sector.

We offer new value from the idea of "Koto" (service oriented way of thinking) to enhance customers business in area such as "transformation of the front-end of customer business", "labor saving and automation" and "safety and security", making use of our advantages, our unique technologies (leading edge palm vein authentication, RFID and others) and customer experience and systems engineering skills based on industry knowledge and know-how, perfectionism in manufacturing, and a union of hardware, software, and services, in addition to our core technologies grounded in many years of practice, such as cash handling and safe and secure settlement methods.

Our Business Fields	Main Business
<b>Finance &amp; Retail</b> Provide the optimum solutions for customer needs to support driving efficiency in field works and promoting DX	•Financial Solutions (Including ATMs and banking terminals, etc.) •Financial Services (Including ATM total outsourcing services, etc.) •Industrial & Public Solutions (Including cash deposit machines and payment kiosk, etc.)
<b>Services</b> Secure safety and security of customers with total services and comprehensive support systems	•Cash management services "TeamCloud/CM" •Help desk services •Installation services •Operation support services •Maintenance and repair services
<b>Frontline Solution</b> Provide solutions corresponding to new lifestyle based on unique technologies	•Palm Vein Authentications •RFID / Sensor Solutions •Payment Solutions •Mobile Systems •Subscription Services "TeamManage" "COLMINA Device Subscription"
<b>Totalizator &amp; Amusement</b> Support innovation of customers, from public racecourses to amusement park	•Solutions for public racing (Including automatic vending and refunding machines and cashless totalizator terminals, etc.) •Comprehensive operation services
<b>Global</b> Provide solutions which meet customer needs finely in global markets	•Bill Recycling Units •Self-service solutions for retail stores outside Japan •Multimodal biometrics authentication solutions •Airline Printers •RFID solutions for linen rental and laundry



•Palm Vein Authentications



•Help-desk Services



•Cashless/ticketless betting system



•Cash management machines manufactured by Revolution Retail Systems (equipped with our Bill Recycling Units)

## Environmental Management System

We establish and operate Environmental Management System (EMS) based on ISO14001, to enhance our environmental performance.

### Environmental Management System in Fujitsu Frontech Group

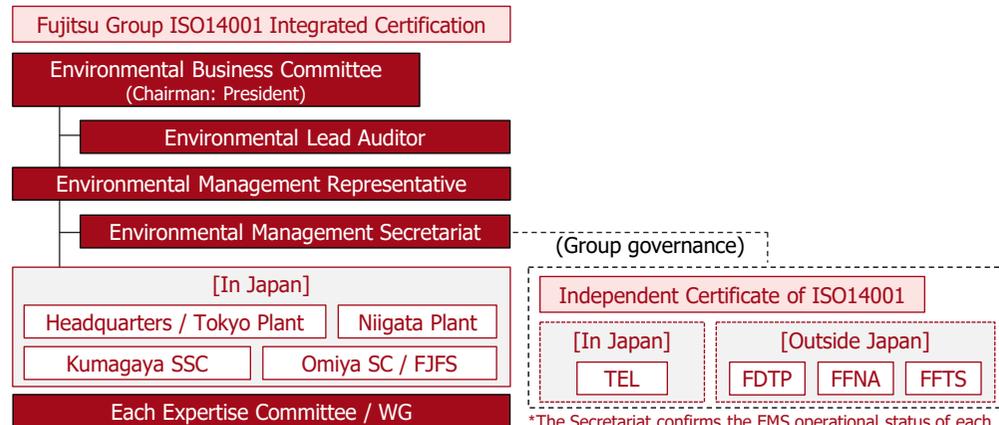
We obtained the certification of ISO14001 for the first time in 1998, recognizing the importance of actions on the environment issues as one of the main responsibilities of businesses. After that, we transited to "Fujitsu Group Integrated Certification" in 2005, so as to realize aims such as "Further reinforcement of Group governance", that Fujitsu Group had set.

### Environmental Organization

We organize "Environmental Business Committee", whose chairman is a president, with the approval of our "Business Committee", composed of directors and executive officers involved in our business execution, to discuss comprehensive issues relevant to our environmental business. In this committee, we, for example, review medium- to long-terms issues, make policies, share risks and opportunities in business derived from climate change, and consider the countermeasures, in the purpose of enhancing the environmental business and reinforcing the governance.

In addition, we also organize "Environmental Management Committee" whose chairman is Site Controller (assuming the level of executives) at each EMS site. In this committee, we, for instance, discuss the whole environmental activities, review issues at a site level, make policies, share risks and opportunities, and consider the countermeasures.

Fujitsu Frontech Group Environmental Organization Chart (As of October 2021)



\*The Secretariat confirms the EMS operational status of each Group company acquiring independent certificate periodically, and reports on the results at our management review.

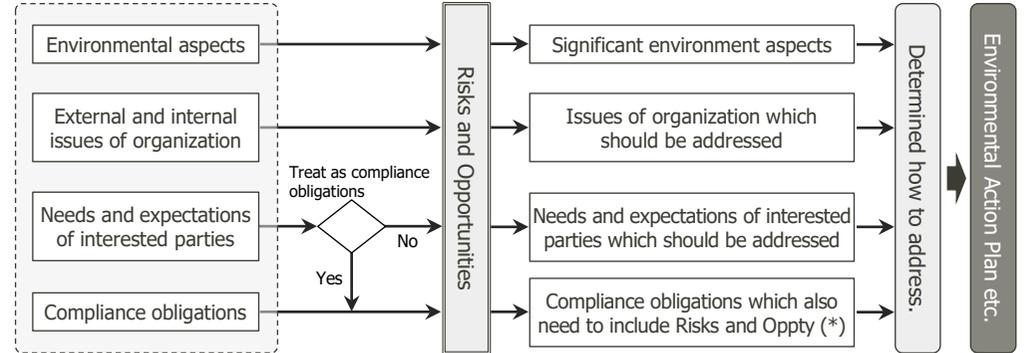
[Official names of our bases in and outside Japan]  
 Kumagaya SSC: Kumagaya Service Solution Center  
 Omiya SC: Omiya Solution Center  
 FJFS: FUJITSU FRONTTECH SYSTEMS LIMITED  
 TEL: TOTALIZATOR ENGINEERING LIMITED

FDTP: FUJITSU DIE-TECH CORPORATION OF THE PHILIPPINES  
 FFNA: Fujitsu Frontech North America Inc.  
 FFTS: FUJITSU FRONTTECH SHANGHAI LIMITED

### Method to Identify and Address Environmental Risks and Opportunities

We, through the EMS established on the basis of ISO14001, identify and evaluate material environmental risks and opportunities, to be determined how to address these issues. In addition, we, based on ISO14001:2015, establish and operate processes to identify risks and opportunities having impacts on our business, which include factors besides "Environment" like "External and internal issues of organization" and "Needs and expectations of interested parties".

[Process of Identifying and Evaluating Risks and Opportunities]



[Risks and Opportunities Determined to Address as EMS Issues (FY2021)]

Risks and Opportunities Determined to Address as EMS Issues			Items in "Action Plan"
▶ Significant environmental aspects			
1	Electricity, LNG, LPG, town gas, gasoline, kerosene, light oil	Risk	"Climate"
2	Waste	Risk	"Resource Circulation"
▶ Issue of organization (external and internal)			
1	Cost increase of purchasing energy	Risk	"Climate"
2	Cost increase of waste disposal	Risk	"Resource Circulation"
3	Contributing to SDGs and obtaining the relevant business chances	Oppty	"Resource Circulation" etc.
▶ Needs and expectations of interested parties			
1	ESG (Environmental, Social and Governance)	Oppty	"Original Themes"
2	FUJITSU Climate and Energy Vision	Oppty	"Climate"
3	TCFD, CDP, SBTi, RE100 etc.	Oppty	"Climate", etc.
4	Communication with employees	Oppty	"Original Themes"

\* "Oppty" is abbreviation for "Opportunity".

## Environmental Action Plan

We make "Fujitsu Frontech Group Environmental Policy", establish "Fujitsu Frontech Group Environmental Action Plan" based on the policy as well as "Fujitsu Group Environmental Action Plan", and practice it. In "Stage IX", we could hit all the targets.

### Environmental Action Plan Stage IX (FY2019 – 2020)

Categories	Targets	Scope	KPIs	Results	Judge
Climate	To reduce GHG emissions • Reduce greenhouse gas emissions in our business facilities to 8% or more compared to FY2013 by the end of FY2020	Headquarters / Tokyo Plant Niigata Plant Kumagaya SSC (*1)	Under 7,236 tons-CO <sub>2</sub>	5,827 tons-CO <sub>2</sub>	Met
Resource	To promote resource efficiency of products • Enhance resource efficiency of products newly developed to 20% or more compared to FY2014 by the end of FY2020	Headquarters / Tokyo Plant	No less than 20%	24%	Met
	To reduce waste generations • Reduce the amount of waste to 27% or more compared to average level of FY2012 – FY2014 by the end of FY2020	Headquarters / Tokyo Plant Niigata Plant Kumagaya SSC	Under 301 tons	241 tons	Met
Supply-chain	To reduce CO <sub>2</sub> emissions derived from product use • Reduce CO <sub>2</sub> emissions derived from product use to 14% or more compared to FY2013 by the end of FY2020	Headquarters / Tokyo Plant	No less than 14%	17.2%	Met
SDGs	To contribute to SDGs through ICT services • To contribute to SDGs through ICT business	Headquarters / Tokyo Plant Niigata Plant Kumagaya SSC Omiya SC / FJFS (*1)	No less than 33 cases (*2)	68 cases	Met
	[Original] Social Activities related to measures against climate change and protection of biodiversity • Support our employees to volunteer social activities with society	Headquarters / Tokyo Plant Niigata Plant Kumagaya SSC Omiya SC / FJFS	No less than 53 cases	60 cases	Met

\*1: "Kumagaya SSC" stands for Kumagaya Service Solution Center, "Omiya SC" stands for Omiya Solution Center and "FJFS" stands for Fujitsu Frontech Systems Limited.

\*2: Total action items in 3 themes of (1) Enhancement of understanding SDGs, (2) Communication with our customers and (3) Case studies of "SDGs Contribution Solutions" and PRs of them

## Environmental Action Plan

During the two years of “Environmental Action Plan Stage IX” (FY2019 – 2020), we made efforts to curb the environmental burden, including resource saving of products and reduction of waste generations.

### Topics (FY2019 – 2020)

#### Resource Circulation

##### Resource saving of products

We pushed forward with 3Rs (reduce, reuse, recycle) in products development, because it is of importance to utilize resources efficiently to mitigate risks such as exhaustion of natural resources, steep rise in resource price and instability of rare metal distribution.

In “Stage IX”, we also addressed the target of “Resource efficiency”, and realized the efficiency improvement of 24% against 20% or more of its KPI.

\*Calculation of resource efficiency:

Evaluated by dividing the value of production, by the environmental burden (in terms of use and disposal) of the elements (resources) comprising the products



Banking Terminal  
UBT-SP FC400



##### Reduction of waste generations and proper waste management

We tackled the target of “Reduce to 27% or more compared to average level of FY2012 – 2014” in “Stage IX” to reduce waste generated from sites, and could achieve it. In particular, we took measures such as proper sorting of waste and valuables, operation of in-house waste committee and patrols to check the condition of waste sorting.

Incidentally, we implement the inspection of waste vendors in terms of responsibility of “a waste generator”, so that we can see if they process waste appropriately, which we consigned.



Proper sorting of waste and valuables



On-site inspection of a waste vendor

#### Promotion of paperless

As one of the work style reforms which have been started since FY2017, we took actions on “paperless of office”. As a first approach, we took from a senior consultant, a couple of lectures about methods of “trimming paper documents down”. After that, we expanded the methods within the whole companies to reduce use of paper, and to digitalize paper. As a result, we could hit the target of “Reduce use of office paper to 70% or more”.

#### Biodiversity Conservation

##### Forest conservation (FUJITSU FRONTTECH SYSTEMS LIMITED: FJFS)

FJFS implements the forest conservation activities at the foot of Akagi Mountain, twice a year continuously from FY2008, when they concluded the Agreement of Activities for Forest Conservation, etc. with Gunma Prefecture and Maebashi-shi.



Cutting grasses by a handy sickle



#### Other

##### Green curtains

We have been planting “Green curtains” consisting of climbing plants like passion fruits and morning glories, since 2009 in Headquarters / Tokyo Plant and 2008 in Niigata Plant.

These curtains have the effectiveness of insulating solar heat as well as can provide employees with a comfortable time during a lunch break and with enjoyable time to harvest fruits.



Green Curtain (Headquarters / Tokyo Plant)

## Environmental Action Plan

In “Environmental Action Plan Stage X”, we set material issues such as climate and resource circulation as targets, and just have started addressing them.

### Environmental Action Plan Stage X (FY2021 – 2022)

Categories	Targets	Scope (*1)	FY2022	FY2021
			1-year KPIs	1-year KPIs
Actions on Climate (Decarbonization)	To reduce GHG emissions • Reduce greenhouse gas emissions in our business facilities to 24% or more compared to FY2013 by the end of FY2022	Headquarters / Tokyo Plant Niigata Plant Kumagaya SSC	Under 6,057 tons-CO <sub>2</sub>	Under 6,172 tons-CO <sub>2</sub>
	To introduce renewable energy • Introduce renewable energy equivalent to 8% of total energy use in the whole Group by the end of FY2022	Niigata Plant (10th Environmental Action Plan)	8%	4%
	To reduce CO <sub>2</sub> emissions derived from product use • Reduce CO <sub>2</sub> emissions derived from product use to 17% or more compared to FY2013 by the end of FY2022	Headquarters / Tokyo Plant	No less than 17%	To reduce CO <sub>2</sub> emissions
Promotion of Resource Circulation	To promote resource efficiency of products • Enhance resource efficiency of products newly developed to 10% or more compared to FY2019 by the end of FY2022	Headquarters / Tokyo Plant	No less than 10%	To enhance resource efficiency
Original Themes	To reduce waste generations • Reduce the amount of waste to 27% or more compared to average level of FY2012 – FY2014 by the end of FY2022	Headquarters / Tokyo Plant Niigata Plant Kumagaya SSC	Under 299 tons	Under 299 tons
	To develop and deliver SDGs Contribution Solutions • To develop no less than 5 SDGs Contribution Solutions in FY2022	Headquarters / Tokyo Plant Kumagaya SSC Omiya SC / FJFS	No less than 5 solutions	No less than 5 solutions
	Social activities as good corporate citizenship • Promote broad social activities	Headquarters / Tokyo Plant Niigata Plant Kumagaya SSC Omiya SC / FJFS	No less than 40 cases	No less than 40 cases

## Response to TCFD

We strive to disclose for all stakeholders, based on the Framework of “The Task Force on Climate-Related Financial Disclosures (TCFD)”, with the assessment and management of the risks.

### Information Disclosure Based on TCFD’s Framework

Themes of TCFD Recommendation	Status of our Response	Relevant Information
<p><b>Governance</b></p> <p>The organization’s governance around climate-related risks and opportunities</p>	<ul style="list-style-type: none"> <li>Review climate-related risks and opportunities and countermeasures at Environmental Business Committee (chairman: President and Representative Director), which is organized with the approval of our “Business Committee”</li> <li>Make plans for climate-related countermeasures and practice them at Expertise Committee of each site, etc</li> <li>Discuss the action plan to achieve Medium/Long-term Environmental Vision “FUJITSU Climate and Energy Vision”, with Fujitsu Limited at Environment WG</li> </ul>	<p>&gt; <a href="#">Fujitsu Way</a></p>
<p><b>Strategy</b></p> <p>The actual and potential impacts of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning</p>	<ul style="list-style-type: none"> <li>Take part in CO<sub>2</sub> zero emission plan of “FUJITSU Climate and Energy Vision”, which was established based on 1.5°C scenario that, the Initiative (SBTi: Science Based Targets initiative) setting science-based greenhouse gas reduction targets, recommends</li> <li>Contribute to low-carbon society, by developing and delivering “Green Products” and “SDGs Contribution Solutions”, whose energy efficiency is excellent</li> <li>Let “low-carbon business” come true, with the introduction of fuel cell power generators and renewable energy</li> </ul>	<p>&gt; <a href="#">Actions on Climate Change</a></p> <p>&gt; <a href="#">Green and Super Green Products</a></p> <p>&gt; <a href="#">SDGs Contribution Solutions</a></p>
<p><b>Risk Management</b></p> <p>The processes used by the organization to identify, assess, and manage climate-related risks</p>	<ul style="list-style-type: none"> <li>Assess climate-related risks across the company</li> <li>Review medium- and long-term risks related to climate change identified through EMS at Environmental Business Committee etc., so as to draw up plans of sustainable development of our business</li> <li>Respond to climate-related risks in the whole Fujitsu Group, cooperating with Fujitsu Limited</li> </ul>	<p>&gt; <a href="#">Environmental Policy</a></p> <p>&gt; <a href="#">Environmental Management System</a></p>
<p><b>Metrics and Targets</b></p> <p>The metrics and targets used to assess and manage relevant climate-related risks and opportunities</p>	<ul style="list-style-type: none"> <li>Establish the environmental targets of “Actions on Climate (Decarbonization)”, as one of the items in “Fujitsu Frontech Group Environmental Action Plan”</li> <li>Take part in “FUJITSU Climate and Energy Vision” aiming for “the goal of bringing the Fujitsu Group’s CO<sub>2</sub> emissions to zero by 2050, as well as contributing to the achievement of a decarbonized society and the adaptation to climate change”</li> </ul>	<p>&gt; <a href="#">Environmental Action Plan</a></p> <p>&gt; <a href="#">FUJITSU Climate and Energy Vision</a></p> <p>&gt; <a href="#">Environmental Report</a></p> <p>&gt; <a href="#">Sustainability</a></p>

#### [About TCFD]

TCFD stands for “The Task Force on Climate-Related Financial Disclosures”, which was established by Financial Stability Board (FSB) at the request of G20 with the objective to reduce the risk of instability in the financial market due to climate change. It recommends companies to disclose information on 4 themes relevant to climate-related risks and opportunities, which consist of “Governance”, “Strategy”, “Risk Management” and “Metrics and Targets”.

#### [Response to TCFD in Fujitsu Group]

The Fujitsu Group announced its support for the TCFD recommendations in April 2019 and strives to disclose information in line with the recommendations, including the response to CDP. (Linked: <https://www.fujitsu.com/global/about/environment/tcfd/>)

## **FUJITSU Climate and Energy Vision**

We, based on The Fujitsu Group Medium/Long-term Environmental Vision “FUJITSU Climate and Energy Vision”, establish the target to reduce GHG (greenhouse gas) emissions, and take actions on climate change.

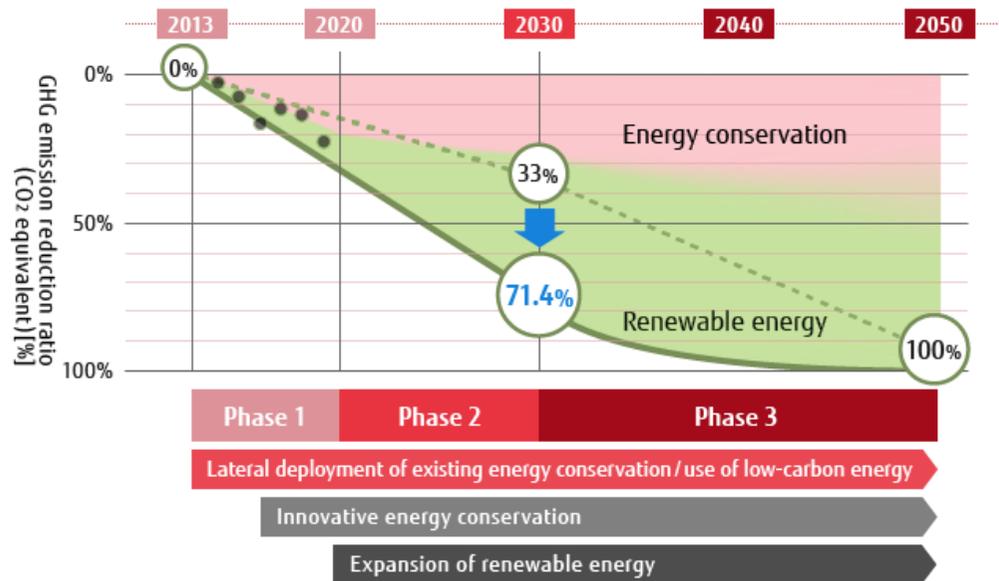
### **Actions in Fujitsu Group**

The Fujitsu Group considers climate change to be a serious issue that must be addressed, and we have been actively working to meet the goals we previously set in our Environmental Action Plan. Furthermore, in order to contribute to addressing the issue as a leading company, we recognized the need for the Fujitsu Group to have a long-term vision and tackle the issue as a united group. We gathered knowledge and engaged in dialogue with various stakeholders through interviews with outside experts and the activities of external organizations. Taking these into account, the former Environmental Management Committee (Now the Sustainability Management Committee), led by the President, formulated the Fujitsu Climate and Energy Vision, our medium- to long-term environmental vision with regard to climate change, and we made it public in May 2017.

In addition, in April 2021, we revised the emissions reduction targets in FY 2030 shown in Vision 1 from 33% to 71.4% in order to accelerate our own moves toward decarbonization.

(Detail: <https://www.fujitsu.com/global/about/environment/climate-energy-vision/>)

### The Roadmap to Reduce the Fujitsu Group’s CO<sub>2</sub> Emissions to Zero by 2050



### **Actions in Fujitsu Frontech Group**

In the purpose of realizing “FUJITSU Climate and Energy Vision”, we establish the target of “To reduce GHG emissions in our business facilities” as a theme, which includes both 1-year and mid-term KPIs, and tackle it.

Up to now, we have reduced 1,678 ton-CO<sub>2</sub> (-15.2%) compared to FY2013 in FY2020, as a result that we had made efforts through capital investments including fuel cell power generators, LED lightings and energy efficient environmental test chambers as well as through operational improvements such as visualization of electricity consumptions and operation of Energy-saving Committee.

(Detail: <https://www.fujitsu.com/jp/group/frontech/en/about/sustainability/environment/climate-action/index.html>)



Fuel cell power generators (Kumagaya SSC)



Replaced LED lightings (FDTP)

### Reinforcement of actions toward achieving 1.5°C scenario

To achieve the target of Phase 2 (Reduce GHG emissions to 71.4% compared to 2013 in 2030) which was modified due to re-certification of the Fujitsu Group’s roadmap at 1.5°C, we are reinforcing our actions.

In particular, we have just started introducing renewable energy in Niigata Plant antecedent to the other sites in FY2021, because Fujitsu Group declares its intention to introduce renewable energy equivalent to 40% of total energy consumptions by 2030 in RE100.

In addition, FDTP, one of our Group companies outside Japan, has just begun building up energy management structure within the plants by establishing EMS (energy management system), appointing energy managers and so on, in order to reduce GHG emissions, following legal requirements of Republic Act No. 11285 named “An Act Institutionalizing Energy Efficiency And Conservation, Enhancing The Efficient Use Of Energy, And Granting Incentives To Energy Efficiency And Conservation Projects” put into force in November 2019.

## Actions on SDGs

Through our products and solution services connecting people to ICT with cutting-edge technology, we contribute to SDGs.

### Actions on “Environmental Action Plan”

We established “To contribute to SDGs through ICT services”, as one of the targets in “Fujitsu Frontech Group Environmental Action Plan Stage IX” (FY2019 – 2020). And, we also established management program for this target, which consists of 3 large themes and 6 small themes, as the matrix below. In FY2020, we achieved the annual target (results: 68 cases / plan: 30 cases), thanks mainly to the efforts on the development and delivery of “SDGs Contribution Solutions” and global information disclosure to stakeholders.

In “Stage X” (FY2021 – 2022), we will continue to contribute to achieving SDGs, by brushing up our activities on the basis of results that we have ever accumulated.

#### [Action Plan relevant to SDGs]

(1) Enhancement of understanding SDGs	
1) Internal communication about SDGs	Communicate internally about SDGs through E-learning and intranet, etc., to enhance the understanding of employees toward SDGs in the whole Group companies
2) Training of specific human resources familiar with SDGs	Train and ensure human resources familiar with SDGs, through the deep understanding at in-house study meetings and external workshops etc., to establish the basis to promote SDGs in the whole Group companies
(2) Communication with our customers	
3) Development of “SDGs Contribution Solutions”	Develop “SDGs Contribution Solutions” which are added with some factors of SDGs (in other words, are linked to some items among 17 goals of SDGs), based on previous “Environmentally Conscious Solutions” certification program
4) Proposal and sales of “SDGs Contribution Solutions”	Propose our “SDGs Contribution Solutions” to our customers with specific proposal documents, to gain their orders finally
5) External communication about the actions on SDGs	Communicate with all the stakeholders about our actions on SDGs in a forward-looking manner, through Sustainability Website and Environmental Report, etc.
(3) Case studies of “SDGs Contribution Solutions” and PRs of them	
6) PRs about case studies of “SDGs Contribution Solutions”	Introduce the case studies of “SDGs Contribution Solutions”

### Main Results in FY2020

#### Internal communication of SDGs and training of core HR

To promote and expand actions on SDGs, it is indispensable for us to enhance the understanding of employees toward SDGs and to ensure core HR. Therefore, we planned and took a variety of actions such as E-learning and participation in workshops, so that all employees can behave based on understanding of the importance of SDGs.

#### [Main measures implemented]

#	Contents	Scope
1	E-learning of “SDGs and Fujitsu Group Environmental Business”	All employees
2	Human rights weekly event, “SDGs Photo Contest”	All employees
3	On-line training related to SDGs	Core HR
4	Distribution of SDGs neck straps	Core HR
5	Study meetings about circular economy-related business	Relevant Div.

#### Development and delivery of SDGs Contribution Solutions

In FY2019, we created and started the scheme of “SDGs Contribution Solutions”. As a result of the efforts to develop the solutions, totally 16 solutions have been able to be developed and released for 2 years (FY2019 – 2020).

Moreover, we made special webpages of both summary of SDGs Contribution Solutions and introduction of case studies of them, on our official website. (Details: See Page XIII “Solution & Service Business”.)

#### External reputation

Fujitsu Frontech was certified as the 3-star class for 2 consecutive years in Nikkei SDGs Management Survey 2020 (the 2nd time), which Nikkei Inc. has implemented since 2019 targeting listed companies and influential privately-owned companies in Japan, as a result of total evaluation of our activities. This survey evaluates leading enterprises which strive for “SDGs management” positively to enhance their corporate brands, from 4 perspectives, “SDGs strategy and economic value”, “social value”, “environmental value” and “governance”.



## Global Business

We make eco-friendly efforts, throughout supply-chain as well as spread our own expertise in Financial, Retail and Public Sector on global basis.

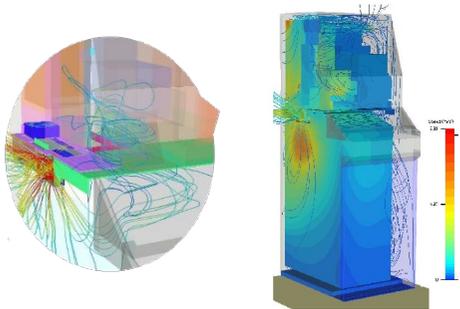
### Efforts toward "Environmental Action Plan IX"

#### Pursuit of energy efficiency

Under the circumstance that regulations related to energy efficiency of ICT products are being strengthened, we have to pursue the energy efficiency during product use as a manufacturer. Therefore, we push forward with the development of top-level energy efficient products. In "Stage IX", we realized -17.2% against the KPI of "To reduce 14% compared to FY2013".

### Products Simulation

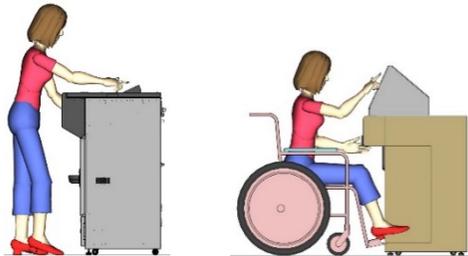
#### <Simulation to analyze thermal flow>



In the purpose of improving energy efficiency, we conduct products design simulation.

For example, if we find out thermal air turning around in the device due to insufficient thermal ventilation, we reconsider its structure. Thus, we repeat products simulation, so that the temperature will be kept well during product use.

#### <Simulation with ergonomics\*1>



We try to reduce the expense of products development, by conducting virtual simulation of the ease of assembling, operating and maintaining.

Moreover, we also pursue universal design which is easy for everyone to use, by conducting products simulation repeatedly.

\*1: The way to pursue good relationship between human being and machines, that is, "Best harmonization between them", regarding the relationship as "man-machine system"

### Green Procurement

Fujitsu Group has established "Fujitsu Group Green Procurement Standard" which frames the basic concepts of procuring eco-friendly parts, materials and products, so that suppliers both in and outside Japan can promote the green procurement.

And, FY2020 became the year that we accelerated the pace of "Responsible minerals procurement" from the viewpoint of SDGs. Especially, we strive to avoid the risks that our business might help the human right infringement by militants and local conflicts unintentionally, by screening our own supply chain. Furthermore, we ask suppliers to report on whether or not they procure minerals not relevant to local conflicts.



### Management of Chemical Substances in Products

#### Establishment of Chemical substances Management System

We are asking our parts suppliers to establish the CMS\*2 based on "Guidelines for the management of chemical substances in products" which are defined as industrial standard made by JAMP\*3, in order to enhance the management of the restricted chemical substances contained in the parts and products in the whole supply chain.

\*2: CMS--Chemical substances Management System

\*3: JAMP--Joint Article Management Promotion-consortium

#### Acquisition of the information on chemical substances in products

Fujitsu Group, in cooperation with our suppliers, surveys for the information on chemical substances contained in products, and shares obtained information within internal system, by using such chemSHERPA\*4 provided by the JAMP, to comply with relevant regulations, and to prevent regulated chemical substances contained in products from affecting human health negatively and from contaminating the environment.

\*4: It stands for "Chemical information Sharing and Exchange under Reporting Partnership in supply chain", which is a common scheme to communicate the information on chemicals contained in products.

### Communication with Suppliers

In FY2020, we canceled an annual business party for suppliers because of avoiding the spread of coronavirus. Instead, we sent letters of thanks and commemorative goods to the suppliers which had given outstanding contributions to our business.

### Efforts in our Group Companies outside Japan

Our Group companies outside Japan, develop and deliver products which are suitable for particularity and needs of each local area, for example, by cooperating with local partners.

They not only contribute to the sustainable development of customers, society and economy through business, but make positive efforts to mitigate the environmental impacts through participation in local initiatives.

#### Improvement of freight transportation efficiency

Fujitsu Frontech North America Inc. (FFNA: U.S.A) has been taking part in "SmartWay Partnership<sup>®\*1</sup>" since 2009 that U.S. Environmental Protection Agency (EPA) operates, and trying to improve the energy consumptions of freight transportation in North America region involved by FFNA.

FFNA strives to reduce the energy use during transportation through some measures mainly including the utilization of freight trucks which acquired certificates of good environmental performance from EPA and the strategic adoption of 3PL (Third Party Logistics) to pursue more efficient transportation routes.



Registration Document of SmartWay

Incidentally, Niigata Plant, which is one of our Group sites in Japan, also makes an effort to reduce transportation CO<sub>2</sub>, through the improvement of transportation efficiency such as adoption of fuel economy trucks and pursuit of better trucking efficiency.

\*1: It is voluntary public-private program that EPA launched in 2004, in the purpose of realizing the reduction of fuel consumptions and expenses as well as the mitigation of the environmental burden by accelerating the introduction of highly fuel-efficient technologies and operational methods in transportation. Recently, over 3,000 companies have registered this partnership and take actions.

\*2: It is third-party outsourcing that business operators consign all the in-house logistics business to professional logistics companies which are familiar with efficient routes etc.

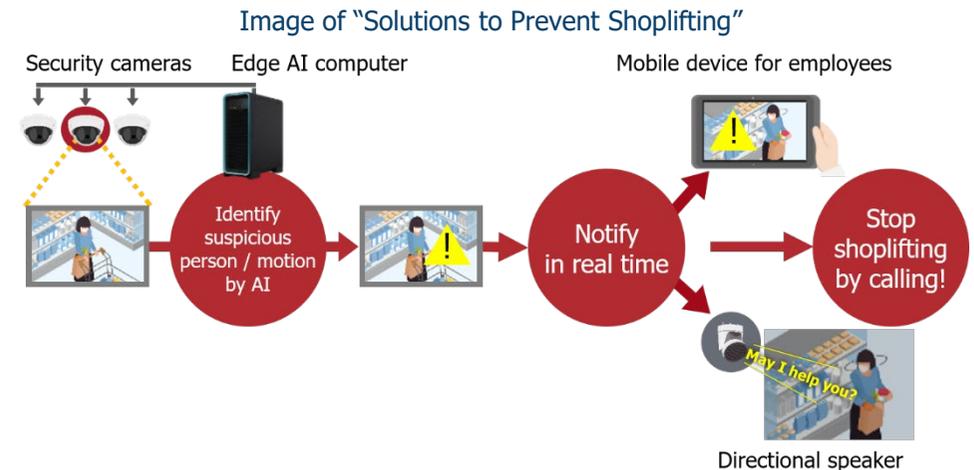
## Solution & Service Business

We totally offer solutions utilizing cutting-edge technologies and services supporting system lifecycle, through Co-creation.

### Activity in Solution & Service Business

"Solutions to Prevent Shoplifting", which learned knowhow of on-site security guards with AI technologies, is to curb the frequency of shoplifting through the processes of analyzing the image of a certain person captured by security cameras in real time, then judging if her / his motion has characteristics of shoplifting, and finally sending the notification to shop staff's mobile devices as well as automatically talking to the target with a speaker device. Thus, this solution can not only mitigate the mental burden of shop staff and security risks but support the improvement of work efficiency and the reform of work style, owing to the effectiveness of such as no necessity of cautions and responses to shoplifting.

We now offer this solution as a monthly subscription service named "FUJITSU Retail Solution TeamManage" that customers can use each equipment and application software together with property management services. This means customers can take advantage of this solution, curbing their expenses of edge AI computer and directional speaker which are supposed to be fully charged in a normal service.



Contributable factors to SDGs

Goal 8: Safe working environment, solutions of labor shortage

Goal 9: Tool of infrastructure in a logistics sector

### Summary of "SDGs Contribution Solutions"

We develop and deliver solutions combining hardware with software, which include cutting-edge technologies such as palm vein authentication, UHF RFID tags (linen tags) and beacon sensors. These solutions meet a variety of needs and expectations from customer in the markets like finance, retail, public facilities, health care, logistics and mobility as well as support various scenes in society including financial institutions, health care facilities and shopping centers.

"SDGs Contribution Solutions" that we develop, are in order to contribute not only to solving the environmental issues like climate change focused by SDGs, but to sustainable development of society and economy. We have established the scheme by making rules including the criterion of the solutions in our original guideline, and we push forward with this activity now.

Special webpage of SDGs Contribution Solutions:

<https://www.fujitsu.com/jp/group/frontech/en/about/sustainability/environment/sdgs/>

### Results of "SDGs Contribution Solutions" in FY2020

In FY2020, we could develop and release totally 7 solutions in actual, as the matrix below:

["SDGs Contribution Solutions" in FY2020]

#	Name of Solutions	Environmental improvement rate*
1	Electronic File Management of Information to be Scrutinized	-98.8%
2	Transaction to Change Phone Number	-59.0%
3	Mobile Stamp Verification / Verification System	-49.5%
4	RFID Management System for Number of Shoppers	-41.7%
5	Transaction System to Designate Denomination and Withdraw	-24.7%
6	Renewal of Systematic Intranet	-20.4%
7	Simulating Solution, "WEB Evaluation Tool"	-20.0%

\* "Environmental improvement rate" indicates the "reduced rate" after the introduction of solutions versus before it, that is, the comparison with "before-and-after" related to CO<sub>2</sub> emissions derived from travel, logistics, working time, electricity consumption of equipment and so on.

### Case Study of "SDGs Contribution Solutions"

#### Electronic File Management of Information to be Scrutinized

##### System summary

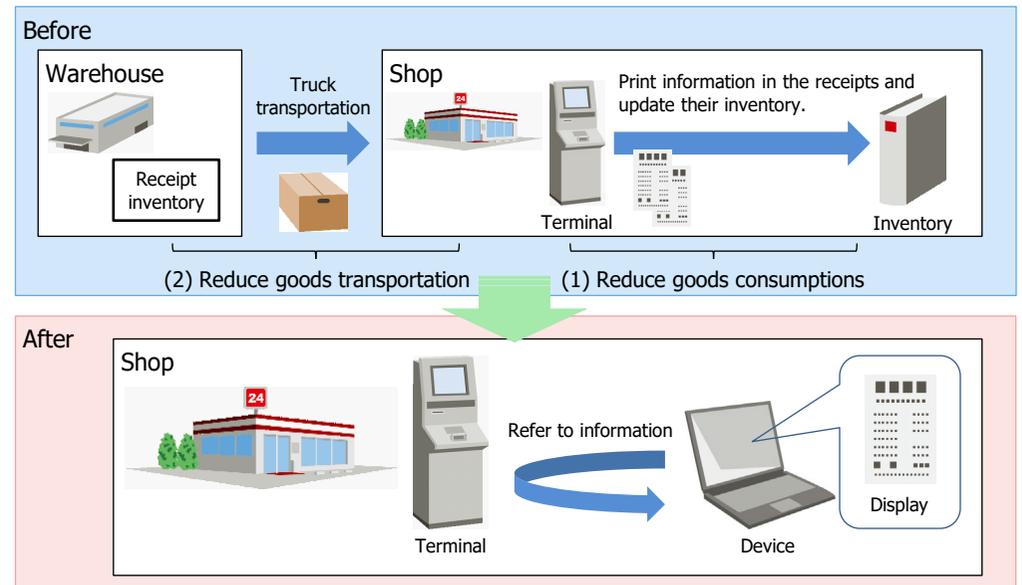
Before introducing our system, staff in a shop have printed information to be scrutinized in receipts and updated their inventory. Due to this operation, a large number of documents including receipts and reports have been transported by using trucks, periodically.

This system enables shop staff to refer and manage the information by using terminals or other devices without printing. Therefore, it can reduce goods consumptions and goods transportation. In addition, it can also reduce CO<sub>2</sub> emissions which affect global warming.

##### Before-and-after of system introduction

Customer can expect the following reduction compared to conventional operation:

- (1) Reduce goods consumptions
- (2) Reduce goods transportation



**12**  
RESPONSIBLE CONSUMPTION AND PRODUCTION

**13**  
CLIMATE ACTION

**Contributable factors to SDGs**

Goal 12: Reduce waste, to minimize the negative impacts on human being and environment throughout product lifecycle.

Goal 13: Reduce CO<sub>2</sub> emissions of customer, by the improvement of productivity and work performance etc. through ICT.

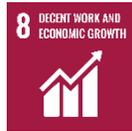
## Stakeholder Engagement

We, one by one, promote CSR together with stakeholders, as "Corporate Citizenship" at each site and Group company in and outside Japan.

### Participation in Local Activities

Sales of vegetables by a local agriculture high school (Kumagaya SSC)

Every year, we invite students of a local agriculture high school in the site, and hold "sales of vegetables", which were grown and harvested by them, in a bit to provide them with valuable experiences of practice for sales. Our employees look forward to this event every time, because they can purchase the delicious vegetables at reasonable prices.



A variety of vegetables on the sales

Social activities in cooperation with industrial park (FDTP: Philippines)

In cooperation with Laguna Technopark Inc. (LTI) which is a management company of the industrial park and other companies there, FDTP holds some events like donation of groceries to flood victims and blood donation.



Donation of groceries to flood victims

Participation in the events of local government (Niigata Plant)

In Niigata Plant, we have participated in "Eco Office Award Initiative" sponsored by Niigata Prefectural Government, continuously since FY2016. Through this initiative, we make an annual plan to reduce CO<sub>2</sub> emissions and submit to the government. And, after finishing 1-year actions based on the plan, we report on the results.

Incidentally, we won the prize named "Certification of Eco Office in Niigata" from the government in November 2019, because of us addressing the reduction of GHG in FY2018.



The prize award ceremony

### Donations

Green Fund (Niigata Plant, TOTALIZATOR ENGINEERING LIMITED)

In our Niigata Plant, we have continuously implemented the fund raising every year since FY2007, to support "Green Fund" activity sponsored by a public interest incorporated association named "Niigata Green 100-year Tale Promotion Committee". We provide the employees who donated, with the seeds of bitter melons and morning glories which have grown in "green curtain", in return.

And, Totalizator Engineering Limited (TEL), our Group company In Japan, has continuously supported "Green Fund" sponsored by a public interest incorporated association named "National Land Afforestation Promotion Organization", since FY2002. TEL has ever donated totally 310,977 JPY. (As of the end of March 2021.)



Fundraising booth (Niigata Plant)

(Detail: <https://www.fujitsu.com/jp/group/frontech/en/about/sustainability/society/sponsors/index.html>)

### Environmental Communication

Received the Excellent Award in the 24th Environmental Communication Awards

"Fujitsu Frontech Group Environmental Report 2020" received the Excellent Award of Climate Change Report (Global Environmental Forum Chairman's Award) as part of the 24th Environmental Communication Awards, which were sponsored by Japanese Ministry of the Environment. The report was highly regarded for promoting initiatives to reduce greenhouse gas emissions throughout its business activities in accordance with its road map towards zero CO<sub>2</sub> emissions by year 2050 and aiming to achieve the target by providing solutions from the perspective of lifecycle.

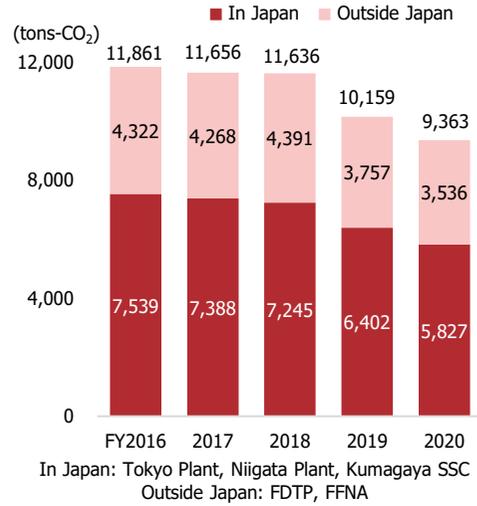


Certificate of commendation and special logo

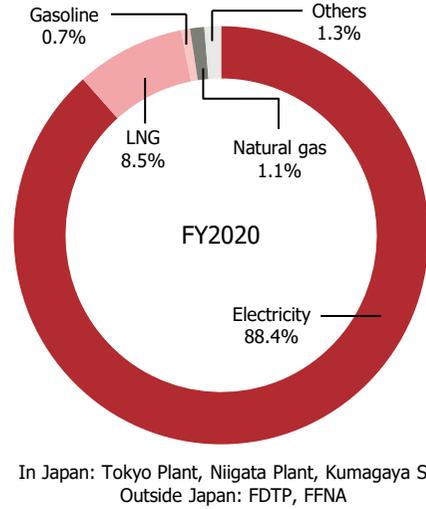


## Environmental Data on Climate Change

### (1) Total GHG emissions

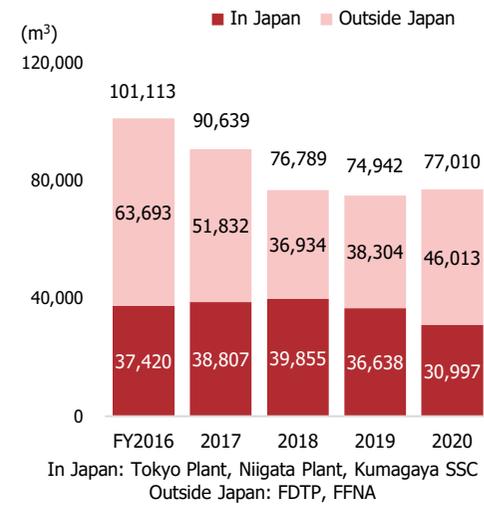


### (2) Ratio of energy use

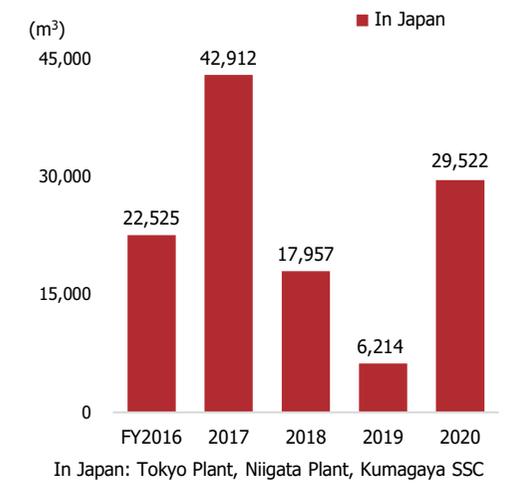


## Water Resources

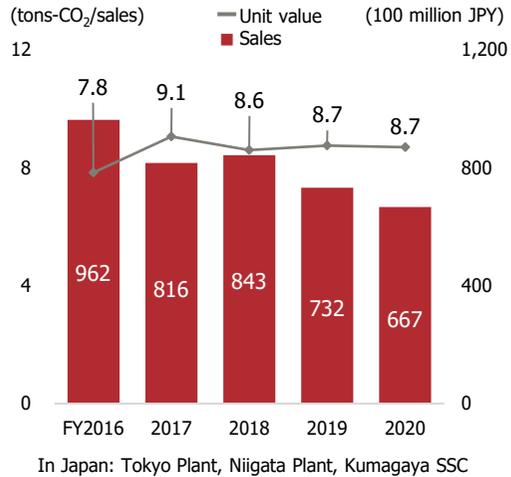
### (1) Tap water



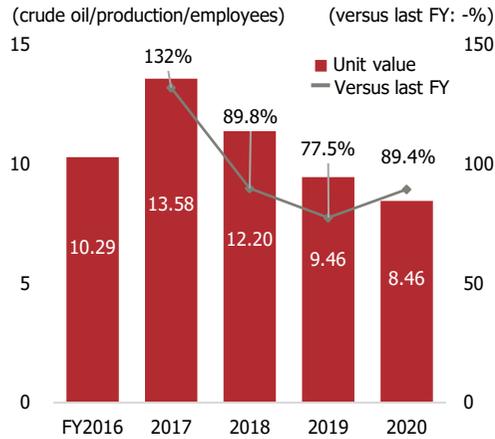
### (2) Ground water (in Japan)



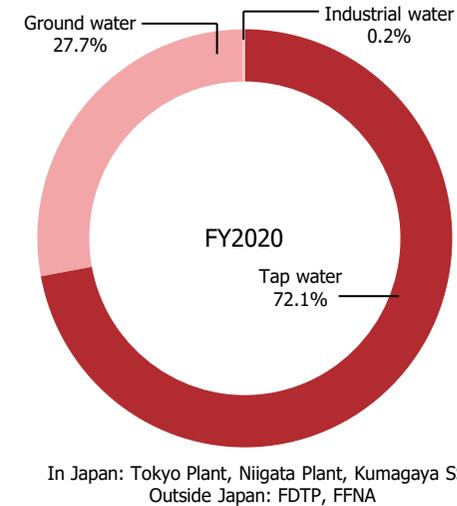
### (3) Unit value of GHG emissions / sales (in Japan)



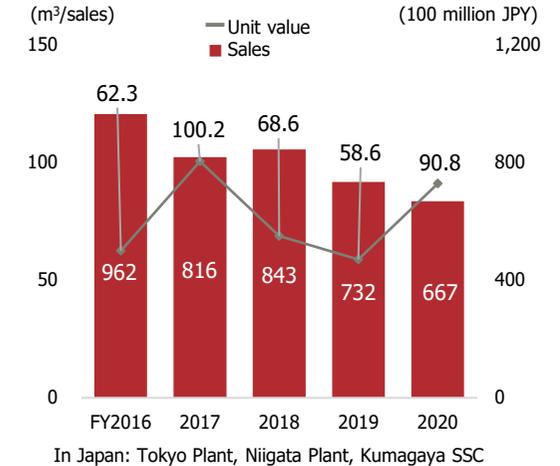
### (4) Unit value of Energy Conservation Act (Niigata Plant)



### (3) Ratio of used water



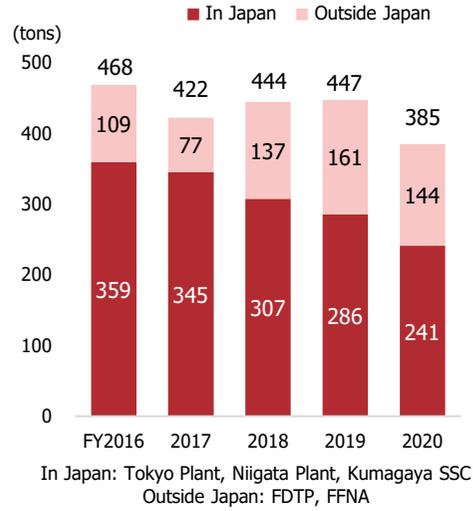
### (4) Unit value of used water / sales (in Japan)



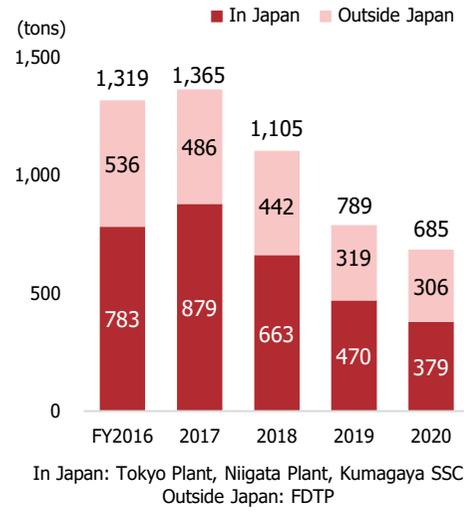
[Status of water stress in countries where we run business (as of October 2021)]  
Mainly north and central China and west coast of U.S. have broad areas of "High" and "Extremely high". Japan and Philippines have only areas of below "Medium-high". (Reference: Data by WRI)

## Resource Circulation

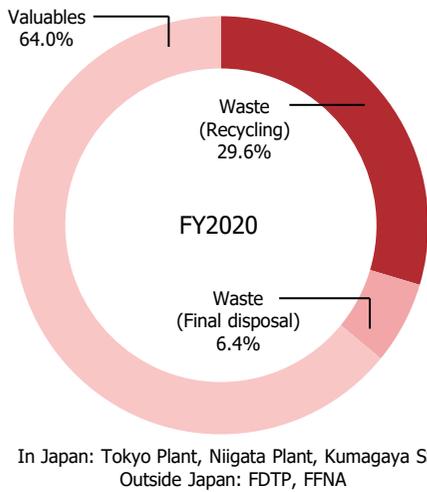
### (1) Waste generations



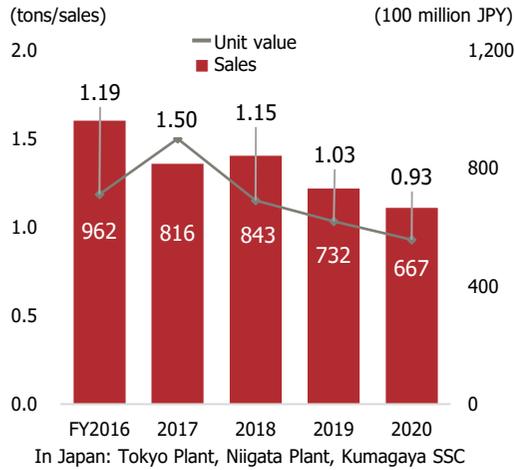
### (2) Sold valuables



### (3) Ratio of waste & valuables

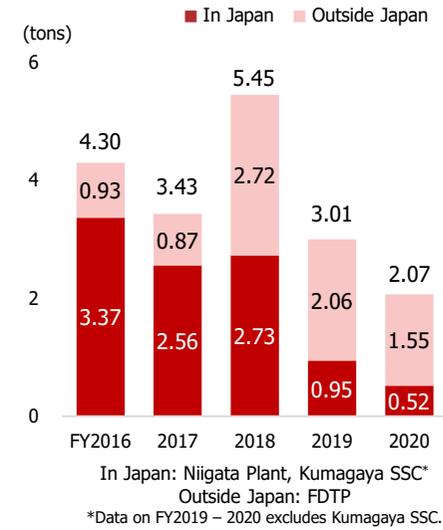


### (4) Unit value of waste & valuables (in Japan)

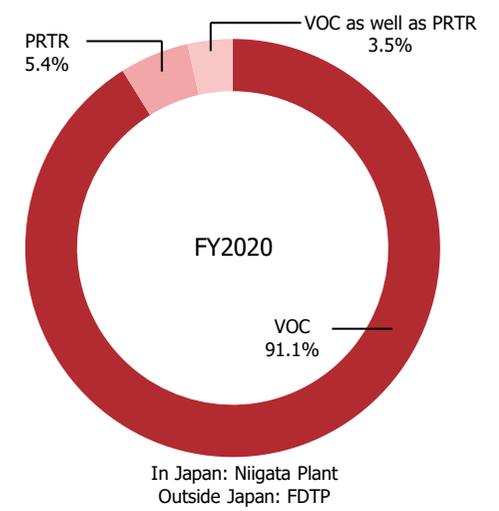


## Chemical Substances

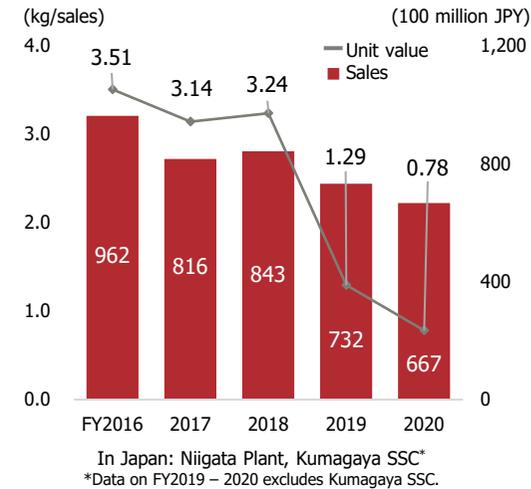
### (1) Treated chemicals



### (2) Ratio of treated chemicals



### (3) Unit value of treated chemicals / sales (in Japan)



### (4) Main chemicals treated (FY2020)

Names of chemicals	Types	Volume (Unit: tons)
In Japan (Niigata Plant)		
Isopropyl Alcohol	VOC	0.239
Ethanol	VOC	0.145
Xylene	VOC	0.030
N-hexane	VOC	0.016
1-Methoxy-2-propanol	VOC/PRTR	0.015
Outside Japan (FDTP)		
Isopropyl Alcohol	VOC	1.554

[About chemicals within the graphs]

They are total values of chemicals whose treated volume is over 100kg per year.

## Value Chain Emissions

We strive to mitigate a wide range of the environmental burden, by grasping total GHG emissions from upstream through downstream and reducing them.

### Value Chain Emissions (Scope 1 – 3)

Unit: tons-CO<sub>2</sub>

Items		FY2018	FY2019	FY2020	
Scope 3 (Upstream)	CAT 01 <sup>*1</sup>	Purchased goods and services	139,263	104,240	100,628
	CAT 02	Capital goods	-- <sup>*2</sup>	--	--
	CAT 03	Fuel and energy-related activities not included in Scopes 1 and 2	601	1,254	1,218
	CAT 04	Transportation and distribution (Upstream)	2,769	2,133	1,651
	CAT 05	Waste generated in operations	202	150	127
	CAT 06	Business travel	1,512	2,807	475
	CAT 07	Employee commuting	1,094	942	1,579
	CAT 08	Leased assets (Upstream)	--	--	--
Scope 1 (Reporting company)		Direct emissions	581	534	1,086
Scope 2 (Reporting company) <sup>*3</sup>		Indirect emissions from energy sources			
		Location-based	11,055	9,625	8,277
		Market-based	10,637	9,204	7,843
Scope 3 (Downstream)	CAT 09	Transportation and distribution (Downstream)	N/A <sup>*2</sup>	N/A	N/A
	CAT 10	Processing of sold products	--	--	--
	CAT 11	Use of sold products	110,902	68,042	74,071
	CAT 12	End-of-life treatment of sold products	N/A	N/A	N/A
	CAT 13	Leased assets (Downstream)	N/A	N/A	N/A
	CAT 14	Franchises	N/A	N/A	N/A
	CAT 15	Investment	N/A	N/A	N/A

\*1: As for CAT 01, Fujitsu Frontech Limited is not included in value chain emissions data disclosed by Fujitsu Limited. Prescribed data is what Fujitsu Frontech Limited calculated originally.

\*2: "--" means items whose calculation methods are not established within our Group. "N/A" means items which we regarded as not applicable to our Group.

\*3: GWP (global-warming potential) of "Location-based" is all "0.57 tons-CO<sub>2</sub>/MWh". GWP of "Market-based" is mainly based on data provided by each local electric power company in the territories where our Group Sites are located.

## Each Site

We make efforts to curb the environmental burden in the whole Group, by grasping each environmental data in our Sites and Group companies.

### Each Environmental Data in Main Bases

Bases (Address)		Main Business	CO <sub>2</sub> emissions* <sup>1</sup> (tons-CO <sub>2</sub> )		Water resources* <sup>2</sup> (m <sup>3</sup> )		Waste generations* <sup>3</sup> (tons)		Treated chemicals* <sup>4</sup> (tons)	
			FY2019	FY2020	FY2019	FY2020	FY2019	FY2020	FY2019	FY2020
In Japan	Headquarters / Tokyo Plant (Inagi-shi, Tokyo)	Development, Design and Sales of Financial Retail, Industrial and Public Systems	1,389	1,309	13,373	9,119	91	60	--	--
	Niigata Plant (Tsubame-shi, Niigata Prefecture)	Manufacture of Financial, Retail, Industrial and Public Systems	3,132	2,965	16,175	39,581	457	384	0.95	0.52
	Kumagaya Service Solution Center (Kumagaya-shi, Saitama Prefecture)	Outsourcing, Help Desk, and Repair Services of Financial and Retail Systems	1,882	1,553	13,304	11,819	207	176	--	--
	Omiya Solution Center (Saitama-shi, Saitama Prefecture)	Development of Financial, Industrial and Public System Solutions	61	47	--	--	3.2	2.4	--	--
	Fujitsu Frontech Systems Limited (Maebashi-shi, Gunma Prefecture)	Development of Software and Solutions	431	403	3,878	3,920	15	9	--	--
	Totalizator Engineering Limited* <sup>5</sup> (Shinagawa-ku, Tokyo)	Maintenance of totalizator systems, development and sales of operation services and support systems for public racing courses	254	234	1,639	1,096	52	39	--	--
Outside Japan	Fujitsu Frontech North America Inc. (U.S.A)	Sales and repair services of mechanical components, sales of RFID solutions and palm vein authentication devices, development and sales of multimodal biometrics authentication platforms, development, manufacturing and sales of self-checkout solutions, and contract manufacturing services	281	269	374	335	126	114	--	--
	Fujitsu Die-tech Corporation of The Philippines (Philippines)	Manufacturing and sales of metal molds and mechanical components	3,476	3,267	38,637	45,897	354	336	2.06	1.55
	Fujitsu Frontech (Shanghai) Limited (China)	Sales of mechanical components, RFID, and palm vein authentication systems	29	23	445	392	0.1	0.1	--	--

\*1: GWP of purchased electricity is all "0.57 tons-CO<sub>2</sub>/MWh". And, our tenant bases have no use of energy except purchased electricity.

\*2: This is total use of tap water, ground water and industrial water. However, our tenant bases have no use except tap water. And, Omiya Solution Center has no data because of sharing water together with other tenant companies.

\*3: This is total generations of waste (recycling, final disposal) and valuables.

\*4: This only includes chemicals whose treated volume exceeds 100kg per year. And, each data is total volume of VOC and PRTR. Moreover, if a chemical is applicable to both VOC and PRTR, it is counted as only VOC.

\*5: This includes the environmental data on Omori Office of Fujitsu Frontech Limited, which resides in the same building as a tenant.

## Supplements of Environmental Data

### Page XV – XVI (Climate Change, Water Resources, Resource Circulation, Chemical Substances)

Items of Environmental Data	Explanation (Scope, background of data etc.)
Climate Change (Left of page XV)	Applied to sites which are included in SBTi etc. that Fujitsu Group discloses to. And, conversion factor from purchased electricity consumptions to CO <sub>2</sub> is all "0.57 tons / MWh".
(1) Total GHG emissions	Data of FY2016 – 2018 includes data on former Fujitsu Kumagaya Plant.
(2) Ratio of used energy (FY2020)	"Others" include Town gas, LPG, Light oil and Kerosene.
(3) Unit value of GHG emissions / sales	Divided total GHG emissions by non-consolidated sales.
(4) Unit value of Energy Conservation Act	Values submitted as "Type 2 Designated Energy Management Factory".
Water Resources (Right of page XV)	Applied to sites which are included in CDP, DJSI (Dow Jones Sustainability World Index) etc. that Fujitsu Group discloses to.
(1) Tap water	Data of FY2016 – 2018 includes data on former Fujitsu Kumagaya Plant.
(2) Ground water	Increase in FY2017 was due to the use to melt much snow in Niigata Plant.
(3) Ratio of used water (FY2020)	"Industrial water" is used only in FDTP (Philippines).
(4) Unit value of used water / sales	Divided the total volume of used water by non-consolidated sales.
Resource Circulation (Left of page XVI)	Applied to sites which are included in CDP, DJSI etc. that Fujitsu Group discloses to.
(1) Waste generations	Data of FY2016 – 2018 includes data on former Fujitsu Kumagaya Plant.
(2) Sold valuables	Sold mainly metal scrap and used paper.
(3) Ratio of waste & valuables (FY2020)	"Final disposal" means landfill of the unrecyclable sludge etc.
(4) Unit value of waste & valuables / sales	Divided the total volume of waste and valuables by non-consolidated sales.
Chemical Substances (Right of page XVI)	Applied to sites which are included in CDP, DJSI etc. that Fujitsu Group discloses to. Treated chemicals include "emissions to air", "consumptions", "removed / reprocessed" and "recycling".
(1) Treated chemicals	Data of FY2016 – 2018 includes data on former Fujitsu Kumagaya Plant.
(2) Ratio of treated chemicals (FY2020)	"VOC as well as PRTR" is a chemical subject to both VOC and PRTR.
(3) Unit value of treated chemicals / sales	Divided the volume of treated chemicals by non-consolidated sales.
(4) Main chemicals treated (FY2020)	Used mainly for cleansing.

#### [Terms of definition]

- SBTi : An initiative jointly established by the United Nations Global Compact, WRI (World Resources Institute), and other organizations in 2015. It encourages companies to set GHG emission reduction targets consistent with science-based evidence to the level required by the Paris Agreement, validating targets that comply with criteria.
- GHG Protocol : It provides standards, guidance, tools and training for business and government to measure and manage climate-warming emissions.
- CDP : A not-for-profit charity running the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.
- DJSI : Stock market indices jointly launched by S&P Dow Jones and RobecoSAM. They select enterprises excellent for sustainable business, by assessing from the viewpoint of 3 core elements, which are Economy, Environmental and Social.
- VOC : Acronyms for "Volatile Organic Compounds".
- PRTR : Acronyms for "Pollutant Release and Transfer Register", governed by METI, Japan.

### Page XVII (Value Chain Emissions – Scope 3)

CATs	Scope	Calculation Methods
01	In Japan	Components purchased during the fiscal year x Emissions per unit of purchase*2
02	--	--
03	Main 5 Sites*1	Annual amounts of fuel oil and gas, electricity and heat purchased (consumed) at mainly business sites owned by Fujitsu Frontech Group x Emissions per unit*3, *4
04	- Niigata Plant (in Japan) - FFNA (outside Japan)	In Japan: CO <sub>2</sub> emissions related to transportation of goods in Japan by Fujitsu Frontech Limited*5 Outside Japan: Transportation ton-kilometer x Emissions per unit*6
05	Main 5 Sites	Annual amounts of waste (discharged mainly by business sites owned by Fujitsu Frontech Group) processed or recycled by type and processing method x Emission per unit of annual amounts of waste processed or recycled*3
06	In Japan	(By means of transportation) Σ (Transportation expense payment x Emission per unit)*3, *7
07	In Japan	(By means of transportation) Σ (Transportation expense payment x Emission per unit)*3, *7
08	--	--
09	N/A	N/A
10	--	--
11	Global	Electricity consumption during product use x emissions per unit of electricity*8
12	N/A	N/A
13	N/A	N/A
14	N/A	N/A
15	N/A	N/A

\*1: 3 Sites in Japan (Headquarters / Tokyo Plant, Niigata Plant, Kumagaya SSC) and 2 Sites outside Japan (FDTP, FFNA)

\*2: Source - Embodied Energy and Emissions Intensity Data (3EID) published by the National Institute for Environmental Studies Center for Global Environmental Research

\*3: Source - Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain published by Ministry of the Environment and Ministry of Economy, Trade and Industry

\*4: Source - the Carbon Footprint Communication Program Basic Database

\*5: Source - CO<sub>2</sub> emissions related to domestic transportation by Fujitsu Frontech Limited, based on the Act on the Rational Use of Energy. The fuel economy method (for some vehicle) or the improved ton-kilometer method (vehicle, trail, air).

\*6: Source - GHG Protocol emissions coefficient database

\*7: Source - Database of emissions unit values published by Ministry of the Environment and Ministry of Economy, Trade and Industry

\*8: Source - The Electric Power Council for a Low Carbon Society

## Environmental Compliance

We respond to environmental compliance thoroughly, like setting original criterion stricter than legal ones, to mitigate the environmental risks such as contamination, destruction of ecosystem and climate change to the minimum.

### Actions on Climate Change

#### Response to "Act on Rationalizing Energy Use"

We are designated as a "specified business" (which consumes energy equivalent to crude oil of no less than 1,500kl) defined by "Act on Rationalizing Energy Use", we take actions on the voluntary target required by this act which defines "To let energy consumption per unit be improved to 1% or more on average annually", and report to the government regularly. Incidentally, we have been awarded "S Class (an excellent enterprise)" for 6 consecutive years in "Classification and Evaluation Scheme of Enterprise" which had been established since FY2016 based on the act.

#### Response to "Act on Rational Use and Proper Management of Fluorocarbons"

We, following the enforcement of "Act on Rational Use and Proper Management of Fluorocarbons" from April 2015, established in-house structure like a special management department, so that we can manage class I specified products (mainly industrial air conditioners and refrigerators) properly, including the calculation of amount of leaked fluorocarbons. And, we also take measures like the simple inspection at each division owning class I specified products thoroughly, to curb GHG emissions caused by leaked fluorocarbons. (Details: <https://www.fujitsu.com/jp/group/frontech/en/about/sustainability/environment/compliance/>)

### Pollution Prevention

We perform environmental measurement including water quality, on a regular basis, and take corrective actions as needed. The main results in FY2020 are, as follows:

#### Results in FY2020

##### Measurement of "Ground water" (Regular monitoring)

Unit: mg/l

Measured Item	Site	Legal Sta.	Results	Note
Arsenic	Niigata Plant	0.01	Below Sta. - 0.033	As for Arsenic which had exceeded legal standard in Niigata Plant, we regarded as natural origin because we have never used it before.

##### Measurement of "Discharged water" (Regular monitoring)

Unit: Per 1 liter

Measured Item	Site	Legal Sta.	Results	Note
Concentration of Hydrogen Ions (pH)	Niigata Plant	5.8 - 8.6	6.3 - 10.7	This was due to tentative impacts by the construction inside the plant, which took place in time of us performing this measurement. After that, we cleaned the side ditches up and could confirm the values being corrected.
Suspended Solids - SS (mg)		200	Below Sta. - 410	

[The other measured items and results in other bases]

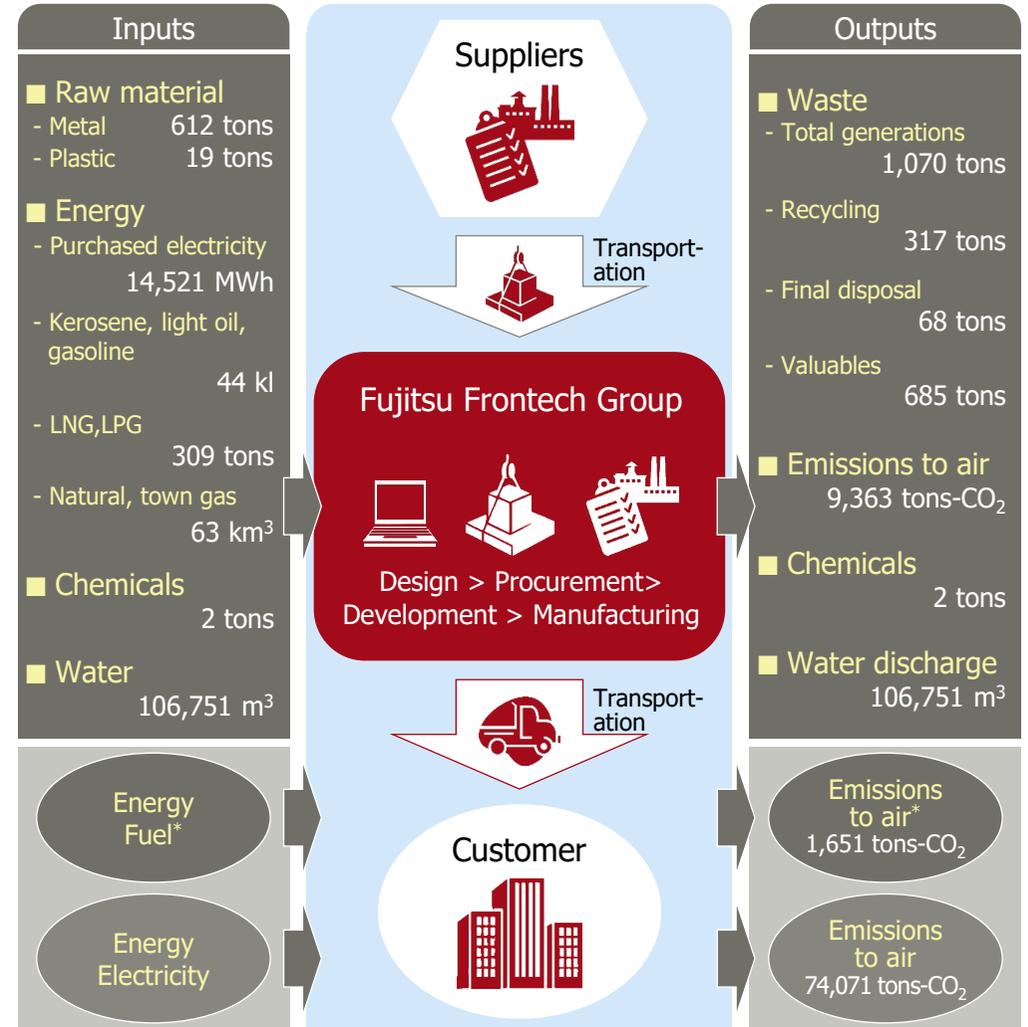
We had no any other deviation except the above results including Tokyo Plant and Kumagaya SSC.

(Detail: <https://www.fujitsu.com/jp/group/frontech/en/about/sustainability/environment/data/#pollution>)

## Material Balance

We promote our eco-friendly business as well as capture our environmental performance in the whole value-chain.

### [Material Balance (FY2020)]



[Scope]

In Japan: Tokyo Plant, Niigata Plant, Kumagaya SSC Outside Japan: FDTP, FFNA

\* "Energy Fuel" of Inputs and its "Emissions to air" of Outputs are the sum of Niigata Plant and FFNA.

## Sales Offices / Main Facilities / Group companies

### Main Facilities

#### Headquarters / Tokyo Plant

1776 Yanokuchi, Inagi-shi, Tokyo 206-8555

#### Niigata Plant

17-8 Yoshidahigashisakae-cho, Tsubame-shi,  
Niigata Prefecture 959-0294

#### Omiya Solution Center

Omiya JP Bldg, 1-11-20 Sakuragi-cho, Omiya-ku,  
Saitama-shi, Saitama Prefecture 330-0854

#### Kumagaya Service Solution Center

1224 Nakanara, Kumagaya-shi, Saitama Prefecture 360-0801

### Sales Offices

#### Headquarters / Tokyo Plant

1776 Yanokuchi, Inagi-shi, Tokyo 206-8555 [Sales headquarters]

#### Omori Office

East Square Omori, 6-20-14 Minamioi, Shinagawa-ku,  
Tokyo 140-0013

#### Chubu Branch

JR Gate Tower, 1-1-3 Meieki, Nakamura-ku, Nagoya-shi,  
Aichi Prefecture 450-6631

#### Nishinohon Branch

Osaka Tokio Marine & Nichido Building, 2-2-53 Shiromi,  
Chuo-ku, Osaka-shi, Osaka Prefecture 540-0001

#### Kyushu Branch

Higashihie Business Center, 3-1-2 Higashihie, Hakata-ku,  
Fukuoka-shi, Fukuoka Prefecture 812-0007

### Group companies

#### In Japan

#### **TOTALIZATOR ENGINEERING LIMITED (Shinagawa-ku, Tokyo)**

Maintenance of totalizator systems, development and sales of operation services and support systems for public racecourses

#### **FUJITSU FRONTECH SYSTEMS LIMITED (Maebashi-shi, Gunma Prefecture)**

Development of software related solutions and services

#### **LIFE CREATE LIMITED (Inagi-shi, Tokyo)**

Welfare programs, facilities management and logistics services

#### Outside Japan

#### **FUJITSU DIE-TECH CORPORATION OF THE PHILIPPINES (Laguna, Philippines)**

Manufacturing and sales of mechanical components and metal molds

#### **FUJITSU FRONTECH CHUNGHO GLOBAL PRODUCTS Co. Ltd. (Gyeonggi province, South Korea)**

Development, manufacturing and sale of cash handling equipment (ATMs, CDs, adjustment machines, cash deposit machines, etc.)

#### **Fujitsu Frontech North America Inc. (California, U.S.A.)**

Sales and repair services of mechanical components, sales of RFID solutions and palm vein authentication devices, development and sales of multimodal biometrics authentication platforms, development, manufacturing and sales of self-checkout solutions, and contract manufacturing services

#### **FUJITSU FRONTECH (SHANGHAI) LIMITED (Shanghai, China)**

Sales of mechanical components, RFID, and palm vein authentication systems

## Matrix of Response to “Environmental Reporting Guidelines 2018”

### [About the Structure of This Report]

To create this report, we use the data as much as possible to disclose as of now, referring to “Environmental Reporting Guidelines 2018” issued by Ministry of the Environment. The following information is to clarify which page(s) in this report is relevant to which item(s) defined by the guideline:

#	Items	Relevant Pages
(1) Basic information of environmental reporting		
1	Basic requirements for environmental reporting	01
2	Trends in key performance indicators	15 – 19
(2) Items to be reported in environmental reporting		
1	Top management's commitments	01, 02
2	Governance	03, 04, 08
3	Stakeholder engagement	06, 10, 11, 14
4	Risk management	04, 08
5	Business model	02, 03, 11 – 13
6	Value chain management	11, 17, 20
7	Long-term vision	02, 08 – 10

#	Items	Relevant Pages
8	Strategy	02, 05 – 10
9	Methodology for identifying material environmental issues	02, 04, 08
10	The entity's material environmental issues	01, 02, 04 – 10
[Reference] Major environmental issues and their performance indicators		
1	Climate change	05 – 09, 15, 17, 18
2	Water resources	15, 18
3	Biodiversity	05, 06, 14
4	Resource circulation	05 – 07, 16, 18
5	Chemical substances	16, 18
6	Pollution prevention	20

\* “Environmental Reporting Guidelines 2018” is uploaded on the following Website of Ministry of the Environment:

URL: [http://www.env.go.jp/policy/j-hiroba/kigyo/2018Guidelines\\_E20190412.pdf](http://www.env.go.jp/policy/j-hiroba/kigyo/2018Guidelines_E20190412.pdf)



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