PFU

A RICOH Company

PFU
Environmental Report
2023

Corporate Profile

Company name: PFU Limited

Capital:	15 billion yen
Sales:	134.5 billion yen (consolidated for fiscal 2022)
Employees:	4,207 (PFU Group, as of May 2023)
Foundation:	May 1962 (Establishment: November 1960)
Shareholders:	Ricoh Co., Ltd. and Fujitsu Limited
Headquarters:	Nu 98-2 Unoke, Kahoku-shi, Ishikawa 929-1192 Japan

Our Business

■ Document Imaging Operations

- Development and manufacturing of image scanners
- Development and services for software products such as OCR for business use, support for form development, and document management
- Development and manufacturing of products such as keyboards that are targeted at individuals

■ Embedded Computer Operations

- Development and manufacturing of embedded computing products
- Development and manufacturing of network security appliance products
- Development and manufacturing of self-service terminal products

■ Infrastructural Customer Service Operations

- Maintenance services for our own products and multi-vendor products
- Installation kitting/construction/development services
- Infrastructure/cloud installation and operational maintenance services
- Network security setup and operational maintenance services

Main Sites

Headquarters:	Kahoku-shi, Ishikawa
Yokohama Headquarters:	Yokohama-shi, Kanagawa
ProDeS Center:	Kahoku-shi, Ishikawa
Kansai Office:	Osaka-shi, Osaka
Tokai Office:	Nagoya-shi, Aichi

PFU Group (as of April 1, 2023)

- **Affiliated Companies (4 companies in Japan)**
  - PFU IT Services Limited
  - PFU Quality Service Limited
  - PFU Techno Wise Limited
  - PFU Life Agency Limited
- **Affiliated Companies (8 companies overseas)**
  - PFU Shanghai Co., Ltd.
  - PFU Jiangsu Nantong Information System Co., Ltd.
  - PFU America, Inc.
  - PFU Canada Inc.
  - PFU(EMEA) Limited
  - PFU Hong Kong Limited
  - PFU Shenzhen Limited
  - PFU Asia Pacific Pte. Ltd.

Report Contents

Period of Publication
This report is published for the period of April 1 2022 to March 31, 2023. Some content from March 2022 and before and April 2023 and after is also included.

This report was created to give information related to the environmental activities of PFU Limited and PFU Group.

Message from the Top

Helping customers change the way they work by supporting their digitalization entry point and all related business reforms

We (PFU) have inherited the DNA of "sincerity", "tenacity", "challenging spirit" and "enterprising spirit" from the origins of USAC Electronics, which was founded in Unoke, Ishikawa Prefecture and established its position as the top manufacturer of office computers, and PANAFACOM, the top manufacturer of minicomputers.

President and Representative Director
Seiji Murakami

During the major turning point of structural reform in 2000, we continued to live on without losing our DNA. Based on our "sincere response to customers' expectations" and "commitment to manufacturing and technological capabilities," we created and grew products and services that consistently provide value to customers, such as scanners that continue to produce overwhelming No. 1 products, and high-quality, high-performance computers "faithful and unforgettable solutions and services for customers".

It can be said that the value provided by PFU supports the customer's digitization entry point and provides the foundation for it. A scanner is an entry point into a PC where documents can be easily processed to support business processing. Embedded computers also contribute indirectly to the digitalization of customers by providing a core unit that can be said to be the foundation and brain of industrial computers. Both multi-vendor maintenance and managed services are the foundation services that make the infrastructure easier to use. We, who have contributed to the entrance and foundation of digitalization of our customers, aim to expand our business to reform the customer's business by adding the know-how that we have cultivated through the implementation of office computer, SI and internal business reform.

We will continue evolving edge devices as the gateway to digital services and provide services that support our customers' business process innovation and DX, thereby contributing to changing the way customers work.

Environmental Policy

The RICOH Group clearly defines its basic policy and action guidelines for environmental conservation as its "Environmental Principles". PFU is engaged in environmental activities based on these principles.

Environmental Principles

Basic Policy

As a global citizen, the Ricoh Group is obligation-conscious of environmental conservation. In addition, we strive to honor our environmental responsibilities and concentrate group-wide efforts in environmental conservation activities, implementation of which we believe to be as significant as our business operations.

Action Guideline

1. **Achieve superior targets**
   Complying with laws and regulations as a matter of course, we dutifully fulfill our environmental responsibilities, setting targets that go ahead of those that society currently requires, and by achieving these, create economic value.
2. **Develop innovative environmental technologies**
   We will take steps to develop and promote innovative environmental technologies that will give increased value to our customers and can be utilized by various people.
3. **Encourage all employees to participate in environmental activities**
   In all our business activities, we strive for awareness of environmental impact, thereby involving all Ricoh employees in implementing continuous improvements to prevent pollution, and use energy and natural resources more efficiently.
4. **Be attentive to product lifecycle**
   To provide our products and services, we spare no effort to reduce environmental effects in all stages of the product lifecycle, from procurement, manufacturing, sale, and logistics, to usage, recycling, and disposal.
5. **Improve employees' environmental awareness**
   We at Ricoh wish each employee to be attentive to a broader range of social issues and mindful of enhancing environmental awareness through proactive learning processes, designed to commit the employee to environmental conservation activities according to his or her responsibility.
6. **Contribute to society**
   By participating in and supporting environmental conservation activities, we will contribute to creating a sustainable society.
7. **Optimize communication with stakeholders**
   Ricoh Group will expand its environmental conservation activities with stakeholders. In addition, we will fully communicate and proactively cooperate with our stakeholders to reassure communities of our dependability and commitment to the environment.

Established in February 1992
Revised in February 2008

Environmental Management System

Results in Acquiring Independent Certification

We acquired certification for our Kasashima site (Ishikawa prefecture) in October 1996, the month in which the ISO14001 Environmental Management System Standards were issued. After that, we expanded our certified sites. All sites and sales and maintenance service bases across Japan received certification by October 2008. In addition, an overseas affiliated company has also received certification in March 2010.

Because the Tokyo headquarters and the Tokyo Development Center were relocated to the newly-built Yokohama headquarters in October 2014, we acquired the certifications accordingly in March 2015.

As a result of becoming a member of the RICOH Group, we relinquished our own certifications as PFU in December 2022 and integrated our certifications into the RICOH Group ISO 14001 certification.

October 1996:	Kasashima site (Ishikawa)
May 2001:	Headquarters/Ishikawa Development Center (Ishikawa), Tokyo Development Center (Tokyo)
April 2004:	Tokyo Headquarters (Kanagawa)
February 2006:	Kansai Office (Osaka), Tokai Office (Aichi), Shinbashi Office (Tokyo)
November 2006:	ProDeS Center (Ishikawa), PFU Techno Wise Takamatsu Plant (Ishikawa)
October 2008:	Sales and maintenance services in Japan (21 sites)
March 2010:	PFU Shanghai (Shanghai, China)
March 2015:	Yokohama Headquarters (Kanagawa) (Operations in the Tokyo Headquarters and Tokyo Development Center were combined)
April 2016:	PFU Quality Service Limited (Kanagawa)
December 2022:	Integrated into the RICOH Group ISO 14001 certification
June 2023:	PFU IT Services Limited (Kanagawa)

Headquarters

Yokohama Headquarters

ProDeS Center

Contents of ISO14001 Certification

Scope of Certification: Design, development, manufacture, sales and maintenance of Hardware of Computer, Peripheral Device, Application Device and Software conducted in PFU Limited, PFU IT Services Limited, PFU Quality Service Limited, PFU Techno Wise Limited, PFU Life Agency Limited, and PFU Shanghai Co., Ltd.

Certification Number:	JQA-E-70001
Registration Date:	October 29, 1996
Revision Date:	June 9, 2023
Certifying Organization:	Japan Quality Assurance Organization


ISO 14001
Management System Certificate

Certificate Number: JQA-E-70001

Organization:
RICOH COMPANY, LTD.
3-6 NAKAMAGOME 1-CHOME, OHTA-KU, TOKYO, JAPAN

JQA certifies that the above organization operates the Environmental Management System, within the scope of the Appendix attached, which has been assessed and found to comply with the requirements of:

ISO 14001 :2015 / JIS Q 14001 :2015

Registration Date : December 25, 1995
Last Renewal Date : December 25, 2022
Last Revision Date : June 9, 2023
Expiry Date : December 24, 2025

Post this to contact JQA for the validity of this certificate.

NORIAKI KOBAYASHI
PRESIDENT
1-25 KANDASUDACHO, CHIYODA-KU, TOKYO, JAPAN

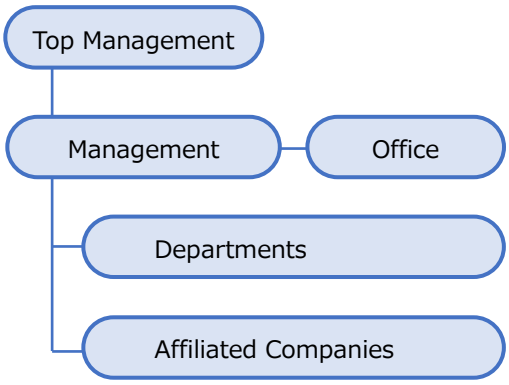
JAPAN QUALITY ASSURANCE ORGANIZATION

To be used in conjunction with attached Appendix.

JQA

Environmental Management Framework

<EMS Organization>



<Working Groups in Charge>

Green Solution Working Group
・Promotion of the development of eco-efficient products

Chemical Management System (CMS) Working Group
・Promotion of proper management of products that contain chemical substances

Green Procurement Working Group
・Promotion of green procurement for materials/software/services for products

Energy Saving/Waste Management Working Group
・Promotion of power saving/energy saving
・Maintaining zero waste emissions

Major Awards History, Certifications, etc.

1992 Award for the Promotion of Energy-Saving (Governor of Ishikawa Prefecture)
1994 Excellent Energy Management Plant Award (Chairman of the Central Bureau of Trade and Industry)
1999 Excellent Energy Management Plant Award (Secretary of the Natural Resources & Energy Agency)
2002 Ishikawa Green Enterprise Award (Governor of Ishikawa Prefecture)
2010 Ranked 31st in manufacturing in the 14th "Environmental Management Investigation (Nikkei)"
"Line of the Year" Award for scanners (BLI, an independent evaluator of office devices in USA), information security rating "A is" certification
2011 Ishikawa Prefecture Creativity and Originality Award in the Occupational Field of the Company (Yonejiro Tsuda Award) for the Promotion of Energy-Saving and the Installation of the High Efficiency Reflective Panel
2013 Excellent Energy Management Company Award (ProDeS Center)
(Chairman of the Japan Electric Association, Hokuriku Branch)
2014 kakaku.com PRODUCT AWARD 2013 silver prize in scanner division for ScanSnap SV600
"Ishikawa Satoyama ISO" certification (Ishikawa)
2015 Interop Tokyo 2015 "Best of Show Award" grand prize for cyber attack countermeasure/internal countermeasure appliance "iNetSec Intra Wall"
"Hama road supporter" certification (Yokohama)
2016 Eco Mark Award 2015 Prize (image scanner)
2017 Excellent Energy Management Company Award (Headquarters)
(Chairman of the Japan Electric Association, Hokuriku Branch)
2018 Certified Health & Productivity Management Outstanding Organizations Recognition Program, White 500 (PFU Group)

2019	Eruboshi (a certification based on the Act on the Promotion of Female Participation and Career Advancement in the Workplace), highest level certification (PFU) GOOD DESIGN AWARD 2019 for fi-800R Certified Health & Productivity Management Outstanding Organizations Recognition Program, White 500 (PFU Group) The China Environmental Label Excellence Enterprise Award (Fujitsu South China Limited)
2020	Certified Health & Productivity Management Outstanding Organizations Recognition Program 2020 (Large Enterprise Category) (PFU Group) Ishikawa Ecodesign Award (silver prize) (BIP Smart) KAIKA Prize from KAIKA Awards (Rising-V Activities)
2021	Certified Health & Productivity Management Outstanding Organizations Recognition Program 2021 (Large Enterprise Category) (PFU Group) GOOD DESIGN AWARD 2021 for ScanSnap iX1300 U.S. EPA 2021 SmartWay® Excellence Award for environmentally conscious activities (Fujitsu Computer Products of America, Inc., a subsidiary of the PFU group in the United States)
2022	Certified Health & Productivity Management Outstanding Organizations Recognition Program 2022 (Large Enterprise Category) (PFU Group) Received the Excellent Company Award for Cancer Control Promotion
2023	BCN scanner division, #1 share for 13 consecutive years

Certified Health & Productivity Management Outstanding Organizations Recognition Program 2022 (Large Enterprise Category)

BCN scanner division #1 share for 13 consecutive years (2023)

PFU Environmental Action Plan

The progress of the 10th Environmental Action Plan (Fiscal 2022 - Fiscal 2024) is as follows:

Activity			Details		Results from fiscal 2022	Targets for fiscal 2023	Targets for fiscal 2024
Green Solution	1	Continuous Creation and Provision of Eco-efficient Products 	To produce products with top-level energy efficiency	Scanner products	Product compliance with the International ENERGY STAR Program Ver. 3.X: 100% (2 models)	Product compliance with the International ENERGY STAR Program Ver. 3.X: 100%	Product compliance with the International ENERGY STAR Program Ver. 3.X: 100%
				Embedded computing products	Environmental performance index: 4.40	Environmental performance index: 4.30 or less	Environmental performance index: 4.13 or less
					Environmental contribution to our customers' sites 7,803 tons of CO_2	Environmental contribution to our customers' sites 8,855 tons of CO_2 or more	Environmental contribution to our customers' sites 10,052 tons of CO_2 or more
				Interactive KIOSKs	Environmental performance index: 15.74	Environmental performance index: 14.50 or less	Environmental performance index: 12.00 or less
					Environmental contribution to our customers' sites 1,765 tons of CO_2	Environmental contribution to our customers' sites 1,318 tons of CO_2 or more	Environmental contribution to our customers' sites 876 tons or CO_2 or more
				Network appliance products	Environmental performance index: 0.545	Environmental performance index: 0.519 or less	Environmental performance index: 0.494 or less
					Environmental contribution to our customers' sites 274.8 tons or CO_2	Environmental contribution to our customers' sites 274.2 tons of CO_2 or more	Environmental contribution to our customers' sites 276.5 tons or CO_2 or more
				Security products	Environmental performance index: 0.264	Environmental performance index: 0.251 or less	Environmental performance index: 0.238 or less
					Environmental contribution to our customers' sites 631.7 tons of CO_2	Environmental contribution to our customers' sites 668 tons or CO_2 or more	Environmental contribution to our customers' sites 709 tons or CO_2 or more
				Solutions	Environmental contribution to our customers' sites 6,736 tons of CO_2	Environmental contribution to our customers' sites 4,706 tons of CO_2 or more	Environmental contribution to our customers' sites 4,815 tons of CO_2 or more
			To comply with environmental labels (EPEAT)	Scanner products	Maintained and expanded compliance with EPEAT Product compliance with EPEAT: 100% (2 models)	To maintain and expand compliance with EPEAT Product compliance with EPEAT: 100%	To maintain and expand compliance with EPEAT Product compliance with EPEAT: 100%

	2	Promotion of Environmentally Conscious Solutions and Services 	To reduce our customers' environmental burden by expanding our environmentally conscious solutions and services	9 out of 9 departments	At least one suggestion per department (all relevant departments)	At least one suggestion per department (all relevant departments)
	3	Promotion of Green Procurement 	To promote procurement from suppliers that work aggressively in consideration of the environment	Promotion of activities to reduce CO_2 emissions and to preserve water resources to the upper stream in the supply chain: 100% understanding of business partners' activities (18 partner companies)	Promotion of activities to reduce CO_2 emissions and to preserve water resources to the upper stream in the supply chain: 100% understanding of business partners' activities	Promotion of activities to reduce CO_2 emissions and to preserve water resources to the upper stream in the supply chain: 100% understanding of business partners' activities
Green Process	4	Improvement of Quality and Enhancement of Business Efficiency 	To reduce the burden on the environment with improved business operations	24 out of 25 departments	At least one suggestion per department (all relevant departments)	At least one suggestion per department (all relevant departments)
	5	Promotion of Global Warming Countermeasures 	To reduce GHG emissions at business operation sites	GHG emissions: 4,930 tons of CO_2 (40% reduction compared to fiscal 2013)	GHG emissions: 4,988 tons of CO_2 or less (40% reduction compared to fiscal 2013)	GHG emissions: 4,685 tons of CO_2 or less (42% reduction compared to fiscal 2013)
Green Mind	6	Promotion of an Environmentally Conscious Culture 	To promote environmental and social contribution activities as well as biodiversity conservation activities, and to improve operation of environmental activities	Promotion of social contribution activities (21 projects)	Promotion of social contribution activities (23 projects)	Promotion of social contribution activities (24 projects)
				Promotion of the sharing/transmitting of environmental information and Promotion of improving operation of environmental activities (14 projects)	Promotion of the sharing/transmitting of environmental information and Promotion of improving operation of environmental activities (14 projects)	Promotion of the sharing/transmitting of environmental information and Promotion of improving operation of environmental activities (15 projects)
				Completed the integration of PFU's certification into the RICOH ISO 14001 certification	Continuous improvement of the management system	Continuous improvement of the management system

Results from Activities in Fiscal 2022

During 2022, the first year of the Tenth Environmental Action Plan (Fiscal 2022 - Fiscal 2024), we pursued 18 environmental targets and achieved 17 of them.

✓: Target achieved -: Target not achieved

Activity			Details		Fiscal 2022		
					Target	Result	Evaluation
Green Solution	1	Continuous Creation and Provision of Eco-efficient Products 	To produce products with top-level energy efficiency	Scanner products	Product compliance with the International ENERGY STAR Program Ver. 3.X: 100% (2 models)	Product compliance with the International ENERGY STAR Program Ver. 3.X: 100% (2 models)	✓
				Embedded computing products	Environmental performance index: 4.48 or less	Environmental performance index: 4.40	✓
					Environmental contribution to our customers' sites 7,800 tons or CO_2 or more	Environmental contribution to our customers' sites 7,803 tons of CO_2	✓
				Interactive KIOSKs	Environmental performance index: 15.80 or less	Environmental performance index: 15.74	✓
					Environmental contribution to our customers' sites 1,437 tons of CO_2 or more	Environmental contribution to our customers' sites 1,765 tons of CO_2	✓
				Network appliance products	Environmental performance index: 0.546 or less	Environmental performance index: 0.545	✓
					Environmental contribution to our customers' sites 271.9 tons or CO_2 or more	Environmental contribution to our customers' sites 274.8 tons or CO_2	✓
				Security products	Environmental performance index: 0.264 or less	Environmental performance index: 0.264	✓
					Environmental contribution to our customers' sites 630 tons of CO_2 or more	Environmental contribution to our customers' sites 631.7 tons of CO_2	✓
				Solutions	Environmental contribution to our customers' sites 4,564 tons of CO_2 or more	Environmental contribution to our customers' sites 6,736 tons of CO_2	✓
			To comply with environmental labels (EPEAT)	Scanner products	Maintained and expanded compliance with EPEAT Product compliance with EPEAT: 100% (2 models)	Maintained and expanded compliance with EPEAT Product compliance with EPEAT: 100% (2 models)	✓

	2	Promotion of Environmentally Conscious Solutions and Services 	To reduce our customers' environmental burden by expanding our environmentally conscious solutions and services	At least one suggestion per department (9 departments)	At least one suggestion per department (Achieved in all 9 departments)	✓
	3	Promotion of Green Procurement 	To promote procurement from suppliers that work aggressively in consideration of the environment	Promotion of activities to reduce CO_2 emissions and to preserve water resources to the upper stream in the supply chain: 100% understanding of business partners' activities (18 partner companies)	Promotion of activities to reduce CO_2 emissions and to preserve water resources to the upper stream in the supply chain: 100% understanding of business partners' activities (18 partner companies)	✓
Green Process	4	Improvement of Quality and Enhancement of Business Efficiency 	To reduce the burden on the environment with improved business operations	At least one suggestion per department (25 departments)	At least one suggestion per department (Achieved in 24 out of 25 departments)	-
	5	Promotion of Global Warming Countermeasures 	To reduce GHG emissions at business operation sites	GHG emissions: 5,901 tons of CO2 or less (38% reduction compared to fiscal 2013)	GHG emissions: 4,930 tons of CO_2 (40% reduction compared to fiscal 2013)	✓
Green Mind	6	Promotion of an Environmentally Conscious Culture 	To promote environmental and social contribution activities as well as biodiversity conservation activities, and to improve operation of environmental activities	Promotion of social contribution activities (21 projects)	Promotion of social contribution activities (21 projects)	✓
				Promotion of the sharing/transmitting of environmental information and Promotion of improving operation of environmental activities (14 projects)	Promotion of the sharing/transmitting of environmental information and Promotion of improving operation of environmental activities (14 projects)	✓
				Continuous improvement of the management system	Completed the integration of PFU's certification into the RICOH ISO 14001 certification	✓

Eco-efficient Products

We make efforts to develop and provide eco-efficient products that support "energy-saving", "3R design (*1)", and "management of used chemical substances" in order to reduce the burden on the environment throughout the product's entire life cycle. In fiscal 2022 in order to contribute to reducing the environmental burden at our customers' sites by releasing more products with advanced environmental performance, we engaged in activities setting the improvement of environmental performance as an environmental target for products, solutions, and services in all our business departments and promoted the development and provision of eco-efficient products.

Main Achievements of Fiscal 2022

Producing products with top-level energy efficiency	Scanner products	As planned, we complied with the International ENERGY STAR Program Ver. 3.0 for 2 newly-developed models.
	Embedded computing products	To make environmental contributions, we made efforts to develop better products by improving the environmental contribution indexes that we defined based on our own standards. We have also made efforts to reduce the environmental burden at our customers' sites by providing our products for customers.
	Interactive KIOSKs	To make environmental contributions, we made efforts to develop better products by improving the environmental contribution indexes that we defined based on our own standards. We have also made efforts to reduce the environmental burden at our customers' sites by providing our products for customers.
	Security products	To make environmental contributions, we made efforts to develop better products by improving the environmental contribution indexes that we defined based on our own standards. We have also made efforts to reduce the environmental burden at our customers' sites by providing our products for customers.
	Solutions	We have made efforts to reduce environmental burden at our customers' sites by providing our solutions for the customers.
	Customer services	We have made efforts to reduce environmental burden at our customers' sites by providing our services for the customers.
Complying with environmental labels	Scanner products	As planned, we acquired certification for 2 new models that are to be expanded to North America, for EPEAT (Electronic Product Environmental Assessment Tool), an environmental evaluation system for electronic products adapted as a system for promoting green purchasing, primarily in organizations related to the American government.
		As our environmentally conscious activities, such as 3R design and energy-saving functions became recognized, 2 new models received Eco Mark certification.

(*1) 3R design: Design in which the concepts of "Reduce", "Reuse", and "Recycle" are taken into consideration.

Main Eco-efficient Products for Fiscal 2022

We contribute to reducing the burden on the environment from our customers' business by offering products that comply with the Act on Promoting Green Procurement with energy-saving and 3R design features, and furthermore that comply with various environmental standards. Information about the compliance of our scanners with environmental standards is published on our official company website.

fi-8040

fi-70F

- Product compliance with the Act on Promoting Green Procurement
- Product compliance with the International ENERGY STAR Program Ver. 3.0
  Power consumption during sleep mode:
  fi-8040 1.9 W or less
  fi-70F 2.0 W or less
- Eco Mark certified product
  fi-8040 22 155 056
  fi-70F 22 155 039
- Product compliance with chemical substance regulations (RoHS Directive Regulation, etc.)

Information for EPEAT 4.7.2.2: Public disclosure of supply chain toxics

Environmentally Conscious Solutions and Services

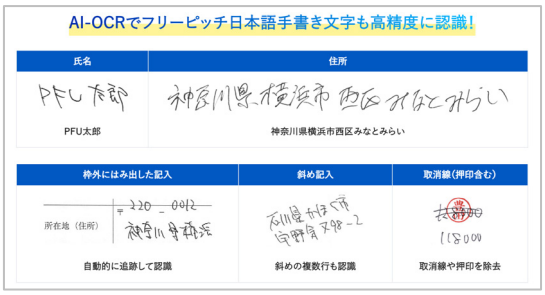
We provide environmentally conscious solutions and services that contribute to reducing the burden on the environment from our customers' business, such as energy conservation and paperless work, through more efficient business, reduced consumption, reduced movement, and efficient use of space. In fiscal 2022, we moved forward with the activities that contribute to reducing the environmental burden on our customers, such as developing and shipping various solutions and services, and expanding the provision of solutions and services that utilize scanners.

Main Achievements of Fiscal 2022

	Activity	Product
Reducing our customers' environmental burden by expanding our environmentally conscious solutions and services	・Development and shipment of environmentally conscious solutions ・Expansion of the provision of solutions and services that utilize scanners ・Promotion of virtualization, cloud negotiation, etc.	・DynaEye 11 ・BIP Smart ・PaperStream Capture

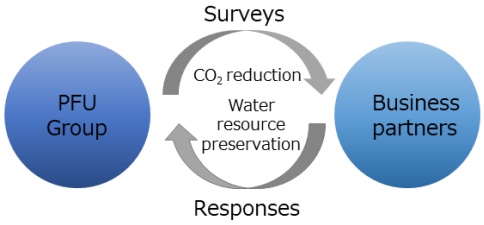
■Digitization of the Information on Paper Forms (Significant Improvement in Text Recognition Accuracy)

For many customers, especially local governments and government offices, paper-based tasks remain routine, and a large amount of time is spent in the data input of the information written on application documents.
The combination of an image scanner and the OCR software "DynaEye" reduces the time required for the data input of application document information.
The text recognition accuracy for AI-OCR (AI-OCR for handwritten Japanese) has also significantly improved with the latest version "DynaEye 11" (recognition accuracy: 96.1% → 99.2% (measured using standard PFU paper forms)). Highly accurate text recognition is now possible even for handwriting that is written diagonally or has been crossed out (writing mistakes), which are issues often found in the processing of paper forms at local government offices that frequently work with handwritten paper forms. Accurate recognition is also now possible for handwriting extending beyond the boundaries of the text box, which had previously made it difficult for writing to be recognized.



Green Procurement

To provide eco-efficient products, we established "PFU Group Green Procurement Direction", which specifies basic requirements for our suppliers, and we promote environmental activities together with our suppliers.
In fiscal 2022, we promoted activities to reduce CO_2 and to preserve water resources to the upper stream in the supply chain for target business partners, and gained an understanding of the activities of new business partners.



Main Achievements of Fiscal 2022

Promotion of procurement from suppliers that work aggressively in consideration of the environment	Promotion of activities to reduce CO_2 and to preserve water resources to the upper stream in the supply chain Gained an understanding of the activities of 18 new business partners (100%)

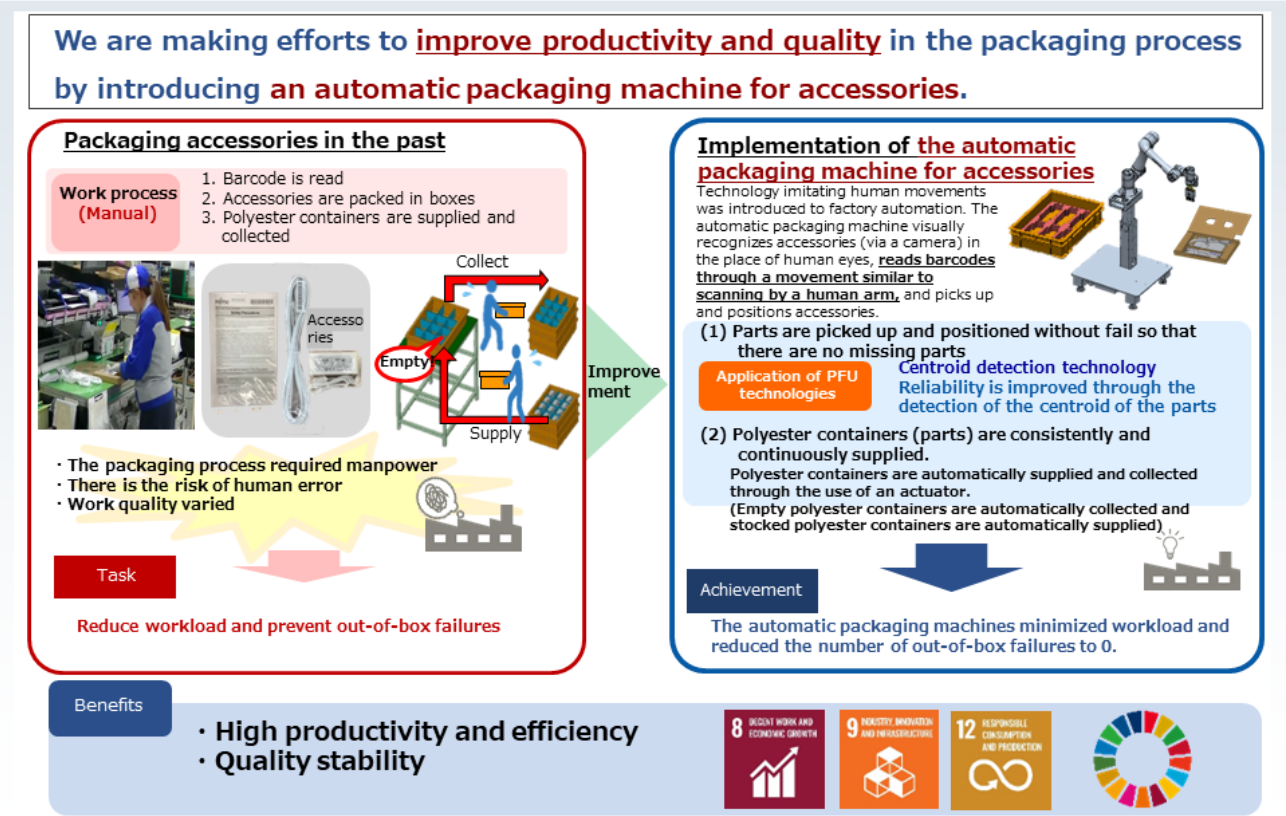
Improvement of Quality and Enhancement of Business Efficiency

Even in in-house work, we promote the reduction of the environmental burden through the enhancement of business efficiency and the improvement of quality using IT, which leads to promoting environmental activities that are focused on our core business.

In fiscal 2022, we promoted the improvement of quality and the enhancement of business efficiency of our core business at all departments.

Examples of Improvements in Fiscal 2022

■Production Enhancement and Quality Improvement by Implementing Automatic Packaging Machine



Global Warming Countermeasures

To prevent global warming, we engage in energy-saving activities to reduce the amount of energy consumption. (*2)
In fiscal 2022, we made efforts to increase our energy efficiency by installing electrostatic filters in our air-conditioning systems and replacing some of our windows with double-pane windows. We also worked to expand our use of renewable energy.
(*2) Amount of consumption of purchased electricity, gas, and heat, converted into CO_2 (t-CO_2)

(*2) Amount of Energy Consumption (CO_2 Conversion Value: t-CO_2)

	Target for fiscal 2022	Result from fiscal 2022
Energy consumption	5,901 tons of CO_2 or less	4,930 tons of CO_2

■Saving Energy by Installing Electrostatic Filters in Air-conditioning Systems

The ProDeS Center saved energy by installing electrostatic filters in the indoor air-conditioning units to improve heat exchange efficiency.

Resulting Energy Savings

Installation Location	ProDeS Center
Installation Date	April 2022
Amount of Reduction in CO_2 Emissions	16.1 tons of CO_2

■Saving Energy by Replacing Some Windows with Double-pane Windows

We saved energy at our Headquarters by replacing some of our windows with double-pane (double-sash) windows to improve insulation. Double-pane windows are effective for sound insulation and prevention of window condensation.

Resulting Energy Savings

Installation Location	Headquarters
Installation Date	January 2023
Amount of Reduction in CO_2 Emissions	5.0 tons of CO_2

Environmentally Conscious Culture

Our Group workers promote the protection of the environment through environmental and social contribution activities and biodiversity conservation activities, by entering into a contract and working together with the community and the local government around the company sites. In fiscal 2022, activities that had been suspended due to COVID-19 pandemic restrictions gradually resumed. We participated in the mass beach cleanup sponsored by Kahoku City for the first time in three years, as well as beautification activities in the Kahoku Lagoon reclaimed land and Hama Road Supporter activities.

List of Main Activities

No.	Event name	Done	Implemented at:
1	"Green Fund" donation	April 2022	Ishikawa
2	Hama Road Supporter activities	May 2022	Yokohama Headquarters
3	Cleanup activities on the Kahoku Lagoon	June 2022	Ishikawa
4	Cutting the grass around the PFU Techno Wise Takamatsu Plant	June 2022	Ishikawa
5	Turning the Lights Off	July 2022	All offices/sites
6	Mass beach cleanup activity sponsored by Kahoku City	July 2022	Ishikawa
7	Hama Road Supporter activities	August 2022	Yokohama Headquarters
8	Creation Workshop	September 2022	Ishikawa
9	Cleanup activities on the Kahoku Lagoon	October 2022	Ishikawa
10	Hama Road Supporter activities	November 2022	Yokohama Headquarters
11	Plantation of nandina saplings	December 2022	Ishikawa
12	Displaying Certificate of Green Power (at PFU Charity Concert)	December 2022	Ishikawa
13	Hama Road Supporter activities	February 2023	Yokohama Headquarters
14	Tree-planting activities of trees to block out wind on the Kahoku Lagoon	March 2023	Ishikawa
15	Survey of environmental contribution activities conducted by the RICOH Group	March 2023	Ishikawa
16	Use of local ingredients in the company cafeteria	All year	Ishikawa
17	Collection of plastic bottle caps	All year	All the sites in the nation
18	Collection of used disposable wooden chopsticks	All year	Tokai Office
19	Conversion of food residue into fertilizer	All year	Ishikawa
20	Social contribution through sports	All year	Ishikawa, all sites in the nation
21	Support for regional education	All year	Ishikawa

Volunteer Activities for Kahoku Lagoon Reclaimed Land

In March 2007, we entered into a contract to take part in voluntary activities such as weeding and beautification of the environment to help maintain the beauty of the reclaimed land in the Kahoku Lagoon and the function of its agricultural facilities, as private company No. 1 for the Kahoku Lagoon reclaimed land Improvement Area and Kahoku Lagoon reclaimed land Periphery Improvement Area. In accordance with this contract, in fiscal 2022, we took part in beautification activities and activities planting trees to block out wind in the Kahoku Lagoon reclaimed land.

Beautification activities on the Kahoku Lagoon reclaimed land

Green Fund Donation and Plantation of Nandina Saplings

Every year we donate to the "Green Fund", and we plant the saplings we are gifted in return on the grounds of our headquarters. The purpose of the Green Fund is to plant trees, protect forests against droughts and other problems, educate children about forests and the environment, help with African green belt restoration activities, and more.

Plantation of nandina saplings

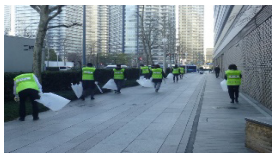
Mass Beach Cleanup Activity Sponsored by Kahoku City

In Ishikawa, we participated in the mass beach cleanup sponsored by Kahoku City in July 2022.
Starting early in the morning, we collected a large amount of trash, including plastic waste, together with many local residents at Shirao Beach near our Headquarters.

Mass beach cleanup activity sponsored by Kahoku City

Local Environment Beautification Activities

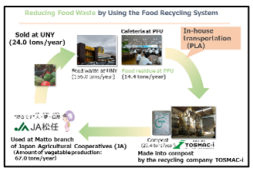
As part of our CSR activities and environmental activities, we participated in the Hama Road Supporter activities sponsored by Yokohama City at the Yokohama Headquarters. In fiscal 2022, we participated in a total of four beautification/cleanup activities on roads around our Yokohama Headquarters.



Hama Road Supporter activities

Food Residue Recycling

We are continuing our efforts to use resources more efficiently by recycling food waste with the regional food recycling system (outsourcing to an external vendor that turns food waste into compost).

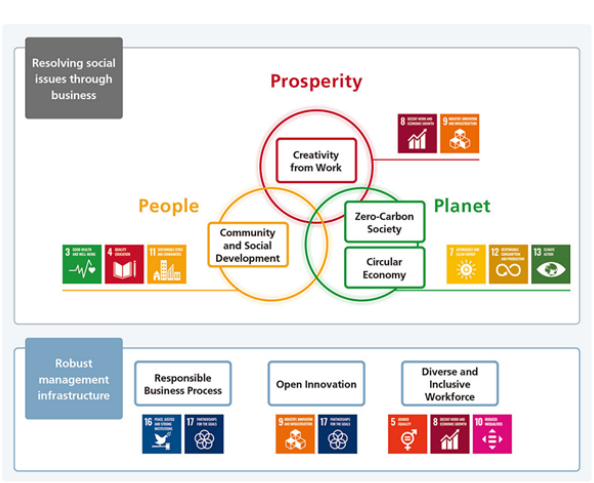


Food residue recycling

Action Plan from Fiscal 2023 to Fiscal 2025

The RICOH Group has identified seven material issues in two areas, "Resolving social issues through business," and "Robust management infrastructure," and set ESG targets in linkage with the material issues.
PFU has set ESG targets consistent with the RICOH Group's ESG targets and changed our 10th Environmental Action Plan (Fiscal 2022 to Fiscal 2024) into the PFU ESG Targets (Fiscal 2023 to Fiscal 2025).

Seven Material Issues and SDGs



		[Strategic Intent]
Resolving social issues through business	Creativity from Work	To provide digital services that transform the way customers work, and help them improve productivity improvement and value creation
	Community and Social Development	To contribute to the maintenance, development, and efficiency of community and social systems. We leverage our technical expertise and customer connections to expand the areas where we provide value.
	Zero-Carbon Society	To decarbonize the entire value chain and create business opportunities by contributing to carbon neutrality
	Circular Economy	To create business opportunities by building a circular economy business model for ourselves and our customers
Robust management infrastructure	Responsible Business Process	To earn stakeholder trust by taking a holistic view of our supply chain and minimizing ESG risks in our business processes
	Open Innovation	To shift from a self-sufficient approach to a new value creation process that creates businesses to quickly resolve social issues
	Diverse and Inclusive Workforce	To foster a corporate culture where diverse employees can demonstrate their potential and transform themselves and the company into one that is resilient to change

PFU ESG Targets

Material Issues		ESG Indicators			Fiscal 2023	Fiscal 2024	Fiscal 2025
Resolving social issues through business	Creativity from Work	Sales of high-end scanners with high added value that contribute to customers' business efficiency (fi Series: global sales)			433,000 units	442,000 units	448,000 units
	Zero-Carbon society	The rate of reduction in scope 1 and 2 GHG emissions			5,947 tons of CO_2	5,332 tons of CO_2	4,697 tons of CO_2
		The rate of reduction in scope 3 GHG emissions	Product compliance with the International ENERGY STAR Program Ver. 3.X	Scanner products	100%	100%	100%
			Acquisition of EPEAT	Scanner products	100%	100%	100%
			Environmental performance index	Embedded computing products	4.39 or less	4.30 or less	4.22 or less
				Interactive KIOSKs	14.44 or less	11.33 or less	10.46 or less
				Network appliance products	0.546 or less	0.546 or less	0.546 or less
				Security products	0.256 or less	0.256 or less	0.256 or less
			Amount of environmental contribution to our customers' places of business by providing customers with our products	Embedded computing products	7,956 tons of CO_2	8,115 tons of CO_2	8,277 tons of CO_2
				Interactive KIOSKs	1,628 tons of CO_2	1,164 tons of CO_2	762 tons of CO_2
				Network appliance products	277 tons of CO_2	226 tons of CO_2	190 tons of CO_2
				Security products	648.4 tons of CO_2	657.8 tons of CO_2	649.6 tons of CO_2
			Environmental contribution to our customers' places of business by providing environmentally conscious solutions	Documents	724.6 tons of CO_2	773.5 tons of CO_2	839.3 tons of CO_2
				Solutions	3,960 tons of CO_2	4,023 tons of CO_2	4,109 tons of CO_2

We will be setting our ESG targets for the "Circular Economy" material issue of the "Resolving social issues through business" area and the "Responsible Business Process" and "Diverse and Inclusive Workforce" material issues of the "Robust management infrastructure" area during fiscal 2023.

Carbon Neutral

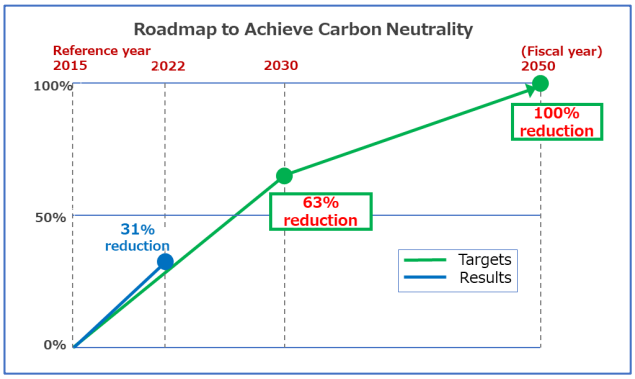
We want to contribute fully to efforts to prevent global warming to realize a sustainable society.

Efforts towards Scope 1 and 2

We aim to be completely carbon neutral by 2050. We want to achieve the goal of net zero CO_2 emissions coming from the PFU group.
In order to achieve carbon neutrality, we have created a "roadmap to completion", and while promoting the sustainable conservation of energy, we are also advancing toward the adoption of renewable energy.
Based on the RICOH Group's medium- to long-term environmental targets, we are aiming toward a zero-carbon society by setting our reduction target for fiscal 2030 as 63% reduction compared to fiscal 2015.

Target for Reduction in Amount of CO_2 Emissions (Scope 1, Scope 2)

Target for fiscal 2030	Target for fiscal 2050
63% reduction compared to fiscal 2015	100% reduction



Efforts towards Scope 3

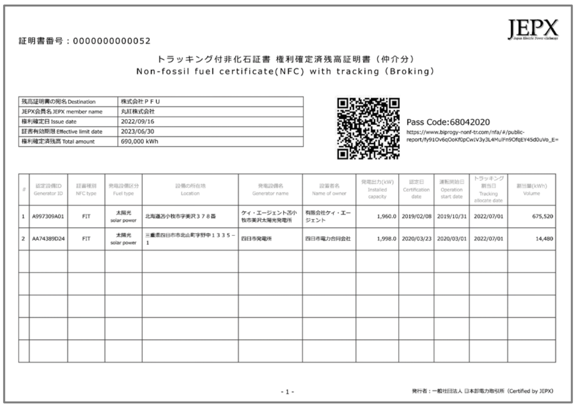
The reduction of CO_2 emissions has been required across the entire supply chain of our business operations, from upstream to downstream, such as procurement, transportation, and use. PFU has set a reduction target that focuses on three categories with high emission rates: "Purchased products/services (Category 1)", "Transportation, shipping (upstream) (Category 4)", and "Use of products sold (Category 11)".

Target for Reduction in Amount of CO_2 Emissions (Scope 3)

Target for fiscal 2030
(40% reduction compared to fiscal 2015) (Category 1 + Category 4 + Category 11)

Efforts for a Wider Dissemination of Renewable Energy

PFU will contribute to the wider spread of renewable energy across all of society while also working towards the adoption of renewable energy, to achieve our Group's own goal of net zero CO_2 emissions.



証明書番号：0000000000052

JEPX

トラッキング付非化石証書 権利確定済残高証明書（仲介分）
Non-fossil fuel certificate(NFC) with tracking（Broking）

残高証明書の宛名 Destination	株式会社ＰＦＵ
JEPX会員名 JEPX member name	丸紅株式会社
権利確定日 Issue date	2022/09/16
証書有効期限 Effective limit date	2023/06/30
権利確定済残高 Total amount	690,000 kWh

Pass Code:68042020
https://www.biprogy-nonf-tr.com/nfa/#/public-report/fy91Ov6qOoKf0pCwIV3y3L4MulFn9OfqEY45d0uVo_E=

#	認定設備ID Generator ID	証書種別 NFC type	発電設備区分 Fuel type	設備の所在地 Location	発電設備名 Generator name	設置者名 Name of owner	発電出力(kW) Installed capacity	認定日 Certification date	運転開始日 Operation start date	トラッキング割当日 Tracking allocate date	割当量(kWh) Volume
1	A997309A01	FIT	太陽光 solar power	北海道苫小牧市字美沢３７８番	ケィ・エージェント苫小牧市美沢太陽光発電所	有限会社ケィ・エージェント	1,960.0	2019/02/08	2019/10/31	2022/07/01	675,520
2	AA74389D24	FIT	太陽光 solar power	三重県四日市市北山町字野中１３３５－1	四日市発電所	四日市電力合同会社	1,998.0	2020/03/23	2020/03/01	2022/07/01	14,480

- 1 -

発行者：一般社団法人 日本卸電力取引所（Certified by JEPX）

Purchased Green Power

Result from fiscal 2022
690,000 kWh (equivalent to 18% of the electricity used annually at the ProDeS Center)

Environmental Awareness & Communication

We strive to increase our employees' environmental awareness through efforts such as sharing environmental information.
We also respond to inquiries about the environment from our customers.

PFU Creation Workshop Camp 2022

PFU Creation Workshop Camp 2022

On July 30th (Sat), August 7th (Sun), and September 3rd (Sat) in 2022, we held PFU Creation Workshop Camp 2022 at the PFU Headquarters.
This is an event we have been holding since 2007 for local children in Kahoku city. 2023 marks our 12th workshop camp. It was a hands-on course for families held at Kahoku Citizen's College and sponsored by the Kahoku City Board of Education.
In fiscal 2022, in response to a request from Kahoku City for an event to be held that can train the potential applicants for the "Elementary School Programming Contest in Ishikawa", this hands-on course for families was renamed the "Creation Workshop Camp". The camp was held in three sessions (over three days) and included the training of the potential contest applicants.
20 families of elementary school students (4th to 6th graders), including families from Kahoku City and our company, participated.

Sharing Environmental Information

We are continuing to make efforts to minimize our environmental impact by sharing the following information on environmental sustainability on the environmental information page on our in-house intranet.

- Environmental policy, action plan, and implementation progress
- Owned facilities and chemical substances used
- Information about environmental laws and regulations and the company's compliance status
- Environmental performance data
  (Electricity, heat, gasoline, light oil, kerosene, gas, water, and waste)
- News, topics, and other information regarding the environment

Portal site for environmental information for employees

Requests and Inquiries from Outside Our Company

In fiscal 2022, we responded to 178 requests and inquires, such as questionnaires and survey requests regarding the environment submitted to our company by customers, the government, industrial groups, and others. There were no environmental claims.

	Requests and Inquiries	Number of Requests
1	Requests about products and services (Example: Request for REACH/RoHS surveys, survey on the use of chemical substances specified by a customer, etc.)	114 requests
2	Requests other than those related to products (Example: Request for provision of data about the environment from customers, the government, industry organizations, etc.)	64 requests
	Total	178 requests

Sharing Information

We transmit and introduce "information about eco-efficient products" and "environmental activities" via our official website and at events.
We are sharing information about sustainability and SDGs on our website.

"Sustainability" Page on Our Official Website

PFU aims to be a business that can contribute to "solutions to social issues" and "a design for a sustainable society". We have posted a "Sustainability" page on our public website to share information about our way of thinking, course of action, and future direction for "sustainable operation", "environment (E)", "society (S)", and "governance (G)".
In addition, we have built an environment to distribute information within the company to raise awareness of SDGs among workers in the PFU group.

"Sustainability" Page

Environmental Report

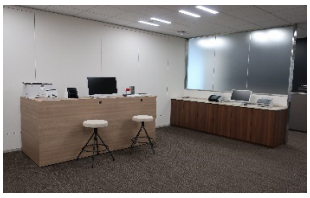
Since 1994, we have been issuing the "PFU Environmental Report" (and the English version since 2003) as our annual environmental report and publishing the report on our official website. In addition to this report, we also share the latest information about eco-efficient products on our official website.

Environmental Report

Showroom

We set up showrooms at our main sites in Japan to display our eco-efficient products, such as scanners and embedded computer products, and other environmentally conscious solutions.

Headquarters



Yokohama Headquarters

Use of Green Power at Events

At the "PFU Christmas Charity Concert" (held in Kanazawa on December 10th) , we contributed to spreading the use of natural energy in the nation and mitigating global warming by using renewable energy from wind power to supply the equipment in the venues with electricity.

Certificate of Green Power

Environmental Performance Data

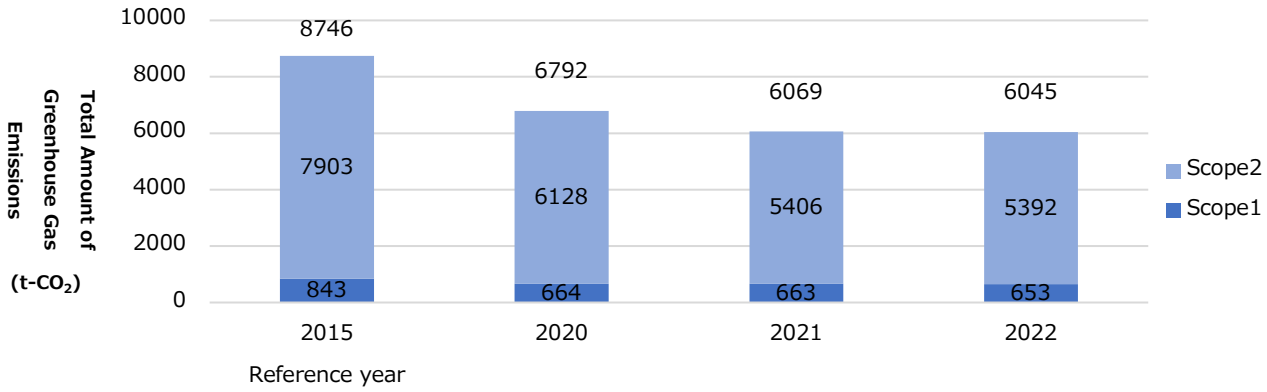
Environmental Conservation

In order to conserve the environment surrounding our sites and comply with the regulations, we perform ongoing management of our facilities, as well as properly manage chemical substances to prevent pollution.
Also, we regularly monitor the burden on the environment from our sites by assessing the actual amount of greenhouse gases, waste material, and water resources emitted/used in business.

Environmental Burden

Total Amount of Greenhouse Gas (GHG) Emissions (Scope 1, Scope 2)

The amount of greenhouse gas emissions from all our sites in Japan is converted to a CO2 equivalent weight as shown below.



The above greenhouse gas emissions amount (t-CO_2) is calculated by taking the total of the WRI/WBCSD GHG Protocol Scope 1 and Scope 2 emission amounts.

- Scope 1: Gasoline and light oil (for company-owned cars used on the company premises), liquefied petroleum gas (dining hall kitchen), town gas (heating and cooling), kerosene (heating)
- Scope 2: Purchased electricity and heating (district cooling and heating at the Yokohama headquarters)

[Conversion factor] Purchased electricity: Uses each electric company's conversion factor for the Act on the Rational Use of Energy report
Liquefied petroleum gas: 5.98 tons of CO_2/1,000 ㎥ (fixed), town gas: 2.23 tons of CO_2/1,000 ㎥ (fixed),
heat: 0.057 tons of CO_2/GJ (fixed), gasoline: 2.32 tons of CO_2/kL (fixed),
light oil: 2.619 tons of CO_2/kL (fixed), kerosene: 2.49 tons of CO_2/kL (fixed)

Electricity Consumption

The amounts of electricity consumption at our main sites in Japan are shown below.

	Unit	Fiscal 2015 Reference year	Fiscal 2020	Fiscal 2021	Fiscal 2022
Total electricity	MWh	13636	12741	11849	11663
Renewable electricity	MWh	0	0	321	690
Renewable energy ratio	%	0.0	0.0	2.7	5.9

Total Amount of Greenhouse Gas (GHG) Emissions (Scope 3)

The amount of greenhouse gas emissions is converted to a CO2 equivalent weight as shown below.

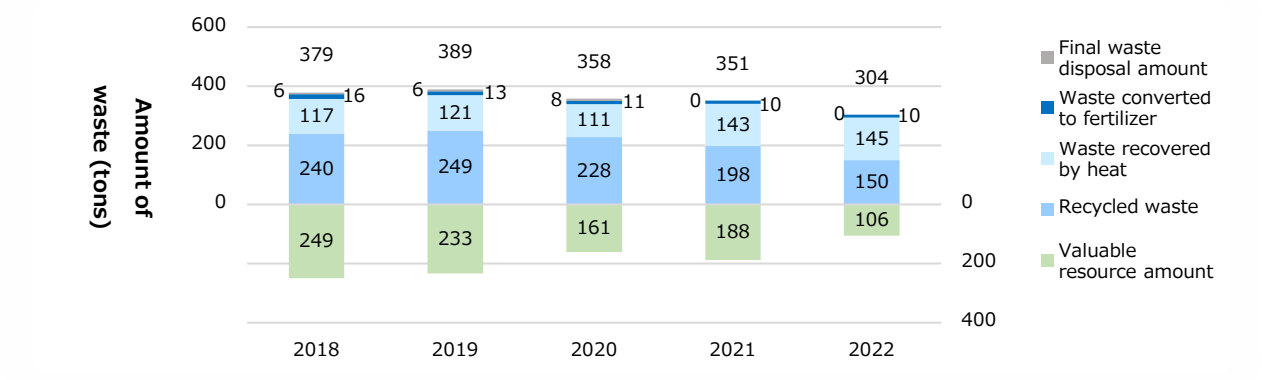
Category	Category Name	Amount of Emission (t-CO_2)				Ratio of amount for each category to entire amount for Scope 3 in fiscal 2022 (%)
		Fiscal 2015 Reference year	Fiscal 2020	Fiscal 2021	Fiscal 2022	
Category 1	Purchased goods and services	110,727.4	101,339.2	111,633.0	125,254.0	86.7
Category 2	Capital goods	4,580.3	7,554.4	1,924.8	4,127.3	2.9
Category 3	Fuel- and energy-related activities not included in Scope 1 or Scope 2	5,331.4	4,549.2	4,485.0	4,335.5	3.0
Category 4	Upstream transportation and distribution	611.7	678.3	1,152.9	491.0	0.3
Category 5	Waste generated in operations	62.1	50.5	50.8	44.0	0.0
Category 6	Business travel	991.5	161.5	421.1	703.8	0.5
Category 7	Employee commuting	3,997.2	4,289.3	2,451.9	2,453.2	1.7
Category 8	Upstream leased assets	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Category 9	Downstream transportation and distribution	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Category 10	Processing of sold products	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Category 11	Use of sold products	8,816.9	10,138.8	11,102.9	7,075.4	4.9
Category 12	End-of-life treatment of sold products	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Category 13	Downstream leased assets	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Category 14	Franchises	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Category 15	Investments	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Total		135,118.6	128,761.2	133,222.4	144,484.1	100.0

Amount of Waste

The amount of waste for all our sites in Japan is shown below. We achieved zero waste emissions (*3) in all our offices and factories.

We check that after thermal recycling by means such as the conversion of general combustible matter to RDF (Refuse Derived Fuel), the residue is put to effective use as base material for cement and paving materials.

We set a goal for 5% or more reduction in the amount of waste, down to 527 tons or less from the 555 ton average of fiscal years 2012 to 2014. Our actual results from fiscal 2022 were 304 tons (-42%).



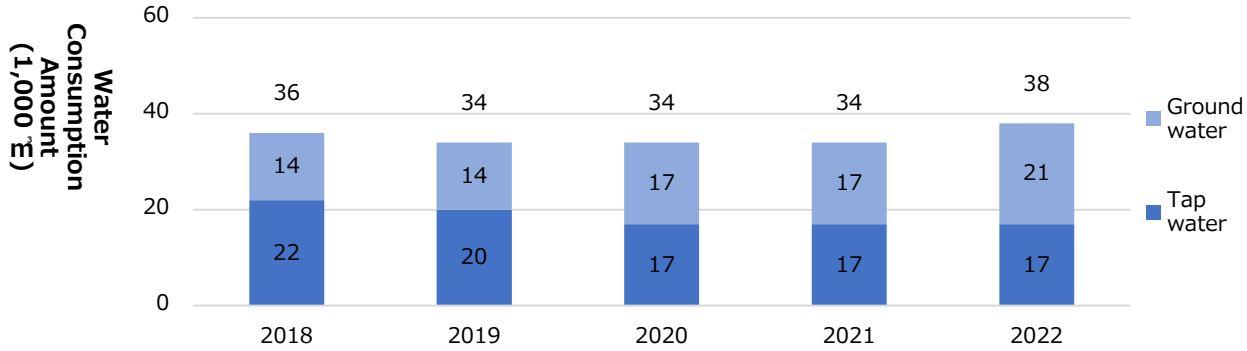
(*3) Zero waste emission means that waste produced by our sites is all used effectively, such as through recycling, and disposal by simple incineration or landfills is less than 0.5%. The term "Waste", as used above, specifically includes 11 sub-types, such as sludge waste, oil waste, acid waste, alkali waste, plastic waste, paper waste, metal waste, timber waste, textile waste, glass and ceramic waste, and meat and vegetable waste (cafeteria kitchen waste). Medical waste is not included in this definition.

(Note) The valuable resource amount means the amount of waste resources sold off for monetary compensation. The final waste disposal amount means the remaining waste (landfill) other than recycled waste, waste recovered by heat, and simple incinerated waste.

Water Consumption/Water Drainage

The amount of water consumption and water drainage for our main sites in Japan is shown below.

■Water Consumption Amount

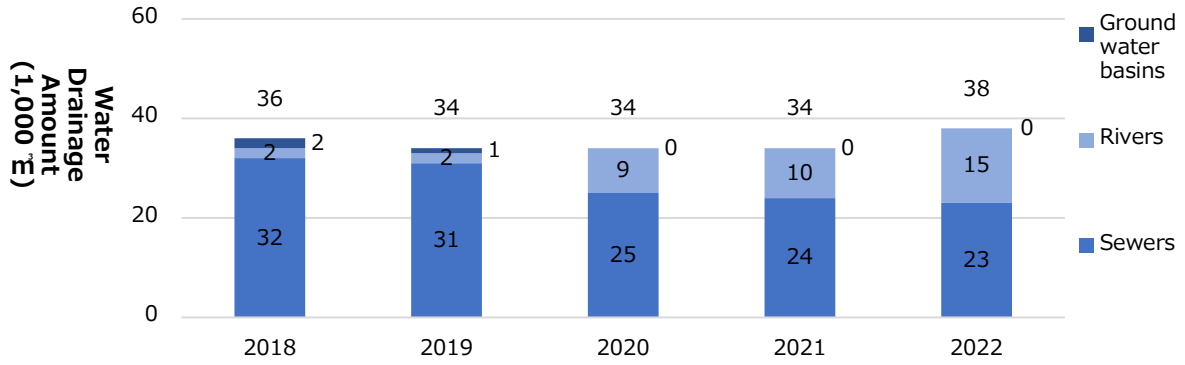


At each site, we use tap water for domestic use and to humidify the office in winter. At our Headquarters, we use ground water to water our plants in summer, and at our Headquarters and the ProDeS Center, we use ground water to melt snow. We use water for our every day needs at our company sites, not for industrial purposes.

For our total water consumption amount, we set a target to reduce it by 1% or more in fiscal 2022 to an amount of 35,600 ㎥ or less compared to the reference year of 2018. In fiscal 2022, more ground water was used to melt snow due to heavier snowfalls that year. As a result, we were not able to achieve our target, with our actual consumption results for fiscal 2022 at 38,000 ㎥ (+2.4%).

Our water is used for every day purposes. We do not have any water that can be reused or recycled.

■Water Drainage Amount



Tap water used for domestic uses drains into the sewer. Ground water used to melt snow drains into the rivers, and water used to water plants and vegetable drains underground. We have been continuously monitoring and measuring water quality by using our own self management values in order to ensure the quality of water that drains from our main sites.

In fiscal 2022, more ground water was used to melt snow. Therefore, more water was drained to rivers.

Results in Handling of Chemical Substances

We tally the amount of chemical substances that are used for purposes such as designing, developing, evaluating, manufacturing, maintaining, or cleaning up the premises no matter how much there is.

■Chemical Substances Subject to PRTR Law

The amount of chemical substances subject to the PRTR law that were handled in fiscal 2022 is shown below. None of the chemical substances were in excess of the annual values which require the relevant prefectural authorities to be notified (*4).
Furthermore, no Special Class I Specified Chemical Substances were handled.
We set a goal to limit the amount we handle to less than the average of fiscal years 2012 to 2014, which was 0.132 tons. Our actual results from fiscal 2022 were 0.098 tons (-9%).

Annual Handled Amount of Chemical Substances Subject to the PRTR Law (Class I Specified Chemical Substances) (Tons)

Chemical Substance Name	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Sodium linear alkylbenzensulfonate	0.034	0.031	0.044	0.031	0.031
Polyoxyethylene alkyl ether	0.021	0.022	0.022	0.019	0.023
2-aminoethanol	0.021	0.026	0.027	0.025	0.019
Silver and its water-soluble compounds	0.028	0.039	0.031	0.022	0.019
Methyl methacrylate	0.000	0.000	0.006	0.006	0.004
Methylenebis (4,1-phenylene) diisocyanate	0.000	0.000	0.000	0.000	0.001
Sodium dodecyl ether sulfate	0.002	0.001	0.001	0.001	0.001
2,6-Di-tert-butyl-4-cresol	0.000	0.000	0.000	0.001	0.000
Methacrylic acid	0.000	0.000	0.000	0.000	0.000
n-Hexane	0.001	0.001	0.001	0.001	0.000
Other	0.016	0.002	0.001	0.001	0.000
Total	0.135	0.123	0.136	0.107	0.098

(*4) 1 ton or more per year for Class I Specified Chemical Substances, 0.5 tons or more per year for Special Class I Specified Chemical Substances.

■VOC (Volatile Organic Compound)

Although there are no specific facilities that are subject to VOC emission control, we make an independent effort to maintain and manage the amount of VOCs handled.
We set a goal to limit the amount we handle to less than the average of fiscal years 2012 to 2014, which was 1.266 tons. Our actual results from fiscal 2022 were 0.614 tons (-35%).

Annual Amount of VOC Handled (Tons)

Chemical Substance Name	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
Isopropyl alcohol	0.746	0.770	0.790	0.809	0.465
Butyl acetate	0.056	0.066	0.046	0.058	0.074
Ethanol	0.150	0.134	0.097	0.053	0.052
Other	0.030	0.043	0.017	0.018	0.023
Total	0.982	1.013	0.950	0.938	0.614

■Greenhouse Gases

The amount of greenhouse gases that were handled in fiscal 2022 is shown below. The annual amount handled in fiscal 2022 is converted to a CO_2 equivalent weight of approximately 6 tons. Our reduction target for the amount (tons) of greenhouse gas emissions handled applies to reduction at all our sites.

Annual amount of greenhouse gases handled (Converted to CO2) (Tons)

Chemical Substance Name	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021	Fiscal 2022
1,1,1,2-tetrafluoroethane (HFC-134a)	23.271	13.974	11.517	7.061	6.155
1,1-Difluoroethane (HFC-152a)	0.023	0.000	0.054	0.059	0.233
CO_2 not from energy	0.001	0.000	0.001	0.000	0.000
Total	23.295	13.974	11.572	7.120	6.388

Compliance with All Environmental Laws and Regulations

In order to conserve the environment surrounding our sites and comply with laws and regulations, we will regularly measure water quality, noise output, and vibration output.

Water Quality Measurement Results

We make efforts to maintain the water quality of drainage from Headquarters, the ProDeS Center, and the PFU Techno Wise Takamatsu Plant. The results of the measurement did not exceed the legal regulations, and there was no problem with water quality.

	Regulated substances	Unit	Regulation value	Fiscal 2022 measured value	Evaluation
Headquarters (Bld. A & B)	Hydrogen ion concentration (pH)	-	Between 5 & 9	8.6	
	Biochemical oxygen demand (BOD)	mg/L	Less than 600	300	
	Suspended substances (SS)	mg/L	Less than 600	220	
	Mineral oil	mg/L	5 or less	Less than 0.5	✓
	Animal and plant oils	mg/L	30 or less	9.8	
	Ammonium-nitrogen, nitrite-nitrogen and nitrate-nitrogen content	mg/L	Less than 380	33	
Headquarters (Bld. E)	Hydrogen ion concentration (pH)	-	Between 5 & 9	7.5	
	Biochemical oxygen demand (BOD)	mg/L	Less than 600	18	
	Suspended substances (SS)	mg/L	Less than 600	50	
	Mineral oil	mg/L	5 or less	Less than 0.5	✓
	Animal and plant oils	mg/L	30 or less	0.8	
	Ammonium-nitrogen, nitrite-nitrogen and nitrate-nitrogen content	mg/L	Less than 380	Less than 1	
Headquarters (Anechoic Chamber)	Hydrogen ion concentration (pH)	-	Between 5 & 9	7.7	
	Biochemical oxygen demand (BOD)	mg/L	Less than 600	3.6	
	Suspended substances (SS)	mg/L	Less than 600	Less than 1	
	Mineral oil	mg/L	5 or less	Less than 0.5	✓
	Animal and plant oils	mg/L	30 or less	Less than 0.5	
	Ammonium-nitrogen, nitrite-nitrogen and nitrate-nitrogen content	mg/L	Less than 380	Less than 1	
ProDeS Center	Hydrogen ion concentration (pH)	-	Between 5 & 9	7.5	
	Biochemical oxygen demand (BOD)	mg/L	Less than 600	290	
	Suspended substances (SS)	mg/L	Less than 600	210	
	Mineral oil	mg/L	5 or less	Less than 0.5	✓
	Animal and plant oils	mg/L	30 or less	23	
	Ammonium-nitrogen, nitrite-nitrogen and nitrate-nitrogen content	mg/L	Less than 380	21	
PFU Techno Wise Takamatsu Plant (Bld. 2 & 3)	Hydrogen ion concentration (pH)	-	Between 5 & 9	7.5	
	Biochemical oxygen demand (BOD)	mg/L	Less than 600	Less than 1	
	Suspended substances (SS)	mg/L	Less than 600	2	
	Mineral oil	mg/L	5 or less	Less than 1	
	Animal and plant oils	mg/L	30 or less	Less than 1	✓
	Ammonium-nitrogen, nitrite-nitrogen and nitrate-nitrogen content	mg/L	Less than 380	0.6	

■Noise/Vibration Measurement

At our headquarters, we regularly measure the noise and vibration generated by our business activities (once every five years).
We performed measurements on June 10, 2020, and confirmed that all values did not exceed the legal regulations (next measurement planned for fiscal 2025).

Noise Measurement Results

	Noise	Unit	Regulation value	Fiscal 2020 measured value				Evaluation
				Bld. E north side	Bld. A southwest side	Anechoic chamber north side	South side parking lot	
Headquarters	Daytime	dB	65 or less	34	47	46	-	✓
	Morning	dB	60 or less	34	47	46	-	
	Evening	dB	60 or less	34	47	46	-	
	Nighttime	dB	50 or less	34	47	46	-	
	Daytime	dB	60 or less (*5)	-	-	-	40	
	Morning	dB	55 or less (*5)	-	-	-	40	
	Evening	dB	55 or less (*5)	-	-	-	40	
	Nighttime	dB	45 or less (*5)	-	-	-	40	

(*5) Because the parking lot is in an area within 50m of the borders of school grounds, the legal regulations are five decibels lower.

Vibration Measurement Results

	Vibration	Unit	Regulation value	Fiscal 2020 measured value				Evaluation
				Bld. E north side	Bld. A southwest side	Anechoic chamber north side	South side parking lot	
Headquarters	Daytime	dB	65 or less	27	30	31	-	✓
	Nighttime	dB	50 or less	27	30	31	-	
	Daytime	dB	60 or less (*6)	-	-	-	29	
	Nighttime	dB	45 or less (*6)	-	-	-	29	

(*6) Because the parking lot is in an area within 50m of the borders of school grounds, the legal regulations are five decibels lower.

Internal Audits and External Inspections

Internal Audits

Internal audits are carried out by employees certified as auditors, confirming the implementation of each department's environmental activities target set in accordance with the Environmental Policy and confirming that each department upholds various rules, including laws. These audits help improve problems and spread positive activities in our company.

In fiscal 2022, we carried out internal audits of 17 departments from September 20 to 29, 2022, and of 39 business sites from February 1 to 22, 2023. We found three non-compliant cases, nine cases needing improvement, and 18 positive cases, all of which do not violate any laws.

External Inspections

From November 17th to the 22nd, 2022, the Japan Quality Assurance Organization (JQA) conducted a certification inspection of the RICOH Group's integrated environmental management system. We received the results of this inspection with no non-compliant cases, five cases needing improvement, and one highly-rated case. Our ESG integration with the RICOH Group was evaluated to be progressing according to the plan.

Fiscal 2022 Results of Internal Audits and External Inspection (Cases)

Classification	Internal Audits			External Inspections		
	Non-compliant Case	Case Needing Improvement	Positive Case	Non-compliant Case	Case Needing Improvement	Highly-rated Case
Number of Detected Cases	3	9	18	0	5	1

PFU Group Activities

PFU IT Services Limited

While only a few community service events were held in fiscal 2022 during the COVID-19 pandemic, PFU IT Services Limited promoted participation in "social contribution activities (cleanups)" held in the following regions.

April: "Cleanup Activity in Miyagino Street" in Sendai City, Miyagi (Sendai SC)
May, August, November, and February (four times each fiscal year): "Hama Road Supporter (Cleanup Activity)" in Yokohama City, Kanagawa (Yokohama Headquarters)
May: FM Ishikawa beach cleanup activity "Clean Beach Ishikawa" (Kanazawa SC)
May: "Picking Up Litter Together" at Fukui Festival 2022 (Fukui SS)
September: FM Toyama cleanup campaign "To get rid of trash on Rokudoji Beach" (Toyama SC)
February: Hospitality cleanup activity for the Saga Joka (Castle Town) at the Doll Festival (Saga SS)

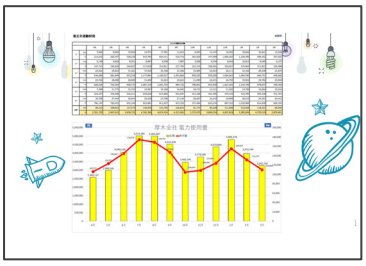
At the cleanup activity on Miyagino Street in 2022, larger pieces of trash were not immediately noticeable because the street was thoroughly cleaned on a daily basis. However, participants were still able to collect litter such as cigarette butts, convenience store lunch boxes, empty cans, and plastic bottles. This unfortunately made it clear to us that there are still people who litter even as common etiquette appears to be improving. PFU IT Services Limited continues to contribute to environmental activities by actively participating in community events.

Cleanup Activity in Miyagino Street
(Sendai City, Miyagi)

Hospitality cleanup activity for the Saga Joka (Castle Town) at the Doll Festival
(Saga City, Saga)

PFU Quality Service Limited

As in the previous year, PFU Quality Service Limited used digital signage to inform all employees of environment-related activities. Since higher electricity costs would also affect business performance, "energy saving" was set as the theme for fiscal 2022. PFU Quality Service Limited contributed to the power-saving efforts by publishing the amount of reduction in the company's electricity consumption and electricity expenses every month in order to raise awareness of power saving and pave the way toward a better understanding of energy saving among employees.



Digital Signage (Information Regarding Electricity Use)

PFU Techno Wise Limited

PFU Techno Wise Limited holds an annual weeding program around the Takamatsu Plant where our company was founded.
In fiscal 2022, this program was held in June with the participating departments selected due to the restrictions on activities with a large number of participants during the COVID-19 pandemic.
On the day of the weeding program, good weather made the work easier, allowing us to finish the weeding around the plant as scheduled.

Weeding (Takamatsu Plant)

PFU Life Agency Limited

PFU Life Agency Limited collects and transports the industrial and general waste, then recycles the waste via a qualified waste disposal contractor.

Industrial Waste Collection and Transport Operations

- Ishikawa Pref.: License No. 01707052827

General Waste Collection and Transport Operations

- Kahoku County and Kahoku City: License No. 07
- Kanazawa City: License No. 25
- Hakusan City: License No. 26

Never changing passion, ever changing future

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