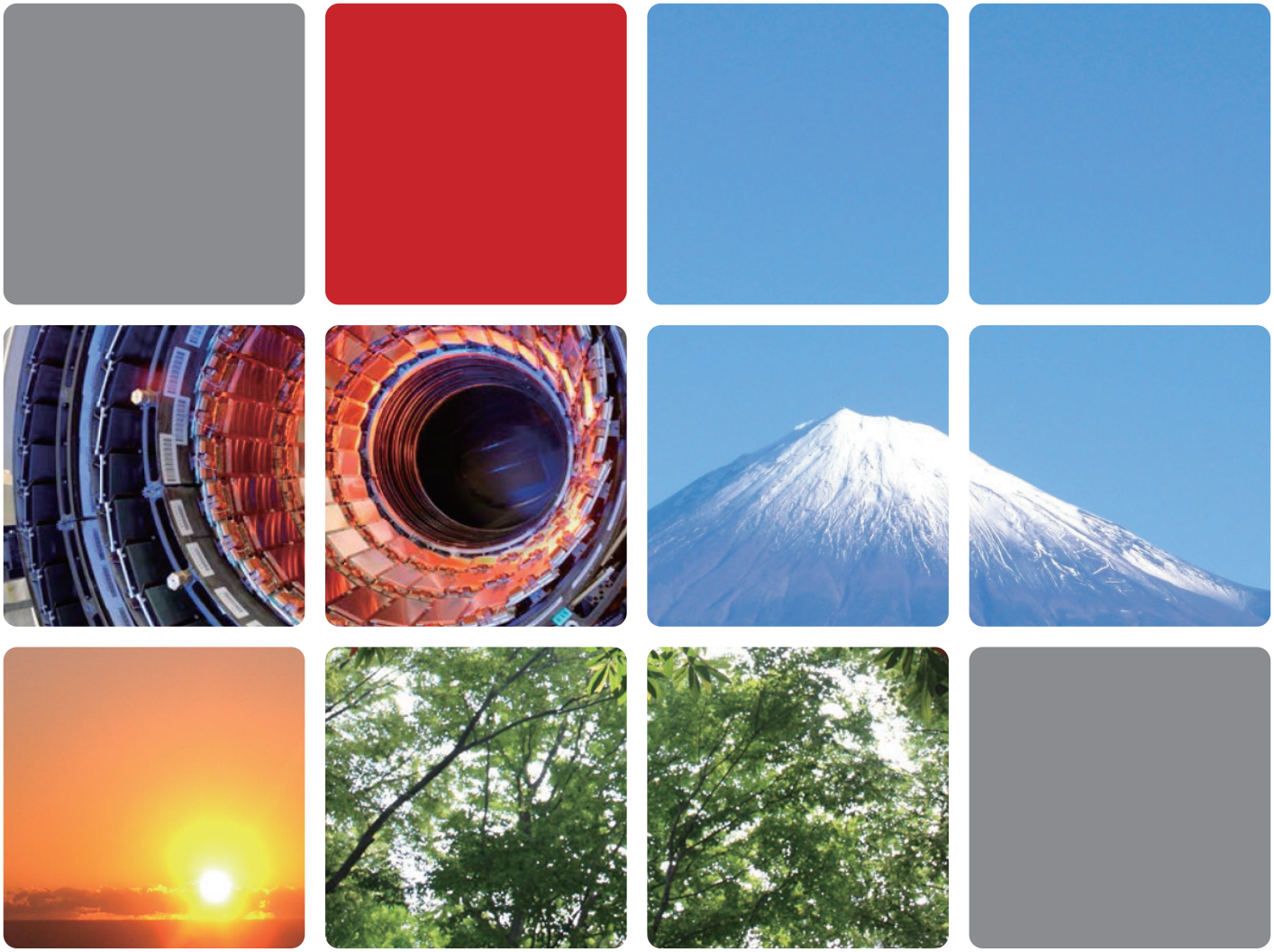

HAMAMATSU

PHOTON IS OUR BUSINESS

Environmental Report 2014

Environmental Report 2014

HAMAMATSU PHOTONICS K.K.

Message from the President

Working toward the Achievement of a Sustainable Society, We Use Photonics Technology to Help Solve Environmental Problems

Introduction

In 2013, one year after the United Nations Conference on Sustainable Development, also known as Rio+20, the 19th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 19) and the 9th session of the Meeting of the Parties (CMP 9) to the 1997 Kyoto Protocol were held in Warsaw, Poland. The parties agreed that every country in the world would participate in the global warming prevention frame work for 2020 onward and that each country would submit voluntary targets. Japan set a target that by 2020 it will have a reduction in emissions of 3.8%. HPK is fully aware of how important it is that we strive to reduce global warming and work to use technology innovation to address global warming problems.

Working toward the Achievement of a Sustainable Society

Given the current circumstances of the world, HPK believes that businesses have a social responsibility to work towards the achievement of a sustainable society in an environmentally friendly way. In our efforts to promote this, we have drafted a Fundamental Environmental Policy, deployed an Environmental Management System (EMS) in the entire company, engaged in activities that have earned us a 2013 Environment Minister's Award for Global Warming Prevention Activity, providing products that are environmentally friendly in every part of their life cycle, and are carrying out biodiversity conservation activities. This philosophy has also been incorporated into our Corporate Social Responsibility (CSR).

Using Optical Technology to Help Solve Environmental Problems

The mission of HPK is to use photon technology to benefit society and make the world a healthier and more peaceful place. Focusing on the theme of life-science photonics, we will continue to engage in basic research into the unknown and unexplored properties of photons and use our research and development activities to serve as a center of photonics innovation. We will continue to create photonics technology that is applicable in a wide range of fields, including information, measurement, medicine, biology, energy, and the environment. As we work to reduce the environmental impact of our business activities, we will help to solve environmental problems.

I would like to ask our stakeholders for their continued support and guidance in these efforts.

Hamamatsu Photonics K.K.

President

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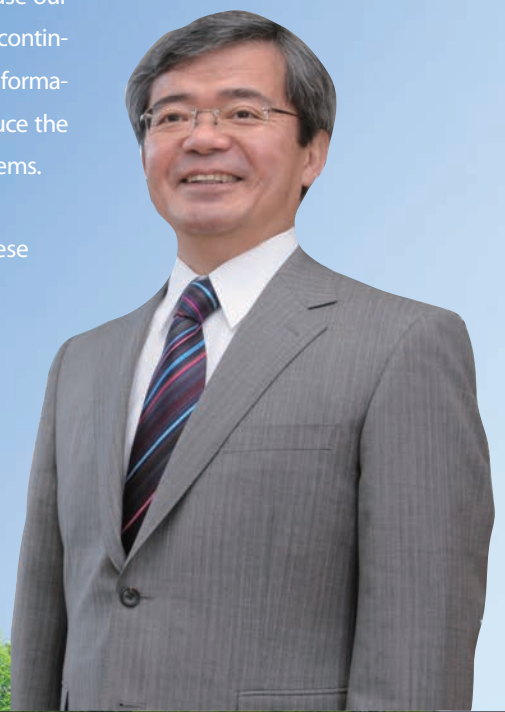


Hamamatsu Photonics 2014 Environmental Report

Contents

HPK received the 2013 Environment Minister's Award for Global Warming Prevention Activity in the Countermeasure Technology Introduction and Dissemination Category

Awards ceremony (Left: Nobuteru Ishihara, Japanese Minister of the Environment, Right: Haruji Ohtsuka, Vice President of HPK)

Award certificate and commemorative plaque

On December 4, 2013, the Japanese Ministry of the Environment awarded HPK the 2013 Environment Minister's Award for Global Warming Prevention Activity in the Countermeasure Technology Introduction and Dissemination Category.

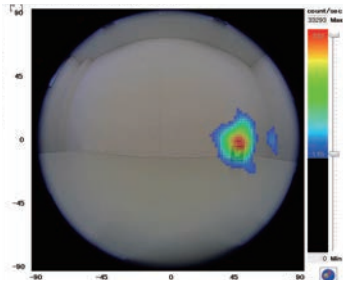
As part of its efforts to promote measures against global warming, the Ministry of the Environment has been presenting this award annually since 1998 to individuals and organizations who have accomplished significant achievements in the prevention of global warming.

HPK received this award in recognition of its active implementation of new energy and energy-conserving facilities and equipment, its contributions to the reduction of CO_2 emissions, and its community enrichment activities.

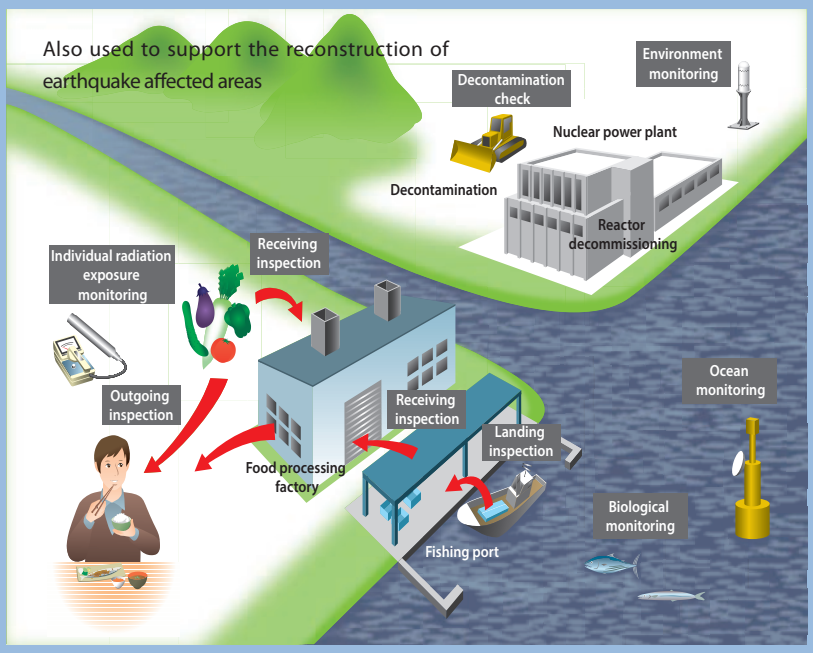
Hamamatsu Photonics Contributes to Environmental Impact Reduction Activities Using Photonics Technology

The products of Hamamatsu Photonics are being used in a variety of environmental impact reduction activities. Examples include the measurement of environmental air and water quality, the analysis of concentrations of regulated chemicals, and the enhancement of the energy efficiency of common electrical equipment.

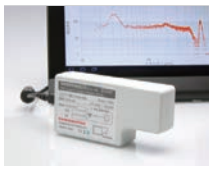
Compton camera for gamma-ray imaging



Shows areas of concentrated radioactive material (hot spots)



Radiation detection modules



Photomultiplier tubes

Environmental analysis and measurement

Infrared detectors

Environmental analysis and measurement

Deuterium lamps

Atmospheric and water quality analysis

Delayed luminescence measuring device

Ecological impact assessment

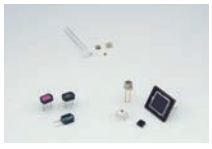
Solar cell evaluation systems

Quantum cascade lasers

Gas analysis

CO_2 gas sensor modules

Visible light/illuminance sensors



Ambient light level detection

Distance sensors

Weather measurement

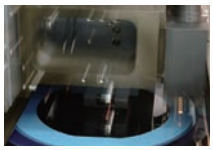
Photonic multichannel analyzer

Light source evaluation

Xenon lamps and hollow cathode lamps

Atmospheric and water quality analysis

Stealth dicing engine



Next-generation laser dicing technology

X-ray line sensor cameras

Component analysis

Mini-spectrometers

Soil analysis and aquametry

Promoting Environmental Management

HPK Fundamental Environmental Policy

Principle In our conduct of business activities we, Hamamatsu Photonics K.K., recognize that maintaining harmony with the global environment is one of essential issues facing mankind and we are determined to always act with this in mind as we endeavor to create new science, new industries, and to establish true health for mankind by studying, applying and expanding photonics technologies.

Policy

1. Initiate an internal organization for environmental protection and establish environmental management system in each plant in order to carry out activities related to environmental protection
2. Assess the impact on the environment by our activities, products and services, and constantly improve our environmental protection activities and environmental management
3. Comply with our internal procedures and policy as well as all governmental laws and regulations related to environmental protection, and impose our own voluntary standards if necessary, to reduce the stress on the environment
4. Take preventative measure to curb pollution, save energy and resource, reduce waste and control chemical substances
5. Strive to raise the awareness of all our employees regarding environmental issues through environmental education, and to understand and apply this Fundamental Environmental Policy through in-house publication of the Policy

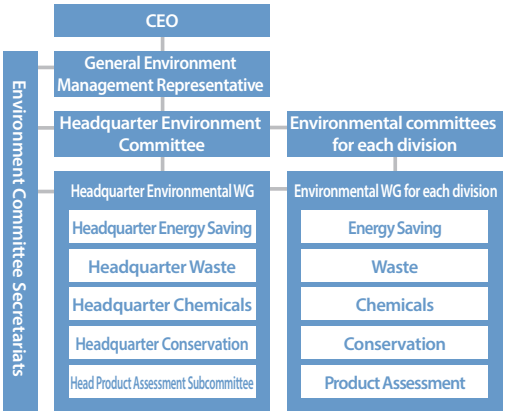
Environmental Management System

Framework for Promoting Environmental Management

At Hamamatsu Photonics, we have established a Headquarter Environmental Committee. This Committee serves as a decision making body for matters pertaining to our Environmental Management System (EMS). It is comprised of five specialized workgroups, the environmental workgroups of each division at Hamamatsu Photonics, and the Environment Committee Secretariats. It is directed by a General Environment Management Representative (Senior Managing Director).

To achieve the goals set forth in our Fundamental Environmental Policy, we set targets for each period. Our results are then evaluated using a variety of methods which includes reports, suggestions, and deliberations.

Environmental Management System Diagram



ISO 14001 Certification

Each of our divisions has received ISO 14001 certification and is working to sustain and improve its environmental performance. To deepen each employee's understanding of the EMS, we engage in a variety of activities, including education for new employees, education for internal auditors, and specialized environmental training.

In our company-wide efforts to improve the EMS, internal environmental audits are conducted at each period. These audits help us identify our short comings.

By identifying our short comings we are then able to make proposals about areas as we optimize our operations.

Organizations That Acquired ISO Certifications

Organization That Acquired Certification	Site	Acquisition Date
Main Office	Main Office	March 2012
Central Research Laboratory	Central Research Laboratory	March 2012
Electron Tube Division	Toyooka Factory and Tenno Glass Works (Koso Corporation)	December 2003 (December 2011)
Solid State Division	Main Factory, Mitsue Factory, and Shingai Factory	December 2003 January 2012
Systems Division	Joko Factory	August 2004
Miyakoda Factory	Miyakoda Factory	February 2012

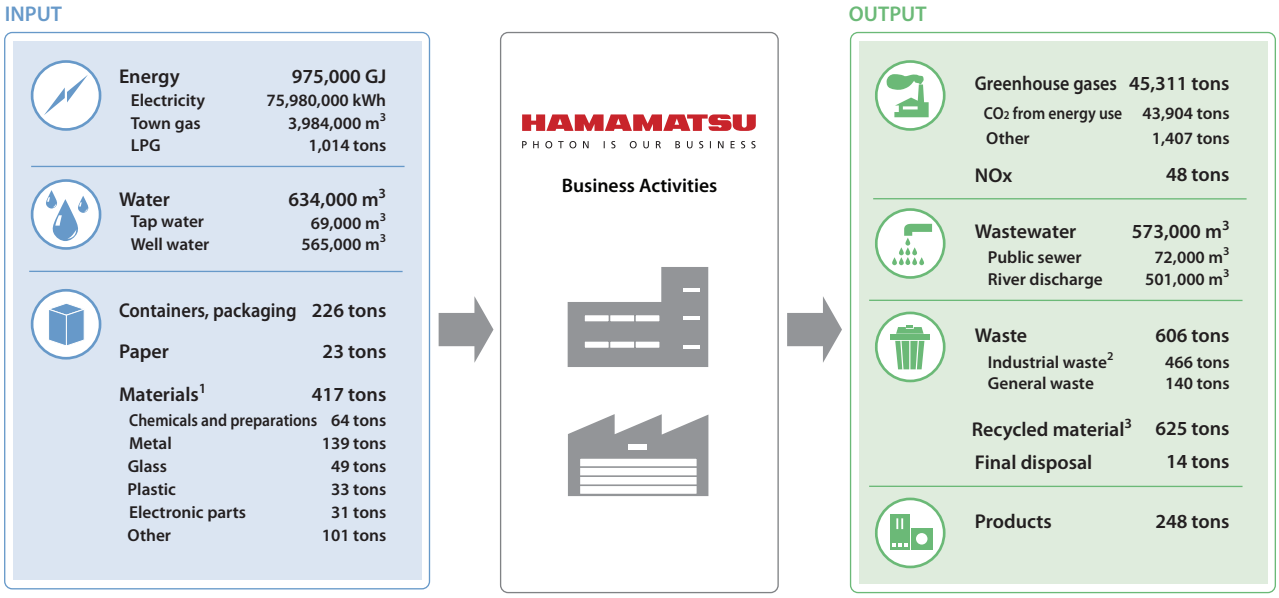
*ISO 14001 certification includes Koso Corporation, an affiliated company.

Environmental Accounting

We are promoting environmental accounting internally as a means of providing the fundamental information necessary for environmental management.

Environmental Impact of Business Activities

We are quantifying the environmental impact of our business activities and working to reduce our impact on the environment. The following figures are a summary of our environmental impact for this period.



1 Total for materials whose weight data was available (the amount of the materials has increased by approximately 13% since 2013).
2 Including chemical waste.
3 The amount of recycling is the total amount of material and thermal recycling added to the amount of valuables.
10 locations within Japan were subject to measurement (Toyooka Factory, Tenno Glass Works, Main Factory, Mitsue Factory, Shingai Factory, Joko Factory, Miyakoda Factory, Central Research Laboratory, Main Office, and Industries Development Laboratory).
Some data includes Tsukuba Research Laboratory and the five domestic sales offices (Tokyo Sales Office, Osaka Sales Office, Sendai Sales Office, Tsukuba Sales Office, and Nishinihon Sales Office).

Dealing with Environmental Risks

Framework for Reducing Environmental Risks

We are working to reduce living-environment contamination and stress related to factors such as air, water, soil quality, noise, and foul odors. As part of our efforts to comply with the June 2012 revisions to the Water Pollution Control Act, we have inspected various facilities that the act applies to. We will repair equipment and take other appropriate measures at facilities where problems were discovered and actively work to comply with environmental laws and regulations.

Emergency Response Training

We have prepared accident and disaster response manuals, and we regularly hold customized disaster response training for each type of business and division. In this period, training sessions have included evacuation training for clean-room gas leaks, response training for clean-room chemical spills, and company-wide disaster preparedness training, which is conducted twice a year.


Disaster response training

Targets and Accomplishments of Environmental Activities

Each year, from October 1st to September 30th, we set environmental objectives and targets and actively work to reduce our impact on the environment and protect the environment. Below is a summary of the objectives and accomplishments from this period.

Primary Targets for 2013	Primary Accomplishments for 2013	Evaluation
Environmental Management System		
› Improve EMS and renew certification for divisions that have received ISO 14001 certification.	› Received audits from external certification bodies and renewed certification.	Yes
Making Products Environmentally Friendly		
› Implement and revise the "Management Standards for Chemical Substances."	› 10th revision	Yes
› Conform to each country's environmental regulations for products	› Enhanced compliance to revised RoHS Directives.	Yes
Making Business Activities Environmentally Friendly		
Fighting Global Warming		
› Energy conservation promotion and awareness activities	› Received the 2013 Environment Minister's Award for Global Warming Prevention Activity › Hamamatsu City Top Runner S rank certification	Yes
› Reduce energy use per unit of sales by at least 2% compared to the previous period.	› Increased by 6.3% compared to the previous period due to reduction in sales and other factors.	No
Appropriate Management of Chemicals		
› Perform a chemical usage inspection every six months.	› Implemented according to plan in accordance with the PRTR Law.	Yes
› Promote the collection of the latest MSDSs and manage the database of MSDSs.	› Holding 5,777 MSDSs.	Yes
3R Activities		
› Total recycling rate: 97% or more	› Achieved a total recycling rate of 96.9%, which is 0.1% less than the target rate.	No
› Supervise contracted waste management facilities.	› Held inspections at contracted waste disposal facilities.	Yes
Prevention of Pollution		
› Maintain management in accordance with voluntary standards.	› Closely followed trends in regulations and properly responded to revisions in the Water Pollution Control Law.	Yes
› Reduce VOC emissions into the atmosphere by 30% compared to the year 2000.	› Achieved 50.4% reduction.	Yes
Social and Environmental Communication		
› Promote biodiversity conservation activities.	› Distributed happy memorial trees. › A total of 484 people participated in local cleaning activities 12 times during the year. › Participated in the Lake Hamana Cleanup Campaign led by Hamamatsu City.	Yes
› Disseminate environmental information both within and outside of the company.	› Disseminated environmental information including environmental reports (in English and Japanese). › Posted the latest information about HPK environmental efforts on the Web.	Yes

In the Evaluation column, Yes means accomplished and No means not accomplished.

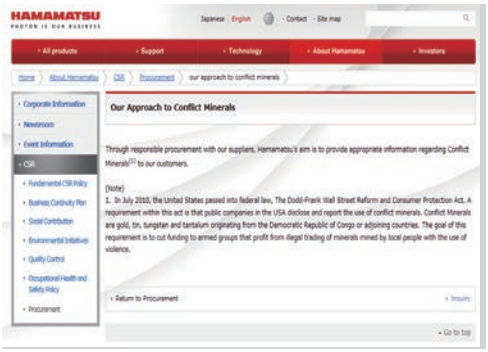
Making Products Environmentally Friendly

Conforming to Regulations Regarding the Chemicals Contained in Our Products

Compliance with Regulations

Regarding the chemicals contained in our products, we have joined industrial groups related to each country's regulations. We strive to stay up to date with the latest information and will respond swiftly and appropriately to new regulations.

We are working to comply with RoHS by responding to the recent changes in the directive. (e.g. expansion of covered product categories, changes to exemptions, and the implementation of CE marking). We are also working together with our business partners to avoid the procurement of conflict minerals. We are providing our customers with appropriate information regarding these minerals.



"Our Approach to Conflict Minerals" page of the HPK website

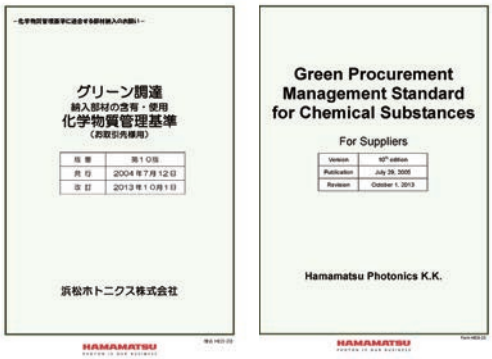
About Hamamatsu > CSR
> Procurement > Our Approach to Conflict Minerals

Green Procurement

We have established a company wide Management Standard for Chemical Substances. Within this standard we are able to conform to regulations and provide products that meet the demand of our customers. We issued the 10th edition of this standard in October 2013. This edition mainly focuses on conforming to the revised RoHS directive.

We conduct green procurement surveys with our business partners regarding the concentration of regulated chemicals. The survey results are collected in a company wide system that stores environmental information. The results are used to increase operational efficiency and to evaluate compliance with regulations.

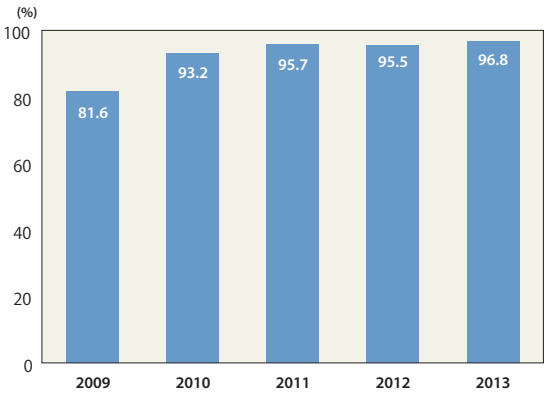
Green Procurement and
Chemical Substance Management Guide



Green Purchasing

We have established a company-wide green purchasing guide and are purchasing environmentally friendly office products and other goods. Our green purchasing rate for this period has been 96.8%, which is above our target rate of 90%.

Green purchasing rate



Developing Environmentally Friendly Products

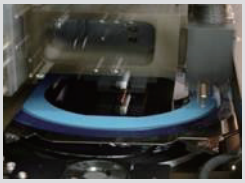
As a means of making our products more environmentally friendly, we are working to promote the sale of products that use less resources. Below are a few examples of products we have developed this period.

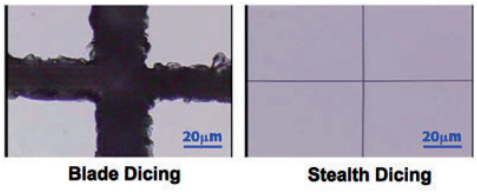
Examples of Newly Developed Environmentally Friendly Products

• SDE Unit for SiC

Product information
SD Technology

SiC is attracting attention as a material for next-generation power devices. The use of SiC in diodes, and the like, can lead to an approximately 30% reduction in power consumption. Because of cutting loss and material hardness, conventional SiC processing using blades is very time consuming. On the other hand, stealth dicing using HPK's SDE unit has almost zero cutting loss, is about 50 times faster than conventional processing, and does not require the use of rinsing water during cutting.

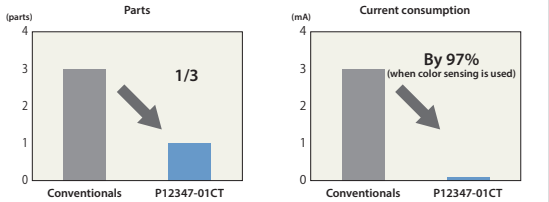




• Multifunctional Optical Semiconductor Element

Product information
P12347-01CT

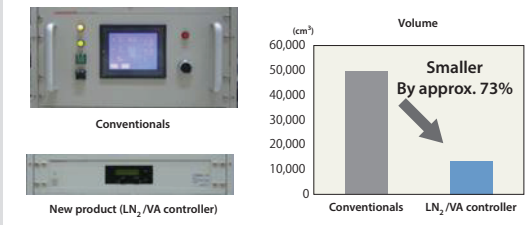
The P12347-01CT combines color, brightness, and proximity sensing and display LED functionality in a single package. The P12347-01CT makes it possible to control backlighting in accordance with the environment and thereby makes it possible to minimize TV and smartphone power consumption. The P12347-01CT facilitates product size reductions by combining three features in a single package and making it possible to reduce the number of required parts to 1/3 the previous number. In addition, we have reduced the amount of power used by the element itself (when color sensing is used) by 97%.



• Semiconductor Failure Analyzer

Product information
Failure Analyzer

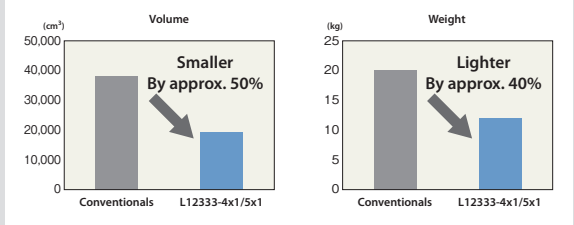
The analyzers in the PHEMOS series locate semiconductor failures by detecting the very weak photoemission that accompanies semiconductor device operation. Their detectors are equipped with InGaAs cameras, which are highly sensitive in the infrared wavelength region. These cameras are cooled using liquid nitrogen to reduce thermal noise, and this makes highly sensitive observation possible. By improving the circuitry of the cooling controller, we have made it compliant with the RoHS directive and approximately 73% smaller.



• LD irradiation light source (SPOLD)

Product information
L12333

The L12333 LD Irradiation Light Source Series (SPOLD) are non-contact laser irradiation devices that supply heat at high levels of efficiency. These devices can be used for soldering, plastic welding, and other forms of processing. By equipping these devices with highly efficient LD modules, we have made them approximately 50% smaller than previous products in terms of volume, approximately 40% lighter, and approximately 10% more energy efficient.



Making Business Activities Environmentally Friendly

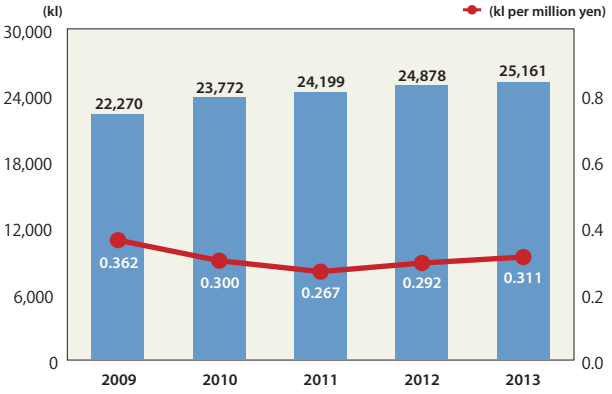
Fighting Global Warming

Changes in Energy Conservation and CO_2 Reduction

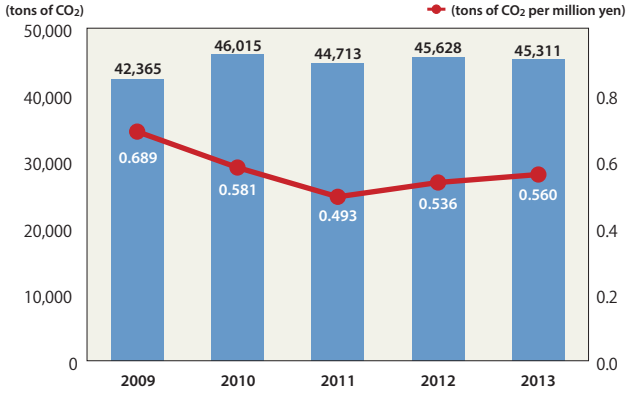
With the target of reducing the energy used in business activities, Hamamatsu Photonics is actively promoting energy conservation activities and working to reduce greenhouse gases. We work to educate and train our staff and have switched to using more energy efficient equipment.

Our energy use per unit of sales did increase by 6.3% compared to the previous period. However, thanks in part to the implementation of the greenhouse gas abatement, we were able to reduce our CO_2 emissions by 0.7% compared to the previous period.

Energy use and its ratio of sales



CO_2 output and its ratio to sales



1 Some past data has been changed because of revisions to the scope of data collection and the data collected.

2 The factor we use to convert power to CO_2 and calculate the CO_2 from energy use is 0.417 (the emission factor provided by the Federation of Electric Power Companies).

Renewable Energy Initiatives

We are working to reduce CO_2 emissions not only by increasing the energy efficiency of conventional devices, but also by promoting renewable energy efforts that utilize solar power, wind power, and other types of natural energy.

In 2013, in the Central Research Laboratory and our company housing in Toyooka and Nakase, we installed enough solar power generators to produce a total of approximately 100 kW of power. At the Central Research Laboratory, we are promoting environmental friendliness through the fusion of greenery and clean energy by greening the area around our facilities and installing hybrid outdoor lights that use stored power from solar cells and small wind power generators. In addition, our solar panel mounts use the environmentally friendly ground screw (GS) method.[3]

3 GS method: An environmentally friendly foundation construction method that doesn't use concrete

Solar power generators (at the Central Research Laboratory and company housing)

Hybrid outdoor lights

Reducing Electricity Consumption

Participation in "Challenge 25 Campaign" Activities

HPK is participating in the Challenge 25 Campaign. It is a national movement to prevent global warming. It is being promoted by the Ministry of the Environment. Each year, HPK holds energy conservation campaigns in the summer and winter, which are the seasons when energy use increases the most. During these campaigns, HPK thoroughly manages room temperatures so that they are at 28 C in the summer and 20 C in the winter. Other energy-conservation activities that take place during these campaigns include patrols by members of energy conservation groups to reduce inefficient energy use.

In this period, we have been working to reduce our peak electricity use through the visualization of electricity use. We have made an electricity usage monitor available over our intranet that shows the electricity demands and use at each business facility in real time. This monitor helps each individual employee to work independently to conserve energy.

We have also been holding a household energy-saving declaration and contest program for our employees since 2011. In addition to giving each household an opportunity to save electricity, this program also serves as an opportunity to deepen communication between employees and families. While participating in this program, many of our employees have also participated and won awards in events run by the Shizuoka Center for Climate Change Actions (SCCA).

Graph of electricity use in all business facilities

Business facility power use over time

Power-saving declaration and contest program

Examples of Energy Conservation Efforts

• Office Energy Conservation

To conserve energy in offices, we are converting to LED lighting and installing energy-saving fixtures that mix the wind emitted from air conditioners. Mixing heated or cooled air reduces temperature irregularities and enhances air conditioning efficiency. It is a way to save energy while making rooms comfortable.
(We installed 114 energy-saving fixtures for air conditioners.)

Energy-saving fixture

COLUMN:

HPK Received the Kanto Bureau of Economy, Trade and Industry Director General's Award for Excellence in Energy Management

At the 2012 Kanto Energy-Saving Month Awards Ceremony, the Main Factory received the Kanto Bureau of Economy, Trade and Industry Director General's Award for its excellent energy management. This award recognizes model business facilities whose efforts to make energy use more efficient and relentless promotion of energy management have yielded significant results. The Main Factory is the second business facility to receive this award, which was also awarded to the Central Research Laboratory in 2010.

Awards ceremony

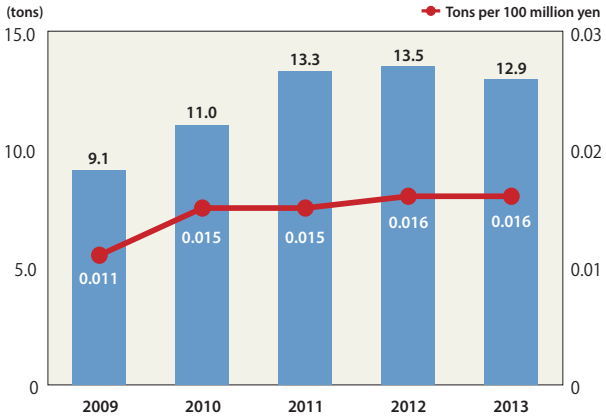
Appropriate Management of Chemicals

Handling of Chemicals Subject to the Pollutant Release and Transfer Register (PRTR) Law

In this period, we used 12.9 tons of substances designated as class 1 chemical substances under the PRTR Law (yearly use of 1 kg of more by all divisions subject to tracking). In 2012, we reported the use of two substances at our Main Factory (2-aminoethanol and hydrogen fluoride and its water-soluble salts).

1 PRTR Law: A law regarding the promotion of precise knowledge of emissions of designated substances into the environment and management improvements based on that knowledge

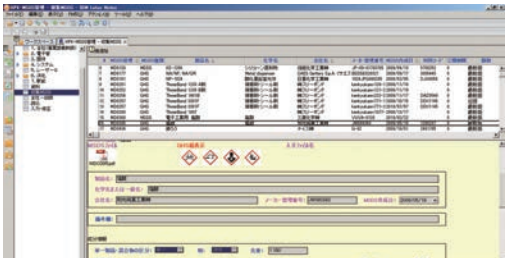
Chemicals subject to the PRTR Law and its ratio of sales



Promotion of MSDS (Material Safety Data Sheet) Collection

As stipulated in the Industrial Safety and Health Law, MSDSs are essential for assuring the safety of workers who handle chemical materials and for reducing the risks of these chemicals to the environment. We are reducing risks by promoting the collection of the latest MSDSs, putting those MSDSs in our internal company database, and disclosing and using them throughout the company.

Internal MSDS database

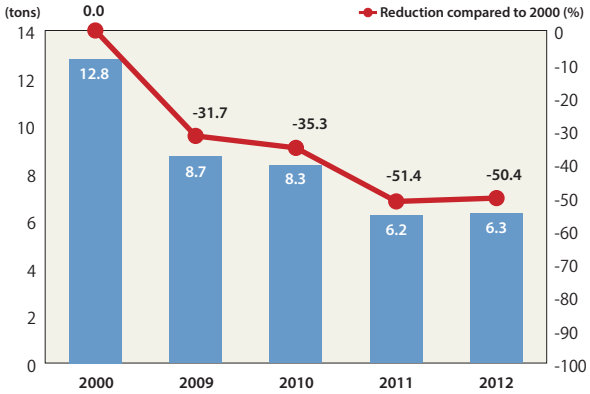


Reducing VOC (Volatile Organic Chemicals) Emissions

We are working to reduce emissions of VOCs[3] into the atmosphere by reducing our use of VOCs, taking measures to inhibit emissions, and the like.

In 2012, we set a goal of sustaining a 30% reduction in VOC emissions compared to 2000, and we managed to achieve this goal. We will continue to strive to achieve this goal.

VOC emissions and reductions by year



COLUMN:
Chemical Substance Education

The chemical substance group of each division and business facility regularly educates users of chemical substances of the hazards of the substances and how to properly handle them. In this period, we also received chemical substance safety education from chemical manufacturers.

Chemical substance education

3R Activities

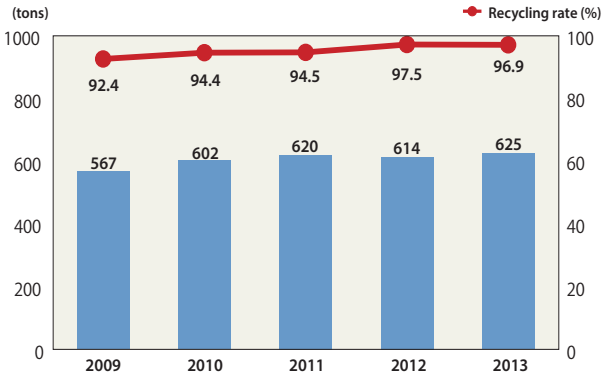
Reducing Waste Levels to Zero

To reduce the impact of waste on the environment, we apply the Three (3) Rs (Reduce, Reuse, Recycle).

As part of this effort, we are striving toward the ideal of zero emissions.[1] We did accomplish our previous goal (a rate of recycling of at least 95% for all waste products other than acid and alkali waste). We, however, fell short of our new goal of 97%.[2] We had a recycling rate of 96.9%. We are still continuing our efforts to reduce emissions resulting from our business activities, reuse resources, reduce the amount of defective products, and thoroughly separate our waste.

1 Zero emissions: The idea that we should strive for a society with no waste
2 The amount of recycling is the total amount of material and thermal recycling added to the amount of valuables.

Recycling levels and its ratio



Total waste output and its ratio of sales

COLUMN:
Appropriate Disposal of PCB Waste

The Yusho disease outbreak of 1968 has heightened social awareness of the toxicity of PCBs (polychlorinated biphenyls). PCBs have excellent electrical insulation and have been used to insulate oil in transformers, capacitors, and other electrical devices. However, due to their hazardous properties, the Stockholm Convention on Persistent Organic Pollutants (POPs) has stipulated that PCBs be disposed of properly. The Convention has confirmed that by 2028 PCBs must be disposed of properly.

Japan has very few PCB disposal facilities. As a result, almost 30 years has passed with no disposal. HPK is properly storing PCB waste in accordance with the Law concerning Special Measures for Promotion of Proper Treatment of PCB Wastes. For this period, two divisions have been able to proceed with their disposal of PCB waste.



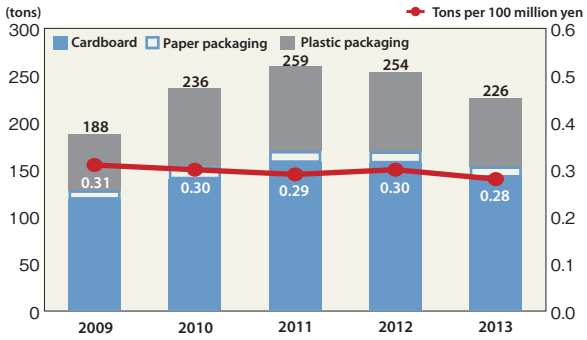
PCB waste transfer

Shipping Measures

Reducing Containers and Packaging Materials

We are using packaging materials as efficiently as possible to improve product accommodation ratios. We are also promoting the expanded use of reusable shipping containers. In this period, our use of containers and packaging materials was 226 tons, a 11% decrease over the previous period. Our use of containers and packaging materials per unit of sales was 0.28 tons per 100 million yen.

Container and packaging use and its ratio of sales



Examples of Reductions in Containers and Packaging

• Reduction of Packaging Use through Improvements in Packaging Methods

We reduced the types of parts and the numbers of parts in our boxes from the conventional three types and seven parts to two types and two parts. This has enabled us to reduce the amount of box-related work to one third of what it previously was and has made it easier to separate box parts for disposal.


After improvements


Before improvements

• Optimization of Company Distribution Containers

We optimized the size of the distribution containers we use to send products to our company warehouses. This has enabled us to switch from fitting two products in a container to fitting five products in a container, has reduced the number of containers we use, and has made the transport of products more efficient.


After improvements


Before improvements

Reduced Consumption of Cushioning Material

We have been reusing the cushioning material in the packaging delivered by our suppliers' in our own packaging. This has enabled us to use cushioning material more efficiently and has led to a reduction in the disposal of cushioning material.


Cushioning material

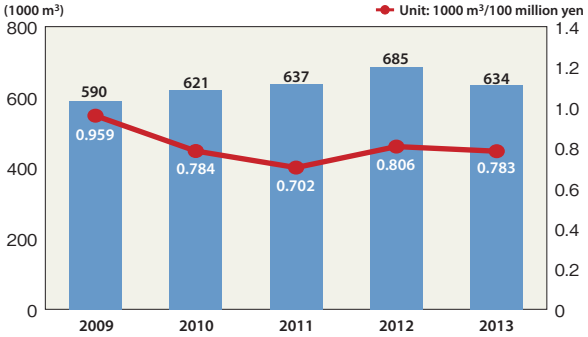
Protecting Our Water Resources

Using Water Resources Effectively

As the world is becoming more aware of the importance of water, we are maintaining an awareness of that importance by decreasing our water use, and working to recycle the water that we do use.

In this period, we used 634,000 m^3 of water, a 7.4% decrease over the previous period. Our use of water per unit of sales was 783 m^3 per 100 million yen.

Water use and its ratio of sales



Site Data

From Oct. 1, 2012 to Sep. 30, 2013

Environmental Impact	(Unit)	Toyooka Factory	Tenno Glass Works	Joko Factory
Energy	(GJ)	274,026	3,887	23,065
Water	(1000 m^3)	241	8	12.8
PRTR Law[1]	(tons)	0.5	0.002	0.008
Paper	(tons)	7	0.2	3.5
Containers, packaging	(tons)	125		18.6
CO_2 from energy use[2]	(tons)	12,188	173	966
Other GHGs[3]	(tons)	2.5	—	0.1
Wastewater	(1000 m^3)	241	8	12.8
Waste	(tons)	185	4	42
Final disposal	(tons)	3.1	0.05	0.4
Recycling rate[4]	(%)	96.9	99.4	99.0

Environmental Impact	(Unit)	Main Factory	Mitsue Factory	Shingai Factory
Energy	(GJ)	375,816	69,059	41,762
Water	(1000 m^3)	266	44	12.6
PRTR Law[1]	(tons)	10.7	0.1	1.2
Paper	(tons)	6.3	1.5	0.2
Containers, packaging	(tons)		82.2	
CO_2 from energy use[2]	(tons)	17,254	3,277	1,844
Other GHGs[3]	(tons)	1,823	—	—
Wastewater	(1000 m^3)	266	24	12.6
Waste	(tons)	279	22.7	3
Final disposal	(tons)	8	1.1	0.01
Recycling rate[4]	(%)	96.3	97.5	99.9

Environmental Impact	(Unit)	Miyakoda Factory	Central Research Laboratory	Main Office	Industries Development Laboratory
Energy	(GJ)	59,959	97,035	2,402	22,020
Water	(1000 m^3)	15	33	1.3	3.3
PRTR Law[1]	(tons)	0.18	0.17	—	0.002
Paper	(tons)	0.5	2.1	2.1	0.2
Containers, packaging	(tons)	0.5	—	—	—
CO_2 from energy use	(tons)	2,637	4,248	101	946
Other GHGs[3]	(tons)	—	3	—	—
Wastewater	(1000 m^3)	11	15	1.3	3.3
Waste	(tons)	17.7	47	5.3	0.9
Final disposal	(tons)	1.3	0.3	0.01	0.05
Recycling rate[4]	(%)	98.7	96.3	97.7	96.6

1 Quantities of 1 kg or more and are designated as class 1 chemical substances under the PRTR Law.
2 The factor we use to convert power to CO_2 and calculate the CO_2 from energy use is 0.417.
3 The emitted GHGs other than CO_2 from energy use are converted to equivalent amounts of CO_2.
4 The recycling rate does not include acid or alkali waste.

Social and Environmental Communication

Promoting Community and Employee Communication through Ecological Activities

Social Contributions

As a means of contributing to society (and protecting the environment), employee volunteers clean the area around the company. In this period, a total of 484 employees participated in 12 cleanings. We also participated in cleaning activities in Toyodagawa in Toyonishicho organized by the Oogawa Sakura no Mizube no Kai (Oogawa Waterside Sakura Tree Association) and at the Lake Hamana Cleanup Campaign led by Hamamatsu City.

We will continue to work to beautify community environments and contribute to society.

Lake Hamana Cleanup Campaign


Toyodagawa cleaning activities

Happy Memorial Trees and Tree Planting on Company Grounds

As part of our biodiversity conservation and greening education activities, we started donating trees in October 2011 to employees who have built a new home or gotten married. As of December 31, 2013, a total of 193 people have applied to participate in the program. 127 of the applicants built new homes and 66 got married. 145 people have received their trees. Employees who received trees from us have sent us commemorative photos of themselves and their trees. Everyone looks very happy in these photos. We hope that they continue to lovingly care for their trees for many years to come.

To beautify and maintain the environment, each division continues to make the company grounds greener. In particular, the Central Research Laboratory has orange trees, and every year, from fall to winter, employees get a taste of the blessings of nature when the oranges are harvested and given to them.

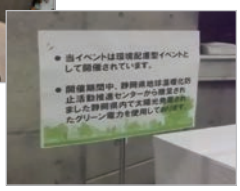

Happy memorial trees

Environmental Communication Using Various Media

To explain clearly to our stakeholders and members of the community how we are working to help the environment, we provide information through a variety of media. This includes our environmental reports, website, and company newsletter. At the Hamamatsu Photonics K.K. Exhibition Photon Fair 2013, held from November 7 to 9, 2013, and in commemoration of HPK's 60th anniversary, we introduced our environmental efforts and took measures to be environmentally friendly, by using renewable energy certificates to reduce CO_2 emissions and using IT to replace paper display panels.

About Hamamatsu > CSR > Environmental Initiatives


PHOTON FAIR 2013


Explanation of how the event was designed to be environmentally friendly.

Opinion of a Third Party

To improve the reliability of this report, we asked for the opinion of Hiroaki Sato, who works within Shizuoka Prefecture to combat global warming.

Head of the Shizuoka Center for Climate Change Actions
(Professor emeritus and former head of Shizuoka University)

Hiroaki Sato

Relentlessly Striving for New Knowledge

I visited HPK's Central Research Laboratory in the middle of February. The laboratory engages in basic research into the essence of light and applied research into the potential of light and is a place where knowledge is created through continuous exploration into the heretofore unknown and unexplored. The seeds of knowledge sown by the more than 300 members of the research staff will lead to the development of innovative photonics technology in fields such as medicine, information, measurement, energy, and the environment, and will lead to the creation of new industries. The outstanding results of the laboratory's efforts are represented vividly by the photomultiplier tubes that contributed to Masatoshi Koshiba's winning of the Nobel Prize in Physics for the detection of cosmic neutrinos in 2002 and the photodetectors (SSDs and APDs) that contributed to the discovery of the Higgs boson, an accomplishment that was recognized with a Nobel Prize in Physics in 2013.

Expectations for the Environment, Energy Conservation, and Renewable Energy

Learning from the Fukushima Nuclear Disaster of March 11, 2011, the world is now moving toward an energy transition based on energy conservation, high heat efficiency, and reusable energy. In the fields of the environment and energy, HPK is completely in its element when it comes to developing a wide range of light-based products that includes the light sensors and infrared sensing devices that the greenhouse gas observation satellite Ibuki is equipped with, radiation detector modules and monitoring posts, and the equipment for inertial confinement fusion, which is a next-generation energy source that uses lasers and doesn't produce CO_2. At the same time, HPK is working to conserve energy and implement reusable energy in their business activities through efforts such as enhancing the efficiency of heat sources in clean rooms and other areas, installing cogeneration equipment at the Main Factory, using energy service companies (ESCOs) at its laboratories, generating solar power using the solar power generation equipment installed on its premises, and using hybrid outdoor lighting.

Recognition through the Environment Minister's Award and Other Awards

HPK was awarded the 2013 Environment Minister's Award in recognition of the CO_2 reductions brought about by HPK's active implementation of energy-conservation and reusable-energy facilities and equipment and its continuous community enrichment activities. HPK has also been recognized by the local community for its dedication to the environment through awards such as the Top Runner Grand Prize for Alternative Energy and Energy Conservation awarded by Hamamatsu City; the Kanto Bureau of Economy, Trade and Industry Director General's Award, which has been awarded to two of HPK's business facilities; and the Judges' Special Award that HPK received in the Grand Prix for Prefectural Global Warming Prevention. Moving forward, as it strives to embody the mission laid out in its fundamental CSR policy of "respecting the environment and pursuing sound, sustainable business activities," HPK is sure to reduce environmental impact, produce environmentally friendly products, and contribute significantly to the development and success of photonics technology. This is because light is a type of opportunity that is always knocking.

I hope that HPK's Environmental Report will convey easy-to-understand information to HPK's stakeholders by visualizing HPK's wide variety of efforts through different types of data and serving as an environmental accounting tool.

Response to the Third Party Opinion

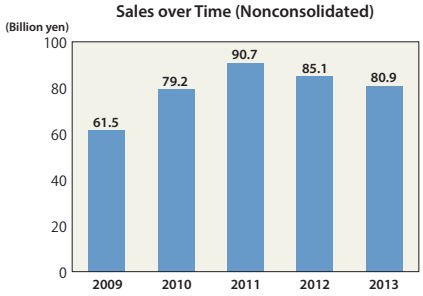
Thank you very much for your valuable opinion and your evaluation of our environmental activities and environmental report. Moving forward, we will work to clearly convey our efforts and promote enhanced evaluation through the use of environmental accounting. We will continue to strive daily to be a company that uses research and product development centered around the essence of light and the pursuit of its potential and environmentally conscious business activities to contribute to the achievement of a sustainable society.

Headquarter Environment Committee Secretariats

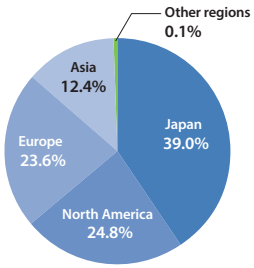
Company Overview

Company Name	Hamamatsu Photonics K.K.
Headquarter	325-6 Sunayama-cho, Naka-ku, Hamamatsu City, Shizuoka Pref., 430-8587, Japan
Established	September 29, 1953
Representative	Akira Hiruma, President
Capital	34,928,000,000 yen
Sales (non-consolidated)	80,937,000,000 yen
Employees (non-consolidated)	3,106
Products	Photonic Detectors, Light Sources, Cameras & Systems

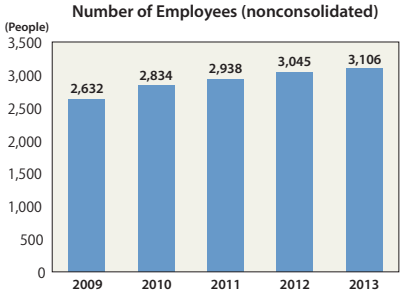
Sales over Time (Nonconsolidated)



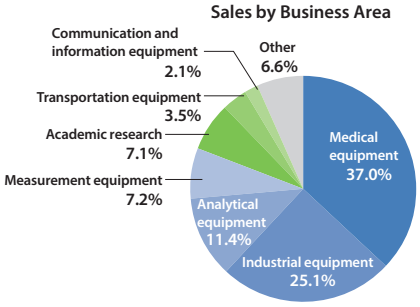
Sales by Region



Number of Employees (nonconsolidated)



Sales by Business Area



Editing Guidelines

Period	Oct. 1, 2012, to Sep. 30, 2013
Organization	Hamamatsu Photonics K.K. (nonconsolidated)
Environmental Performance Data	11 business facilities (Toyooka Factory, Tenno Glass Works, Main Factory, Mitsue Factory, Shingai Factory, Joko Factory, Miyakoda Factory, Central Research Laboratory, Headquarters, Industries Development Laboratory, and Tsukuba Research Laboratory) 5 sales offices (Tokyo Sales Office, Osaka Sales Office, Sendai Sales Office, Tsukuba Sales Office, and Nishinihon Sales Office)
Reference Guidelines	2012 Environmental Report Guidelines

Webpage

About Hamamatsu > CSR > Environmental Initiatives

Our website provides information on our environmental efforts.

HAMAMATSU PHOTONICS K.K. www.hamamatsu.com

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