Green Marketing

Konica Minolta's Approach

Background and Issues

Environmental issues such as global warming and resource depletion cannot be solved by the efforts of just one company. All companies need to raise their level of contribution to global environment preservation throughout the value chain. This can be achieved by going beyond the company’s immediate range of activities, and creating shared value with customers and other stakeholders.

Vision

Konica Minolta seeks to make a substantial contribution to the entire value chain by sharing its expertise and experience with customers to help resolve their environmental challenges. The goal is to strengthen relationships with customers and continually create shared value, building on the foundation of trust they have with Konica Minolta.

Key Measures

**Strengthening relationships and helping customers solve their environmental challenges**

- Reduce customers’ environmental impact
- Generate sales opportunities
Green Marketing

Supporting Customers to Solve Their Environmental Issues

Overview of Activities

Konica Minolta views everything useful that it provides to customers, not only its products and services, as solutions. Through Green Marketing activities that provide the environmental expertise already demonstrated within the company, Konica Minolta seeks to build corporate relationships by helping solve environmental issues, and by enhancing appreciation of its environmental management. The aim of these efforts is to become the business partner of choice for companies around the world.

Fiscal 2017 Activity Results

In fiscal 2017, Konica Minolta provided environmental seminars, lectures and factory tours in Japan to a total of 1,453 people from 163 companies. At EcoPro 2017 held in December in Tokyo, visitors were introduced to Konica Minolta’s environmental management approaches to help solve environmental issues linked with a business plan, and the response was very favorable. The company’s environmental consultation corner offered advice to visitors from 145 companies. Along with providing the environmental expertise practiced by Konica Minolta over the years, Konica Minolta representatives also visited some of the consultation recipients after the event to talk about environmental performance.

In China, where environmental laws and regulations have been substantially tightened, Konica Minolta held 22 environmental management exchanges and factory tours at 14 locations. A total of 630 people from 399 companies experienced the frontline expertise developed at Konica Minolta production sites in China. In some cases, expertise was mutually shared concerning a wide range of fields in addition to environmental performance, such as quality, production technology, and human resources development. There are also ongoing exchanges now being carried out between Konica Minolta sites and other factories. In addition, Konica Minolta is promoting public-private partnerships in China. This includes holding environmental management seminars and factory tours in cooperation with the Environmental Protection branch of Shilong and other regional Chinese government agencies.
Voice of a Customer  | Paloma Co., Ltd.

At our company, I had always heard the comment that environmental activities involve a significant cost. When I attended the Konica Minolta lecture however, I realized that environmental activities can actually lead to cost reductions. So, we used Konica Minolta’s “biz-Library” environmental management support tools as a reference and first set up monitoring of energy usage at our main factory. Looking at the results, we decided to focus on gas consumption, which accounted for a large proportion of our energy usage. We optimized the manufacturing process and took measures to reduce heat loss, while verifying the influence on product quality. This enabled us to reduce both CO2 emissions and costs. As people at the site saw the cost reduction effect, everyone grew in their environmental awareness, and since then many employees have come up with their own ideas for energy conservation. This success case is now being expanded to other plants.

Gen Ohhara
Factory Unification General Manager
Paloma Co., Ltd.

Voice of a Customer  | NGK Insulators, Ltd.

NGK Insulators develops and supplies products related to social infrastructure for secure and comfortable lifestyles, as well as products useful for environmental protection. Our corporate philosophy is to provide products that contribute to a better social environment and to create new value. The sales ratio for NGK Insulators products that help protect the global environment, such as automobile emissions control devices, exceeds 50%. Launched in fiscal 2016, our 4th Five-Year Environmental Action Plan sets concrete targets for the development and promotion of environmental products, our main business activity, while maintaining environmentally responsible manufacturing. The plan has been adopted by the entire NGK Insulators Group. In fiscal 2015, we started holding information exchange meetings with the Environment Division of Konica Minolta, and asked the company to provide us with an in-house seminar in December 2016. More than 100 employees participated in the event, including those from our business divisions and from the CSR and public relations departments of our head office. The discussions were quite lively. In particular, I realized that clearly demonstrating how environmental initiatives can contribute to business activities fosters the understanding of frontline workers, which in turn helps to invigorate environmental activities.

We are celebrating our 100th anniversary in 2019. We believe that actively promoting our environmental activities to stakeholders will lead to new business opportunities. NGK Insulators will continue to deepen cooperation with Konica Minolta, and we hope to collaborate with them to develop even greater environmental contribution activities.

Kazumasa Takeuchi
General Manager, Environmental Management Department
NGK Insulators, Ltd.
Voice of a Customer | JTEKT Corporation (auto parts and machine tool equipment manufacturer)

Although JTEKT had set high CO₂ emissions reduction targets for its long-term group vision, our programs stagnated since all the energy-saving measures we thought of had already been done. Top management told us that it might be a good idea to get a third-party assessment, and we turned to Konica Minolta for an energy-saving diagnosis.

We received very helpful ideas including visualization measures to monitor costs and CO₂ emissions reduction effects, prioritization starting with investment recovery, and the creation of execution plans. The energy-saving diagnosis became an opportunity to revitalize energy-saving activities at our other plants. Based on joint activities by the management department and frontlines, we realized the importance of sharing a sense of accomplishment in order to achieve further improvements. We believe that companies from different industries can share their technologies and expertise to achieve an even greater environmental contribution. We will continue to value the deep relationship of trust we have built with Konica Minolta through these environmental activities.

Kiyonori Ito
General Manager, Environmental Management Department
JTEKT Corporation

Voice of a Customer | Shanghai Huahui Silk Products Co., Ltd. (textile manufacturer)

Chinese environmental regulations have been getting stricter by the year. Since companies in the dyeing industry use large amounts of energy and water, the government asked us to make special efforts to save energy and water. Since our firm does not have experts in energy and environmental measures, we were wondering how to comply with the government requests. Then we were contacted by Konica Minolta, a company
we knew through its inkjet textile printers. They said members of their environmental team would be visiting China from Japan, and they offered to help us. The team visited us several times and empathetically reviewed our energy and water usage situation before proposing a solution. Several of the measures they suggested, we then implemented. In addition to providing us with inkjet textile printers, Konica Minolta gave us very useful support including related areas, and helped us deal with the environmental issues we faced. Based on the trust created, we intend to maintain a long-term relationship with Konica Minolta.

Chen Yundai
Chairman
Shanghai Huahui Silk Products Co., Ltd.

Launch of “biz-Library (Environmental Management)” Content Support Service
Konica Minolta believes that digitizing and sharing the environmental management expertise it has accumulated with even more companies will dramatically increase its contribution to the environment. Accordingly, an online content service, “biz-Library (Environmental Management),” was launched in fiscal 2016. This service provides videos and documents featuring practical case studies from Konica Minolta. The content targets four challenges faced by many companies: formulating environmental strategy, responding to revised environmental ISO standards, energy saving and cost reduction in factories, and management of chemical substances. Customers can also utilize the manuals and tools actually used by Konica Minolta, allowing them to promote effective and efficient environmental impact reduction activities inside their companies.
In fiscal 2018, in response to requests from many customers, Konica Minolta added the three themes of “efficient use of resources and cost reductions in factories,” “Methods of calculating Scope 3 CO₂ emissions” and “waste management by companies” and plans to augment its biz-Library (on environmental management) into seven themes.
With the Medium-Term Environmental Plan 2019, Konica Minolta sees its Green Marketing activities as new business opportunities and a way to help achieve the SDGs. In addition to ongoing plans to digitize environmental knowledge and expertise, the aim is to further reduce environmental impact and create business value by expanding customer relationships globally.

Konica Minolta has over two million corporate customers worldwide. While there are limits to what one company can achieve on its own, by collaborating with customers and creating value shared with them, Konica Minolta can further enhance its contribution to the solving global environmental issues.

Accordingly, it is necessary to connect people and information through digitization. By using data collection and analysis to bring together the environmental information and expertise of Konica Minolta and its suppliers and customers, the knowledge becomes even more meaningful and can lead to solutions for new problems. Konica Minolta will continue to work closely with business partners and customers based on its own environmental expertise and technology.
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Providing Services to Solve Customers’ Environmental Issues

Helping Customers Reduce Environmental Impact through Optimization of Their Document Printing Environments

Contribution to workflow streamlining and lower environmental impact in offices through optimization of the document printing environment

The Optimized Print Services (OPS) offered by Konica Minolta is a solution that delivers benefits including optimized equipment arrangement and improved capacity utilization through an all-in-one contract for the operation of printing devices such as printers and MFPs. Konica Minolta offers OPS globally, and the companies that have signed global contracts with Konica Minolta thus far are located around the world in diverse industries that range from insurance and financial services to international logistics services and industrial equipment and consumer electronics manufacturers.

Optimization of the printing infrastructure through OPS not only helps customers streamline workflow and reduce costs in their offices; it also contributes to the reduction of environmental impact. For example, consolidating several printing devices into an MFP and updating to the latest models providing energy-saving effects can reduce power consumption significantly. Moreover, continuous monitoring of device usage leads to a reduction of wasteful printouts, while the digitalization of documents translates into reduced storage space and less consumption of paper resources.

Examples of Support to Reduce Environmental Impact through OPS

Konica Minolta Business Solutions (UK) Ltd., a sales company in the UK, has provided OPS to a local university since 2012. Completely reconsidering the work of creating documents on campus resulted in a reduction of printing paper used from 10 million sheets a year to 3.5 million sheets two years later. This also led to the removal of printing facilities established on campus, which had a major cost-reduction effect.

Konica Minolta Business Solutions France S.A.S., a sales company in France, examined the paper usage and energy consumption situation for a marine transportation company. The sales company identified wasteful practices and made a proposal to reduce CO₂ emissions by 10% in 3 years.

Support to Reduce Environmental Impact through Office Reforms

Enhancing the ability to provide solutions through actual practice in its own offices

Konica Minolta offers office solution services that contribute to work style reforms, on top of reducing environmental impact, through optimization of office environments. When Konica Minolta Business Solutions Japan Co., Ltd. moved its head office, it took a variety of measures in its new office in order to verify for itself the effects of its solutions and also to enhance its ability to propose solutions to customers by demonstrating actual practice.

For example, it implemented such wide-ranging office solutions as the optimal positioning of MFPs, the reduction of printouts and document storage space through document digitization, the reduction of business
trips and transportation through the adoption of teleconferencing, and the increase of information management sophistication using the cloud environment.

These solutions led to reductions in environmental impact and costs, including a 24% reduction in copy paper printouts, a 44% reduction in electricity consumption, and a 44% reduction in CO\textsubscript{2} emissions. They also freed up more than 200 square meters of space within the office. Additionally, work style improvements stimulated communication among employees, creating a highly productive office environment marked by on-target communication. What is more, this new office is used as a live showroom that customers can experience.

### Eco Calculator

The Eco Calculator provided on the website can calculate the annual power consumption of products in Konica Minolta’s bizhub series of MFPs, allowing customers to conduct a simulation of reductions in energy costs and CO\textsubscript{2} emissions that would result from replacing models.

> Eco Calculator

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### Contributing to the Reduction of Environmental Impact through Print on Demand (POD) Service

Contributing to cost reductions and energy savings by undertaking customers’ printing work

The POD service offered by Kinko’s Japan Co., Ltd. handles printing in a short time according to customers’ requests. For example, by using this service during their busy seasons, customers no longer need to always have enough of their own printers ready to handle the print volume of peak times. This allows customers to keep down costs for installing and maintaining equipment, and it also translates into resource and energy savings for society as a whole.
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Reducing Environmental Impact in Sales Activities

Reducing CO₂ Emissions Associated with Sales Activities

Introducing Eco-friendly Vehicles to Its Sales Fleet and Promoting Eco-driving
Konica Minolta promotes the management and reduction of CO₂ emissions from the business vehicles operated by its sales companies around the world. The Group is promoting measures such as reducing the amount of travel through more efficient sales and service activities, introducing eco-friendly vehicles with low emissions of CO₂, and eco-driving to reduce energy consumption.

Eco-driving Initiatives at a Sales Company in Japan
Konica Minolta Japan, Inc. has installed a vehicle operation management system in company-owned vehicles. This system constantly gathers and stores data about the way company-owned cars are being used, including dangerous driving habits such as sudden acceleration and deceleration, as well as driving time, fuel consumption, and so on. Based on the data, drivers of company vehicles are given safe driving guidance. It is also used in eco-driving initiatives to lower fuel costs and reduce the environmental impact of company vehicle use.

Adoption of Renewable Energy

Solar Power Generation Initiatives
Konica Minolta is generating and using renewable energy at multiple sites. Konica Minolta Business Solutions (Belgium) N.V./S.A. has been generating electricity with a photovoltaic installation on the roof of its building since 2010 and uses electricity to power its offices and showrooms. Meanwhile, Konica Minolta Business Solutions, U.S.A., Inc. built a photovoltaic installation in a parking lot in 2013 to generate electricity to power its offices. Konica Minolta, Inc. installed solar panels on the roof of the Konica Minolta Hachioji SKT R&D Labs, which were opened in 2014. In 2017, in cooperation with the government of Dongguan City in China's Guangdong Province, which is working to strengthen and promote environmental conservation activities, 25,000m² in solar panels—the largest scale on record—were installed on the site of Konica Minolta Business Technologies (Dongguan) Co., Ltd.
As a result of these initiatives, the amount of renewable energy generated in fiscal 2017 was 1,551MWh (about 3.9 times the fiscal 2013 level).
By fiscal 2019, the plan is to achieve a renewable energy utilization ratio of 1% of purchased electricity (equivalent to about 4,300 MWh/year).
“Sustainable Day” to Raise Employees’ Environmental Awareness

Konica Minolta Business Solutions France S.A.S., a sales company in France, holds a Sustainable Day that encourages eco-friendly initiatives and participation in charitable organizations, in an effort to raise employees’ awareness of CSR. Enabling contact with various initiatives, such as education about environmental policies, the sale of honey harvested by the company, the use of eco-friendly vehicles (electric cars), and appropriate waste disposal, this event is an opportunity for each and every employee to gain even greater awareness about the creation of a sustainable society.

Beekeeping with the Aim of Raising Awareness of Biodiversity

Konica Minolta Business Solutions France S.A.S. has greened the roof of its building in Paris and set up bee nest boxes to keep bees. There is a tradition of valuing honeybees in France, and people understand the importance of beekeeping, especially in a city with such a high population density. The honeybees raised in these nest boxes help to pollinate many kinds of plants such as fruit trees, vegetables, and flowers in the surrounding area.
Moreover, the honey that was collected was bottled and sold to employees, with the proceeds donated to a charity fund. Through this initiative, the company is raising employees’ awareness of the preservation of biodiversity and also contributing to the community.

### Supporting the Green Marathon, the Objective of Which Is Reforestation in Ethiopia

The Green Marathon has been held in Rennes, France since 2011 with the objective of reforestation in Ethiopia. In an endorsement of this goal, Konica Minolta Business Solutions France S.A.S. has continued to support the marathon since its inception.

The marathon intends to contribute to society in various ways, including the spirit of sport and the protection of the natural environment. It conducts an initiative to plant one tree per kilometer run by each participant, in order to support the restoration of forests in Ethiopia, a country where 1,400 square kilometers of forest is lost every year.

### "Eat Green Week" Held to Improve Employee Environmental Awareness

Each year Konica Minolta Business Solutions (HK) Ltd. holds an event to raise employee awareness of environmental protection based on a theme rooted in daily life. This year, the company promoted "Eat Green Week." The aim of the project was to raise awareness that CO₂ emissions are much lower for vegetable production than for meat production. Employees were encouraged to make greener meal choices, thereby reducing their environmental impact. Everyone who participated was able to deepen their understanding of environmental protection.
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Reducing CO₂ Emissions from Distribution

In order to reduce CO₂ emissions associated with distribution, transportation must be streamlined and means of transportation with little environmental impact must be chosen. Konica Minolta is reducing CO₂ emissions derived from distribution operations by measures such as shortening transportation distances through optimization of logistics facilities and routes worldwide, reducing the number of containers through improved loading efficiency.

Major Initiatives

Optimizing Shipping Container Loading Efficiency

Konica Minolta is reducing CO₂ emissions and increasing the efficiency of shipping container loading during transportation by employing consolidated services based on loads. For example, Konica Minolta delivers office equipment to various European countries from its distribution center in Germany, mainly using shipping containers. Improving the efficiency of container loading by addressing changes in the size and shape, as well as quantity, of products is one of the key challenges. We have been improving loading efficiency by introducing a loading simulation program.

Furthermore, since fiscal 2016, Konica Minolta has focused on transporting office equipment parts that are produced in Japan to plants in China and ASEAN for assembly, as well as on optional office equipment products that are manufactured in Mexico and shipped to the U.S. In addition, Konica Minolta improves loading efficiency during transportation by optimizing the packaging form to suit the shipping conditions.

Promoting a Modal Shift

Konica Minolta has been promoting a modal shift for the long-distance transportation of products and parts, switching from aircraft and trucks to ships, railways, and other means that emit less CO₂.

In Europe, for instance, it uses barges that run along the Rhine River as the means of transportation from the Port of Rotterdam in the Netherlands to its base warehouse in Emmerich, Germany. In the U.S., it has reduced CO₂ emissions by using railroads when transporting cargo from the Port of Los Angeles on the West Coast to the interior and the East Coast.

Reconsidering Distribution Routes and Consolidating Logistics Facilities

Konica Minolta is reducing CO₂ emissions from its distribution processes by restructuring its logistics facilities both in Japan and outside of Japan.

In fiscal 2017, the company continued its efforts from the previous fiscal year to streamline logistics by consolidating distribution sites for office equipment and service parts produced by factories in China and shipped worldwide. Moreover, with the proactive utilization of a lead logistics provider (LLP) for distribution in
Japan, Konica Minolta revised distribution sites and routes and utilized joint transportation with other companies, thereby strategically reducing CO₂ emissions from distribution activities.

**Milk Run Logistics (Common Collection of Cargos)**

The term "milk run" originally came from the milk collecting system of dairy producers who visited dairy farms to collect milk in a single vehicle. In the manufacturing industry, it refers to a collection method in which a single vehicle is used to make rounds picking up goods from various suppliers instead of requesting each supplier to deliver goods individually.

Konica Minolta is using milk run logistics in the suburbs of Wuxi City in Jiangsu, China. This helps to reduce CO₂ emissions by shortening the total driving mileage of the trucks.

In addition, the Group is also reducing waste by using re-usable boxes instead of cartons to transport the parts.

**Joint Transport**

Konica Minolta Japan, Inc., a sales company, carries out joint distribution of office equipment with Epson Sales Japan Corporation, including installation work, in the Kanto and Koshinetsu areas in Japan. These initiatives result in high-quality delivery and installation operations that raise the satisfaction of customers and help reduce CO₂ emissions.
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Reduction of Use of Packaging Materials

Konica Minolta is reducing packaging material usage by optimizing shapes and recycling.

**Major Initiatives**

- **Reducing the Size of Packaging for Developing Units and Waste Toner Boxes**

  Konica Minolta has optimized the buffer materials for its multi-function peripherals (MFPs) for offices and production printing machines, in order to reduce use of packaging materials. In order to confirm the current transportation environment, the development, production and sales departments worked together to conduct an experiment. At production sites in China, acceleration measurement devices were attached to products to be sent on various routes by ship, truck and railway to sales companies worldwide. After arrival, the instruments were checked to see what impact values were recorded during shipment. Using these as a reference, the company reexamined its packaging design concept, and succeeded in streamlining the cushioning material while maintaining the equivalent shock resistance. This greatly reduced the amount of packaging materials used.

  In fiscal 2016, in addition to increasing the types of office MFPs and production printing machines covered by the program, the company also expanded this initiative to peripheral equipment and consumables.

  Furthermore, reducing the size of product boxes has helped improve transportation efficiency, thereby contributing to lower CO₂ emissions during distribution.

Example of downsized packaging for office MFPs
Recycling Used Packaging Materials

Konica Minolta’s sales companies worldwide are also working hard to recycle used packaging materials. Konica Minolta Business Solutions (UK) Ltd., a sales company in the UK, established the “Greenhub” recycling center inside its logistics warehouse. It separates used packaging materials for MFPs and production printing machines into cardboard, styrene foam, film, and wood, and then sells them to a local recycling operator as material for recycling. In the Greenhub, it pulverizes and compresses styrene foam, which has poor transportation efficiency due to its large volume relative to weight, in an effort to reduce environmental impact associated with its transportation. The Group is carrying out similar initiatives at sales companies in France, Belgium, Germany, Japan and China.

Example of downsized packaging for consumables

Foamed polystyrene crusher
Green Marketing

Product Recycling

Konica Minolta has developed recovery and recycling programs for used products in regions around the world, each one tailored to local legal systems and market conditions.

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Konica Minolta has a program for collecting used MFPs, printers and other products from customers through the Konica Minolta Group’s sales companies around the world. These products are recycled by contractors that have received approval or otherwise met regulatory requirements in each country. Konica Minolta’s recovery and recycling program complies with the waste disposal laws in each country. When forming agreements with contractors, Konica Minolta asks them to comply with the necessary laws and regulations in each location. Moreover, Konica Minolta conducts audits using reports on recycling conditions and appropriate disposal obtained via regular on-site monitoring. In Japan, Konica Minolta carries out on-site inspections once every three years to confirm recycling conditions, including compliance with environmental laws and regulations. The Group carries out similar on-site inspections once every two years in Europe and once every year in China.

For example, in Japan, after collecting used MFPs and printers from eight collection centers, the products are recycled at 7 designated contractors. The collected products are taken apart by hand, rather than crushed mechanically, to raise the recycling rate. After dismantling, the parts are separated according to whether they are metal or plastic, for example, and many are reused as materials. Those that cannot be reused as materials are reused as fuel.

In addition, Konica Minolta has received approval from Japan’s Ministry of the Environment to dispose of copiers, MFPs and printers that it has sold based on a special system for wide-area treatment of industrial waste. Konica Minolta operates a fee-based recovery program for collecting and recycling used printers and copiers from corporate clients.

Outside Japan, Konica Minolta is undertaking recycling programs tailored to conditions in specific countries. In Europe, for example, the company has adopted measures in compliance with the EU directive on the disposal of waste electrical and electronic equipment (WEEE). It meets the legal and environmental labeling requirements in various countries including Asian countries such as China and India.
Konica Minolta offers systems for the free-of-charge recovery and recycling of used toner cartridges for laser printers over 20 countries including in Europe, the U.S., and Japan. In the U.S., this free-of-charge recovery system has been expanded to include used toner bottles for MFPs. In Australia, Konica Minolta also offers its own recovery and recycling programs.

> To the Clean Planet Program in the U.S.
  https://www.myctlportal.com/konica-minolta

> To the Clean Planet Program in Europe
  https://cleanplanet.konicaminolta.eu/

Areas Where Free of-Charge Toner Cartridge Recovery and Recycling System Has Been Introduced
Konica Minolta participates in the recovered equipment exchange system run by the Japan Business Machine and Information System Industries Association (JBMIA). Through this initiative, equipment turned in by manufacturers of copiers, MFPs and digital printers, including Konica Minolta, are collected at shared collection centers and returned to manufacturers, thus promoting the recovery and recycling of products in the industry overall. There are 34 collection sites and nine exchange centers for collected machines from Hokkaido to Okinawa, covering all of Japan.

In France, Konica Minolta Business Solutions France S.A.S. established CONIBI with joint investments from 17 office equipment manufacturers and contracted recovery operations to this joint company. COIBI created its own free collection system and promotes the recycling of toner cartridges and consumables.

> [CONIBI](https://www.conibi.fr/)

### Participation in Industry Organizations and Networks

#### Example in Japan

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**Machines collected in Japan in fiscal 2017**

- Estimated collection rate: 65%
- Recycling rate: 99% (by weight)