

PFU ENVIRONMENTAL REPORT

2018



Corporate Profile

Company name:	PFU Limited
Capital:	15 billion yen
Sales:	133.9 billion yen (consolidated for fiscal 2017)
Employees:	4,462 (PFU Group, as of March 2018)
Foundation:	May 1962 (Establishment: November 1960)
Shareholder:	Fujitsu Limited
Headquarters:	Nu 98-2 Unoke, Kahoku-shi, Ishikawa 929-1192 Japan

Our Business

• Imaging

- Development and manufacturing of scanners
- Development of scanner software

• Development and Manufacturing service

- Development and manufacturing of interactive KIOSKS, embedded computers, security appliance products, and more
- Commissioned development and manufacturing of computers in answer to customers' needs and specifications

• Solutions

- Construction of various business systems
- Development of various package software products

• Infrastructure services

- Maintenance and monitoring services for information systems and networks
- Installation of information systems and networks
- Construction of information infrastructure

Main Sites

Headquarters:	Kahoku-shi, Ishikawa
Yokohama Headquarters:	Yokohama-shi, Kanagawa
ProDeS Center:	Kahoku-shi, Ishikawa
Kansai Branch:	Osaka-shi, Osaka
Tokai Branch:	Nagoya-shi, Aichi
Shinbashi Service Center:	Minato-ku, Tokyo

PFU Group (as of April 1, 2018)

• Affiliated Companies (11 companies in Japan)

PFU Hokkaido Limited
PFU East Japan Limited
PFU West Japan Limited
PFU Quality Service Limited
PFU Technical Communications Limited
PFU Techno Wise Limited
PFU Technoconsul Limited
PFU Business Forerunner Limited
PFU Life Agency Limited
PFU Human Design Limited
PFU Creative Services Limited

• Affiliated Companies (7 companies overseas)

PFU Shanghai Co., Ltd.
PFU Shanghai Information System Co., Ltd.
PFU Jiangsu Nantong Information System Co., Ltd.
PFU America, Inc.
Fujitsu Computer Products of America, Inc.
PFU (EMEA) Limited
PFU Asia Pacific Pte. Ltd.

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[Sites Covered by this Report]

This report provides information on our company's environmental management system for the company Headquarters, Yokohama headquarters, ProDeS Center, Kansai Branch, Tokai Branch, Shinbashi Service Center, and PFU Techno Wise Takamatsu plant, as well as PFU Quality Service Limited, PFU Technical Communications Limited, PFU Techno Wise Limited, PFU Technoconsul Limited, PFU Business Forerunner Limited, PFU Life Agency Limited, PFU Human Design Limited., and PFU Creative Service Limited, which are located within the aforementioned companies, Sales and Maintenance services in Japan, and PFU Shanghai Co., Ltd. This report also contains information on three service affiliated companies (PFU Hokkaido Limited, PFU East Japan Limited, and PFU West Japan Limited) that maintain their own environmental management systems.

[Reporting Period]

This report centers on the environmental activities for fiscal 2017 (from April 1, 2017 to March 31, 2018). This report also includes some information from April 2018 and onwards.



Caring for the Earth
& Nature

Messages from Management

PFU's Mission

The PFU Group constantly strives to create new value, and to contribute to international and local communities for mutual benefit through the speedy and continued provision of products, services, and solutions that satisfy our customers' needs, based on our advanced information technology.

Never changing passion, ever changing future

In recent years, with the emergence of innovative technology including AI, robotics, and IoT, society is undergoing a digital transformation. IT is now essential to creating a prosperous society. People use various IT services without being conscious of their use on a daily basis thus enjoying a smart lifestyle and work style.

Because of this digital revolution, people's expectations of IT are becoming higher and more diverse, and this change has required us to take on flexible and innovative challenges by thinking outside the box in order to make further advancements in IT.

Our mission here at PFU is to maximize the possibilities of IT and continue to contribute to our customers and society. Dealing with the rapid and sudden changes in the era that we live in, we have moved forward through continuous trial-and-error methods in order to provide better products and value.

We will continue to move away from conventional methods and approach new challenges with honesty and sincerity which has always been our way. We have made a promise to continue with our efforts in order for our customers as well as our society where people feel safe, assured, and comfortable, to advance.

Efforts for Environmental Activities

We are pursuing environmental activities based on our corporate principles to "keep the environment green".

In fiscal 2017, the middle year for the Eighth Environmental Action Plan, we worked on six targets and achieved all of our goals. (1) Continuous Creation and Provision of Eco-efficient Products, (2) Promotion of Environmentally Conscious Solutions and Services, (3) Promotion of Green Procurement, (4) Improvement of Quality and Enhancement of Business Efficiency, (5) Promotion of Global Warming Countermeasures, and (6) Promotion of an Environmentally Conscious Culture.

Our stance on inheriting good traditions and creating a new future is extremely important for our activities in fiscal 2018, hence the PFU brand promise "Never changing passion, ever changing future".

I believe that this company aims to be:

- (1) A company where all employees work with motivation and purpose "brightly, happily, and vibrantly".
- (2) A company that "can continue to grow" in both sales and profit for 10, 20, and 30 years into the future in order to be the company mentioned above.
- (3) A company that "can contribute to everyone around us, including not only customers but also business partners as well as society".

To these ends, we will ardently engage in our efforts to begin an era of new growth for PFU in 2018.



PFU Limited
President and
Representative Director

Kiyoshi Handa

Messages from Management

PFU's Fundamental Principle

PFU Group members act with an awareness for living in a way that they benefit from the earth and protecting the environment. We do this by striving to offer products and services that do not burden the environment, while also focusing on changes in the global environment and striving to protect the environment in daily life.

By carrying out our activities based on the three concepts "Green Product", "Green Process", and "Green Mind", which embody this principle, we contribute to reducing the burden of our customers and society on the environment.

Environmental Activities That Are Focused on Our Core Business

By carrying out these activities, we aim to release more products with advanced environmental performance to contribute to reducing the environmental burden at our customers' sites (Green Product), to improve the efficiency and quality of operations at our own sites in order to reduce our own environmental load (Green Process), and to contribute to society through regional environmental conservation activities (Green Mind).

To achieve this, in fiscal 2017, we not only set the improvement of environmental performance as an environmental target for products, solutions, and services in all our business departments, but also made our environmental targets consistent with our quality targets by shifting from traditional activities to reduce paper, garbage, and electricity towards environmental activities that are focused on our core business.

Furthermore, we started "PFU Original Environmental Management", which quantifies and evaluates all environmental activities based on CO₂, including the activities that involve us contributing to the local communities.

PFU Original Environmental Management

In fiscal 2018, we will begin this "PFU Original Environmental Management" in full scale, performing the following:

- (1) We will quantify and evaluate our environmental contributions at our customers' sites through our products, solutions, and services based on CO₂.
- (2) We will make the environmental targets thoroughly consistent with our quality targets, and we will quantify and evaluate our in-house contributions based on CO₂.

Through these efforts, I believe that the degree to which activities that are focused on our core business contribute to the environment will become even more clear, and that we can expect further success due to a greater awareness throughout our company that "we contribute to the market through our products, solutions, and services", and that "we can bring about a work style reform through enhancing business efficiency and improving quality".

Undergoing these activities will take us on the path to becoming a "low-carbon company".

PFU Limited
Managing Executive Officer

Hirotake Shinde

Environmental Management System

ISO14001 Certification

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.

- October 1996: Kasashima site (Ishikawa)
- May 2001: Headquarters/Ishikawa Development Center (Ishikawa), Tokyo Development Center (Tokyo)
- April 2004: Tokyo Headquarters (Kanagawa)
- February 2006: Kansai Branch (Osaka), Tokai Branch (Aichi), Shinbashi Service Center (Tokyo)
- November: 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)

For this certification, all of the sites in Japan, the sales and maintenance service bases in Japan, and an overseas affiliate (PFU Shanghai) that are listed above, as well as eight affiliated companies located within these offices, are now registered as a multi-site system operating under one management system.



Headquarters



Yokohama Headquarters

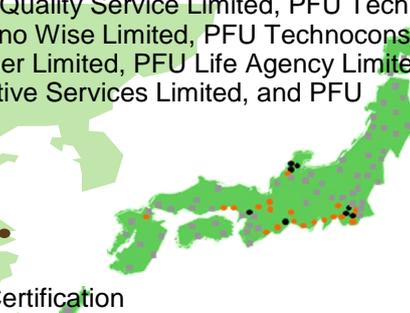


ProDeS Center

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 Quality Service Limited, PFU Technical Communications Limited, PFU Techno Wise Limited, PFU Technoconsul Limited, PFU Business Forerunner Limited, PFU Life Agency Limited, PFU Human Design Limited, PFU Creative Services Limited, and PFU Shanghai Co., Ltd.

Certification Number: EC99J2029
Registration Date: October 29, 1996
Renewal Date: October 29, 2017
Issued Date: August 30, 2017
Certification Expiry: October 28 2020
Certifying Organization: Japan Audit and Certification Organization for Environment and Quality (JACO)



Environmental Activity History

The history of our environmental activities is as follows:

- 1989: Establishment of the Energy-Saving Committee
- 1992: Establishment of the Environmental Committee
- 1993: Establishment of the Environmental Strategies Office Enactment of PFU's Environmental Policy Start of the First Environmental Action Plan
- 1994: Publication of the PFU Environmental Report
- 1996: Start of the Second Environmental Action Plan Kasashima site receives ISO14001 certification
- 1999: Introduction of Environmental Accounting
- 2001: Start of the Third Environmental Action Plan
- 2004: Start of the Fourth Environmental Action Plan
- 2007: Start of the Fifth Environmental Action Plan
- 2008: Sales and Maintenance Service bases across Japan receive ISO14001 certification (all sites within Japan have acquired ISO14001 certification)
- 2009: An overseas affiliated company (PFU Shanghai Co., Ltd.) receives ISO14001 certification
- 2010: Start of the Sixth Environmental Action Plan
- 2010: Ranked 31st in manufacturing in the 14th "Environmental Management Investigation (Nikkei)"
- 2013: Start of the Seventh Environmental Action Plan
- 2014: "Ishikawa Satoyama ISO" certification (Ishikawa)
- 2015: "Hama road supporter" certification (Yokohama)
- 2016: Start of the Eighth Environmental Action Plan

Awards

- 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)
- 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)
- 2016: Eco Mark Award 2015 Prize (image scanner)
- 2017: Excellent Energy Management Company Award (Headquarters) (Chairman of the Japan Electric Association, Hokuriku Branch)



PFU Corporate Principles/PFU Environmental Commitment/Environmental Policy

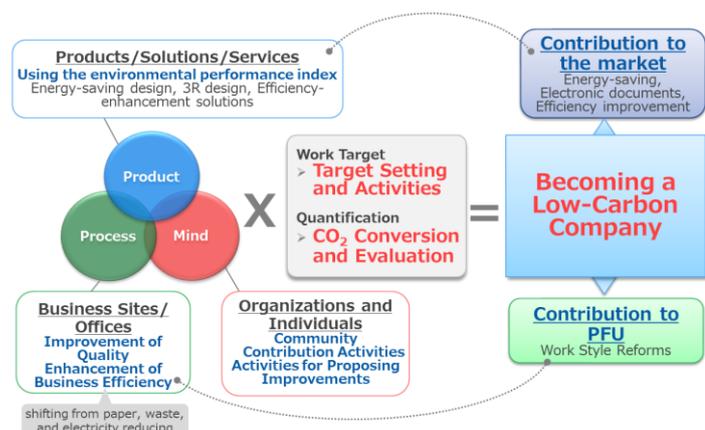
With PFU's Environmental Commitment and Environmental Policy based on PFU Corporate Principles, we aim to tackle global environmental issues.

These are the PFU Group's basic philosophies of environmental conservation.

PFU Corporate Principles (Environment-related description)	
<p>1. Action Principles "We will act to keep the environment green."</p> <p>2. Vision and Standards for Our Actions "We act with an awareness for protecting the environment."</p> <p>PFU Group members act with an awareness for living in a way that they benefit from the earth and protecting the environment. We do this by offering eco-efficient products and services, while our employees live and work in a manner that places the least burden on the global environment.</p>	
<p>PFU Environmental Commitment (Summary)</p> <p>1. Action Policies</p> <ol style="list-style-type: none"> (1) Engage in various activities with all efforts. (2) Implement corporate responsibility. (3) Contribute to society. <p>2. Action Principles</p> <ol style="list-style-type: none"> (1) Business activities should consider environmental impacts. (2) Natural resources and energy should be used effectively. (3) Technologies that help conserve the environment should be developed. (4) Legal rules and out-of-company agreements should be complied with. (5) Participation and support for environmental strategies and cooperative activities that contribute to society should be pursued. (6) Environmental awareness should be raised through education. (7) Systems that promote environmental conservation should be established. (8) Shareholders and affiliated companies should collaborate. (9) Information should be disclosed, and self evaluations feed back into the system. 	<p>Environmental Policy</p> <p>PFU Limited shall promote three environmental contributions. We promote 1) offering more products, solutions, and services with advanced environmental performance to contribute to our customers' sites (Green Product), 2) improving the efficiency and quality at our own sites, including product development processes, to contribute to the in-house environment (Green Process), and 3) contributing to society through regional environmental activities (Green Mind).</p> <ol style="list-style-type: none"> 1. We shall work towards reducing the burden on the global environment by developing high tech solutions and excellent products for our fields of business. <ol style="list-style-type: none"> (1) Green Product <ul style="list-style-type: none"> - Continuous creation and provision of eco-efficient products - Promotion of environmentally conscious solutions and services - Promotion of green procurement (2) Green Process <ul style="list-style-type: none"> - Improvement of quality and enhancement of business efficiency - Promotion of global warming countermeasures (3) Green Mind <ul style="list-style-type: none"> - Promotion of an environmentally conscious culture 2. We shall comply with all applicable environmental laws and regulations, as well as any other standards that we have decided to adopt. Furthermore we shall prevent pollution, use sustainable resources, mitigate and adapt to climate change, and protect biodiversity and ecosystems by establishing our own standards and appropriately managing environmental facilities, related equipment and harmful chemical substances. 3. We shall establish an Environmental Management System in compliance with ISO14001, and promote environmentally conscious business development, all the while continually improving the system to better conserve the environment. 4. We shall endeavor to raise all of our employees understanding of our environmental activities, and improve their environmental awareness through environmental education, advertising, and social contribution activities. In addition, we will endeavor to work on global environmental conservation such as tackling climate change and conservation of biodiversity through our business and civic activities to be role models in society. 5. To promote this environmental policy, we shall establish firm targets and implement effective plans for their achievement. <p style="text-align: right;">April 2018</p>

By carrying out our activities based on the three concepts "Green Product", "Green Process", and "Green Mind", which embody our environmental policies, we contribute to reducing the burden on the environment as well as sustaining the development of our customers and society.

We aim to become a low-carbon company by using the PFU original management style in which we evaluate all these environmental activities based on CO₂.



PFU Environmental Action Plan (Eighth Plan: Fiscal 2016 - Fiscal 2018)

The Eighth Environmental Action Plan (Fiscal 2016 - Fiscal 2018) is shown below.

Activity		Details		Result		Target	
				Fiscal 2016	Fiscal 2017	Fiscal 2018	
Green Product	1	Continuous Creation and Provision of Eco-efficient Products	To produce products with top-level energy efficiency	Scanner products	Maintained 100% product compliance with the International ENERGY STAR Program Ver. 2.0 (5 models)	Maintained 100% product compliance with the International ENERGY STAR Program Ver. 2.0 (5 models)	To maintain 100% product compliance with the International ENERGY STAR Program Ver. 2.0
				Embedded products	Environmental performance index: 5.78 or less (5,639)	Environmental performance index: 4.96 or less (4,693)	To improve the environmental performance index
				Interactive KIOSKs	Provisioned products compliant with energy-saving standard levels (2 models) Environmental performance index: (0.106)	Environmental performance index: 0.109 or more (0.109)	To improve the environmental performance index
				Security products	Provisioned eco-efficient products (1 model)	Environmental performance index: 1.908 or more (1.908)	To improve the environmental performance index
				Solutions	-	Environmental contribution index: 1.05 or more (1.27)	To improve the environmental contribution index
				Customer services	-	Environmental contribution index: 9 or more (15)	To improve the environmental contribution index
				To comply with environmental labels (EPEAT)	Maintained and expanded compliance with EPEAT Maintained 100% product compliance (4 models)	Maintained and expanded compliance with EPEAT Maintained 100% product compliance (4 models)	To maintain and expand compliance with EPEAT
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 (21 departments)	At least one suggestion per department (21 departments)	At least one suggestion per department (21 departments)		
3	Promotion of Green Procurement	To promote procurement from suppliers that work aggressively in consideration of the environment	Promoted CO ₂ reduction activities to the upper stream in the supply chain: 100% understanding of business partners' activities (59 companies)	Promoted CO ₂ reduction activities to the upper stream in the supply chain: 100% understanding of business partners' activities (55 companies)	To promote CO ₂ reduction activities 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	At least one suggestion per department (46 departments)	At least one suggestion per department (46 departments)	At least one suggestion per department (45 departments)	
	5	Promotion of Global Warming Countermeasures	To cut the amount of energy consumption.	Crude oil conversion value: 3,411 kL or less (3,232 kL)	Crude oil conversion value: 3,200 kL or less (3,120 kL)	Crude oil conversion value: 3,089 kL or less	

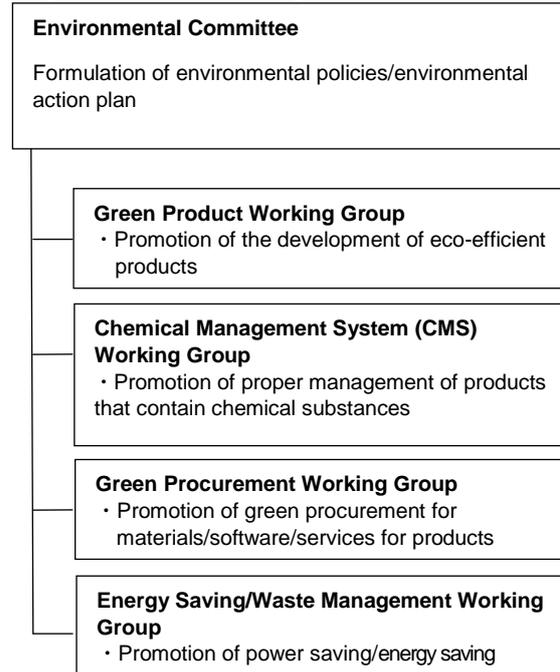


Green Mind	6	Promotion of an Environmentally Conscious Culture	To promote the protection of the environment through not only environmental and social contribution activities and biodiversity conservation activities, but also through sharing environmental activity information and improving operation	Promoted social contribution activities (22 projects)	Promoted social contribution activities (21 projects)	To promote social contribution activities (22 projects or more)
				Promoted the sharing/transmitting environmental information and improving operation of environmental activities (37 projects)	Promoted the sharing/transmitting environmental information and improving operation of environmental activities (35 projects)	To promote the sharing/transmitting environmental information and improving operation of environmental activities (36 projects or more)
				Compliance with ISO14001:2015 (completed compliance)	Transition to ISO14001:2015 (completed transition)	Continued improvement of the management system

Significant Environmental Aspects

Classification	Significant environmental aspects
Direct/Indirect	<ul style="list-style-type: none"> • Provision of hardware products • Provision of software products • Provision of software services • Consumption of energy (electricity) • Procurement of products for business use and developed software • Procurement of materials for products and for maintenance. • Emission of exhaust fumes by using a privately-owned car for commuting to work
Emergency Conditions	<ul style="list-style-type: none"> • Loading of heating oil in an underground tank reservoir • Use of an ultrasonic washing machine
Environmental Contribution	<ul style="list-style-type: none"> • Provision of top-level eco-efficient products • Provision of environmentally conscious solutions • Promotion of business improvements (quality improvements, efficiency enhancements) • Evolution into the environmental management system focused on business • Environmental and social contribution activities • Biodiversity conservation activities • Becoming a low-carbon company (CO₂) • Installation of solar panels (*1)

Organizations in Charge



(*1) New evaluation items from fiscal 2018

Results from Activities in Fiscal 2017

During fiscal 2017, the middle year of the Eighth Environmental Action Plan (Fiscal 2016 - Fiscal 2018), we achieved all of the following environmental targets.

✓: Target Achieved

Activity	Objective	Fiscal 2017			
		Target	Result	Evaluation	
1 Continuous Creation and Provision of Eco-efficient Products	To produce products with top-level energy efficiency	Scanner products	To maintain 100% product compliance with the International ENERGY STAR Program Ver. 2.0	Maintained 100% product compliance with the International ENERGY STAR Program Ver. 2.0 Sum of 5 models	✓
		Embedded products	Environmental performance index (*2):4.96 or less	Environmental performance index (*2):4.693	✓
		Interactive KIOSKs	Environmental performance index (*2):0.109 or more	Environmental performance index (*2):0.109	✓
		Security products	Environmental performance index (*2):1.908 or more	Environmental performance index (*2):1.908	✓
		Solutions	Environmental contribution index (*3): 1.05 or more	Environmental contribution index (*3): 1.27	✓
		Customer services	Environmental contribution index (*3): 9 or more	Environmental contribution index (*3): 15	✓
	To comply with environmental labels (to acquire EPEAT)	To maintain and expand compliance with EPEAT	Maintained and expanded compliance with EPEAT Sum of 4 models	✓	
2 Promotion of Environmentally Conscious Solutions and Services	To reduce our customers' environmental burden by expanding our environmentally conscious solutions and services	To achieve at least one suggestion per department (21 departments)	Achieved at least one suggestion per department (21 departments)	✓	
3 Promotion of Green Procurement	To promote procurement from suppliers that work aggressively in consideration of the environment	To promote CO ₂ reduction activities to the upper stream in the supply chain: 100% understanding of business partners' activities	Promoted CO ₂ reduction activities to the upper stream in the supply chain: 100% understanding of business partners' activities 55 companies	✓	



Green Process	4	Improvement of Quality and Enhancement of Business Efficiency	To promote improved business operations (to reduce the burden on the environment with improved business operations in areas such as quality and efficiency)	To achieve at least one target per department (46 departments).	Achieved at least one suggestion per department (21 departments)	✓
	5	Promotion of Global Warming Countermeasures	To cut the amount of energy consumption (Purchased electricity and gas are converted into crude oil)	Crude oil conversion value: 3,200 kL or less	Crude oil conversion value: 3,120 kL	✓
Green Mind	6	Promotion of an Environmentally Conscious Culture	To promote the protection of the environment through not only environmental and social contribution activities and biodiversity conservation activities, but also through sharing environmental activity information and improving operation	To promote social contribution activities 21 projects	Promoted social contribution activities 21 projects	✓
				To promote the sharing/transmitting environmental information and improving operation of environmental activities (35 projects)	Promoted the sharing/transmitting environmental information and improving operation of environmental activities (35 projects)	✓
				To transition to ISO14001:2015	Completed transition to ISO14001:2015	✓

(*2) In-house standards. Calculated by the amount of the power consumed per product and the number of shipments.

(*3) In-house standards. Calculated from the number of solutions and services provided.

1. Continuous Creation and Provision of Eco-efficient Products

We promote ecological designs and makes efforts to develop and provide eco-efficient products that support "energy-saving", "3R design (*4)", and "management of used chemical substances" in order to reduce the burden on the environment throughout the product's entire life cycle.

In fiscal 2017, 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 2017

Producing products with top-level energy efficiency	Scanner products	As planned, we complied with the International ENERGY STAR Program Ver. 2.0 for a sum of 5 newly-developed models.
	Embedded products	We defined the environmental performance indexes by ourselves, calculated them for all of our products, and achieved the goal we established.
	Interactive KIOSKs	We defined the environmental performance indexes by ourselves, calculated them for all of our products, and achieved the goal we established.
	Security products	We defined the environmental performance indexes by ourselves, calculated them for all of our products, and achieved the goal we established.
	Solutions	We defined the environmental contribution indexes by ourselves, calculated them, and achieved the goal we established.
	Customer services	We defined the environmental contribution indexes by ourselves, calculated them, and achieved the goal we established.
Complying with environmental labels	Scanner products	As planned, we acquired certification for a sum of 4 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, a sum of 8 new models received Eco Mark certification.

(*4) 3R design: Design in which the concepts of "Reduce", "Reuse", and "Recycle" are taken into consideration.



Main Eco-efficient Products for Fiscal 2017

<p>Embedded computer AR Series</p>  <p>AR8300 Model 320K</p>	<ul style="list-style-type: none"> • Reduced power consumption per unit performance compared to conventional products (Reduced 22% compared to conventional products)
<p>Network security product iNetSec Series</p>  <p>iNetSec SF</p>	<ul style="list-style-type: none"> • Reduced power consumption per unit performance compared to conventional products (Reduced 21% compared to conventional products) • Aggregated three functions(*5) achieved on conventional products into a single device to successfully save power, resources, and space

(*5) iNetSec Smart Finder/iNetSec Intra Wall/iNetSec Inspection Center

Information for EPEAT 4.7.2.2: [Public disclosure of supply chain toxics](#)

2. Promotion of 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 2017, we moved forward with developing and shipping various solutions and services, and expanding the provision of solutions and services that utilize scanners.

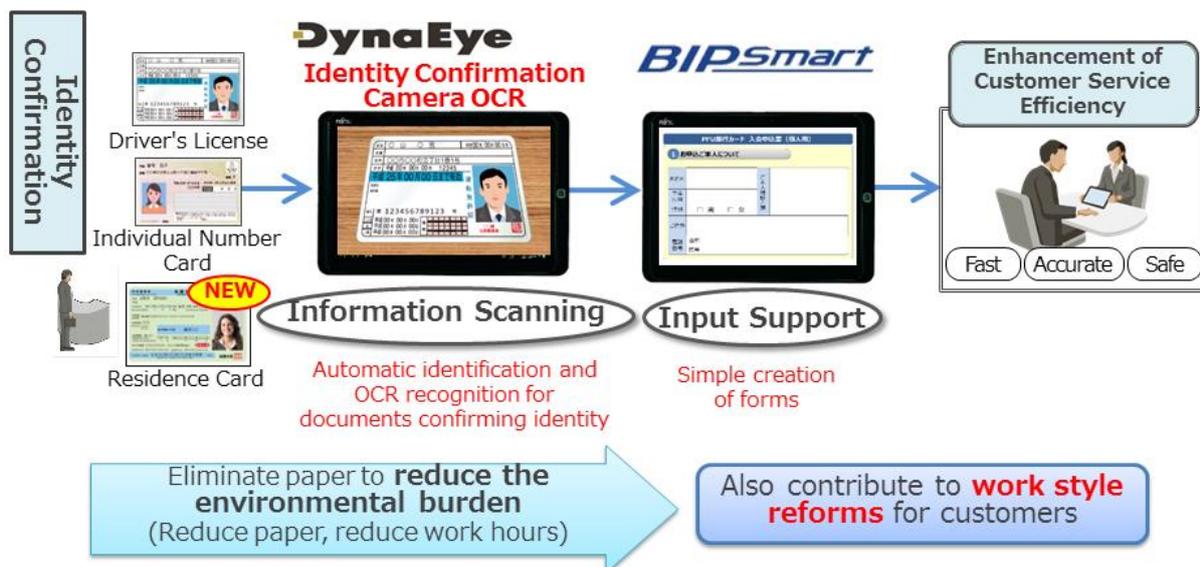
Main Achievements of Fiscal 2017

	Activity	Product
Reducing our customers' environmental burden by expanding our environmentally conscious solutions and services	<ul style="list-style-type: none"> • Development and shipment of environmentally conscious solutions • Expansion of the provision of solutions and services that utilize scanners • Promotion of virtualization, cloud negotiation, etc. 	<ul style="list-style-type: none"> • DynaEye Identity Confirmation Camera OCR • BIP Smart • iNetSec SF • IPCOM EX2 • PaperStream Capture

• Reduction of the environmental burden on customers by enhancing the efficiency of customer service

DynaEye Identity Confirmation Camera OCR, in conjunction with BIP Smart, supports identity verification and the input of personal information in order to enhance the efficiency of customer service.

We reduce the number of application forms and the waiting time in order to contribute to the improvement of customer service and the reduction in the environmental burden.



3. Promotion of 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 2017, we promoted CO₂ reduction activities to the upper stream in the supply chain for target business partners, and gained an understanding of the activities of all business partners.

Main Achievements of Fiscal 2017

Promotion of procurement from suppliers that work aggressively in consideration of the environment	100% understanding of the status of CO ₂ reduction activities to the upper stream in the supply chain (18 new companies + 37 existing companies = 55 companies: 100%)
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4. 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. Activities for enhancements are shared as Idea Snap Activities (in-house improvement activities). To promote spreading the activities throughout the company, examples are regularly introduced.

In fiscal 2017, we made our environmental targets consistent with our quality targets and promoted the reduction of the environmental burden by improving the quality, efficiency, and delivery time for our core business, including product development and in-house business related to provision of products, solutions, and services.

Examples of Improvements in Fiscal 2017

- **Reviewing the Way We Arrange Maintenance Work to Enhance Efficiency and Ensure Quality**

In the past, we used to receive printed information about the contract from the sales support center when arranging license maintenance work.

We reviewed this arrangement procedure and changed it to the procedure to send e-mails with unified content and confirm the data on the system.

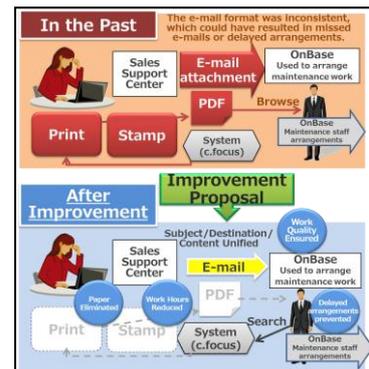
This change resulted in improvements which includes preventing the arrangement from being omitted and reducing delivery times and the use of paper.

(Total reduced work hours/paper/data transmission:
6.39 kg-CO₂/month)

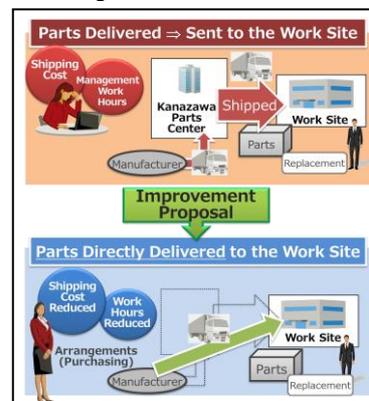
- **Optimizing Parts Delivery Locations to Reduce Transportation Fees and Work Hours**

In the past, we delivered parts used in replacement for our products to the parts center. However, we have changed the method to delivering the parts directly to the work site. This not only reduced transportation fees and management work hours, but also shortened delivery times and helped cut CO₂ emissions from shipping.

(Reduction in CO₂ emissions from shipping:
1,530 kg-CO₂/month)



Reduced work hours and the use of paper by reviewing the way we arrange maintenance work



Reduced CO₂ emissions from shipping by directly delivering replacement parts to the work site

5. Promotion of Global Warming Countermeasures

To prevent global warming, we engage in energy-saving and power-saving activities to reduce the amount of energy consumption. (*6)

In fiscal 2017, we installed solar panels at the ProDeS Center. Due to the insulating effect on the roof, they help keep the temperature down during summer and improve the air conditioning efficiency, thus cutting the amount of electricity consumed.

Trends in Energy Consumption (Crude Oil Conversion Value: kL)



(*6) Amount of consumption of purchased electricity, gas, and heat, converted into crude oil (kL)

Examples of Energy-Saving and Power-Saving Activities

• Insulating Effect from Installation of Solar Panels (ProDeS Center)

We installed solar panels on the roof at the ProDeS Center (*7). This installation created an insulating effect from intense sunlight during summer and reduced the use of air conditioning, thus leading to energy saving through the reduced use of electricity.



Installed solar panels on the roof at the ProDeS Center



Power transmission equipment for solar power generation

Maximum output	949.5 kW
Installation area	8,316 m ² (3,652 solar panels)
Expected annual amount of generated power	1,005,192 kWh (equivalent to 280 households)
Start of operation	September 15, 2017
Reduction in air conditioning power due to insulation	-55,000 kWh (Summer)



Solar power generation monitor

(*7) PFU is leasing the installation location to ORIX Corporation.

6. Promotion of an Environmentally Conscious Culture

Each and every one of our Group workers plays a major role in promoting the protection of the environment through environmental and social contribution activities and biodiversity conservation activities.

In fiscal 2017, we carried out activities such as an in-house food recycling system and voluntary activities for the Kahoku Lagoon reclaimed land.

List of Main Activities

No.	Event name	Date	Implemented at:
1	Hama Road Supporter activity	May 11, 2017	Yokohama Headquarters
		August 4, 2017	
		November 7, 2017	
		February 6, 2018	
2	Green Fund donation	May 31, 2017	Ishikawa
3	Environmental beautification activities with the trees to block out wind on the Kahoku Lagoon reclaimed land	June 10, 2017	Ishikawa
4	Cutting grass around the PFU Techno Wise Takamatsu Plant	June 9, 2017	PFU Techno Wise
5	Community Cleanup around the PFU Quality Service site	July 10, 2017	PFU Quality Service
		March 6, 2018	
6	Installation of "Green Curtains"	July to September 2017	Ishikawa
7	Commuting and access road cleanup	June 17, 2017	Ishikawa
8	Mass beach cleanup in Kahoku	July 9, 2017	Ishikawa
9	"Creation Workshop" (Distribution of Environment Leaflets)	July 29, 2017	Ishikawa
10	Plantation of nandina saplings	December 1, 2017	Ishikawa
11	Plantation of trees to block out wind on the Kahoku Lagoon reclaimed land	March 10, 2018	Ishikawa
12	In-house Food Recycling System	All year	Ishikawa
13	Collection of plastic bottle caps	All year	All the sites in the nation
14	Collection of used disposable wooden chopsticks	All year	Tokai Branch, etc.
15	Sale of drinks at a subsidized price for donation	All year	Ishikawa, Yokohama Headquarters, Kansai Branch

• In-house Food Recycling System

Every year since October 1999, we have produced vegetables at a company-owned farm (Eco-farm) on land owned by the company (in Kahoku City). The vegetables from this farm are provided in the company cafeteria on a menu of locally produced food. Kitchen waste from the cafeteria is converted into compost that is used on the farm, allowing us to build and maintain a system for recycling food.



Posting Vegetables Produced and Consumed Locally



Company-Owned Farm (Eco-farm)

• 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 (in Kahoku city) 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, we joined in activities such as the beautification of the trees to block out wind (June 2017) and the planting of trees to block out wind (March 2018).



Planting Trees

- **Creation Workshop**

As a regional contribution in Kahoku City, elementary and junior high school children from the local area were invited to participate in a "PFU Creation Workshop".
This year, the participants built a compact computer, to experience the joy of creating things. Information about PFU image scanners (that have acquired Eco Mark certification) was distributed to the participants.



Participants Experienced Building a Compact Computer (Ishikawa)

- **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.
We also participated in the mass beach cleanup activity sponsored by Kahoku City.



Hama Road Supporter Activity (Near the Yokohama Headquarters)



Mass Beach Cleanup in Kahoku (Ishikawa)

As a group company initiative, employees at PFU Techno Wise cut grass around the Takamatsu plant as their own event for the environmental month (June).
Employees at PFU Quality Service cleaned up around the community.



Cutting Grass (PFU Techno Wise, Takamatsu Plant)



Community Cleanup (Area around PFU Quality Service)

- **Collection of plastic bottle caps**

We contributed to the reduction of waste emissions by donating plastic bottle caps.
(Implemented at: Headquarters, ProDeS Center, Yokohama Headquarters, Kansai Branch/Tokai Branch/Shinbashi Service Center, service bases, etc.)
[Fiscal 2017: 299,792 bottle caps (weight: 726.8 kg)]

- **Sale of drinks at a subsidized price for donation**

From the sale of drinks to our company employees, part of the proceeds (2 yen from each bottle) are given to the "Fujitsu Group Malaysia Eco-Forest Park" in Sabah State, Malaysia to help restore the tropical rainforests.
(Implemented at: Headquarters, ProDeS Center, Yokohama Headquarters, Kansai Branch)
[Fiscal 2017: 43,709 drinks (donation amount: 94,934 yen)]

Environmental Awareness & Communication

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

Environmental Facility Tours

We held environmental facility tours at the Yokohama Headquarters for our employees to learn about the environmental and disaster prevention equipment up-close. We entered environmental facilities which are normally off-limits to deepen employees' environmental awareness and their understanding of the facility's role and environmental burden. (Participants: 13)



Learning about environmental and disaster prevention equipment (Yokohama Headquarters)

CO₂ Reduction/Light Down Campaign

We participated in the "CO₂ Reduction/Light Down Campaign", held by the Ministry of the Environment, from June 21 (summer solstice) to July 7 (Cool Earth Day).

We used our website for employees and digital signs to provide information that encouraged employees to turn the lights off after 8pm both at work and at home.

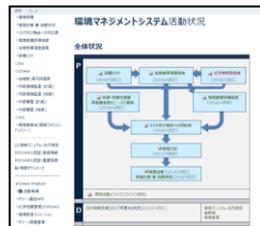


Office after the lights go out (ProDeS Center)

Sharing Environmental Information

Our company now presents information related to environmental activities, introduces the environmental activities of each department, and covers current topics, event information, and environmental news on our in-house intranet. In fiscal 2017, we relaunched our portal site for

environmental information for employees. Also, using "Idea Snap Activities", which allow for improvement activities to be shared throughout the company, we are showing the environmental effect of reducing the amount of paper or electricity used. We are trying to enhance the motivation for improvements among our employees by regularly making an honorable recognition of good proposals.



Portal site for environmental information for employees



Idea Snap Website



Requests and Inquiries from Outside Our Company

In fiscal 2017, we responded to 228 requests and inquiries, 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.)	141
2	Requests other than those related to products (Example: Request for provision of data about the environment from customers, the government, industry organizations, etc.)	87
	Total	228

Sharing Environmental Information

We transmit and introduce information about eco-efficient products and environmental activities via our official website and at events.

Environmental Report

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

Showroom

We set up showrooms at our main sites in Japan to display our eco-efficient products.

- Number of displayed products
 - Headquarters: 8 products
 - Yokohama Headquarters: 25 products
 - ProDeS Center: 20 products



Headquarters



Yokohama Headquarters

Participation in Exhibitions

Every year, we participate in environmental exhibitions to introduce our eco-efficient products and environmental activities.

We exhibited our eco-efficient products and solutions at the "PFU IT Fair 2017" (held in Tokyo and Osaka), where we exhibit our latest technology and products. We also exhibited panels that show our environmental activities in the "e-messe kanazawa 2017" exhibition.



Exhibiting eco-efficient products and solutions (PFU IT Fair 2017)



Exhibition of Environmental Activity Panels (e-messe kanazawa 2017)

Use of Green Power at Exhibitions and Events

At the "PFU IT Fair 2017" (held in Tokyo in June and Osaka in July) and at the "PFU Christmas Charity Concert" (held in Kanazawa in December), 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.



The Certificate of Green Power (PFU Christmas Charity Concert)

Environmental Performance Data

Environmental Accounting

To quantify the costs and benefits of environmental conservation and evaluate environment investment and its benefits, "Environmental Accounting" was introduced in fiscal 1999. In fiscal 2017, this accounting method was applied to seven of our business sites in Japan (Headquarters, Yokohama Headquarters, ProDeS Center, Kansai Branch, Tokai Branch, Shinbashi Service Center, and PFU Quality Service).

Breakdown of environmental accounting results for fiscal 2017 (April 1, 2017 to March 31, 2018)

(Unit: One million yen)

Item		Main Scope	Capital Investments	Costs	Benefits
Business area	Pollution prevention costs/benefits	Air pollution prevention, water pollution prevention, etc.	0 (±0)	7 (±0)	0 (±0)
	Global environmental conservation costs/benefits	Global warming prevention, energy-saving, etc.	24 (-55)	65 (+13)	9 (±0)
	Resource recycling costs/benefits	Disposal of waste and effective use of resources, etc.	0 (-2)	41 (+6)	8 (+1)
Upstream/downstream costs/benefits		Collection/recycling/re-merchandising of products, etc.	0 (±0)	0 (±0)	2 (-2)
Management costs/benefits		Maintenance/operation of the Environmental Management System, environmental education for employees, etc.	0 (±0)	189 (-13)	92 (+44)
R&D costs/benefits		R&D for products/solutions that contribute to environmental conservation, etc.	0 (±0)	304 (+35)	1,942 (+126)
Social activities costs/benefits		Contributions/support for organizations involved in environmental conservation, etc.	0 (±0)	0 (±0)	0 (±0)
Costs/benefits to repair environmental damage		Repairs involved in soil/ground water pollution, etc.	0 (±0)	0 (±0)	0 (±0)
Total			24 (-57)	606 (+41)	2,053 (+169)

Numbers in parentheses () are comparisons with the previous fiscal year.

Costs and Benefits of Fiscal 2017

After tallying fiscal 2017, we see that both costs and benefits increased, with the costs at 606 million yen (+7.3% compared to the previous fiscal year) and the benefits at 2.053 billion yen (+9.0% compared to the previous fiscal year).

Costs to conserve the global environment, such as by installing energy-saving equipment in the buildings at the Headquarters (for global warming prevention, energy-saving, etc.), and costs for R&D of eco-efficient products, increased. Also, an increase in sales of eco-efficient products caused an increase in the R&D benefit.

Capital investment was 24 million yen (-70% compared to the previous fiscal year). Main capital investments include the switch from mercury lamps to LED lighting at the PFU Quality Service site.

Environmental Conservation

In order to conserve the environment surrounding our sites, we regularly measure water quality, noise output, and vibration output, and perform ongoing management of our facilities, as well as properly manage chemical substances to prevent pollution.

Also, we 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.

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 2017 Measured value	Evaluation
Headquarters (Bld. A & B)	Hydrogen ion concentration (pH)	-	Between 5 & 9	7.2	✓
	Biochemical oxygen demand (BOD)	mg/L	Less than 600	300	
	Suspended substances (SS)	mg/L	Less than 600	78	
	Mineral oil	mg/L	5 or less	Less than 1	
	Animal and plant oils	mg/L	30 or less	7.9	
	Ammonium-nitrogen, nitrite-nitrogen and nitrate-nitrogen content	mg/L	Less than 380	20	
Headquarters (Bld. E)	Hydrogen ion concentration (pH)	-	Between 5 & 9	7.7	✓
	Biochemical oxygen demand (BOD)	mg/L	Less than 600	130	
	Suspended substances (SS)	mg/L	Less than 600	160	
	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	5.3	
Headquarters (Anechoic Chamber)	Hydrogen ion concentration (pH)	-	Between 5 & 9	8.5	✓
	Biochemical oxygen demand (BOD)	mg/L	Less than 600	52	
	Suspended substances (SS)	mg/L	Less than 600	25	
	Mineral oil	mg/L	5 or less	Less than 1	
	Animal and plant oils	mg/L	30 or less	2.8	
	Ammonium-nitrogen, nitrite-nitrogen and nitrate-nitrogen content	mg/L	Less than 380	93	
ProDeS Center	Hydrogen ion concentration (pH)	-	Between 5 & 9	8.6	✓
	Biochemical oxygen demand (BOD)	mg/L	Less than 600	170	
	Suspended substances (SS)	mg/L	Less than 600	190	
	Mineral oil	mg/L	5 or less	Less than 1	
	Animal and plant oils	mg/L	30 or less	6.7	
	Ammonium-nitrogen, nitrite-nitrogen and nitrate-nitrogen content	mg/L	Less than 380	53	
PFU Techno Wise, Takamatsu Plant (Bld. 1)	Hydrogen ion concentration (pH)	-	Between 5 & 9	7.6	✓
	Biochemical oxygen demand (BOD)	mg/L	Less than 600	Less than 1	
	Suspended substances (SS)	mg/L	Less than 600	1	
	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	1.1	
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	2	
	Suspended substances (SS)	mg/L	Less than 600	Less than 1	
	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	0.5	

Noise/Vibration Measurement

At our Headquarters, we maintain our facilities to ensure that the noise and vibration generated by our business activities are within the limits required by regulations.

We measure the noise and vibration once every five years in order to make sure that the facilities are maintained effectively (The last time we measured the noise and vibration was in fiscal 2015. The next time will be in fiscal 2020).

In fiscal 2017, following the installation of emergency power generator, we implemented special measurements on September 20, and found all values to be below the regulation values.

Noise Measurement Results

	Noise item	Unit	Regulation value	Measured value in fiscal 2017			Evaluation
				Bld. A Southwest side	Anechoic Chamber North side	South side Parking lot	
Headquarters	Afternoon	dB	65 or less	49	49	-	✓
	Morning	dB	60 or less	49	49	-	
	Evening	dB	60 or less	49	49	-	
	Night	dB	50 or less	49	49	-	
	Afternoon	dB	60 or less (*8)	-	-	43	
	Morning	dB	55 or less (*8)	-	-	43	
	Evening	dB	55 or less (*8)	-	-	43	
	Night	dB	45 or less (*8)	-	-	43	

Vibration Measurement Results

	Vibration item	Unit	Regulation value	Measured value in fiscal 2017			Evaluation
				Bld. A Southwest side	Anechoic Chamber North side	South side Parking lot	
Headquarters	Afternoon	dB	65 or less	32	32	-	✓
	Night	dB	50 or less	32	32	-	
	Afternoon	dB	60 or less (*8)	-	-	31	
	Night	dB	45 or less (*8)	-	-	31	

(*8) As the south side parking lot is within 50 m from the border of school premises, the regulation value is lowered 5 dB.

Proper 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 2017 is shown below. None of the chemical substances were in excess of the annual values which require the relevant prefectural authorities to be notified (*9).

Furthermore, no Special Class I Specified Chemical Substances were handled.

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

(Tons)

Chemical Substance Name	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017
Calcium cyanamide	0.007	0.048	0.048	0.051	0.048
Silver and its water-soluble compounds	0.028	0.026	0.022	0.022	0.027
Poly (oxyethylene) alkyl ether	0.015	0.020	0.020	0.017	0.015
Sodium poly (oxyethylene) dodecyl ether	0.010	0.008	0.011	0.011	0.012
N-alkylbenzenesulfonic acid and its salts	0.006	0.006	0.007	0.007	0.007
N,N-dimethyldodecylamine N-oxide	0.005	0.005	0.005	0.006	0.006
Sodium dodecyle sulfate	0.005	0.006	0.007	0.006	0.006
Xylene	0.003	0.001	0.000	0.000	0.004
Ethylbenzene	0.003	0.000	0.000	0.000	0.004
2-aminoethanol	0.002	0.004	0.003	0.003	0.004
Other	0.008	0.006	0.004	0.004	0.004

(*9) 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.

Annual Amount of VOC Handled

(Tons)

Chemical Substance Name	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017
Isopropyl alcohol	0.608	0.756	0.627	0.768	0.789
Ethanol	0.342	0.179	0.214	0.280	0.336
Methanol	0.266	0.278	0.253	0.194	0.081
Other	0.019	0.034	0.058	0.058	0.083

• Greenhouse Gases

The amount of greenhouse gases other than CO₂ that were handled in fiscal 2017 is shown below. The annual amount handled in fiscal 2017 is converted to a CO₂ equivalent weight of approximately 6 tons, and is equivalent to approximately 0.1% of emissions from all our sites (6,901 tons).

Annual amount of greenhouse gases handled (Converted to CO₂)

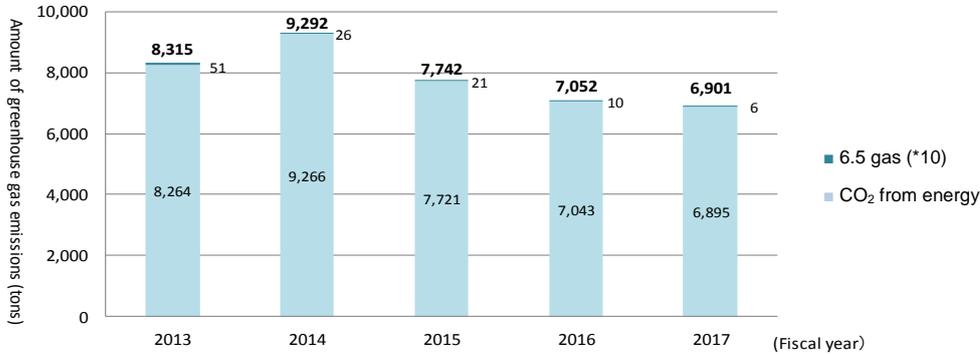
(Tons)

Chemical Substance Name	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017
1,1,1,2-Tetrafluoroethane (HFC-134a)	39.390	25.390	19.926	9.245	3.116
1,1-Difluoroethane (HFC-152a)	0.146	0.458	0.744	0.316	2.905
CO ₂ not from energy	0.004	0.003	0.002	0.002	0.000
Total	39.540	25.851	20.672	9.563	6.021

Environmental Burden

Total Amount of Greenhouse Gas (GHG) Emissions

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



(*10) 6.5 gas: CO₂, methane, dinitrogen monoxide, HFCs (fluorocarbons), PFCs (perfluorocarbons), SF₆ (sulfur hexafluoride), NF₃ (nitrogen trifluoride)

(Note) The amount (tons) of greenhouse gas emissions above is calculated by taking the total of Scope 1 and Scope 2 of the WRI/WBCSD GHG Protocol.

Total of CO₂ from energy (CO₂ emissions due to use of purchased electricity, city gas, liquefied petroleum gas (LPG), and heat (district cooling and heating at the Yokohama headquarters)) and the amount of use of greenhouse gases such as chlorofluorocarbon alternatives (6.5 gas), converted into carbon dioxide.

[Conversion factor] Purchased electricity: Uses each electric company's conversion factor for the Act on the Rational Use of Energy report
 City gas: 2.29 tons of CO₂/1000 m³ (fixed), Liquefied petroleum gas (LPG): 3.00 tons of CO₂/ton (fixed)
 Amount of heat: 0.057 tons of CO₂/GJ (fixed)

Amount of Waste

The amount of waste for all our sites in Japan is shown below. We achieved zero waste emissions (*11) 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.

In fiscal 2017, we continued to promote recycling of waste. However, there was an increase in units thrown out, which contain metal waste and plastic waste.





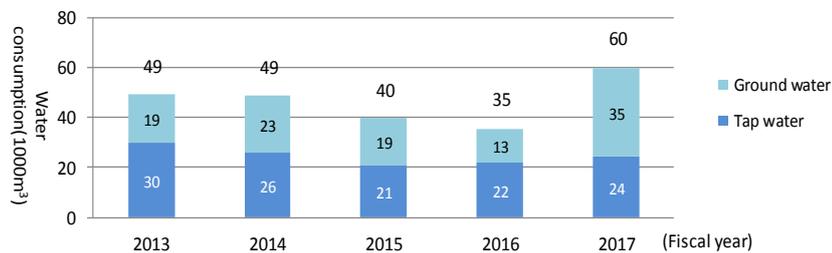
(*11) Zero waste emission means that waste produced by our sites is all used effectively, such as through recycling, and disposal by simple incineration or landfills is less than 0.5%. The term "Waste", as used above, specifically includes 11 sub-types, such as sludge waste, oil waste, acid waste, alkali 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. There was much snow in the winter of fiscal 2017, and therefore there was an increase in the volume of both water usage/drainage compared to the previous year due to an increase in ground water used to melt snow.

• Water Consumption Amount

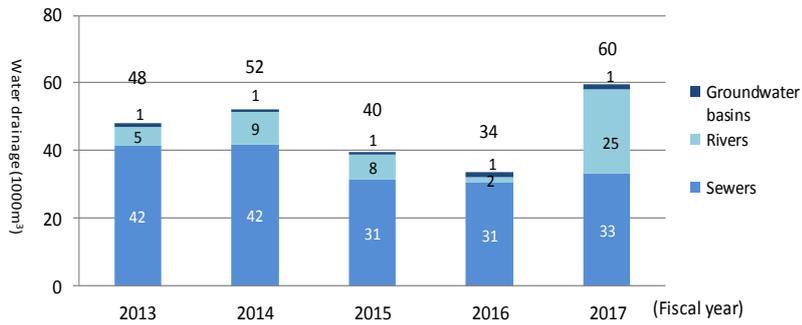


(Note) Our sites: Headquarters, ProDeS Center, PFU Techno Wise Takamatsu Plant, Tokyo Development Center (until October 2014)

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 do not use water for industrial purposes at our company sites. Also, we do not recycle or reuse water.

In fiscal 2017, more ground water was used to melt snow because of heavier snowfall in Ishikawa.

• **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. (Page 22)

In fiscal 2017, more ground water was used to melt snow because of heavier snowfall in Ishikawa. Therefore, more water was drained to rivers.

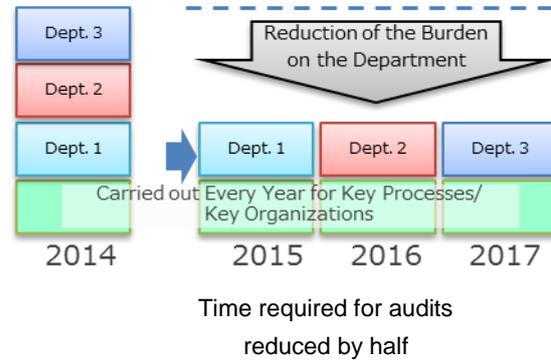
Internal Audits and External Inspections

To continually improve our environmental activities, we not only carry out an internal environmental audit annually, also undergo an ISO14001 environmental management system verification inspection by an external agency.

Internal Audits

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

In fiscal 2017, we carried out internal audits in all 35 departments and at 13 service bases in June and July. We identified four cases of inconsistency, nine cases for improvement, and 34 positive cases. Starting in fiscal year 2015, we changed the cycle for the department audit to every three years to reduce the time required to carry out audits. This change has reduced the burden on each department.



External Inspections

In July 2017, we underwent a certification inspection by the Japan Audit and Certification Organization for Environment and Quality (JACO) as a renewal inspection for ISO14001 and a transition inspection for ISO14001:2015. As a result of this inspection, we received "Enhanced" for our total evaluation. We also gained an evaluation that our management system satisfied the standard requirements and was implemented effectively.

Fiscal 2017 Results of Internal Audits and External Inspections

(Cases)

	Internal Audits			External Inspections (Renewal/Transition Inspection)		
	Incompatible	Case Needing Improvement	Positive Case	Incompatible	Case Needing Improvement	Highly Praised Case
Discovered items	4	9	34	0	3	7

Environment-Related Facilities

We installed a recycling facility in our company in order to promote the effective use of resources.

Food Recycling Processor

Food waste from the company cafeterias at Headquarters and the ProDeS Center is converted with recycling processors into compost, which is then used at the company-owned farm. We provide our company cafeterias with vegetables that are produced at the company-owned farm to construct and sustain an in-house food recycling system.

• Facility Overview

- Composting method: Aerobic fermentation by useful microorganisms
- Fermentation time: 24 hours
- Kitchen waste: 74 kg/day
- Fertilizer produced: 16 kg/day
- Processing time: 8 to 10 hours



• Results

(Tons)

Item	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017	Note
Compost from recycled kitchen waste	3.4	3.4	3.6	1.5	3.5	Used at the company-owned farm

Affiliated Company Activities

Three of our affiliated companies (PFU Hokkaido Limited, PFU East Japan Limited, and PFU West Japan Limited), each of which are running their own environmental management systems, are promoting environmental activities consistent with PFU's environmental management system. Furthermore, PFU Technoconsul Limited and PFU Life Agency Limited conduct their own environmentally related business.

PFU Hokkaido Limited

Activities Plan and Results

Activity		Fiscal 2017			Fiscal 2018
		Target	Result	Evaluation	Plan
Green Product	Provision of eco-efficient products and environmentally conscious solutions	Image scanners 102 units	Image scanners 107 units	✓	Image scanners 112 units
	Improvement of the rate for solving the issues the first time in maintenance	89.0%	89.5%	✓	89.6%
Green Process	Promotion of Green Processes	1 new project	1 new project	✓	1 new project
Green Mind	Promotion of an Environmentally Conscious Culture	Contributions to the local society 10 times or more	Contributions to the local society 12 times	✓	Contributions to the local society 11 times or more

Topics

In fiscal 2017, PFU Hokkaido continued its efforts for "Promotion of an environmentally conscious culture" by carrying out the following activities.

- "Eco Cap Campaign (Collecting Plastic Bottle Caps)" and "Commuting and Access Road Cleanup" (continuing activities)
- Participation in "CLEAN UP OUR TOWN 2017 (The Most Fun Cleanup in the World)" at Moerenuma Park in Sapporo, and the "Kankyo Hiroba Sapporo 2017", the main environmental event in Sapporo (interactive learning)



"CLEAN UP OUR TOWN 2017
(The Most Fun Cleanup in the World)"
(Moerenuma Park in Sapporo City)



"20th Kankyo Hiroba Sapporo 2017"
(Axes Sapporo in Sapporo City)

Activities Plan and Results

Activity		Fiscal 2017			Fiscal 2018
		Target	Result	Evaluation	Plan
Green Product	Provision of eco-efficient products and environmentally conscious solutions: Increase in the number of PFU products (scanners, interactive KIOSKs, software)	Up 6% (Compared to 2016)	Up 33% (Compared to 2016)	✓	Up 12% (Compared to 2016)
	Reduction of the environmental burden by improving maintenance efficiency: Reduction of repeated failure rate by maintenance	10.2% (improvement of 0.1% compared to the previous fiscal year)	10.1%	✓	10.0% (improvement of 0.1% compared to the previous fiscal year)
	Reduction of the environmental burden by improving maintenance efficiency: Reduction of emergency shipping rate of maintenance parts	17.0% (improvement of 1%)	17.0%	✓	To reduce the time it takes to handle complaints by 1 minute per case (25.2 minutes to 24.2 minutes)
Green Process	Promotion of Green Processes	Promotion of leaving work on time (4 times/month) (Target: Average 70% or greater)	4 times/month (Average 70.4%)	✓	Promotion of leaving work on time (4 times/month) (Target: Average 75% or greater)
Green Mind	Promotion of an Environmentally Conscious Culture	Cooperation/exchange with the community (8 times per year)	8 times per year	✓	Cooperation/exchange with the community (8 times per year)

Topics

Workers at PFU East Japan participated in the "Revive Marathon", held for the first time in Miyagi Prefecture six years after the Great East Japan Earthquake. PFU East Japan advertised this activity to workers at the company and affiliated companies, informing workers of the current status in the affected areas. Some of the workers participated not only as marathon runners but also as volunteers, successfully interacting with local residents.



Members who participated in the "Revive Marathon"



Volunteers at the water station

Activities Plan and Results

Activity		Fiscal 2017			Fiscal 2018
		Target	Result	Evaluation	Plan
Green Product	Provision of eco-efficient products	Up 2.4% compared to fiscal 2016	Up 26.8% compared to fiscal 2016	✓	Up 2.4% compared to fiscal 2017
	Provision of environmentally conscious solutions	Up 2.0% compared to fiscal 2016	Up 6.0% compared to fiscal 2016	✓	Up 2.0% compared to fiscal 2017
	Reduction of the environmental burden by improving maintenance efficiency (Emergency shipping rate of maintenance parts)	Down 2.0% compared to fiscal 2016	Down 8.2% compared to fiscal 2016	✓	Down 2.0% compared to fiscal 2017
Green Process	Promotion of Green Processes	1 new project in each department	1 new project in each department	✓	1 new project in each department
	Improvement of gasoline use efficiency (Fuel efficiency of company owned cars)	Up 2.0% compared to fiscal 2016	Up 9.1% compared to fiscal 2016 (15.13 km/L)	✓	Up 2.0% compared to fiscal 2017
Green Mind	Promotion of an Environmentally Conscious Culture	Environmental education and awareness-raising activities 8 projects or more per year	Environmental education and awareness-raising activities 9 projects per year	✓	Environmental education and awareness-raising activities 8 projects or more

Topics

- One year has passed since PFU West Japan reconstructed its environmental management system to comply with ISO14001:2015. PFU West Japan aims to further brush up on the activities, and to explorer activity content in depth by making use of the requirements for the standards.
- As part of the Promotion of Green Processes, PFU West Japan achieved effective utilization of space and improvements in operational efficiency by organizing stored paper documents and converting them into electronic documents.
- As part of the activities for "Promotion of an environmentally conscious culture", PFU West Japan promoted participation in "social contribution activities (cleanup activities)" held in the areas shown below. PFU West Japan will continue to promote these activities this fiscal year as well.

[Hokuriku Service Department]

June: Beach cleanup activity in Imizu, Toyama, "Cosmo Earth Conscious Act Clean Campaign in Rokudoji Beach"

July: Beach cleanup activity in Hakui, Ishikawa, "Hakui Nagisa Clean Campaign in Chirihama Beach"

Park cleanup activity in Sakai, Fukui, "Cosmo Earth Conscious Act Clean Campaign in Fukui 2017"

[Chugoku-Shikoku Service Department]

June: Cleanup activity in Fukuyama, Hiroshima, "Cleanup Around Fukuyama City Hall"



"Hakui Nagisa Clean Campaign in Chirihama Beach"
During Cleanup (Hakui, Ishikawa)



Participated in "Cleanup Around Fukuyama City Hall"
(Fukuyama, Hiroshima)

PFU Technoconsul Limited

Services Related to ISO Management System

PFU Technoconsul provides comprehensive services such as consulting for management system certification acquisition on environment, quality, and information security.

<Solutions and Services Menu>

ISO Certification Acquisition Consulting

- Quality Management System (ISO9001)
- Environmental Management System (ISO14001)
- Occupational Health & Safety Management System (ISO45001)
- Information Security Management System (ISO27001)

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- Survey Support for Applicable Regulations and Ordinances
- Operational Support Including Impact Evaluation
- Support for Traceability of the Measuring Equipment

Support for the Operation of the Chemical Management System

- Support service for the operation of the chemical management system for universities

PFU Life Agency Limited

Waste Collection, Transport, and Recycling

We collect and transport the industrial and general waste, then recycle the waste via a qualified waste disposal contractor.

Status of Permissions

<Industrial Waste Collection and Transport Operations>

- Ishikawa Pref.: License No. 01707052827

<General Waste Collection and Transport Operations>

- Kahoku County and Kahoku City: License No. 7
- Kanazawa City: License No. 25
- Hakusan City: License No. 26



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