Exercising Responsibility for the Global Environment

Konica Minolta's Eco Vision 2050 is a set of long-term goals that looks all the way out to the year 2050, focusing on the three aims of preventing global warming, promoting resource recycling, and preserving biodiversity. The Group's Medium-Term Environmental Plan 2016, with the target year of fiscal 2016, is the action plan governing its current efforts to make progress towards Eco Vision 2050. Konica Minolta has committed itself to the "Three Green Activities" to help it reach the goals of the medium-term plan. The company is determined to create environmental innovation at each stage in its business processes, from product development to procurement, production, distribution, sales and service, and collection and recycling. This effort is designed to help reduce environmental impact and increase corporate value.

Eco Vision 2050

- 1. Reduce CO₂ emissions throughout the product life cycle by 80% by 2050, compared to fiscal 2005 levels
- 2. Promote recycling and effective use of Earth's limited resources
- 3. Work to promote restoration and preservation of biodiversity





Medium-Term Environmental Plan 2016

Konica Minolta has established a medium-term environmental plan based on the idea that a company that creates value for both society and itself by integrating efforts to resolve social issues and improve corporate competitiveness and profits that is, a company that practices CSV (creating shared value)—is a sustainable company that can meet the



About Konica Minolta > Sustainability > Environmental Management at Konica Minolta > Environmental Management

Medium-Term Environmental Plan 2016

Important Thoma	Important issues	Fiscal 2016 goals					
	important issues	Corporate value	Environmental value				
Important Theme 1	 Creating and providing the green products demanded by customers and society 	Sales ●Sales of Green Products: 640 billion yen (Share of sales: 58%) Cost reductions ●Reduce cost of product materials Branding ●Increase society's and customers' brand recognition	Preventing global warming • CO ₂ reduction during product use: 97 thousand tons • CO ₂ reduction at suppliers: 100 thousand tons Supporting a recycling-oriented society • Resources used effectively: 42 thousand tons Reducing chemical substance risks • Control emissions				
Green Products (planning and development)	(2) Conforming with government procurement standards and environmental label requirements	Sales ●Zero lost sales opportunities	Environment overall • Reduce environmental impact by conforming with standards and label requirements				
development)	(3) Dependably complying with product-related laws and regulations	Risk avoidance ●Zero effect on sales	Reducing chemical substance risks • Reduce hazardous chemical substance risk by conforming with laws and regulations				
Important Theme 2 Green Factories (procurement and production)	(1) Green Factory operations that translate into cost competitiveness	Cost reductions • Reduce costs of energy and materials (reduce loss)	Preventing global warming • CO ₂ reduction during production: 20 thousand tons Supporting a recycling-oriented society • Resources used effectively: 4 hundred tons Restoring and preserving biodiversity • Sustainable use of water resources				
	(2) Cooperation with suppliers that translates into cost competitiveness	Cost reductions	Preventing global warming • C02 reduction on supplier side: 2 thousand tons Supporting a recycling-oriented society • Resources used effectively: 6 hundred tons				
	(3) Dependably complying with production-related laws and regulations	Risk avoidance ●Zero effect on production	Environment overall • Reduce environmental impact by conforming with laws and regulations				
Important Theme	(1) Customer-focused response to environmental requests	Sales Seize sales opportunities; zero lost sales opportunities Branding Increase society's and customers' brand recognition	Environment overall Reduce environmental impact by responding to customer requests				
3 Green Marketing	(2) Sales promotion of ICT services and reduction of environmental impact	Sales • Promote sales of ICT services, which reduce customers' environmental impact	Preventing global warming ● C0₂ reduction on customer side: 42 thousand tons Supporting a recycling-oriented society ● Resources used effectively on customer side: 2 thousand tons				
ales and service, and collection and recycling)	(3) Supply chain optimization and linked environmental initiatives	Cost reductions ●Reduce cost of distribution and packaging	Preventing global warming • CO ₂ reduction during distribution: 4 thousand tons Supporting a recycling-oriented society • Resources used effectively: 7 hundred tons				
	(4) 3R initiatives for products	Risk avoidance	Supporting a recycling-oriented society • Use resources effectively through product 3R initiatives				

requirements of society in the 21st century. The medium-term environmental plan sets out goals for both the reduction of environmental impact and corporate growth.

When defining these goals, a materiality analysis was conducted to identify important issues that affect both the environment and the company, and the identified material risks and opportunities were incorporated into important



themes and important issues. The important themes are the "Three Green Activities": Green Products (planning and development), Green Factories (procurement and production), and Green Marketing (distribution, sales and service, and collection and recycling). Important issues were established around these themes, with goals set for corporate value and environmental value, respectively.



For the Global Environment



Exercising Responsibility for the Global Environment



Green Products

Background and Issues

As environmental issues like climate change and various other social issues loom larger and larger, the times are changing. The world is moving from an age when the primary demand was for material affluence to an age that finds value in products and services that help to improve the "quality of society."

Seizing the chance provided by this change in overall social values, Konica Minolta is focusing on creating products and services that contribute to the resolution of social issues. The Group takes environmental issues especially seriously and is striving to develop highly competitive products that help customers and the broader society to reduce environmental impact while simultaneously earning the Group higher profits.

Key Measures

Konica Minolta has introduced a Green Products Certification System for evaluating and certifying products with superior environmental performance. The Group has set numerical targets for increasing the share of total sales accounted for by Green Products and has been promoting environmentally friendly products based on its plan.

Konica Minolta believes this initiative will drive its creation of environmental value suited to different businesses and product characteristics, thus fulfilling its aim of helping customers and the broader society to reduce environmental impact.

Green Products Certification System

In operation since 2011, Konica Minolta's Green Products Certification System is an original system for evaluating and certifying products with superior environmental performance. The system aims to create environmental value suited to different businesses and product characteristics in order to help customers and society at large to reduce environmental impact.

To be certified as a Konica Minolta Green Product, a product must pass criteria established for different businesses and product characteristics with respect to certification standards tailored to environmental issues. The goals that must be met are set at the product planning stage, and the product is certified at one of three levels according to the degree of goal achievement.





environmental impact while also earning higher profits. At the same time, the Group is disclosing the environmental performance of certified products in various media, including product catalogues and websites in an effort to ensure that the public knows about these efforts.



Certification criteria (excerpts) Preventing global warming

 Reduce CO₂ emissions from product usage
 Reduce CO₂ emissions throughout product life cycle

Supporting a recycling-oriented society

- Reduce petroleum-based resource usage
 Make products smaller and lighter
 Increase the operating life of products
 Promote the use of re-used and recycled
- materialsPromote the use of plant-based materials
- Reduce rare metals usage

Reducing the risks from chemical substances • Restrict the use of hazardous

 Nestrict the use of nazarodos chemical substances
 Restoring and preserving biodiversity
 Use biological resources in a sustainable manner

Manufacturing process innovation

Sustainable Products (SP) certification standards require that the product not only embody superior environmental performance not typically achieved by earlier products, but also incorporate original technology. While seeking to reduce the environmental impact of all of its products, by setting a very challenging certification level, Konica Minolta aims to promote innovation and contribute more proactively to sustainability.



About Konica Minolta > Sustainability > Environmental Activities > Green Products (product initiatives)

Fiscal 2013 Performance

Expansion of Certified Green Products

In fiscal 2013, Konica Minolta placed 39 new models of certified products on the market, bringing the total up to 114 models. Meanwhile, the share of sales accounted for by products certified as Green Products Plus-products which achieve the industry's top environmental performancereached 37%. The creation and promotion of Green Products also led to the achievement of the Group's fiscal 2013 targets for the reduction of CO₂ emissions from product usage, the reduction of petroleum-based resource usage, and chemical substance management, which are all product-related environmental goals.

Target Sales Share for Green Products

	Fiscal 2013	Fiscal 2013	Fiscal 2016
	Target	Results	Target
Green Products (GP)	30%	41%	58%

CO₂ Emissions from Product Usage

CO2 emissions CO2 emissions (target)



Examples of Green Products Certified in Fiscal 2013

bizhub C654e/754e

- Color MFPs
- Class-top*1 compact size (installation space savings)
- •Uses industry-top*1 flame resistant recycled PC/PET plastic technology

AeroDR 10X12HQ **Digital X-ray Machine**

- World's lightest weight*2 with wireless DR
- Approximately 22% reduction in power consumption during image reading (compared to previous model)
- Approximately 77% reduction in foamed plastic usage for packaging material (compared to previous model)

*1 As of launch in July 2013 *2 As of launch in July 2013, as a 10 × 12 inch size *3 As of launch in September 2013 *4 As of launch in June 2013

Initiatives in Each Business

The Business Technologies Business is working on initiatives in areas such as saving energy, using recycled materials, and reducing the size and weight of MFPs and digital printers. In terms of energy savings, it has significantly reduced TEC*1 and equips machines with features that encourage customers to save energy, such as the unique ECO Dashboard which shows how much energy is being saved in real time. It also makes use of three types of sustainable plastics; recycled PC/PET, recycled PC/ABS, and bioplastic. Recycled PC/PET in particular, which was developed using state-of-the-art technology, features increased flame resistance and a wider scope of application. **P5**

The Industrial Business has reduced environmental impact and enhanced product competitiveness by creating thinner products, such as an ultra-thin TAC film, in the field of display materials. Meanwhile, in the automotive thermal insulation films market, it developed a functional window film featuring the top level of thermal insulation efficiency^{*2} in its class, which is helping to reduce energy consumption associated with air conditioning use.

By creating an ultra-light design for the AeroDR Series of digital X-ray machines, the Healthcare Business increased the products' portability in medical settings and reduced environmental impact. It also improved user friendliness and energy savings by substantially reducing battery-charging time through the use of a lithium ion capacitor and energy-saving design technology.

- *1 TEC: Typical Energy Consumption, a measure of energy consumption established by the International Energy Star Program.
- *2 Based on a study by Konica Minolta. Compared to product lines with the same level of brightness (visible light transmittance).

bizhub 224e/284e/364e/454e/554e

Class-top*3 low power consumption (TEC)

Use of industry-top flame resistant recycled

Industry-top*4 thinness achieved through

optimization of deposition parameters

monochrome MFPs

PC/PET plastic technology

TAC film for LCD polarizers

(bizhub 224e)

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Exercising Responsibility for the Global Environment



Green Factories

Background and Issues

The environmental problems of global warming and resource depletion are becoming ever more serious, and soaring energy prices and crude oil prices are having an increasing impact on corporate management.

In response, Konica Minolta is pursuing greater efficiency in production processes at its manufacturing sites around the world. Among other things, the Group is working hard to minimize the input of energy and resources and to reduce waste in manufacturing steps. In addition, it is also focusing on developing production technologies which hold down energy and materials costs and which curb emissions of CO₂, waste, and chemical substances.

Key Measures

Konica Minolta's Green Factory Certification System facilitates comprehensive evaluation of environmental activities at its production sites, with the goal of simultaneously pursuing cost reductions and environmental impact reductions at production sites.

The system brings costs down and reduces environmental impact by fostering activities in line with the production strategy of each business and manufacturing site, thereby creating value for both society and the company.

Green Factory Certification System

Konica Minolta has operated its original Green Factory Certification System for comprehensive evaluation of the environmental activities at its production sites since 2010. The system aims to reduce both costs and environmental impact by providing a framework for activities that make the most of each business's production strategy. The system's certification requirements include not only the attainment of targets under the environmental themes of preventing global warming, supporting a recycling-oriented society, reducing the risk of chemical substances, and restoring and preserving biodiversity, but also the degree of attainment for some 250 specifications related to the implementation process that crystallizes Konica Minolta's knowhow, so that it helps to improve the quality of environmental activities.

All business units achieved Level 1 certification by fiscal

2011 and eight units achieved the higher Level 2 by fiscal 2013. Going forward, actions focused on each site's challenges will be taken with the aim of all business units achieving Level 2 certification.



Note: A single business unit is an organization engaged in the same production activities even across different locations. A single location may include several business units.

Objectives Management	indicators		Level 1	Level 2
Preventing global warming	CO2 emission	s (per unit of production ^{*1})	12% reduction*2	20% reduction*2
	Zero waste	Waste discharged externally (per unit of sales)	30% reduction*2	50% reduction*2
Supporting a recvcling-oriented society	activities	Final disposal rate of total waste	0.5% or less	0.5% or less
	Petroleum-based resource waste (per unit of sales)		30% reduction*2	50% reduction*2
Reducing the risks of chemical substances	Atmospheric e	emissions of volatile organic compounds (VOCs)	Achievement of fiscal 2011 targets for each site in accordance with Medium- Term Environmental Plan 2015	Achievement of fiscal 2015 targets for each site in accordance with Medium- Term Environmental Plan 2015
	Guidelines for	managing soil contamination risk	-	Consistent with guidelines
Restoring and preserving biodiversity	Guidelines for resources and factories)	biodiversity preservation (consideration of water wastewater, and proper management of greenery at	-	Consistent with guidelines
Guideline-based activities	ideline-based activities Achievement rate of implemented items			90% or more

Green Factory Certification Standards

*1 Per unit of production: Environmental impact in terms of production output or production volume.

*2 The base year is fiscal 2005. Based on this (base year) figure, standards tailored to factory characteristics are established.



Fiscal 2013 Performance

Expansion of Sites with Level 2 Certification

Konica Minolta has set the goal of having all business units around the world achieve Level 2 Green Factory certification by fiscal 2015. In fiscal 2013, three more units (two in Japan and one in China) achieved Level 2 certification, bringing the total up to eight units (five in Japan and three in China).

Reducing CO₂ Emissions Associated with Production Operations

Konica Minolta is striving to reduce CO₂ emissions resulting from production operations, working to do its part in the fight against global warming.

In fiscal 2013, the Group moved forward systematically with energy-saving measures designed to minimize the effect of soaring energy prices. Despite these efforts, the target per unit of sales for fiscal 2013 was not attained due to the Group's withdrawal from the hard disk business and the reduction of production efficiency caused by the lower volume of display materials produced. Still, reductions per unit of production attributable to the Green Factory Certification System generated a CO₂ emissions reduction effect of about 57,000 tons compared to the fiscal 2005 baseline.



Reducing Waste Discharged Externally from Production Operations

Konica Minolta is striving to reduce waste discharged externally from production operations, in order to help build a recycling-oriented society.

In fiscal 2013, the Group carried out "Zero Waste" activities such as improving production efficiency, expanding recycling of waste material, and expanding the reuse of packaging materials. A production site in Malaysia was closed, which helped to achieve the targets for fiscal 2013. The reductions per unit of production attributable to the Green Factory Certification System generated a total reduction in externally discharged waste of about 10,000 tons compared to the fiscal 2005 baseline.

Waste Discharged Externally from Production Operations



Reducing Atmospheric Emissions of VOCs

Since 1993, Konica Minolta has been working to reduce the emissions of volatile organic compounds (VOCs) from its production sites around the world, focusing on those kinds of VOCs that it identified as higher risk in terms of hazard and volume of use, aiming to reduce overall chemical substances risk. The Group established its own environmental impact index, which multiplies VOC emission volume by impact on human health and environmental impact as well as a location factor, and uses it to manage these efforts.

In fiscal 2013, the reduction per unit of production compared to the base year of fiscal 2005 stayed at the same level as the previous fiscal year, meeting the target for fiscal 2013.

Reduction of Atmospheric VOC Emissions (Risk-Adjusted)

Environmental impact index ---Rate of reduction per unit of production compared to FY2005



Restoring and Preserving Biodiversity

Focusing on its production sites, Konica Minolta has been taking a variety of steps to restore and preserve biodiversity. The Group has made meeting the standards of its Guidelines for Biodiversity Preservation a requirement for attaining Level 2 certification under the Green Factory Certification System, which specifically requires consideration of water resources, consideration of wastewater, and proper management of greenery at factories.

In fiscal 2013, the Group conducted a comprehensive risk assessment on usage of water resources at production sites and R&D sites throughout the Group. Results of an analysis conducted using the World Resources Institute's (WRI) Aqueduct* showed that the Group has no sites with an extremely high risk. Some production sites in China that were identified as having a comparatively high water risk have now set and are working toward targets for reducing water usage.

* Aqueduct: World maps and information showing the latest water risks published by the WRI. Produced based on 12 key water risk indicators such as physical water stress and regulatory risk related to water resources.

Reducing CO₂ Emissions by Cooperating with Suppliers

About 26% of Konica Minolta's CO₂ emissions across the supply chain are related to the procurement of parts. By working with suppliers to improve production processes, Konica Minolta is making progress in reducing both costs and environmental impact. Improved quality and productivity and reduced cost are the primary objectives of these efforts, but they also translate into reduced environmental impact by saving on materials and energy used.

Under the program, Konica Minolta engineers visit suppliers' plants and propose improvements that help reduce the usage of raw material plastic and shorten lead times. They work side by side with supplier employees to make these improvements. Reduced plastic usage not only saves on material itself, but also means that less CO₂ is emitted during material manufacturing. Shorter lead times reduce energy consumption and translate into reduced CO₂ emissions by improving production efficiency. In fiscal 2013, these initiatives resulted in a total of nearly 1,800 tons of CO₂ reductions for the year.

The Medium-term Environmental Plan 2016 sets CO₂ reduction targets related to procurement in addition to CO₂ reduction targets for Group production sites. The Group continues to expand its cooperation with suppliers with the aim of achieving these targets.

Success Story: How a Site Achieved Level 2 Green Factory Certification

Wuxi Factory Becomes First Business Technologies Production Site to Achieve Level 2

Konica Minolta Business Technologies (Wuxi) Co., Ltd., in Jiangsu, China, adopted Industrial Engineering (IE) Work Analysis in 2012 as a new method for reducing environmental impact by improving productivity.

This method is based on knowhow accumulated in Japan by Konica Minolta and cross-deployed globally. By thoroughly reconsidering the workability and flow of production lines, the factory reduced production space, shortened production times, and cut energy consumption, including for air conditioning and lighting.

The factory also raised production floor capabilities while encouraging changes in awareness by promoting all-hands initiatives. Improvement contests and other unique campaigns energized the creative originality of the local employees.

As a result of these initiatives, in March 2014 the Wuxi factory became the first production site for business technologies products to achieve Level 2 Green Factory certification.



Konica Minolta Business Technologies (Wuxi)

Growing Together with Our Employees

Web

About Konica Minolta > Sustainability > Environmental Activities > Green Marketing (distribution, sales, service, recovery, and recycling initiatives)



Green Marketing

Background and Issues

The environmental needs of customers around the world are growing with increasing social concern over environmental problems. Given this situation, Konica Minolta regards the provision of value that helps customers to reduce environmental impact as a vital part of its social responsibility and a driver of its own growth.

This is why Konica Minolta actively proposes and strives to popularize products that help to reduce environmental impact. In addition, the Group pursues greater efficiency in the transport, sales and service activities that deliver those products to customers, which also translates into lower costs and less environmental impact.

Key Measures

Konica Minolta carries out green marketing activities as its way of practicing environmentally friendly sales and services. By providing products and services that meet customers' environmental needs, such as certified Green Products and Optimized Print Services solutions, Konica Minolta helps customers and the broader society to reduce environmental impact. The Group also strives to assist customers' activities to resolve their environmental issues. It is also working on challenges it set for each region, such as efficiency-improvement measures in distribution, packaging, sales, and service and the establishment of a system to recover and recycle used products.

Performance in Fiscal 2013

Helping Customers Reduce Their Environmental Impact

Konica Minolta is practicing Green Marketing at its principal sales companies worldwide, in order to more actively promote products and solutions that help customers and society at large to reduce environmental impact.

As part of that initiative, in fiscal 2013 the Group held a Global Environmental Conference attended by each sales company to share best practices and success stories. More Group companies also started using the environmental knowhow cultivated by Konica Minolta Inc. in an effort to contribute to the resolution of their customers' environmental challenges. Going forward, the Group will continue to enhance its initiatives to support customers' environmental activities.

Reducing Environmental Impact in Packaging and Distribution

Konica Minolta is working hard to reduce CO₂ from distribution and to use fewer packaging materials, in order to reduce environmental impact when delivering products and services to customers.

The Group managed to reduce CO₂ from distribution by about 1,300 tons from the previous fiscal year through supply chain management measures such as optimization of supply control. However, it did not achieve its per-unit target for fiscal 2013 due to the unexpected need for shipment by air caused by production delays.

The Group achieved its fiscal 2013 target for packaging materials by reducing the packaging of after-sales parts such as film developing units and waste toner boxes.

CO2 Emissions from Distribution

-O-Rate of reduction per unit of distribution compared to FY2005
·O·Rate of reduction per unit of distribution compared to FY2005 (target)



Performance Target

Use of Packaging Materials

Usage Rate of reduction per unit of sales compared to fiscal 2005 ····· Rate of reduction per unit of sales compared to fiscal 2005 (target) 100 50 41.4 -23% 40 -24% 80 -29% C 30 30.3 33.4 33.4 30.6 -**28%** 60 20 40 10 20 0 0 2005 2010 2011 2012 2013 (FY) Performance Target

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Close Up

Konica Minolta's Environmental Activities Widely Recognized

Acquiring Eco-Labels

26 MFP Models Registered as Gold Products in EPEAT, an Environmental Assessment System in the U.S.

Konica Minolta pursues the acquisition of eco-labels around the world, in order to popularize products that reduce environmental impact for customers and the broader society.

In July 2013, 14 MFP models were registered as Gold Products, the highest ranking, in the field of imaging devices by EPEAT,^{*1} an environmental assessment system in the U.S. As of March 31, 2014, 26 products have been registered as Gold, nine as Silver, and three as Bronze, for a total of 38 products.

EPEAT is certified as a procurement requirement in the U.S., mainly for government agencies. Initially it was started for PCs and computer monitors. Beginning in fiscal 2013, it started to be applied to imaging equipment, including MFPs.

In this product field there are 33 mandatory standards and 26 optional standards related to aspects such as energy savings, reduction of hazardous substances, and reduction of waste. Products that meet all of the mandatory standards are registered as Bronze, those that meet all of the mandatory standards plus 50% of the optional standards are registered as Silver, and those that meet all of the mandatory standards plus 75% or more of the optional standards are registered as Gold.

In the MFP category, Konica Minolta has the highest number of registered Gold products in the industry. $\ensuremath{^{\ast 2}}$

*1 Electronic Product Environment Assessment Tool: An assessment system that judges the effects on the environment of electronic products. *2 As of March 31, 2014.



bizhub C554e Series of Color MFPs the First in the World to Receive a Blue Angel Mark Under Newly Revised Criteria

Konica Minolta's bizhub C554e series of color MFPs were the first in the world using the electrophotographic method in the field of Office Equipment to acquire Germany's environmental protection Blue Angel Mark, which adopted tougher criteria in January 2013.

The Blue Angel Mark was one of the world's first eco-labels when introduced in 1978, and its purpose is to encourage the development and sale of environmentally sound products. The screening criteria differ for each product category. In the field of Office Equipment, the criteria were tightened significantly in January 2013, raising the bar for earning the mark even higher.

Ever since being the first in the world to receive a Blue Angel Mark in the field of MFPs in January 1992, Konica Minolta has responded in a timely fashion to criteria revisions. With the bizhub C554e series, it strove to decrease environmental impact even further in consideration of the tightening of criteria, beginning in the planning stage.

Konica Minolta plans to keep acquiring the Blue

Angel Mark under new criteria for models that it develops in the future.



Commendations from Environment-related Organizations

Green Factory Certification System Wins Japan Environment Minister's Award for Global Warming Prevention Activity

Since 2010, Konica Minolta has been operating its Green Factory Certification System for comprehensively evaluating the environmental activities of production sites. It is one of the Group's three Green Activities designed to help realize the Konica Minolta Eco Vision 2050. **P21**

In December 2013, Konica Minolta won an Environment Minister's Award for Global Warming Prevention Activity (Implementation of Countermeasures) in recognition of its group-wide initiatives to prevent global warming based on this system.

As part of its efforts for promoting countermeasures to global warming the Ministry of Environment gives the Environment Minister's Award for Global Warming Prevention Activity annually in December, designated as Global Warming Prevention Month, to honor individuals or groups that have made significant contributions toward preventing global warming.



Award ceremony

Konica Minolta's Initiative in Recycling Rare Earth Resource Wins Incentive Award in the Awards for 3R-Oriented Sustainable Technology

Konica Minolta uses cerium oxide, a rare earth element used as polishing material for glass, in its production processes. Before, the cerium oxide was discarded after use, but Konica Minolta developed a recycling technology with a view to reducing waste and making effective use of resources. Making full use of its proprietary materials technology, the company was able to find a way to recycle cerium oxide to the same quality as a new batch without large-scale capital investment or running costs.

In October 2013, Konica Minolta won an Incentive Award in the Awards for 3R-Oriented Sustainable Technology in recognition of this method of promoting resource recycling with high productivity at low cost. With the support of Japan's Ministry of Economy, Trade and Industry, the Japan Environmental Management Association for Industry gives these awards to advanced businesses and initiatives that contribute to reducing, reusing and recycling, with the objective of encouraging

and popularizing their use. The Incentive Awards, one of which Konica Minolta won, are given to businesses or initiatives that have exhibited outstanding originality and growth potential in terms of new business creation.



Award ceremony

Konica Minolta Named to Both CPLI and CDLI in CDP Japan 500

In the CDP Japan 500 published in November 2013, Konica Minolta achieved a position in both the Climate Performance Leadership Index (CPLI) and the Climate Disclosure Leadership Index (CDLI).

The CDP is a project in which institutional investors cooperate to call on companies to reveal their measures to mitigate climate change and information related to their greenhouse gas emissions. It conducts a survey requesting the disclosure of information related to climate change and publishes its assessment results based on the content of companies' replies. In the 2013 survey on Japan's 500 largest companies, eight companies including Konica Minolta were named both to CPLI and CDLI, with Konica Minolta being the only one in the precision equipment industry.



Environmental Data Summary

2013 Targets and Results

Self-assessment 🛛 🚓 🏠 : Achievement more than 100% 🖄 🏠 : Achievement more than 80% and less than 100% 🖄 : Achievement less than 80						ess than 80%
Objectives	Medium-Term Environmental Plan 2015 (Base Year: Fiscal 2005)			Fiscal 2013 Targets (Base Year: Fiscal 2005)	Fiscal 2013 Results	Achievement
		D2 emissions throughout product life cycle	-20%	-51% -54.5%		***
Preventing global warming		CO ₂ emissions from product usage	-60%	-69%	-69.9%	***
		CO ₂ emissions from manufacturing (per unit of production)		-28% -22.7%		☆☆
		CO ₂ emissions from distribution (per unit of distribution)	-30%	-32%	-21.3%	☆☆
		CO ₂ emissions from sales and service (per unit of sales)	-50%	-47%	-48.1%	***
		etroleum-based resource usage (per unit)	-20%	-27%	-31.0%	***
Supporting a recycling-oriented society	Packaging materials usage (per unit of sales) -25%			-28%	-28.8%	***
	Waste discharged externally from manufacturing (per unit of production) -			-42%	-45.2%	***
	Product recycling: Build product recycling systems in each region and aim for a recycling rate of 90% or more			Materialization of next-period scenarios for re-manufactured MFPs Implementation of packaging reduction measures	 Investigated materialization of next-period scenarios for re-manufactured MFPs but did not roll out Finished implementing 22 measures to reduce packaging for after-sales parts 	**
Reducing the risk of chemical substances	Chemical substance management: Maintain strict management of chemical substances, including the entire supply chain		 Development and application of a system for hazardous substances reduction management Development of a system for complying with the revised RoHS Directive 	 Developed and started applying internal standards for hazardous substances reduction management, including compliance with voluntary standards Established a plan for complying with RoHS Directive revisions and phthalate regulations Finished developing a system for complying with RoHS2 	ትትት	
-	Atmospheric emissions of volatile organic compounds (VOCs) (in terms of environmental impact index; per unit of production)		-75%	-92%	-94.0%	***
Restoring and preserving biodiversity	Help restore and preserve biodiversity		Pursue compliance with the Green Factory Biodiversity Guidelines	Complied with the Biodiversity Guidelines at the three units that achieved Level 2 Green Factory certification	***	

Note: As of fiscal 2013, the Group has achieved more than half of the fiscal 2015 targets set out in the Medium-Term Environmental Plan 2015 and anticipates achieving the remaining targets. The Medium-Term Environmental Plan 2016 calls for the continued pursuit of the fiscal 2015 targets and also establishes more rigorous fiscal 2016 targets.

Environmental Accounting

Konica Minolta has implemented global-scale, consolidated environmental accounting in order to quantitatively assess the costs of environmental preservation in business operations and the benefits obtained from those activities.

Investments in fiscal 2013 totaled approximately 2.1 billion yen, a 12% decrease year on year. Investment was mainly for the new R&D building at the Hachioji site in Tokyo,

which has various environmental features such as a skylighted atrium and solar panels, aiming to create an eco- and employee-friendly facility, as well as for the construction of a new plant at the Kofu site for the world's first mass production of plastic-substrate flexible OLED lighting panels. Expenditures totaled approximately 12.5 billion yen, virtually unchanged from the previous year.



Note: Percentages do not necessarily total to 100 because of rounding.

Earning the Confidence of Customers

Overall Picture of Environmental Impacts Resulting from Business Activities

Overall Picture of Environmental Impact

oronannin						
INPUT			Konica Minolta		0 U T P U T	
Resources (Usage in prod	Petroleum-based resources (45.3 kt) ducts) Non-petroleum-based resources (63.1 kt)		Procurement	\rightarrow	Atmosphere	CO2 emissions (363.5 kt-CO2)
Energy Water Resources	Electricity (414 million kWh) Fossil fuels (2,431 TJ) Water consumption (4,383 thousand m ⁻³) Water recycled/reused (46.6 thousand m ⁻³) Amount recycled internally (5.3 kt)		Production/ Research and development		Atmosphere Wastewater Waste Chemical Substan	CO2 emissions (330 kt-CO2) SOx (0.1 t), NOx (55.1 t), Soot and dust (1.2 t) Wastewater (3,715 thousand m ³) COD (2.0 t), Phosphorous (0.02 t), Nitrogen (0.2 t) Total waste (21.5 kt), Waste discharged externally (16.2 kt), Amount recycled (20.8 kt), Final disposal (47.1 t) Totes Atmospheric emissions of VOCs (386 t)
Energy Resources	Fossil fuels (495.5 TJ) Packaging materials usage (30.6 kt)		Distribution		Atmosphere	CO2 emissions (35.7 kt-CO2)
Energy	Electricity (58.3 million kWh) Fossil fuels (offices) (127.4 TJ) Fossil fuels (vehicles) (547.8 TJ)		Sales and service	\rightarrow	Atmosphere Waste	CO2 emissions (offices) (35.5 kt-CO2) CO2 emissions (vehicles) (37.0 kt-CO2) Waste discharged externally (2.9 kt)
Energy	Electricity (680.5 million kWh)		Usage 👬		Atmosphere	CO2 emissions (341.6 kt-CO2)
Resources	Product recovery (14.7 kt)	\Rightarrow	Recovery O	\rightarrow	Resources (produ	ct recovery) Product recovered and recycled (14.5 kt)

Calculating CO₂ Emissions Across the Entire Supply Chain

Konica Minolta has calculated the entire CO₂ emissions associated with the Group's activities across its entire supply chain, from upstream to downstream its operations, based generally on the standards of the GHG Protocol,* the international standard. The calculation showed that CO₂ emissions throughout the supply chain were approximately 1.4 million tons, which represents a decrease of about 6.8% from fiscal 2012.

Emissions from the Group's activities—that is, direct emissions from fuel use (Scope 1) plus indirect emissions from consumption of purchased electricity, heat or steam (Scope 2)—total approximately 402 thousand tons, or about 29% of all emissions. Other indirect emissions (Scope 3) associated with the Group's activities totaled approximately one million tons, accounting for about 71%.

The Group has established new targets for CO₂ emissions reduction in cooperation with suppliers for "purchased goods and services," which account for 25.9% of emissions across the entire supply chain. It is providing technical assistance and making suggestions for improvement of suppliers' production processes in an effort to reduce material and energy use. In product development, it is working to develop recycled plastics and design smaller and lighter products, which reduces the input of resources. In terms of the "use of sold products," which accounts for 24.3% of emissions, the Group is working to develop features that encourage customers to save energy, in addition to CO₂ Emissions Across the Entire Supply Chain

reducing the power consumption of the products themselves. Konica Minolta will share information with relevant stakeholders in the future based on the results of these calculations and move forward with CO₂ emissions management and reduction activities throughout the supply chain.

* GHG Protocol: Guidelines for calculating and reporting greenhouse gas (GHG) emissions

Overall Picture of CO $_{\rm 2}$ Emissions Across the Entire Supply Chain of Konica Minolta

Scope 3 (1,002 thousand tons)	Scope 1 (164 thousand tons)			
Other categories (3,5,6,7,8,14,15)		Production/R&D		
68 thousand tons		121 thousand tons		
Category 4 (Upstream Transportation and Distribution)		Sales and service		
52 thousand tons*		Scope 2		
Category 12 (End-of-Life Treatment of Sold Products)	Total 1,404 thousand	(238 thousand tons)		
61 thousand tons	tons	209 thousand tons		
Category 2 (Capital Goods)		Sales and service		
116 thousand tons		29 thousand tons		
Category 11 (Use of Sold Products)	Category	1 (Purchased Goods and Services)		
342 thousand tons	364 th	364 thousand tons		

* CO2 emissions attributed to product distribution: 36 thousand tons Note: Figures do not necessarily match total because of rounding.