Environmental Action Plan

Fujitsu Group Environmental Action Plan

Operating Environment and Growth Strategy

Changing Environmental Activities in Line with Our Business Model Transformation

Originally a manufacturer of telecommunications equipment, Fujitsu developed into a global ICT enterprise with vertically integrated operations in three sectors: Technology Solutions offers a range of IT-based services and solutions, Ubiquitous Solutions designs and manufactures products such as PCs and mobile phones, and Device Solutions is responsible for developing the semiconductor business. Structural reforms undertaken since FY 2015 have channeled most management resources into the core sector of Technology Solutions. In FY 2019, Fujitsu repositioned itself as a Digital Transformation (DX) enterprise that aims to make full use of digital technologies in the creation of innovative services and business processes.

The nature of the Fujitsu Group's environmental impact has changed as a result of this modified business model. As an example, most energy consumption in the past was linked to the manufacture of PCs and our semiconductor and electronic component operations, but that requirement is declining significantly. Conversely, the expansion of cloud computing and the Internet of Things (IoT) is driving increased power consumption in data centers, and this growing trend is expected to continue. We are therefore focusing at present on energy conservation, efficiency enhancements and the use of renewable energy in our data centers. In this way, the Fujitsu Group is implementing environmental activities that respond to the demands of society while also supporting the corporate growth strategy.

Operating as a Responsible Global Corporate Citizen

Recent years have seen a further ramping up of demand for initiatives aimed at building sustainable communities on a global scale, including the adoption of the Sustainable Development Goals (SDGs) by the United Nations and the coming into effect of the COP 21 Paris Agreement. The Fujitsu Group employed a materiality analysis in a Groupwide review designed to enhance the effectiveness of activities that aim to contribute to sustainable development. This analysis identified six priority issues including the environment; human rights, diversity and inclusion; wellbeing; and supply chain. The result is a unified framework under the banner of Global Responsible Business (GRB), which will oversee activities that strengthen initiatives in non-financial areas while striving for 'sustainability management' worthy of a responsible global corporate citizen.

History of the Environmental Action Plan

Environmental Awareness Contributes to Sustainability for Our Customers and Society

The Fujitsu Group has formulated an Environmental Action Plan since 1993 and continues to broaden the scope of its environmental activities. Between stages I and V (FY 1993-2009) the objective was to significantly reduce the environmental impact of the Fujitsu Group itself. Far-reaching measures were implemented throughout our factories and offices to cut CO_2 emissions and chemical pollutants, to reduce waste, and so on. In stage VI (FY 2010-2012), we expanded the focus of our activities to three important initiatives. In addition to strengthening measures to lessen our own impact on the environment, we supported similar efforts by customers and society as a whole and also took on the challenge of conserving biodiversity. Between stages VII and IX (FY 2013-2020), we clearly demonstrated our commitment to contributing to the resolution of environmental issues faced by customers and society through the use of ICT. In order to reduce our own environmental impact, we expanded the scope of our activities to cover the entire supply chain, including suppliers. In stage X (FY 2021-2022), we worked to promote and expand the use of renewable energy for our customers and society by utilizing leading-edge ICT technologies unique to the Fujitsu Group, such as the introduction of renewable energy at our business sites through CPPA and other means, and blockchain technology.

The Fujitsu Group will continue responding to the demands of changing times and will deepen and further develop its environmental activities with the goal of helping to create a sustainable and rewarding society.

Fujitsu Group Environmental Action Plan (Stage XI)

Social responsibility as a leading company in Sustainability Transformation (SX)

As a leading company in SX, Fujitsu Group is committed to reducing the environmental impact of its group companies, including those in the supply chain, and to expanding and enhancing the value it provides to customers and society through technology. We will work with our customers and partners to realize a sustainable future.

Outline of the Fujitsu Group Environmental Action Plan (Stage XI)

In order to resolve environmental and social issues, we have set eight targets in three global risks areas highlighted by the World Economic Forum: " Climate Change," " Resource Circulation," and " Living in Harmony with Nature ". These are mapped against the two values of " Customers and Society " and " Fujitsu and Supply Chain".

Fujitsu group is taking firm steps to realize its environmental vision, such as contributing to digital technology for customers and society and increasing the ratio of its own use of renewable energy.

(Reference: [Global Risks Report 2023](#))

Target period

3 years from Fiscal year 2023 to Fiscal year 2025

Customers and Society

Fujitsu aims to transform its core business with a portfolio of offerings focused on ESG Contribution and SX by 2030. In particular, to solve environmental issues in the areas of climate change and carbon neutrality, resource recycling through circular economies, and biodiversity, we will connect stakeholders from across society and industries and contribute to the SX of customers and people around the world. In FY 2023, we will develop environmental contribution metrics to measure our impact on the environment, allowing us to provide services with clear contributions and value. From FY 2024, we will measure and disclose the quantitative amount of our contribution. Furthermore, as an SX leader and to realize a sustainable society in which no one is left behind, we will develop solutions, services and initiatives that contribute to SX, deliver objective environmental metrics and earn the trust and recognition of global customers and society.

Fujitsu and Supply Chain

Climate Change

In order to achieve Net Zero (*1) emissions of greenhouse gases from our business activities and from the entire value chain, we set reduction targets for FY2025.

This will be achieved through the strategic introduction of renewable energy and the development of energy conservation through the use of advanced ICT. At the same time, we will also promote the understanding and reduction of the environmental impact of suppliers, as well as further energy saving of our products.

*1 Net Zero Greenhouse Gas Emissions: Reduce greenhouse gas emissions by 90% or more from the base year in the target year and remove residual emissions of 10% or less by directly recovering CO_2 from the atmosphere (DAC) or by absorbing CO_2 through planting trees.
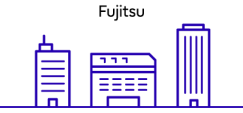
Resource Circulation

We aim to develop these products and services in FY 2025 in order to design products that conserve resources and improve the resource recycling rate, and to build a circular economy business model that can overcome resource constraints. We will also continue to reduce water use and raise awareness of water resource conservation throughout the supply chain.

Living in Harmony with Nature

In order to achieve nature-positive results, we will implement activities to reduce negative impacts on biodiversity and increase positive impacts in the areas of our corporate activities, including supply chains, in response to the 2030 International Biodiversity Targets 15 of the Kunming-Montreal Framework.

Environmental Action Plan

	Customers and Society	Fujitsu and Supply Chain		
	Business Field	**Upstream Business**	**Fujitsu's Business Areas**	**Downstream Business**
			Fujitsu	
Climate Change	Development and provision of solutions that contribute to SX	Suppliers' GHG reduction (Well Below 2 ℃ target)	• Reduction of GHG emissions at business sites (1.5 ℃ target) • Increase the use ratio of renewable energy	By reducing power consumption during product use Reduction of GHG emissions
Resource Circulation		Enhancing suppliers' awareness of water resource conservation	Reduction of water consumption	To product resource conservation and resource recycling Improving resource efficiency
Living in Harmony with Nature		Reducing negative impacts of corporate activities on biodiversity		

Environmental Action Plan Targets

Goal				Base Line	Targets for FY2025
Customers and Society			• FY 2023: Environmental contribution metrics will be developed. FY 2024 to FY 2025: The amount of contribution will be measured and disclosed. • To earn the objective recognition of global customers and society as an SX leader.	_	Deliver SX offerings to customers
Fujitsu and Supply Chain	Climate Change (*2)	Scope 1,2	Reduce GHG emissions at business sites by half of the base year by the end of FY2025 • Increase use ratio of renewable energy to 50% or more by 2025	FY 2020	Reduction of at least 50%
		Scope 3 (Category 11)	Reduce CO_2 emissions from power consumption during product use by 12.5% or more	FY 2020	Reduction of at least 12.5%
		Scope 3	Reducing GHG emissions in the supply chain	_	Goal setting completed

		(Category 1)	• Major business partners should set emission reduction targets (equivalent to SBT Well Below 2 °C target). • Collection of GHG reduction data, construction and deployment of mechanisms		
	Resource Circulation		Development of products and services that contribute to a circular economy business model	—	CE Business Products Service Development
			Reduce water consumption by 57,000 m^3 or more by implementing water reduction measures	—	57,000 m^3 or more
			Strengthening awareness of water resource conservation in the upstream supply chain • Requesting our major suppliers to make efforts to raise their awareness of the importance of water resources	—	Request Completed
	Living in Harmony with Nature		Reduce negative impacts on biodiversity in the areas of corporate activities, including supply chains, by at least 12.5% In addition, promote activities that increase positive impacts on biodiversity	FY 2020	Reduction of 12.5% or more

*2 Climate Change: Scope 1, 2 and 3. adjusted for acquisitions and divestitures

Fujitsu Group Environmental Action Plan (Stage X)

The Fujitsu Group had specified targets that address the three global societal challenges of climate change, resource circulation and living in harmony with nature (conservation of biodiversity). As we undertake workstyle reforms and restructure our business operations, we will focus on these targets over the two-year period from FY 2021 to FY 2022 by working to minimize negative environmental impacts in the supply chain.

We report the results below.

	Targets (to be achieved by FY2022)	FY2022 results
Climate Change		
1	Reduce greenhouse gas (GHG) emissions from business sites each year by 4.2% or more, compared with the base year of FY2013	10.5% reduction (47.5% reduction compared to baseline year) (*1)
2	Improve PUE (Power Usage Effectiveness) of our data centers by 3%, compared with FY2017	PUE 1.57 - Improvement of 1.2%
3	Increase renewable energy usage to 16% of total electricity	30.0%
4	Reduce CO_2 emissions due to power consumption during product usage by 17% or more, compared with FY2013	Reduced by 25%
5	Drive activities to reduce CO_2 emissions in the upstream supply chain.	Requested that secondary suppliers (over 61,000 companies) engaged in activities to reduce emissions through primary suppliers of the Fujitsu Group (676 companies)
Resource Circulation		
6	Promote eco design for resource saving and circulation and increase resource efficiency of newly developed products by 10% or more, compared with FY2019	Improved by 11.2%
7	Reduce water usage by 30,000 m^3 or more by implementing water resource conservation measures	Water consumption was reduced 31,000 m^3 (target for FY 2022: 19,000 m^3)
8	Reinforce awareness of the need to conserve water resources in the upstream supply chain	Requested that 676 of the Fujitsu Group's primary suppliers engage in activities to conserve water
Living in Harmony with Nature (Conservation of Biodiversity)		
9	Visualize and reduce the impact of corporate activities on ecosystems and on biodiversity	Establishment of a calculation method that uses Ecological Footprint (EF) as the indicator for visualizing the impact of corporate activities on biodiversity

*1 Reduction rate based on market standards

Environmental Action Plan

Climate Change

External Trends

Accelerated Controls on GHG Emissions are Required for Carbon Neutrality

The COP 21 Paris Agreement, adopted in December 2015, set out a long-term, shared worldwide goal of

limiting the average global temperature increase to considerably less than 2℃ and preferably 1.5℃ over pre-

Industrial Revolution temperatures, as well as the goal of carbon neutrality (net zero emissions) by the second half of this century (2050). Correspondingly, moves aimed at achieving a carbon neutral society have been accelerating on a global scale. Subsequently, the COP26 Glasgow Accords strengthened the 1.5°C target adopted under the Paris Agreement and shifted the standard for global climate change measures to the 1.5°C target.

Given this impetus, efforts towards achieving a carbon-neutral society are accelerating on a global scale.

The Task Force on Climate-related Financial Disclosures (TCFD) was established in December 2015 by the Financial Stability Board, which includes participants representing central banks, financial regulatory authorities and finance ministries from major countries. The TCFD requests companies to use multiple climate scenarios to evaluate the climate-related risks and opportunities to their business and to assess and disclose the financial impact. Various international initiatives have also been launched, such as the Science Based Targets initiative

(SBTi), which calls for corporate emissions reduction goals designed to meet the 1.5℃ target, and RE100,

which calls for companies to source 100% of the electricity they use from renewable energy. Furthermore, CDP (*1), which runs the global disclosure system for investment that takes into account Environmental, Social and Governance (ESG) factors, requests that companies reduce GHG emissions by at least 2.1% year-on-year through voluntary efforts.

(*1) CDP: An international not-for-profit organization providing the only global system for companies and cities to measure, disclose, manage, and share vital environmental information. CDP works with major institutional investors around the world to encourage companies to disclose their impact on the environment and natural resources and to adopt measures that mitigate the impact.

Fujitsu Group Position

GHG Emissions Reductions are a Critical Issue for the Fujitsu Group

The Fujitsu Group, as an entity with global operations, is fully aware that climate change is a serious worldwide issue that spans national and regional boundaries. For example, disasters triggered by climate change can disrupt procurement, logistics and energy supply networks, which in turn interrupts the process of supplying materials and energy to business sites. Regulations governing GHG emissions have an impact on the development and production of products and services, and any delays in responding to requirements can lead to lost business opportunities.

Since launching the Fujitsu Group Environmental Action Plan, we have treated the reduction of GHG emissions as a critical issue and worked to achieve the defined targets.

Most of the GHG emissions generated by the Fujitsu Group derive from purchased electricity, not from the combustion of oil or gas. Advances in 5G technology will lead to the expansion of cloud computing, IoT and mobile communications, thereby spurring increased power consumption in data centers, and this growing trend is expected to continue. We are therefore focusing on reducing power consumption by conducting energy conservation audits and regular power usage checks in our data centers, as well as in our factories and production lines in Japan and elsewhere.

Approach under the Fujitsu Group Environmental Action Plan (Stage XI)

Strengthen Efforts to Achieve Carbon Neutrality

In May 2017, the Fujitsu Group formulated the FUJITSU Climate and Energy Vision, its medium- to long-term environmental vision. In August of the same year, the company obtained SBT certification for 2°C-aligned GHG emissions reduction targets. The SBTi aims to significantly reduce greenhouse gases over the medium to long term by encouraging companies to set voluntary GHG emissions reduction targets based on scientific knowledge compiled by organizations such as the IPCC (*2). Given the accelerating global trend toward carbon neutrality, the Fujitsu Group reviewed its position and revised its target to reduce GHG emissions from business sites in FY2030 from 33% to 71.4% below FY2013 levels. On April 15, 2021, this revised figure was successfully validated as a 1.5°C-aligned target by SBTi. To further accelerate our carbon neutrality as a global company, including our supply chains, we committed to expanding our use of renewable energy and achieving net zero GHG emissions in our business activities by FY2030 and throughout our value chain (scope 1, 2 and 3 emissions) by FY2040.

In June 2023, our target of net-zero by FY2040 obtained "Net-Zero Target certification" under the SBTi standard.

Working backwards from our future GHG emissions reduction targets, we have formulated our Fujitsu Group Environmental Action Plan (Stage XI) as the implementation plans for our environmental targets between FY2023 and FY2025. To achieve carbon neutrality, we are aiming for at least 50% of the energy used by our businesses to be from renewable sources by FY2025, with a target of 100% by FY2030. At the same time, we are working towards achieving net-zero GHG emissions across the entire value chain through measures such as identifying the environmental impacts of our suppliers and promoting emissions reductions, and by further reducing energy consumption by Fujitsu products.

From April 1, 2021, the largest facility in the Fujitsu Group, the Kawasaki Factory, switched over to 100% renewable energy for power consumed. As such, it serves as a flagship model for the Fujitsu Group as we focus on the future adoption of renewable energy in Japan. This initiative accounts for approximately 5% of the electricity used by the Fujitsu Group in Japan. In April 2022, Fujitsu Australia signed the Fujitsu Group's largest ever Power Purchase Agreement (PPA) for renewable energy, which will ensure that around 40% of Fujitsu Australia's annual power consumption comes from renewable sources.

In addition, Fujitsu intends to continue boosting purchases of green energy and renewable energy certificates, after considering relevant regional characteristics and the economic feasibility, and to implement more on-site renewable energy capacity. Use of the Fujitsu Group's leading-edge technological expertise in areas such as blockchain technology will also contribute to the spread and expansion of renewable energy.

(*2)   Intergovernmental Panel on Climate Change (IPCC): An organization established in 1988 by the United Nations Environment Programme (PDF) (UNEP) and the World Meteorological Organization (PDF) (WMO) with the aim of providing comprehensive assessments of human-induced climate change and its impacts, together with adaptation and amelioration measures from scientific, technological and socio-economic perspectives.

(*3)   Net zero: The elimination of greenhouse-gas emissions through emissions reductions of at least 90% by the target year and removing the remaining 10% or less through measures such as reforestation or Direct Air Capture (DAC) of CO_2 in the atmosphere.

RELATED LINKS

Actions and targets related to climate change initiatives under the Fujitsu Group Environmental Action Plan (Stage XI)

> Reducing Greenhouse Gas (GHG) Emissions at Our Business Sites

> Improve Power Usage Effectiveness (PUE) at Our Data Centers

> Expand the Use of Renewable Energy

Reducing Greenhouse Gas (GHG) Emissions at Our Business Sites

Our Approach

The Fujitsu Group considers the prevention of global warming an important issue. We have, therefore, formulated our medium- to long-term environmental vision, the Fujitsu Climate and Energy Vision, and aim to eliminate all CO_2 emissions from our business activities by 2050.

Among GHGs, our business sites (plants and offices, as well as datacenters) primarily emit CO_2 when energy (electricity, fuel oil, gas) is used, and perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), sulfur hexafluoride (SF6) during the manufacturing processes and PFCs and HFCs from fluorocarbon leakage. We will set reduction targets in addition to complying with the relevant laws, and we are striving to reduce and control the volume of use and emission of these gases.

Reducing CO_2 Emitted During Energy Consumption

About 99% of the Fujitsu Group's total GHG emissions arise from CO_2 emissions due to energy consumption. Therefore, we continuously promote the following energy-saving measures to reduce CO_2 emissions.

- Appropriate operation of equipment, improvement in management, and energy-saving measures focused on motive-power facilities (introduction of free cooling, inverters and energy saving equipment, fuel conversion, etc.)
- Increasing efficiency by reviewing the manufacturing process (innovations in production, development of green production technology)
- Maintaining appropriate room temperature for office air conditioning, saving electricity used in lighting and office automation equipment, and switching to LED lighting
- Measuring energy consumption for visualization and promoting use of the data so collected

Reducing Emission of GHGs Other Than CO_2

As for GHGs other than CO_2, the Fujitsu Group mainly uses perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and sulfur hexafluoride (SF6) at the manufacturing divisions. We are taking continuous steps to switch to gases with lower global warming potential (GWP) and install equipment to remove harmful gases in our new and existing production lines. We also carry out inspections and maintenance to comply with relevant laws regarding PFCs and HFCs emissions resulting from fluorocarbon leaks from air conditioning equipment.

FY 2022 Performance

Targets under the Fujitsu Group Environmental Action Plan (Stage X)	FY2022 result
Reduce GHG emissions of our business sites by 4.2% or more every year (compared to FY 2013) (*1)	10.5% reduction (47.5% reduction compared to baseline year) (*2)

(*1) Target organizations: Business sites owned by Fujitsu and the Fujitsu Group. Includes major data centers.

(*2) Reduction rate based on market standards

## Promoting Reduction in CO_2 Emitted During Energy Consumption

We continue to invest in energy-saving equipment (introduction and upgrade of BAT (*3) equipment, mainly for air conditioning and lighting) and ensure their appropriate operation at the facilities at all business sites. We are also streamlining our production processes, saving electricity used for air conditioning, lighting and automation in offices, making energy consumption visible, and leveraging measurement data.

For instance, as for investment in lighting equipment, we have continued to adopt high efficiency LED lighting and lowered CO_2 emissions by 1,423 tons. Moreover, we also improved facility operations (7,532 tons-CO_2) by reviewing air conditioner operating conditions, such as switching to higher efficiency equipment and controlling the number of units, and suspending operation of pumps and air conditioning devices. Through our own efforts, we carried out measures to reduce our emissions by roughly 13 ktons-CO_2 (2.6% in comparison to last fiscal year).

As a result of these initiatives, we reduced our GHG emissions according to market standards in keeping with SBT, which is an objective in the Environmental Action Plan (Stage X), by 10.5%pt compared to the baseline year (47.5% reduction in comparison to our emissions in FY 2013).

**Environmental Action Plan (Stage X) GHG Emissions Reductions**
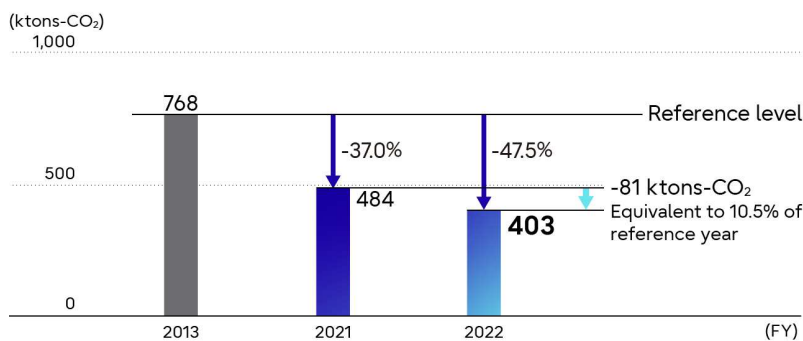
(*3) BAT (Best Available Technologies): Usable state-of-the-art technologies to reduce GHGs.

(*4) Environmental Action Plan (Stage X) performance values for the reference year (FY 2013) and FY 2022 are the total values for business sites targeted by the Environmental Action Plan (Stage X).

(*5) CO_2 conversion factors of purchased electricity are market standards for both the reference year (FY 2013) and FY 2022 performance values.

Total Emissions of 540ktons-CO_2 ★ in FY 2022

Our total GHG emissions in FY 2022 were 540 ktons-CO_2 (output level per sales amount: 14.5 tons-CO_2/100 million yen). They decreased by 13.1% in comparison to FY 2021.

Trends in Total Greenhouse Gas Emissions
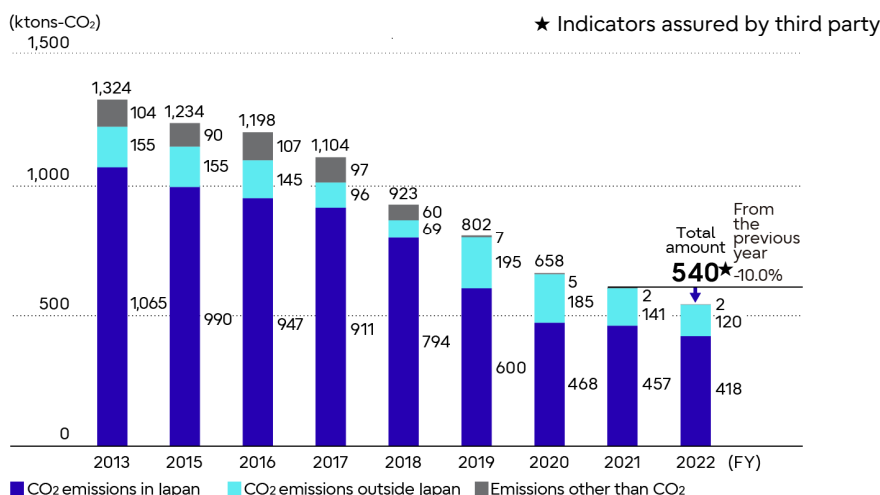
(*6) CO_2 emissions in Japan and overseas: The CO_2 conversion factor for purchased electric power in performance reports has been calculated with a fixed value of:

-In Japan - 0.570 tons-CO_2/MWh from FY 2013 to FY 2015, 0.534 tons-CO_2/MWh for FY 2016, 0.518 tons-CO_2/MWh for FY 2017, 0.497 tons-CO_2/MWh for FY 2018, 0.461 tons-CO_2/MWh for FY 2019, 0.444 tons-CO_2/MWh for FY 2020, and 0.436 tons-CO_2/MWh for FY 2022

-Overseas – Same coefficients as those used in Japan from FY 2013 to FY 2018, and the latest IEA values (by country) for the relevant FY from FY 2019 onwards

(*7) Emissions other than CO_2: These are converted to equivalent amounts of CO_2 using the global warming potential (GWP) for each gas.

Improve Power Usage Effectiveness (PUE) at Our Data Centers

Our Approach

Energy consumption in data centers is on the rise, due to factors such as the spread of cloud computing, and society is paying greater attention to the environmental performance of data centers.

Data centers account for approximately 40% of the CO_2 emissions (FY 2022) for each business in the Fujitsu Group. Since data center CO_2 emissions are expected to continue increasing along with the expansion of digitalization, the Fujitsu Group has a social responsibility to promote environmentally friendly data centers. At the same time, in terms of enhancing our business infrastructure, it has also become an important topic that we should work on from a long-term perspective.

FY 2022 Performance

Targets under the Fujitsu Group Environmental Action Plan (Stage X)	FY 2022 result
Improve PUE (*1) at data centers by 3% or more. (Compared to FY 2017)	PUE 1.57 - Improvement of 1.2%

(*1) PUE (Power Usage Effectiveness):
An index for power usage effectiveness at data centers. Expresses overall power consumption at data centers as a value divided by the power consumption of servers and other ICT devices. The closer the number is to 1.0, the greater the efficiency.

Promoting Activities to Achieve Our Goals

We are moving forward with activities to improve PUE at data centers in Japan and around the world, based on the Fujitsu Group Environmental Action Plan. In 2022, as with 2021, we continued to expand operation-side measures, including updating air conditioning equipment and striking the right balance by adjusting heat amounts and cooling capacity for IT equipment. We made steady progress up to 2021 and reached our targets, but in summer 2022 outside temperatures were warmer than FY 2021 globally (including some regions in Europe rising by 4-degrees Celsius) and as a result, we were unable to meet our targets. However, we have made a more than 1% improvement from the base year and continuous improvement activities are still underway. In addition to energy conservation activities, we expanded our use of renewable energy with the goal of carbon neutrality. This included switching our FJcloud service for domestic data centers to 100% renewable energy, while Fujitsu Australia concluded the largest power purchase agreement (PPA) among the entire Group.

PUE values and calculation methods

| PUE Value	PUE calculation method, other
Range: 1.31 to 2.11 No. of data centers: 23	• Apply the Green Grid • Work to implement improvements using DCMM • DCMM: Data Center Maturity Model

Examples of Initiatives in FY 2022

Reducing Air Conditioning Power We tuned our air conditioning based on IT power consumption (heat generation), and expanded the target floors through measures such as adjusting fan speeds and air conditioning temperature, along with lessening the cold water temperature and adjusting the number of cooling equipment in operation. Furthermore, at data centers with air conditioning using outside air or free cooling, we worked to increase midcycle operating hours and reduce air conditioning power. Additionally, at certain data centers, we are achieving positive results in energy conservation through investments in facility improvements, such as updating air conditioning equipment and switching cold water pumps to inverters.

PUE Improvement Status
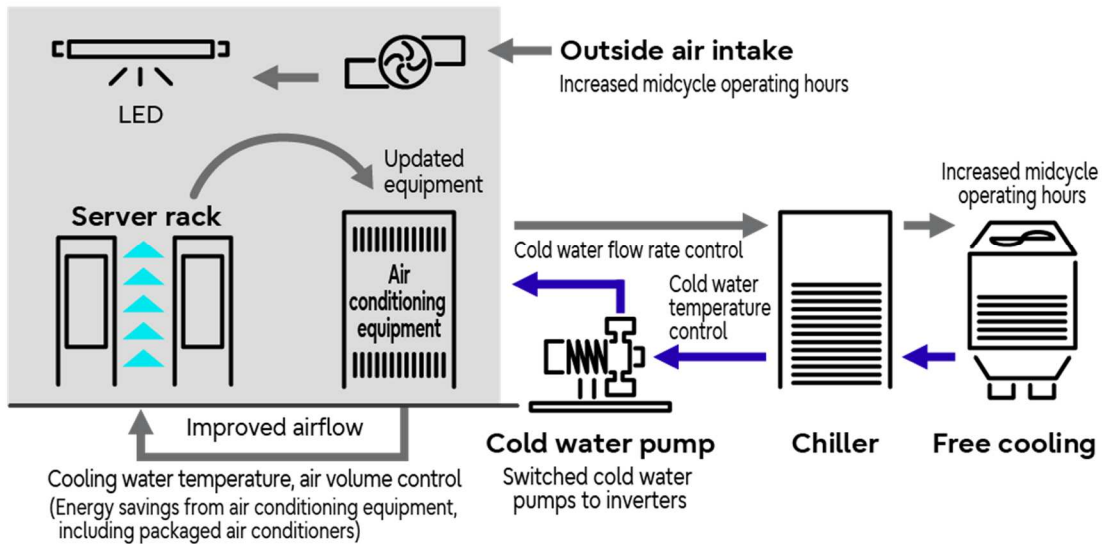
Implementation Status of PUE Improvement Measures (50 in total)
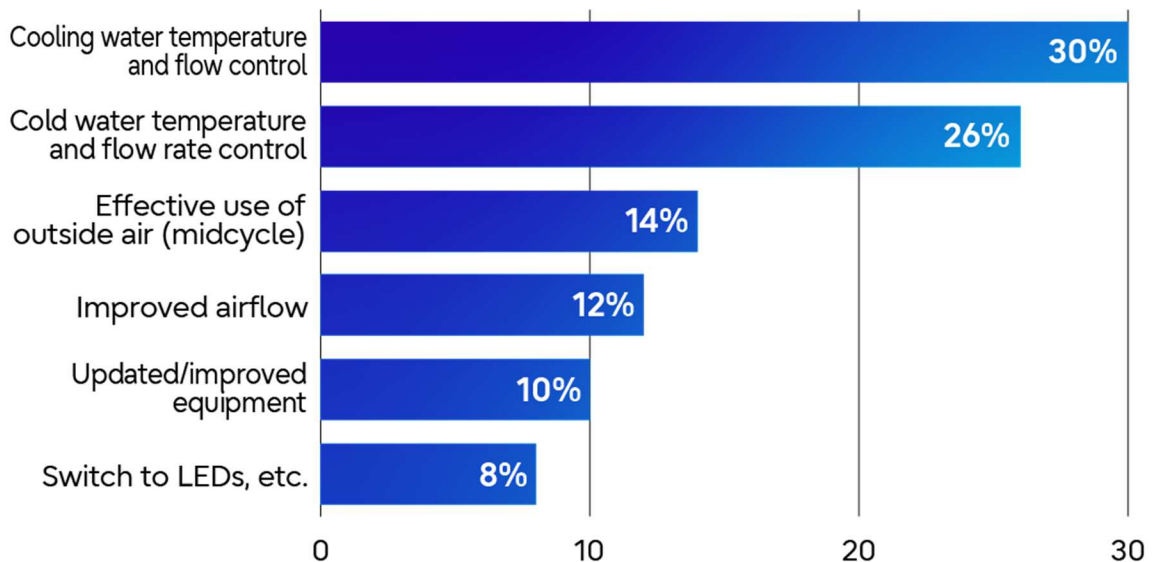
Promoting Improvements through Better Information Sharing with Overseas Data Centers

In an effort to further enhance PUE improvement activities, we are enhancing communication through information sharing improvement measures know-how gained at each data center and the progress of improvements through regular remote meetings in collaboration with PUE improvement activities of overseas data centers. We are now sharing related information on internal portal sites and visualizing the progress of efforts, with the aim of making these activities progress more smoothly in the future.

Environmental Action Plan

Expand the Use of Renewable Energy

Our Approach

The popularization and widespread use of renewable energy is becoming increasingly necessary as a way of addressing global warming, securing stable energy supplies through the diversification of our energy sources, and as an energy-based foundation for economic growth.

The Fujitsu Group has established an environmental vision aimed at realizing a decarbonized society. The main pillars for this vision are a dedication to energy conservation, and the active implementation of renewable energy. To achieve this vision, we have set quantitative targets under the Environmental Action Plan, and are actively promoting the introduction and installation of solar power generation equipment at our business sites, as well as the purchase, use, and expansion of green power (electric power generated through 100% renewable energy).

FY 2022 Performance

★ Indicators assured by third party

Targets under the Fujitsu Group Environmental Action Plan (Stage X)	FY2022 result
Expand the rate of renewable energy used to 16%	30.0%★

(*1) Target organizations: Business sites owned by Fujitsu and the Fujitsu Group. Includes major data centers

(*2) Calculation Standard: 5 -3 -4 -5
   Refer to Environmental Performance Data Calculation Standards for details

Environmental Action Plan (Stage X) Initiatives

With the aim of achieving the Fujitsu Group's medium-term environmental goal of "using more than 40% renewable energy in FY 2030," we set a target under the Fujitsu Group Environmental Action Plan (Stage X) of expanding the rate of renewable energy we use to 16%. In FY 2022, through the purchase of green power and power generation through solar panels, our rate of renewable energy use grew to 30.0%★.

We will continue to work toward the implementation of renewable energy in both our domestic and overseas business offices, in order to further our purchase and usage of renewable energy.

Environmental Action Plan (Stage X) Renewable Energy Percentage
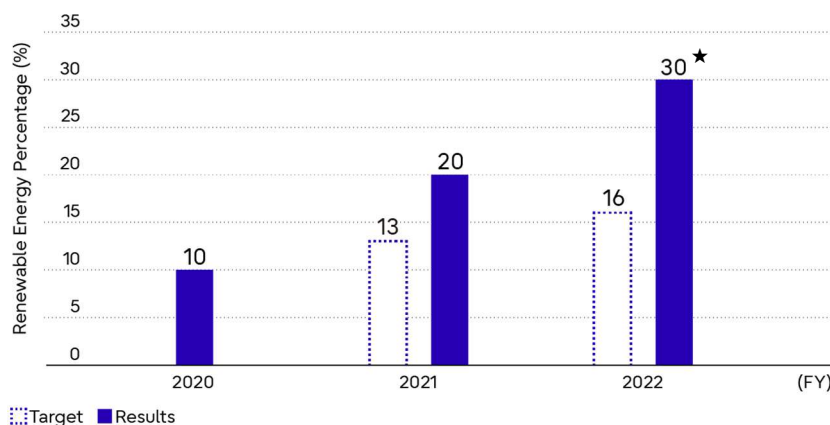
Renewable Energy Procurement Principle

Mandatory Requirement

- Renewable energy that can be reported through RE 100 activities

  - Power sources are Solar、Wind-power、Geothermal、Biogas、Small-hydro etc.

  - Environmental value (renewable attribute) can be pursued and verified
  - No double counting of environmental value
    Ex.) Amortization of environmental value of renewable energy, to be executed through the system of public agency

Recommended Requirement

- The electric power, in which power consumption to be combined with environmental value
  - The electric power, in which grid power and environmental value certification to be one set (The renewable energy to be generated in the same grid)
  - Power balancing to be managed. In time of emergence, minimum gap of power consumption and environmental value to be generated (within one year etc.)
- To select the renewable energy, by which we can contribute to local society
  - For example, by selecting the renewable energy in the same area as grid consumption, we can make "Local generation for local consumption" possible.
    Or to support the power generation company which makes effort to enlarge renewable energy power
- To procure the power from relatively new sites, in order to contribute the enlargement of renewable energy (Additionality)
  - To promote new project conjuncture, then to procure the power from it, we can contribute to increase the capacity of renewable energy of whole society
- To procure from the power generation site which was developed and constructed with the agreement of local society
  - To avoid making significant impact to the environment or society in which the power generation site is located

Examples of Initiatives in FY 2022

Renewable Energy Initiative in Australia

Fujitsu Australia signed a power purchase agreement to procure renewable energy through the Sapphire Wind Farm operated by CWP Renewables. Beginning in June 2022, Fujitsu Australia has covered approximately 40% of its data center electricity with renewable sources. This equates to around 30% of the company's total annual electricity consumption, and offsets approximately 30,000 tons of its annual greenhouse gas emissions.

- [Fujitsu Australia signs its first power purchase agreement in a key step towards decarbonising its operations and providing lower-emissions services](#)
- [Case studies](#)

Reduction of CO_2 Emissions by Reducing Power Consumption When Using Products

Our Approach

As ICT grows more and more common, we expect there to be an increase in energy demand in proportion to the higher performance and higher-density integration of servers and other ICT products. Various countries and regions are also expanding their energy-related regulations for ICT products, and energy efficiency is taking on increasing social importance as a factor in energy label conformance and green procurement requirements.

Here at the Fujitsu Group, we believe that we should work to improve the energy performance of our products during their use, in order to reduce GHG emissions. As such, we will actively implement energy-saving technologies and continue working to further improve the energy efficiency of products. Through these efforts, we will work to promote the development of products that contribute to reduced power consumption when in use.

FY 2022 Performance

Targets under the Fujitsu Group Environmental Action Plan (Stage X)	FY2022 result
Reduce CO_2 emissions due to product power consumption by 17% or more in comparison to FY 2013.	Reduced by 25%

Change in CO_2 Emissions Due to Product Power Consumption   ★ Indicators assured by third party
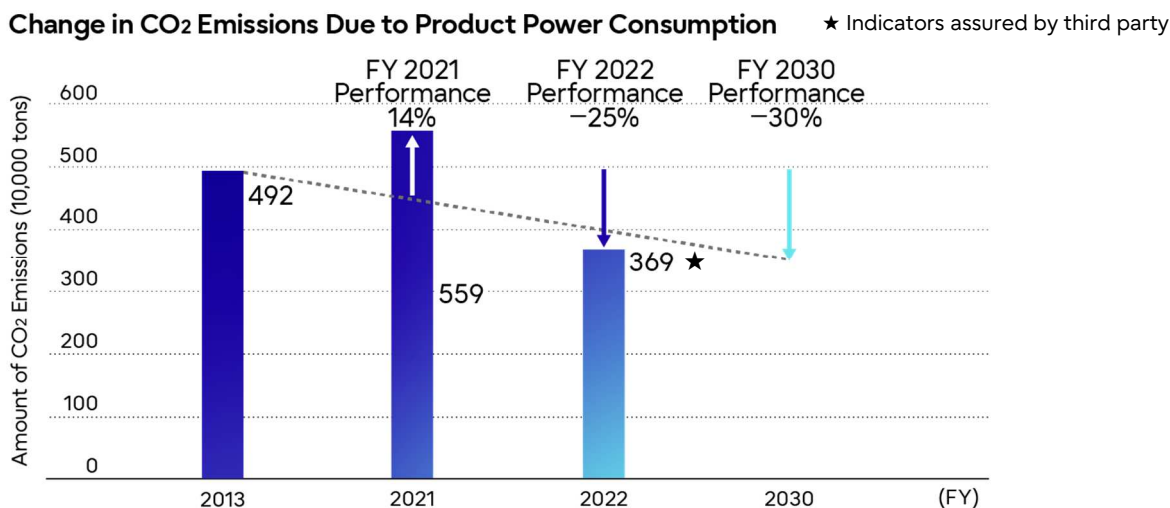
Fujitsu Group Environmental Action Plan (Stage X) Initiatives

Based on the Fujitsu Group's medium-term environmental goal of "reducing CO_2 emissions due to product power consumption in FY 2030 by 30% or more in comparison to FY 2013," we set a target in the Fujitsu Group Environmental Action Plan (Stage X) to reduce CO_2 emissions due to product power consumption by 17% or more in comparison to FY 2013 in FY 2022, as a transitional year. To achieve this target, each business unit goals to improve the energy efficiency of products that were expected to be developed in FY 2021 and FY 2022, then worked to meet them. Applications of energy-saving technologies include new, high-efficiency microprocessors and power supplies, energy-saving displays, optimized energy-saving controls, and the strengthening of power management features. In addition to these, we are actively pushing for the aggregation of LSIs, reductions in the numbers of components, and the implementation of eco-friendly devices.

Attained a 25% Reduction in CO_2 Emissions in Comparison to FY 2013

In FY 2022, as a result of applying and expanding energy-saving technologies in our servers, storage, PCs, and network devices, we were able to attain a 25% reduction in CO_2 emissions in comparison to FY 2013.

Working Toward Our Targets

In order to achieve the Fujitsu Group's medium-term environmental goal, each unit will work to further develop products with improved energy efficiency. We will also implement advanced energy-saving technologies and expand their application to our products, as part of our cross-Group policy to improve energy efficiency.

Looking toward the future, we aim to push the development of advanced eco-friendly devices, which will contribute to revolutionary improvements in energy efficiency, and aim for the products to be applied at an early stage.

Initiatives in FY 2022

FACT-X functions as a new ATM that conserves energy

FACT-X is a next-generation ATM for a cashless era. It works as a bank teller in addition to serving as a full-service ATM. Developed under the concept of "accessible to all," the ATM has many thoughtful features with all users in mind, including simple operation and accessibility, security design, and ease of use for those unfamiliar with ATMs or in a wheelchair. We also provide operational support services to the companies that operate ATMs, including remote functions and remote maintenance services. In addition, we will continue to provide functions that meet customer needs, including features to reduce teller operations.

In terms of environmental considerations, we have revised the function and parts of the new model to include complete transition from paper journals to electronic journals and adoption of SSD, in addition to offering the Super Eco Mode which turns the power off when no users are present in existing models. This update reduced power consumption by 15% when in use compared to conventional models*. (*Compared to FACT-V X200)We strive to help customers achieve sustainability and transformation through enhanced customer services and provision of channel reform through FACT-X as a new contact point.

FACT-X

> Case studies

Activities to Reduce CO_2 Emissions in the Upstream Portion of the Supply Chain

Our Approach

In addition to reducing our own emissions, the Fujitsu Group has also been requesting, as part of green procurement, that its suppliers engage in activities to reduce their own CO_2 emissions in order to help contain global warming. As a result, all of our primary suppliers have undertaken efforts to reduce their CO_2 emissions.

Starting in FY 2016, we have also been expanding these efforts further upstream in the supply chain by requesting that our suppliers include their own suppliers (secondary suppliers from the perspective of the Fujitsu Group) in these activities.

We have participated in the CDP Supply Chain program since FY 2018, in parallel with the above-mentioned activities. Based on our international environmental research activities, we are taking a more in-depth look at the activities of our primary suppliers to reduce CO_2 emissions and conserve water resources, and considering the issues and our policies.

Moreover, as a new initiative, we are asking our main suppliers to establish a CO_2 reduction target based on the international standard of Science Based Targets (SBT). Starting in FY 2022, we have also expanded the target suppliers for CO_2 emissions reduction to include those in the services industry in addition to the existing category of parts manufacturing as we strive to further reduce global warming.

The Group hosts seminars on setting reduction targets based on SBT. In FY 2022, about 90% of target suppliers attended the seminar.

In addition, we also host webinars on how to set targets and share FAQ. We support our suppliers' CO_2 reduction efforts through the provision of a simple tool for suppliers to visualize CO_2 emissions (Scope 1 and 2) of their own company and determine the appropriateness of their SBT.

We expect that having the supply chain as a whole work toward reducing emissions can produce even greater reduction effects (synergies), while also expanding the network of these activities through the supply chain to cover an even wider area spreading beyond national boundaries. Through efforts such as these, the Fujitsu Group hopes to help create a carbon-free society for the future and a sustainable water environment.
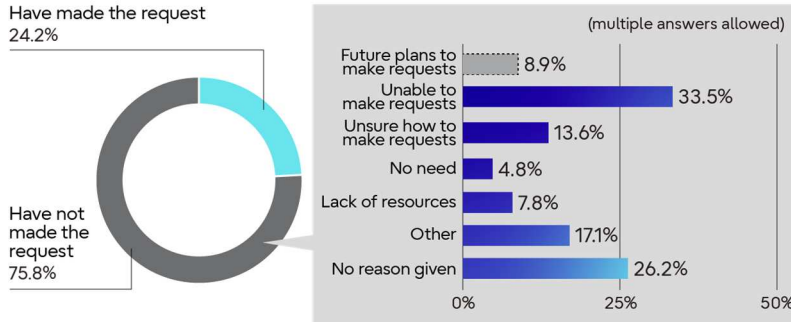
FY 2022 Performance

Targets Under the Fujitsu Group Environmental Action Plan (Stage X)	FY2022 result
Reduction of CO_2 Emissions: Drive Activities to Reduce CO_2 Emissions in the Supply Chain	Requested that secondary suppliers (over 61,000 companies) engaged in activities to reduce emissions through primary suppliers of the Fujitsu Group (676 companies)

Reduction of CO_2 Emissions: Requesting and Supporting the Expansion of Activities to Secondary Suppliers

The Fujitsu Group has requested that its primary suppliers, who account for the top 80% of the Group's procurement, to engage in activities to reduce their CO_2 emissions, and to expand these efforts to also include their own suppliers (the Fujitsu Group's secondary suppliers). We also conducted our own environmental survey to ascertain the status of activities by these suppliers. We then provided suppliers who responded to the survey with feedback in the form of a report that analyzed survey responses as a reference for their future activities, and we also requested that they further promote these activities and expand them to include their own suppliers.

As of the end of FY 2022, 24.2% (150 suppliers) responded that they had requested their own suppliers to engage in emissions reduction activities. Over 61,000 secondary suppliers have been asked to engage in emissions reduction activities, and this should substantially impact awareness.

Status of primary suppliers' request that secondary suppliers engage in activities to reduce their CO₂ emissions

Have made the request
24.2%

(multiple answers allowed)

Future plans to make requests	8.9%
Unable to make requests	33.5%
Unsure how to make requests	13.6%
No need	4.8%
Lack of resources	7.8%
Other	17.1%
No reason given	26.2%

0%   25%   50%

Have not made the request
75.8%

*Non-responses and responses from primary suppliers with no secondary suppliers were excluded

Offering Guidelines for Activities for Reducing CO₂ Emissions

The Fujitsu Group created original explanatory materials to facilitate the spread of activities for reducing CO₂ emissions throughout the entire supply chain, and since the end of November 2017, we have made the materials available on the company website and we have provided them to suppliers. The purpose of these materials was not only to give suppliers a greater understanding of the importance of these activities taking place in the supply chain, but also to serve as something they could use to request and assist such activities amongst their own suppliers. To fulfill our responsibilities as a global enterprise, the Fujitsu Group will continue to think about what must be done to contain global warming and will continue to take action.

"Guideline for activities for reducing CO₂ emissions" can be downloaded from the following sites.

> Japan
> Global

Informational materials for business partners

2. Practical activities: Procedure for target setting

1. Setting of Activity contents
1) Extract feasible activities in-house.
2) Decide more suitable activities from the extractions.

2. Selection of Progress Indexes (Numerical data)
Select CO₂ emissions data, or data leading to CO₂ emissions directly.
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* If it is
(e.g. (

2. Practical activities:
Examples for activity contents and progress indexes

Select activities to be conducted and progress indexes to be controlled.

Activity items	Activity contents	Progress indexes
Saving energy (reducing lighting power consumption)	Switch off unnecessary lighting/ install LED	Implementation rate/Installation rate /Energy-saving rate
	Light off during break times	Time for lights off/Implementation rate
Saving energy (reducing common-use facility power consumption)	Stop of servers on holidays	Stopping time/Stopping rate
	Reduce overtime hours/ specify days on which all employees leave work at the same time	Implementation rate per department
	Utility time limits on reception/ conference room	Utility time/Energy-saving rate
Saving energy (reducing air-conditioning power consumption)	Appropriate temperature setting of air-conditioning systems	Implementation rate/Implementation period
	Installation of rooftop greening/ wall greening	Implementation rate/Greening area per building
Saving energy (promoting of renewable energy)	Installation of green electricity systems	Installation rate
Saving energy (innovative changes of lifestyles)	Encouragement of bicycle commuting of employees	Number of employees taking part in the initiative/Implementation rate
	Promotion of eco-driving	Implementation rate/ELV installation rate
Preserving biodiversity (preservation of CO₂-absorbing resources)	Implementation of forest-preservation activities	Number of activities/Number of participants/Forestation land area/Number of trees planted
Conservation of paper resources	Promotion of paperless	Reduction volume/Implementation rate
Promotion of environmental awareness	Raise awareness by in-house education	Number of attendance/Attendance rate/ Test pass rate

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Environmental Action Plan

Resource Circulation

External Trends

Strengthening Global Resource Circulation

Goal 12 of the Sustainable Development Goals (SDGs), adopted by the United Nations in September 2015, is 'Responsible consumption and production'. The actions that organizations are urged to take in order to meet this goal include the efficient use of natural resources, the appropriate management of chemical substances and waste products throughout the entire product life cycle, and significant reductions in the volume of pollutants emitted into the air, water, and soil. In addition, in March 2022, the European Commission announced the first package of measures in its Sustainable Products Initiative (SPI), which is pivotal to the new Circular Economy Action Plan formulated in March 2020. Following this, in November 2022 the second package of measures was released with revised rules on packaging and packaging waste as well as a plastic circulation policy framework with directives for bio-based, biodegradable, and compostable plastics. In March 2023, further proposals were adopted on green claims and product sustainability. Regarding the series of sustainable product standardization packages for the EU market in these announcements, companies need to closely monitor future trends.

The Problem of Plastic Waste

According to a new report by the Organization for Economic Co-operation and Development (OECD), the volume of plastic waste generated globally is forecast to triple by 2060 from its 2019 level of 353 million tons. While the resumed fifth session of the United Nations Environment Assembly (UNEA-5.2) held in February 2022 acknowledged the usefulness of plastics, it also noted that the problem of plastic pollution is global in scale and includes the contamination of our oceans. It was decided that an intergovernmental negotiating committee would be established in the second half of 2022 with the task of formulating a legally binding global agreement to be finalized by the end of 2024. In view of these developments, companies need to implement plastic resource circulation throughout the life cycles of their products.

The Fujitsu Group's Position

Aiming for Resource Circulation

The Fujitsu Group has a long-standing commitment to the "three R's" (reduce, reuse, recycle) relating to plastics and other resources. We are conducting ongoing discussions around resource circulation for our products, including reuse, recycling and the use of recycled materials, particularly in view of the acceleration of global action and the abovementioned announcement of Europe's new Circular Economy Action Plan in March 2020. We are continuing to promote the use of recycled plastics in our IT products, switching from plastic to cardboard packaging materials, and reducing the number of components used in our products while making them smaller, thinner, and lighter. Another focus for Fujitsu is the recycling of resources from used IT products and from waste generated at business sites. One of the targets we have been working towards in our Environmental Action Plan is the reuse of resources in used IT products. Having reached a resource reuse rate of over 90% for IT products used in business, we are now continuing our efforts by focusing on our management targets. In light of the urgent need to address the problem of plastic waste, as outlined above, we are promoting initiatives that target packaging materials and other plastic waste. Changes in our business model are also resulting in reduced volumes of waste as we bolster our efforts to further limit waste and recycle resources in order to make a stronger contribution to a society oriented toward resource circulation.

Responses to the Plastic Resource Circulation Act

In response to environmental changes, both in Japan and overseas, involving the waste from products that use plastic, there is increasing demand for resource circulation of plastic products. This ranges from limiting the use of plastic products through to having local and municipal governments recycle plastics for use in other products, and developing regimes that will promote voluntary plastics collection and recycling by businesses. In line with this trend, Japan promulgated the "Plastic Resource Circulation Act" in June 2021. This Act targets the plastics used in a wide range of products and promotes measures to recycle plastic resources in each stage of a product's life, from design right through to the treatment of plastic waste (3R + Renewable).

Fujitsu is designated as a "high-volume waste emitter" under the legislation, and as such, has set targets for recycling and limiting the production of plastic waste and is promoting activities in line with those targets.

Target: Promotion of zero-emissions activities for plastic waste and greater use of returnable plastics
FY2022 plastic waste volume: 1,347 tons

RELATED LINKS

> Improving the Resource Efficiency and Resource Circulation of Products and Product Recycling

> Reducing the Amount of Water Used

Improving the Resource Efficiency and Resource Circulation of Products and Product Recycling

Improving the Resource Efficiency and Resource Circulation of Products

Our Approach

As risks that threaten the sustainability of society and companies continue to rise, such as environmental destruction due to resource depletion and excessive mining, major fluctuations in resource costs around the world, and concerns about the supply of rare metals, the European Commission (EC) has established a new Circular Economy Action Plan (2.0) as a growth strategic pillar of the European Green Deal and is moving forward with measures to accelerate further implementation of resource efficiency into society. For example, the EC has proposed the Circular Electronics Initiative, as well as maintenance for the eco design directive, and is promoting a circular economy through the entire life cycle of products. This is a growing trend all over the world. We believe that from the perspective of recycling resources, it is important for us to make efficient use of the resources in the ICT products that we provide to customers. We have engaged in design that draws on the principles of reduce, reuse, and recycle, and have developed our products with technology that is effective in reducing the amount of resources we use. We are also making efforts to improve resource efficiency and reduce our environmental burden by designing products to be lighter and smaller, using recycled plastics, reducing the number of parts, enhancing ease of disassembly, and improving recyclability. Our goal is to offer such products so that they provide even the customer with benefits, whether it be by making these products smaller, more lightweight, or designing them so they take up less space.

FY 2022 Performance

Targets Under the Fujitsu Group Environmental Action Plan (Stage X)	FY2022 result
Promoting improved resource conservation and recycling in our products and increasing resource efficiency in new products by 10% or more (compared to FY 2019).	Improved by 11.2%

Improving the Resource Efficiency of New Products

In FY 2012, the Fujitsu Group created its own definition of resource efficiency, as the Group had previously not had a system that could comprehensively and quantitatively evaluate improvements in resource efficiency, and due to the fact that there were as of yet no public indices that could measure resource efficiency.

In FY 2022, we continued to use our indicators to evaluate products newly developed by Fujitsu, and worked to reduce product part quantities and reduce product size through smaller, thinner, and lighter parts and higher-density mountings.

We Improved Resource Efficiency by 11.2%

By reducing the size and weight of our servers, PCs, network devices, and imaging devices, in FY 2022 we were able to improve resource efficiency by 11.2% with respect to efficiency in FY 2019.

Looking Ahead

In FY 2023 and beyond, Fujitsu will continue current initiatives, while expanding development of new lightweight, rigid materials and the use of recycled materials. We will also widely publicize the eco-friendliness of our products in order to expand sales.

REFERENCE INFORMATION Definition and Calculation of Resource Efficiency

Resource efficiency is evaluated by dividing the value of a production, by the environmental burden (in terms of use and disposal) of the elements (resources) comprising the products.

$$\text{Resource efficiency} = \frac{\text{Product value}}{\left(\substack{\text{Environmental burden} \\ \text{from resource usage} \\ = \\ \Sigma (\text{Resource burden coefficient} \\ \times \text{Resource usage volume})}\right) + \left(\substack{\text{Environmental burden} \\ \text{from resource disposal} \\ = \\ \Sigma (\text{Resource burden coefficient} \\ \times \text{Resource disposal volume})}\right)}$$

Definition of Each Item

Product value	To place emphasis on the valuation of reduction in environmental burden due to resource usage and disposal, product value is limited to those that related to resource usage and is set on a per-product basis. (Example of factor not considered: CPU performance improvements)
Resource burden coefficient	Environmental burden weighting coefficient that is specific to a particular resource and considers factors like exhaustibility, scarcity, and environmental impact from mining and disposal. Activities will begin with this figure set to a value of "1" for all resources.
Resource usage volume	Mass of each resource used in the product (excluding the mass of recycled plastic used).
Resource disposal volume	Mass od each resource disposed of (not reused) in connection with a post-use product (design value). Activities will begin with this figure set to a value of "0".

Examples of Initiatives in FY 2022

ARROWS Tab Q7312 balancing improved performance of the same sized laptop computer and resource efficiency

ARROWS Tab Q7312 is a high-end tablet device featuring a large screen ideal for a wide range of uses. It offers advanced functions and scalability for business and comes equipped with advanced security features including a TPM 2.0 security chip and (optional) fingerprint scanner. In addition to high-end features, the tablet only weighs about 1.2kg even when including the specialized slim keyboard.

In terms of the environment, ARROWS Tab Q7312 improves resource efficiency by 2.1% with the use of components made of recycled plastics. It is also Energy Star certified because of its reduced consumption of electricity.

By offering the ARROWS Tab Q7312 tablet featuring high-end specifications, scalability and improved resource efficiency, Fujitsu will contribute to a society that is equally considerate of both the environment and people.

ARROWS Tab Q7312/KB

› Introduction of Other Initiatives (Case Studies)

Product Recycling

Our Approach

The Fujitsu Group's recycling activities are based on the concept of Extended Producer Responsibility (EPR), which holds producers responsible for product design and manufacturing as well as disposal and recycling, and the concept of Individual Producer Responsibility (IPR), which holds a company responsible for its own products. Fujitsu is certified for area-wide disposal of industrial waste based on the Act to Promote Effective Utilization of Resources in Japan. In accordance with these concepts, Fujitsu Recycling Centers around Japan are entrusted to properly dispose of industrial waste, and one of Fujitsu's voluntary management indicators is "to reuse at least 90% of the resources in its ICT products for businesses."

Changes in Resource Reuse Rates of End-of-life Business ICT Products

Item	FY 2020	FY 2021	FY 2022
Resource reuse rate (%)	91.6	92.9	93.6

› Introduction of Initiatives (Case Studies)

Environmental Action Plan

Reducing the Amount of Water Used

Our Approach

The risk of a global water shortage is on the rise, due to such factors as climate change, the destruction of forests, and the economic growth and population boom in emerging and developing countries. Such a water shortage is a risk for companies as well, since it may very well affect the survival of their businesses. As such, it is important for us to recycle and reduce the amount of water we use.

Since the Fujitsu Group uses particularly large amounts of water in the manufacture of semiconductors and printed circuit boards, we believe it is necessary to reduce our water consumption in these areas especially. In addition to our general water conservation efforts, we have also worked to reuse and recirculate water, through methods such as pure water recycling and the reuse of rainwater. We are continuing our efforts to effectively use water resources in the Environmental Action Plan (Stage X).

FY 2022 Performance

Targets under the Fujitsu Group Environmental Action Plan (Stage X)	FY2022 result
Adding policies to reduce water consumption and reducing water usage by at least 30,000 m³ by the end of FY 2022. (*1)	Water consumption was reduced 31,000 m³ (target for FY 2022: 19,000 m³)

(*1)   Target organizations: Japan; Fujitsu and Fujitsu Group offices (excluding data centers)
        Overseas; Fujitsu and Fujitsu Group manufacturing sites

The policies we established in FY 2022 to reduce water usage include reducing the amount of water used in coating and cleaning processes, reviewing our water supply and wastewater through actions such as optimizing the water supply for our scrubbers, and upgrading air conditioners from water-cooled units to air-cooled units. We implemented these policies at each business site, plant, etc., so that we could make more efficient use of our water resources. As a result, in FY 2022 we reduced our water usage by 114,000 m³, which is 380% of the target of 30,000 m³ as was set in the Fujitsu Group Environmental Action Plan (Stage X).

Water Usage in FY 2022 was 6.15 Million m³★ (a 11% Reduction Compared to the Previous Fiscal Year)

The total amount of water we used in FY 2022 was 6.15 million m³ (output level per sales amount: 166 m³/100 million yen), a reduction of 11% compared to FY 2021. Additionally, 3.86 million m³ of that usage was recycled water, which was an increase of 14.3% in comparison to FY 2021. The total amount of water we used declined, so recycled water comprised 62.8% of our total water usage, a 13.8%pt increase from FY 2021.

Trends in Water Usage and Amounts of Recycled Water

★Indicator assured by third party

(10,000m³)

	2019	2020	2021	2022	(FY)
Amount of recycled water	468	369	338	386	
Water usage	991	677	689	615	

■ Water usage ■ Amount of recycled water
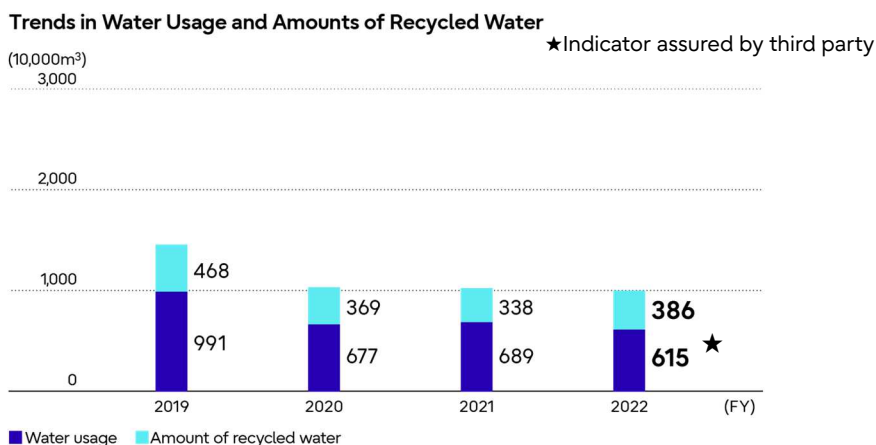
Activities to Conserve Water Resources in the Upstream Portion of the Supply Chain

Our Approach

We have also situated the conservation of water resources as a priority issue which we need to ask our suppliers to address, as well as the reduction of CO_2 emissions.

We have participated in the CDP Supply Chain program since FY 2018, in parallel with the above-mentioned activities. Based on our international environmental research activities, we are taking a more in-depth look at the activities of our primary suppliers to reduce CO_2 emissions and conserve water resources, and considering the issues and our policies.

We expect that having the entire supply chain work toward reducing emissions can produce even greater reduction effects (synergies), while also expanding the network of these activities through the supply chain to cover an even wider area spreading beyond national boundaries. Through efforts such as these, the Fujitsu Group hopes to help create a sustainable water environment.

FY 2022 Performance

Targets Under the Fujitsu Group Environmental Action Plan (Stage X)	FY2022 result
Conservation of Water Resources: Request that Primary Suppliers Engage in Activities to Conserve Water	Requested that 676 of the Fujitsu Group's primary suppliers engage in activities to conserve water

Conservation of Water Resources: Requesting that Primary Suppliers Work to Conserve Water Resources as a Key Theme They Should Address

Against the backdrop of worsening water resource problems and growing international concern, in addition to continuing our work to reduce CO_2 emissions as pursued under the Fujitsu Group Environmental Action Plan (Stage VIII) from FY 2016 to FY2018, we situated the conservation of water resources as a priority issue which we need to ask our suppliers to address, starting in FY 2019. We reviewed the questions we posed on our environmental survey forms so that we would be able to understand the status of our suppliers' activities and their actual circumstances, and identified the challenges we will face in expanding our activities in the future.

Status of water risk assessments conducted by suppliers

Conducting assessments 28.7%

Not conducting assessments 71.3%

(multiple answers allowed)

Future plans to make requests 3.4%
No risks to water 19.4%
No need 20.2%
Unsure how to conduct assesments 19.4%
Lack of resources 7.6%
Other 13.9%
No reason given 25.3%

0%   25%   50%

*Non-responses were excluded
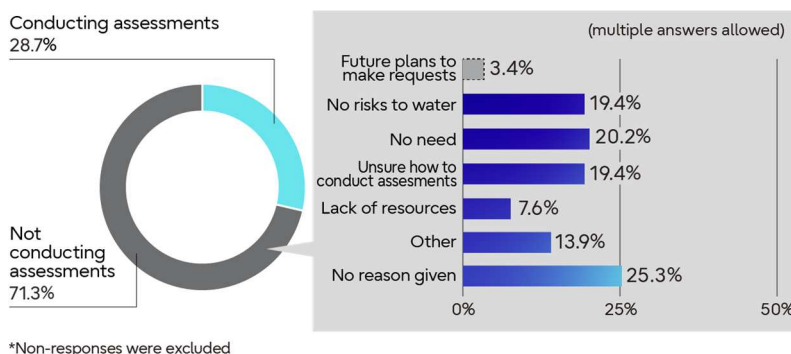
As many businesses are connected in the global supply chain, conservation of water resources is a relevant issue for any company. The first step in working to conserve water resources is to comprehend exactly what water risks are associated with one's own company. In our FY 2022 environmental survey, 28.7% of suppliers said that they were conducting water risk assessments, which is an increase from 25.7% last year. There was a

decrease in the percentage of responses from suppliers stating that conservation of water resources was not relevant to their operations compared to FY 2021, including "no water risks" (down from 23.6% to 19.4%) and "no need to conduct assessments" (down from 22.7% to 20.2%). Meanwhile, the response of not knowing how to assess water risks increased from 17.2% to 19.4%. We believe this is a reflection of increased awareness among suppliers that water risk assessments are an essential part of business operations.

In order to have suppliers think about conservation of water resources as a more familiar issue, we are offering the "Water Risk Assessment for Companies" document, which compiles materials on topics such as the importance of risk assessments, and introduces publicly available assessment tools. In the future, we will request that even more suppliers conduct water risk assessments and request that they work to conserve water resources.

"Water Risk Assessment for Companies" can be downloaded from the following sites.

> Japan
> Global

Contents of "Water Risk Assessment for Companies"

Living in Harmony with Nature (Conservation of Biodiversity)

Management Approach

Biodiversity loss poses an enormous global risk; an integrated response is vital to secure a carbon-neutral and nature-positive future

The Global Risks Report 2023 released by the World Economic Forum (WEF), ranks "Biodiversity loss and ecosystem collapse" as the fourth most severe, long-term risk globally, recognizing biodiversity loss alongside climate change as an urgent and critical issue. Viewing the delivery of a nature-positive world as essential to addressing this issue, the G7 Summit held in June 2021 agreed on a G7 2030 Nature Compact, which includes a commitment to "halt and reverse biodiversity loss by 2030". Part 2 of the 15th Conference of the Parties to the UN Convention on Biological Diversity (CBD-COP15) held in December 2022 adopted the Kunming-Montreal Global Biodiversity Framework, which includes international targets for 2030. The framework establishes "23 Global Targets for 2030" aimed at the 2030 Mission "To take urgent action to halt and reverse biodiversity loss to put nature on a path to recovery for the benefit of people and planet" (excerpt). Business groups such as the World Business Council for Sustainable Development (WBCSD) and international environmental NGOs such as the World Wide Fund for Nature (WWF) have also announced a joint proposal with a target of achieving a nature-positive planet by 2030. Thus, it is now considered vital that we not only have carbon-neutral initiatives to counter climate change, but also integrated measures aimed at delivering nature-positive outcomes.

To deliver nature-positive outcomes, we have established a vision and a mid-term goal in line with international targets

Committed to delivering nature-positive outcomes, in 2022 the Fujitsu Group formulated its vision for 2050, its 2030 Mid-term Target, and its 2025 Short-term Target (Environmental Action Plan Stage XI) in line with international targets (Kunming-Montreal Global Biodiversity Framework).

- Vision for 2050: Create a world in harmony with nature, where "nature and biodiversity," which are fundamental to a sustainable society, are fully restored through digital technology.
- 2030 Mid-term Target: Reduce negative impacts on biodiversity by at least 25% (Base year : FY2020) in the area of company's corporate activities, including supply chain, and promote activities to increase positive impacts on it.
- 2025 Short-term Target: Reduce negative impacts on biodiversity by at least 12.5% (Base year : FY2020) in the area of company's corporate activities, including supply chain, and promote activities to increase positive impacts on it.

We will continue to implement activities to reduce negative impacts and increase positive impacts on biodiversity.

FY2022 Results

Target under the Fujitsu Group Environmental Action Plan (Stage X)	FY2022 results
To visualize and reduce the impact of corporate activities on ecosystems and on biodiversity	Establishment of a calculation method that uses Ecological Footprint (EF) as the indicator for visualizing the impact of corporate activities on biodiversity.

Establishment of a calculation method that uses Ecological Footprint (EF) as the indicator for visualizing the impact of corporate activities on biodiversity

Of the Global Targets for 2030 established by the Kunming-Montreal Global Biodiversity Framework adopted at CBD-COP15, one of the most relevant targets to the business sector is Target 15: "All businesses (public and private, large, medium and small) assess and report on their dependencies and impacts on biodiversity, from local to global, and progressively reduce negative impacts, by at least half and increase positive impacts, reducing biodiversity-related risks to businesses and moving towards the full sustainability of extraction and production practices, sourcing, and supply chains, and use and disposal." At the 24th meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA-24), assessment indicators for each target were also discussed and Ecological Footprint was proposed as one of the candidate indicators for Target 15.

In FY2022, we established a calculation method that uses the Ecological Footprint, (hereinafter referred to as "EF") selected as an indicator to assess negative impacts on biodiversity, to facilitate the comprehensive evaluation of all corporate activities. We used the method to identify significant negative-impact factors in EF assessment in association with the Group's corporate activities.

FY2022 Initiatives in Detail

Establishment of a calculation method that uses Ecological Footprint, an indicator for assessing the negative impacts of corporate activities on biodiversity

The Fujitsu Group selected EF as an assessment indicator for the following reasons:

1. EF is a component indicator for Target 15 of the Global Targets for 2030, proposed by SBSTTA-24, selected based on scientific findings.
2. All corporate activities can be comprehensively evaluated.

- CO-CHAIRS' SUMMARY AND PROPOSED LIST OF INDICATORS FOR CONSIDERATION IN DEVELOPING THE MONITORING FRAMEWORK
  FOR THE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

Goal/Milestone/Target[5]	Headline indicator	Summary of the assessment	Component indicator	Complementary indicators
Target 15. All businesses (public and private, large, medium and small) assess and report on their dependencies and impacts on biodiversity, from local to global, and progressively reduce negative impacts, by at least half and increase positive impacts, reducing biodiversity-related risks to businesses and moving towards the full sustainability of extraction and production practices, sourcing and supply chains, and use and disposal.	15.0.1 [Number of companies assessing and reporting on their][Quantified volumes of] Dependencies [and] impacts[, risks and opportunities] of businesses on biodiversity [and related human rights]	Relevance: Green Nationally feasible: Yellow Globally feasible with national disaggregation: Yellow Readiness: Red Summary: Relevant, not fully operational Most Parties felt that an indicator on dependencies and impacts was relevant; however, such an indicator would need to be further defined and elaborated. Parties suggested a number of adjustments to the indicator and/or alternative indicators	Tbc (will align with the Task Force for Nature-related Financial Disclosures) 15.4.1 Ecological footprint 15.4.2 Recycling rate	t15.1. CO_2 emission per unit of value added (SDG indicator 9.4.1) t15.2. Change in water-use efficiency over time (SDG indicator 6.4.1)

Source: CBD/SBSTTA/REC/24/2, March 27, 2022

In working on the calculation method, we used the Business & Biodiversity Interrelationship Map® (provided by Japan Business Initiative for Biodiversity (JBIB)) as the basis for extracting items that depend on and also have an impact on biodiversity, and determined the corresponding Activity Amount items, as set out in the table below.

- Table: Nature dependency and impact items in the Fujitsu Group and corresponding activity data

Life Cycle	Dependence on Nature	Impact on Nature	Activity Amount Item
Procurement	Consumes raw materials	-	Amount of resources used (biotic, abiotic)
	-	Emission into the atmosphere	Amount of CO_2 emitted
Design & Development / Manufacturing	Consumes water resources	-	Amount of water used
	Consumes chemical substances	-	Amount of PRTR, VOC handled
	Consumes energy	-	Amount of electricity purchased
			Amount of heavy oil Type A used
			Amount of kerosene used
			Amount of gasoline used
			Amount of light oil used
			Amount of natural gas used
			Amount of city gas used
			Amount of LPG used
			Amount of LNG used
			Amount of district heating and cooling supply used
	-	Emission into the atmosphere	Amount of CO_2 emitted
			Amount of NOx, SOx emitted
			Amount of PRTR, VOC emitted
			Amount of waste incinerated
	-	Discharge into water bodies	Amount of BOD, COD emitted
			Amount of PRTR emitted
	-	Discharge into the ground	Amount of waste to landfill
Logistics & Sales	Consumes energy	-	Amount of energy consumed
	-	Emission into the atmosphere	Amount of CO_2 emitted
Usage	-	Emission into the atmosphere	Amount of CO_2 emitted
Other	-	Land used for business	Business site area

We then established an EF calculation method, using the above Activity Amount items as inputs.

We used life cycle inventory (LCI) data to convert resource use and some of the other Activity Amount items to Corporate Activity items corresponding to EF coefficients. Where an EF coefficient cannot be directly used for certain Corporate Activity items such as use of water resources, this is reflected in the EF calculation by using additional conversion logic based on scientific knowledge and expanded from the original EF.

Integrated Assessment of Corporate Activities by Ecological Footprint (EF) in Fujitsu Group

FG*1: Fujitsu Group, SC*2: Supply Chain
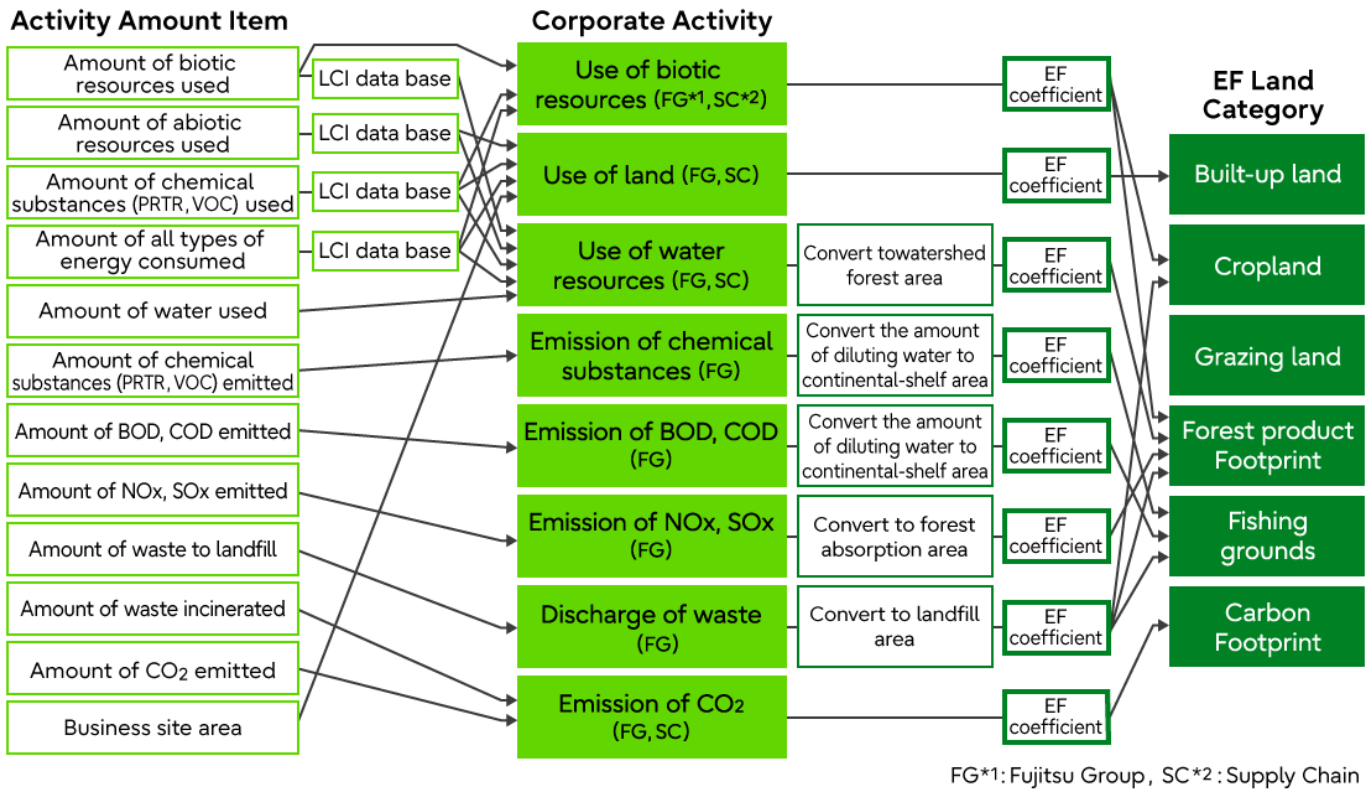
Identifying of Significant Negative-Impact Factors in EF Assessment

The results of our EF assessment of the Fujitsu Group's corporate activities show that CO_2 emissions in the Group and its value chain account for 92% of factors. Use of water resources account for the remaining 8%, mainly attributable to energy consumption. We are therefore able to establish that CO_2 emissions and energy consumption together account for 99% of factors. This means that activities aimed at reducing GHG emissions, such as energy conservation and the introduction of renewable energy, can also reduce the Ecological Footprint. In short, this is evidence that the Group's climate change measures are proving effective in reducing the negative impact on biodiversity. The FY2022 results showed a 4 % reduction in comparison to FY2020 (*1).

*1 EF coefficients are fixed for comparison.

EF Calculation Results in Fujitsu Group (FY2020) - Percentage by Corporate Activity -

90% of this amount is attributable to energy use

Water resource use (FG, Supply Chain) 8%

Emission of CO_2 (FG) 10%

Emission of CO_2 (Supply Chain) 82%

Other activities: Close to 0%