

The Panasonic Report for Sustainability 2004

Matsushita Electric Group



Panasonic
ideas for life

The Panasonic Report for Sustainability 2004

<Revised Edition>

Corporate Profile

Matsushita Electric Industrial Co., Ltd.

Head Office: 1006 Kadoma, Kadoma City, Osaka 571-8501, Japan

Tel: +81-6-6908-1121

Incorporation: December 15, 1935

Foundation: March 7, 1918

Representative: President Kunio Nakamura

Capital: ¥ 258.7 billion

Net Sales: ¥ 7,479.7 billion

Number of Employees: 290,493

Stock Exchange Listings: Tokyo, Osaka, Nagoya, New York, Euronext (Amsterdam), and Frankfurt

Business Segments: Components & Devices/Production Systems, Digital Networks,
Home Appliances & Environmental Systems, Services & Solutions

Brands:

Panasonic **National** **Technics** **Quasar**

Financial performance is available on page 33. The corporate profile
and financial performance are based on data as of March 31, 2004.

Matsushita Website:  panasonic.co.jp/global/

Editorial Policy

The Panasonic Report for Sustainability 2004 has been published to give a comprehensive and readable account of the initiatives undertaken by the Matsushita Electric Group towards the establishment of a sustainable society. The report aims at promoting interactive communications with you to enhance our corporate management strategies.


This year's report covers a wider range of business activities, including Matsushita's approach to fulfilling CSR (Corporate Social Responsibility).

"Highlights 2003" describes projects carried out by the Matsushita Electric Group around the world from the varying perspectives of outside writers, based on their field reports.

The main part of this report consists of three sections: "Economic Performance," "Environmental Performance," and "Social Performance." "Environmental Performance" gives the latest information on issues specified in our action plan, "Green Plan 2010."

The results of a sustainability analysis conducted by The Natural Step, an environmental NPO, are disclosed in the "Third Party Comments" section. Environmental information validated by a third party is planned to be disclosed in September 2004 on the following website.

Detailed data to supplement the report are available on the following website.

 **Environmental & CSR Data File**
panasonic.co.jp/eco/en/file/activity/

Reference Guidelines

The Japanese Ministry of the Environment's "Environmental Reporting Guidelines 2003"

The Global Reporting Initiative (GRI)'s "Sustainability Reporting Guidelines 2002"

Scope of the Report

Reporting Period: The performance data are from FY'03 (April 1, 2003-March 31, 2004). Some of the FY'04 activities are also included. The year indication in graphs means the fiscal year (April 1-March 31).

Organizations Covered: Matsushita Electric Industrial Co., Ltd. and affiliated companies inside and outside Japan (Matsushita Electric Group)

Target Data: Data are basically from the consolidated group of companies. "Environmental Performance" data are from all sites that have established environmental management systems.

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Notice of Revision

To increase the reliability of the contents of this report, we commissioned AZSA Sustainability Co., Ltd. to provide audit on the contents and released a revised edition of this report on December 15, 2004, reflecting the results of that audit.

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Front Cover



Matsushita is working to support remote education systems introduced by the Ethiopian Ministry of Education. Shiro Kitada, a project promoter, and the students of the Kefitegna 23rd High School share the excitement of seeing a PDP installed at their school (Page 13).

Aiming to Coexist with the Global Environment

This spring, I had the opportunity to visit Beijing. As always, in this season, the view from the air before landing was yellow earth as far as the eye could reach, and the land looked very dry. According to the manager of our local subsidiary, they have had less yellow sand than usual this year, but little rain has fallen since the Chinese New Year. While urban development goes on in preparation for the 2008 Beijing Olympic Games, chronic shortages of water and electricity have reportedly become major challenges. Today, acting both as a factory and a great market for the world,



Kunio Nakamura
President

A handwritten signature of Kunio Nakamura in black ink.

China serves as a driving force for the global economy. On the other hand, China now faces a pressing need to take action to solve environmental problems caused by her accelerating consumption of energy and resources. We at the Matsushita Electric Group doing business in China feel it is also our responsibility to help offer solutions to these problems.

In this 21st century, human beings need to find a balance between economic growth and environmental issues and resolve the various complicated problems generated by the human community, including conflicts stemming from economic disparities. I think the world is now seeking for ways to realize a sustainable society that is able to continue to develop on Earth. Matsushita clearly cannot attain this lofty goal on its own. We would like to work with people around the world to meet whatever challenges we may face.

Matsushita's Challenge: Aiming to Coexist with the Global Environment

In October 2001, we adopted our "Environmental Vision" and its action plan, entitled "Green Plan 2010." Recognizing this as our commitment to the public, we have made steady efforts to implement innovations in manufacturing. The following is a brief introduction of our achievements and the new challenges we need to address.

1. "Creating Value for a New Lifestyle" with Green Products

We have launched onto the market a new series of environmentally conscious products, including hydrofluorocarbon(HFC)-free refrigerators that have substantially improved energy efficiency, and dishwasher/dryers with outstanding water-saving features. These products have received a very favorable response from the market. At the Panasonic Environmental Forum 2003, held in November 2003 in Tokyo, we showed how impact on the environment could be reduced through the lifestyles offered with our advanced home appliances. To be more specific, when lifestyles are compared between 1990 and 2003, we see that we have succeeded in reducing the impact on global warming, while increasing the number of appliances with new value such as net-capability, health-enhancement and comfort. We will continue to strive forward, aiming at "Creating Value for a New Lifestyle" that realizes sustainable growth by minimizing environmental impact while improving the quality of life.

2. Challenge to Exclude Hazardous Substances from All Our Products Worldwide

Electronic products use various chemical substances to make possible longer and safer use. Such substances produce no harmful effects while the products are still in use. However, after disposal, some of these substances may adversely affect the ecological system. The European Union has recently issued the RoHS (Restriction of Hazardous Substances) Directive that bans the use of certain hazardous substances in products. To comply with this

Directive, Matsushita has set a policy, in essence, globally banning the use of these specified substances in all of its products from April 2005 shipments onwards, more than one year ahead of the RoHS enforcement date set in Europe.*¹ Prior to this, concerning lead, one of the six hazardous substances specified in the RoHS Directive, in March 2003, we completed the switchover to lead-free solder in all of our products manufactured worldwide. With this achievement serving as a 'launch pad,' we will work together with our business partners to steadily step up our initiatives to eliminate hazardous substances from our products.

*¹ Some components are now under RoHS review and may be temporarily exempted.

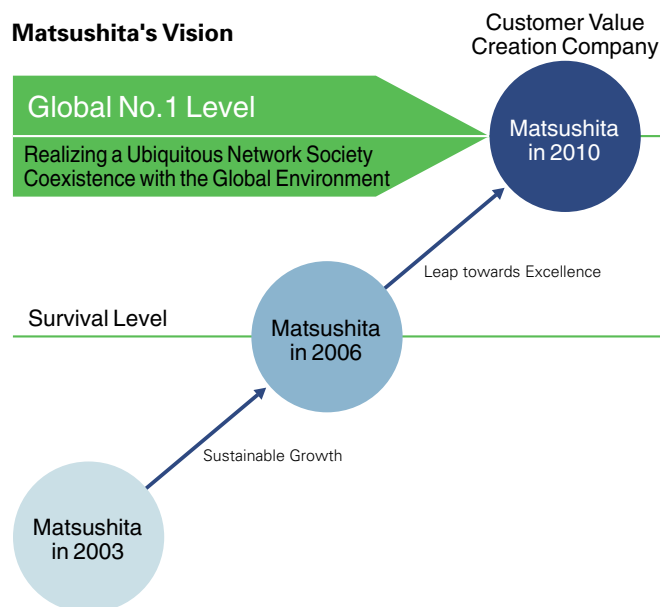
3. Aiming to Launch the World's First Home-use Fuel Cell Cogeneration Systems

Hydrogen, which has long been considered as an "ideal energy," is finally about to make its debut in our daily lives. Home-use fuel cell cogeneration systems, which Matsushita has been developing, are clean systems to generate electricity by chemically reacting hydrogen and oxygen. Since the systems also make use of the generated heat that is normally wasted in the case of conventional power generation, they can achieve a higher energy efficiency and contribute to the prevention of global warming. Targeting initial delivery before the end of March 2005 to Tokyo Gas Co., Ltd., one of Japan's leading utility companies, and a subsequent wide diffusion to households, we are concentrating all our efforts to complete the development in time.

Inaugurating the "Leap Ahead 21" Plan to Create a Globally Excellent Company

Matsushita aims to evolve into a world-leading company in all aspects of its corporate management by 2010, to be a company that is able to win the support of customers all around the world. This April, we started the mid-term "Leap Ahead 21" plan, setting our goals for FY'06 as an in-between milestone. Thinking about society as it will be in 2010, the progress of IT innovations will dramatically change our lifestyles, and the value customers will be seeking will significantly change as well. However, no matter what era we are in, our activities will always be centered on our customers. In addition to such conventional value as convenience and time-saving, we would like to help create a total living environment, that is, one with more environmentally conscious and personalized lifestyles, providing customers with a sense of fulfillment and satisfaction. In other words, our mission is to deliver products and services that can offer value that gives us "peace of mind, security, and affection" as well as "dreams and excitement" with ease and convenience. Recently we have launched a collaborative project with Matsushita Electric Works, Ltd. (MEW). Combining the respective strengths of our two companies, particularly our extensive experience in the electronics area and MEW's considerable expertise in the home and living environment, we will strive to create new value that offers "solutions for comfortable living."

Matsushita's Vision



Matsushita presents a twin business vision for the 21st century: contributing to "Realizing a Ubiquitous Network Society"^{*2} and "Coexistence with the Global Environment" through advanced technologies. By realizing this vision, we will leap ahead to create a "Customer Value Creation Company."

*² For the details, please refer to pages 23-24.

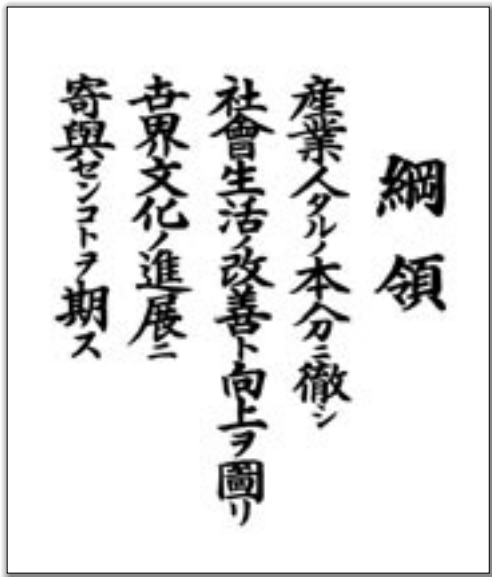
Matsushita's CSR Policy

As the basis of our corporate activities, we have inherited an unchanging management philosophy established by our founder, Konosuke Matsushita, that a company is a public entity of society and must contribute to society through its business. I believe that the very essence of CSR today is to think and act in full awareness of our responsibilities as a "public entity." What is needed is to put this management philosophy into practice and to manifest our vision and actions to the public with greater transparency. It is vital that we make a sustained and humble effort to improve ourselves by reviewing whether or not our global business activities are accepted and supported by society at large. In other words, we must strive for constant innovation with the spirit of "Starting Anew Every Day." I would like to cultivate this mindset into the corporate culture of the Matsushita Electric Group.

This report aims to present our ideas and initiatives broadly, and also as specifically as possible. This year, we renamed the report "The Panasonic Report for Sustainability" showing our determination to move forward with you to blaze a trail to an affluent, sustainable future. We value receiving your frank opinions regarding this report. In closing, I would like to take this opportunity to thank you for your interest in Matsushita and your continued understanding and support.

"A Company is a Public Entity"

Contributing to Society through Our Business



Basic Management Objective

"Recognizing our responsibilities as industrialists, we will devote ourselves to the progress and development of society and the well-being of people through our business activities, thereby enhancing the quality of life throughout the world."

The Revelation of Our Corporate Mission as a Manufacturer

After Matsushita's foundation in 1918, the founder, Konosuke Matsushita, continued to contemplate seriously the real mission of an industrialist and the responsibilities of a business enterprise. On May 5, 1932, he assembled all his staff employees and declared our ultimate corporate mission which Matsushita must take on for the future: to produce an abundant supply of goods to enrich people's lives. He illustrated his firm resolution by explaining, "Even though water from a tap is a processed product with a

price, no one objects if a passerby drinks from a roadside tap. This demonstrates the mission of a manufacturer, which is to create material prosperity by providing goods. This is how we can banish poverty, and bring happiness to people's lives." His fundamental vision for his enterprise struck a deep chord with everyone present.

Relieving the World from Poverty to Achieve Material and Spiritual Prosperity

At that time, Japan was faced with the critical challenge of overcoming poverty and improving people's living standards. Matsushita, as a manufacturer, aimed at contributing to the material and spiritual well-being of people, based on the philosophy that both of "material and spiritual prosperity" are as inseparable as the two wheels of a cart and that they are necessary to achieve true happiness. The Founder believed, based on his own experience, that poverty not only caused misery but also eroded morality, and even triggered crime. That is to say, social prosperity could not be achieved unless poverty was overcome. He stressed the importance of producing necessities that would improve living standards in abundant supply and at affordable prices. His approach to management garnered immediate public respect.

The Corporate Mission as a Public Entity

Matsushita's corporate mission is based on our Founder's view of corporate management: "A company is a public entity of society." More precisely, although a company is a private entity under law, it belongs not only to specific individuals or shareholders but also to the whole of society. As an organization that is entrusted by society with manpower, materials, and capital in pursuit of gainful enterprise, we view our mission as to contribute to society through our business activities. This represents that we must contribute to human prosperity and happiness through sustained efforts for technological innovations. This concept has been inherited in the form of our Basic Management Objective, which constitutes the foundation of our management philosophy.

1918

The founder, Konosuke Matsushita established Matsushita Electric Housewares Manufacturing Works.

1930s

The Founder set the foundation day by declaring the company's corporate mission as "Meichi" to achieve in 250 year time frame.



1940s

The Pacific War erupted and ended in Japan's defeat. The Founder resolved to reconstruct the nation through the production of consumer products.



1950s

In Japan, the age of home electrification arrived. Black-and-white TVs, washing machines, and refrigerators, so-called the "Three Sacred Treasures," became must-have gadgets. These helped free women from household chores, and TVs came to play a significant role in fostering better living and cultural development.



1960s

Matsushita commenced technical assistance mainly to Asian countries, and constructed many manufacturing sites outside Japan based on our policy of contributing to the prosperity of the host country.



Creating Prosperity and Happiness for All

Today, not only Japan but also many other nations are seeking more than material prosperity: they are pursuing convenience and comfort in conjunction with ever-diversifying lifestyles. On the other hand, some countries are still suffering from poverty. We believe it is our responsibility to provide not only material but also spiritual prosperity through electronics.

Prosperity, as currently viewed, requires products to offer new values, such as environmental consciousness and universal designs, in addition to improvements in their quality and performance. This means that the roles that we must play through our business endeavors are shifting from the supply of material goods to the fulfillment of needs as defined by the customer.

Our corporate slogan, "Panasonic ideas for life," represents the

commitment of all employees from R&D and manufacturing to marketing and services to supplying products and services based on valuable ideas which can enrich people's lives and advance society. In the 21st century, information, people, merchandise, and food will move freely across national borders. Every person on Earth lives in an invisible web of various connections on which global society is built. We believe the mission that we must accomplish through our knowledge of electronics, one of society's assets, will expand indefinitely. We will devote our efforts to playing a responsible role in achieving global prosperity, peace, and happiness.

Values that Matsushita Wishes to Deliver



1970s

In line with increasing consumer awareness, Matsushita promoted management strategies that focused on the harmonious coexistence with the environment and society to fulfill our corporate social responsibility.



1980s

As a step toward further development of Asia in the 21st century, Matsushita led in establishing a collaborative relationship for modernization in China.



The founder, Konosuke Matsushita (left) met with then Deputy Premier Deng Xiaoping.

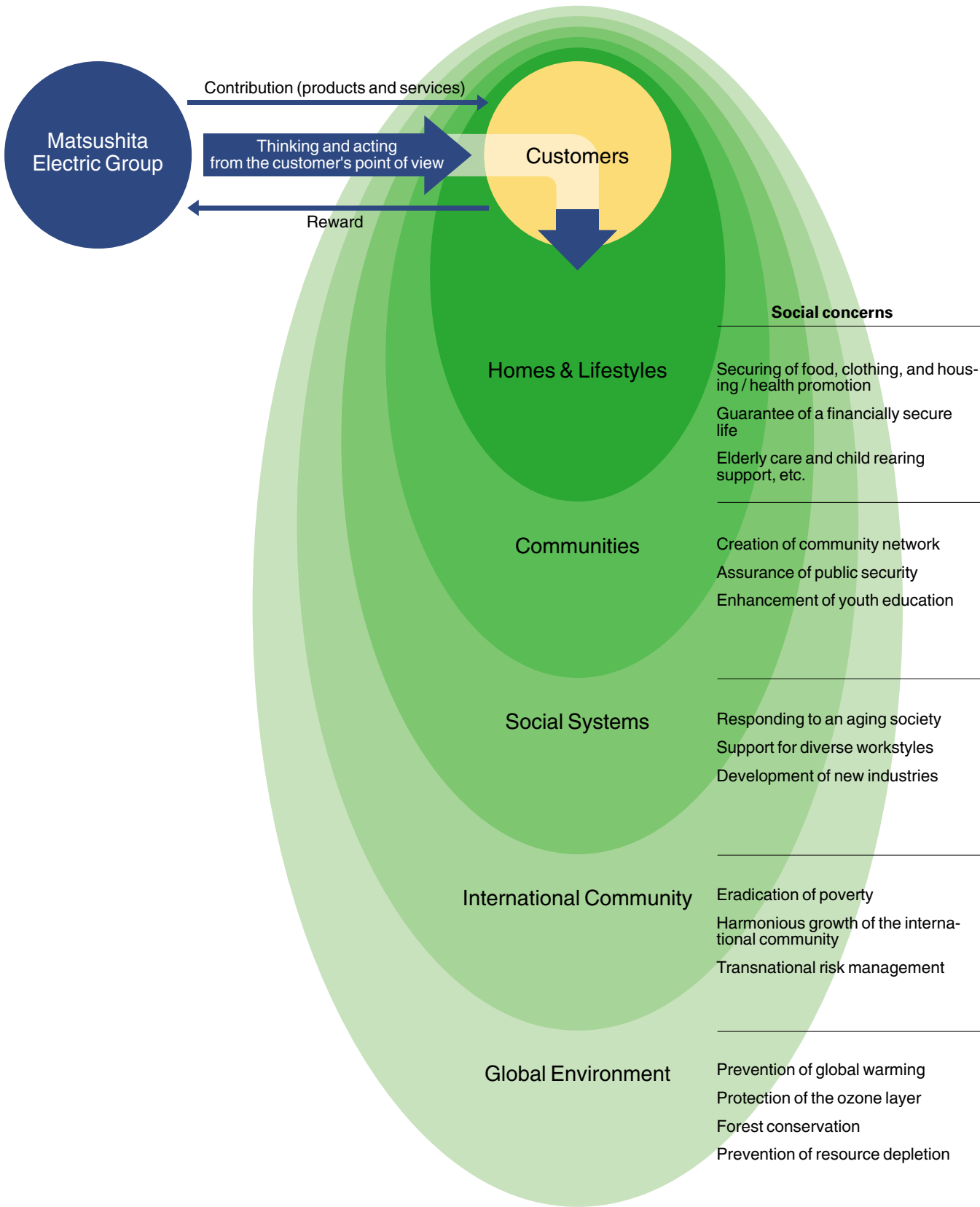
1990s

Matsushita implemented structural reforms to enhance global and group management. All the Group companies around the world acquired ISO 14001 certification.



The 21st century

Mission to Achieve a Sustainable Society



Matsushita's Solutions

Provide products and services that meet the needs of people's diversified lifestyles

Our product development policy places the highest priority on safety. We are promoting universal design, which makes products easy for everyone to use, and developing products and services in response to diversifying lifestyles. Employees of Matsushita are provided with educational opportunities and welfare systems tailored to their individual lifestyle needs and thus underpins their livelihood.

Harness networking technology to support activities of communities

We promote security systems for ensuring safety from distant locations and remote medication systems by leveraging ubiquitous network technologies. Matsushita has supplied schools with educational equipment and programs for environmental education as well as supporting the participation of the employees of Matsushita in local volunteer activities.

Contribute to 21st century-style employment and the growth of industries

To overcome the challenges of a rapidly aging and declining birthrate Japan now faces, Matsushita offers a wide range flexible workstyles to help the employees of Matsushita successfully combine child-rearing and caring for the aged people with their careers. We have implemented manufacturing innovations in an effort to increase our global competitiveness, promoted venture incubation businesses, and collaborated with universities to foster new industries.

Generate businesses that contribute to host nation's prosperity

With overseas operations, we have a policy of developing businesses that are deeply rooted in the local community, allowing us to contribute to the development of the host countries. Our sustained efforts to contribute to the international community, which shares a wide range of values, through our business activities will result in the fostering of friendly relations. We have also bolstered risk management systems to avert global risks.

Pursue "Creating Value for a New Lifestyle" that balances the quality of daily life and environmental consciousness

Efficient use of energy is essential to prevent global warming. We continue our endeavors to develop energy-conserving products and leverage resources more effectively. We have given environmental consideration to all our operations, including production, logistics, and the recycling of end-of-life products. We will communicate our environmental initiatives actively.

What is Sustainability?

The term "Sustainability" has gained wide currency ever since the U. N. World Commission on the Environment and Development introduced this concept in a report entitled "Our Common Future" issued in 1987. In the report, sustainable development is defined as "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Today, global society suffers from poverty and conflict, as well as environmental problems. Such conditions are not sustainable. To sustain our more affluent lifestyles, human beings currently over-consume resources that should be left to succeeding generations. As a result, the search for affluence has been accelerating the consumption of limited resources. Persisting in such behavior that lacks the perspective of sustainability is likely to cause inequalities in material prosperity, ultimately leading to more conflict. Solving this problem demands the voluntary participation of all types of stakeholders. Above all, global companies are increasingly expected to implement management systems that strongly emphasize sustainability.

Matsushita's Strategies

Based on our belief that "a company is a public entity," we have been contributing to the progress and development of society. We strive to enrich people's lives and lifestyles through our business activities. Considering the world of the 21st century, the "human prosperity and happiness" that we are aiming for can be achieved only within a sustainable society.

To translate the concept of a sustainable society into reality, what strategies should we adopt? Matsushita has been contributing to society by making "customers" the cornerstone of our corporate behavior. Therefore, our approach is to review issues and concerns from the customer's point of view and to offer solutions with the ultimate goal of developing a sustainable society. We continue to think and act together with our customers to attain a sustainable society founded on human prosperity and happiness.

Matsushita's Initiatives to Examine Social Concerns from the Customer's Point of View

There are various challenges facing our customers. Assessing today's society from the customer's point of view allows us to classify the challenges into the following five tiers, such as "homes and lifestyles," "local communities," "social systems," "the international community," and "the global environment." These five tiers are not independent, but exist in a dynamic balance. At the same time, this approach increases our understanding of how our actions will, in one way or another, influence the solutions available. For instance, Matsushita makes practical contributions to society through our products and services, creates foundations for life by offering employment and supporting employees' lifestyles, and may also find new potential for additional contributions. To encapsulate the mission of the Matsushita Electric Group in the 21st century, we as a public entity want to contribute to achieving a sustainable society through our business endeavors.

Corporate Governance

Matsushita has from an early stage been proactive in strengthening its corporate governance to increase the transparency of its management. In FY'03, the company implemented reforms to establish a group management structure tailored to its new business and organizational structure. Matsushita is also enhancing group-wide efforts to promote CSR (corporate social responsibility).

Group Management Structure

Board of Directors

Since 1972, Matsushita has co-opted two outside directors to its board of directors to help ensure the transparency and objectivity of its management. In FY'03, the company realigned the role and structure of the board of directors to conduct swift and strategic decision-making, as well as optimum monitoring, on group-wide matters. Given the diversified scope of Matsushita's business fields, however, the company does not intend to completely isolate supervisory functions from executive functions, so that it may continue optimum decision-making and supervision based on actual situations and developments at operational fronts. At the same time, members of the board of directors have been reduced in number, with all terms of office shortened to one year.

Executive Officers

In FY'03, the board of directors has empowered each of the business domain companies by delegating authority in order to expedite autonomous management, and an Executive Officer System has been introduced for execution of business at various domestic and overseas group companies, thereby facilitating the development of corporate strategies that integrate the group's comprehensive strengths. Executive officers are elected by the board of directors. Upon delegating authority for business operations to executive officers, the board of directors of MEI will focus mainly on deciding corporate strategies and monitoring and supervising business domain companies from an investor's point of view, based on the new business performance evaluation criteria of CCM and cash flows, later mentioned. This will clarify the supervisory responsibilities held by the board of directors, and the responsibilities for execution of business held by executive officers.

Remuneration System for Directors and Executive Officers

Starting in FY'03, the new performance evaluation criteria for business domain companies has been introduced; that focuses on CCM (Capital Cost Management), which measures capital profitability, and cash flows, which indicate a company's ability to generate cash. Under the new remuneration system, compensation for members of the board and executive officers is directly affected by results of the new business performance evaluation. This new remuneration system is intended to achieve continuous growth and enhanced profitability on a long-term basis for the group as a whole, while increasing shareholder value.

Corporate Auditors and the Board of Corporate Auditors

Matsushita maintains corporate auditors, as well as a board of corporate auditors as provided for in the Commercial Code of Japan and other related regulations. Corporate auditors and the board of corporate auditors, which are separate and independent from directors of the company and the board of directors, have a legal obligation to supervise the directors' operation of the company. In addition to fulfilling their obligations as provided for by law, corporate auditors are committed to effective monitoring through such means as attending important meetings of the company. Furthermore, in FY'03 Matsushita placed full-time senior auditors at Matsushita internal divisional companies to strengthen auditing functions at business domain companies, and established a Group Auditors Meeting to promote collaboration with subsidiaries's corporate auditors.

Advisory Board

Aiming for an open and transparent approach to management, in 1998 Matsushita reached outside the company to establish an Advisory Board, which consists of three distinguished leaders and senior corporate executives. The Advisory Board has been instrumental in providing a wide range of views on the social and economic environment in which we must operate, and they have been active in suggesting strategies for the future, thereby invigorating the company's managerial activities.

TOPICS

Compliance with the Sarbanes-Oxley Act of 2002 in the U.S. (Establishment of an Internal Control and Disclosure Committee)

To ensure the credibility of the statements in the company's annual report (Form 20-F) filed with the US Securities and Exchange Commission (SEC), Matsushita established an Internal Control and Disclosure Committee in June 2003. The committee assumes responsibility for confirming the properness of the contents and confirming the proper function and effectiveness regarding disclosure controls and procedures of the report.

Furthermore, Matsushita has appointed "internal auditing managers" in each of its business domain companies, tasking them with checking the effectiveness of internal controls designed to ensure the reliability of the company's financial reporting.

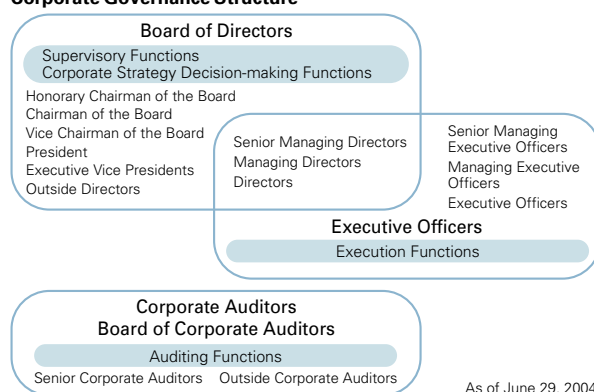
TOPICS

The Characteristics of Matsushita's Framework for Corporate Governance

The amendments to the Japanese Commercial Code that took effect on April 1, 2003 allow Japanese corporations to adopt what is called US-style governance or, to be more specific, the "Company with Committees" system. Matsushita has given careful consideration as to whether or not it should switch from the conventional "Company with Auditors" system to the "Company with Committees" system. Given the diversified nature of Matsushita's businesses, Matsushita has come to the conclusion that it will not adopt the "Company with Committees" system that is designed to completely isolate supervisory functions from executive functions: it wishes to continue with optimized decision-making and supervision based on actual situations and developments at the operational fronts. Thus, the company has adopted a Matsushita-specific corporate governance system based on the conventional system of putting management personnel, who are well acquainted in day-to-day operations at operational fronts on the board of directors. In light of the company's specific autonomous management, the new system encourages those who are most familiar with the specific substance of their respective operations to take

an active part in management. At the same time, Matsushita is increasing US-style management transparency and objectivity, and strengthening its supervisory functions and solidifying its disclosure framework.

Corporate Governance Structure



Code of Conduct

In 1992, "the Code of Conduct" was set out in the form of specific items to be observed and as criteria to guide the application of our management philosophy. It makes clear how the management philosophy is to be applied in actual business situations. In 1998, a comprehensive revision was carried out in response to increasing globalization and changes in value systems. Taking into account different laws and regulations by country and region, global standards that share a common foundation have been adopted across the Matsushita Electric Group.

The Code of Conduct is now under review with a view to further revision within FY'04 in response to social changes, including ever-intensifying globalization and advancing information technologies as well as to enable incorporation of the CSR perspective.

The Code of Conduct

Observing the Code of Conduct

Chapter 1: Promoting Business Operations

1. Research and Development
2. Procurement
3. Manufacturing
4. Marketing & Sales
5. Advertising
6. Product Safety
7. Control of Information
8. Complying with Laws, Regulations and Business Ethics

Chapter 2: Our Relationship with Society

1. Harmony with the Global Environment
2. Information Disclosure and Corporate Communications
3. Social and Cultural Activities

Chapter 3: Employee Relations

panasonic.co.jp/global/profile/conduct/

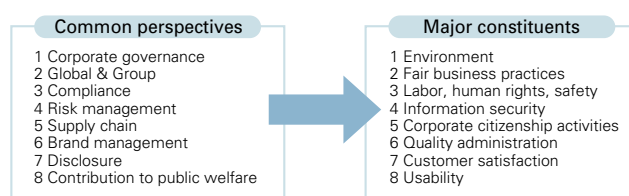
Promotion of CSR (Corporate Social Responsibility)

As of October 2003, the CSR Office was established under the direct supervision of the President of the Matsushita Electric Group. The idea of CSR promotion is nothing new to us. Ever since its foundation, the company has been following a management philosophy which clearly defines that the company, as a public entity, should contribute to society through its business activities. The objectives of establishing the CSR

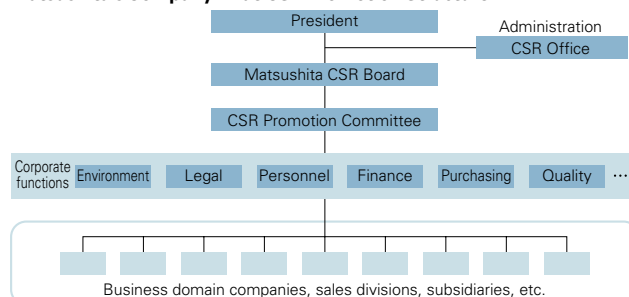
Office are to monitor the company's business activities from a global CSR standpoint and to expose Matsushita's management to public opinion to ensure that its existence in the 21st century can be fully justified.

In FY'03, the Matsushita CSR Board, which is chaired by the President of the Matsushita Electric Group, was established as a decision-making organization to deal with CSR issues. At the same time, the CSR Promotion Committee was organized. Staff members of corporate functions at the Head Office and overseas divisions participate in this committee. It will play a central role in management under the direction of the Matsushita CSR Board. Under the framework, the corporate functions and business domain companies concerned will work in unison to enhance the global promotion of CSR.

Matsushita's CSR Constituents



Matsushita's Company-wide CSR Promotion Structure





The goal of our SD Card business is to create a society where there are SD enabled products everywhere around us, making it possible for everyone—including children and the elderly—to bridge digital data across the products without complicated operations.

Tetsuro Homma

SD Solution Group
Panasonic AVC Networks Company

➡Page 23: User-friendly Ubiquitous Networking Society

My daughter will soon attend "Rachel Carson Middle School." Thinking about her studying at a school named after a famous environmentalist and author of "A Silent Spring," serves as a daily reminder about the importance of my managing environmental activities for Panasonic.

Mark. J. Sharp

Corporate Environmental Department
Matsushita Electric Corporation of America (MECA)

➡Page 21: Teamwork for an Environmental Brand



Panasonic ideas for life

"Panasonic ideas for life" represents the commitment of all employees from R&D and manufacturing to marketing and services to supplying products and services based on valuable ideas which can enrich people's lives and advance society. Highlights 2003 introduces you to a number of these employees.



When I'm working hard to meet the demands of our auto manufacturer clients, I'm acutely aware that "the customer-comes-first." I also like the phrase "contribution to society." Matsushita is benefiting society by hiring many employees and generating profits in the Czech Republic.

Milos Padera

Panasonic Mobile & Automotive Systems Czech, s. r. o.

➡Page 27: Cultivating Matsushita's Spirit in Europe

I've had a lot of fun helping to create the Factor X indicator introduced in this report. I hope to see it used not only within Matsushita, but all over the world as the global standard. My personal goal is to help achieve a sustainable society.

Taeko Aoe

Corporate Environmental Affairs Division

➡Page 29: "Creating Value for a New Lifestyle"





I'll never forget the smiling faces of the children when we installed the educational systems with Matsushita PDPs to the school in Ethiopia. When I saw the students asking questions, their eyes full of curiosity, I felt this country had a bright future. Nothing would make me happier than seeing Matsushita's technology make a positive difference for their future.

Shiro Kitada

System Solution Team
Corporate Management Division for CIS, the Middle East & Africa

➡Page 13: For the Smiles of Children

The number of components we handle in cell production increased five times, which makes me feel, "This is my work, I made these products." I also feel responsible and motivated. I feel happy when my ideas for improvements are used in this workplace.

Noraini Said

Television Assembly Department
Panasonic AVC Networks
Kuala Lumpur Malaysia Sdn. Bhd.

➡Page 25: Innovation Motivated by All Employees



At first, I was hesitant about using childrens' faces to market products in N's Eco Project, which encourages replacing old products with more ecological products. But I know that I'm doing a wonderful thing when I go to kindergartens and see how happy children are when taking care of plants.

Miwako Saito

Corporate Marketing Division for National Brand

➡Page 15: Eco-seeds for 1.13 Million People



I go to exhibitions to make the Monoshiri Talk, an RF voice recorder, better known among people with visual impairments. I give up holidays to do this, but it's really enjoyable to me. That's because I strongly believe this product will be useful to these people.

Jiro Kubo

Developer of Monoshiri Talk
Matsushita Industrial Information Equipment Co., Ltd. (MIIE)

➡Page 19: Removing Barriers for the Visually Impaired



To receive a simple "thank you" from a customer is the greatest reward for service technicians. I try to do my best work for every customer so that they will ask for my services next time, too.

Tomozou Kohda

Kinki Matsushita Technical Service Co., Ltd.

➡Page 17: Service: Direct Contact with Customers



Kitada surrounded by smiling children upon delivery of the PDP in the background.

The children cheered and their faces lit up when they first saw pictures on the classroom's plasma display panel (PDP). Three members of the Corporate Management Division for CIS, the Middle East and Africa worked hard for this moment. Here we follow their struggle to deliver 7,000 PDPs to create a satellite learning system in Ethiopia.

For the Smiles of Children

Delivering 7,000 PDPs for Ethiopia's Satellite Learning System



Hidefumi Kawakita

Manager
Corporate Management Division for CIS,
the Middle East & Africa

AIDS is a very serious problem in Africa. I hope this system is also used for medical training.



Shiro Kitada

PDP supervisor
Corporate Management Division for CIS,
the Middle East & Africa

Ethiopia is thought to be the birthplace of coffee and has a coffee ceremony similar to Japan's tea ceremony. When I was invited to attend a ceremony, I was impressed with their rich culture of hospitality.



Ryo Tanaka

Broadcasting Equipment supervisor
Corporate Management Division for CIS,
the Middle East & Africa

I feel it's important not only to deliver broadcasting equipment, but also to show the local staff how to film and edit. We also had them come to Japan for training.



With teachers and students at the school; the teachers have high hopes for the new system.



A TV camera delivered to an Addis Ababa studio; providing training on how to use the equipment is crucial.

Ethiopia's Emphasis on Education

"Are you serious? An order of seven thousand PDPs from Ethiopia?!" The Visual Products and Display Devices Business Group was skeptical at first. Kawakita, leader of the sales team, says, "At first, no one believed it was possible." Ethiopia, with a per capita income of just \$100, is making a national effort to build up its educational environment, making this a priority as high as water and roads. Officials are implementing a satellite learning system to make up for the lack of teachers. Under this plan, educational programming will be broadcast from the capital of Addis Ababa to 430 schools via PDPs set up there. Matsushita's track record and outstanding technology, such as excellent motion pictures, helped it win the bid for broadcasting equipment and PDPs. It has previously supplied broadcasting equipment through the Official Development Assistance (ODA). Teamwork between Matsushita and the Educational Media Agency (EMA) of Ethiopia's educational authority made it happen despite a tight schedule. Tanaka, in charge of the project, recalls, "It was an all-out effort by Matsushita to accomplish this project." That experience built up a relationship of trust with EMA that led to the recent installment of PDPs. The initially skeptical Visual Products and Display Device Division Group made every effort to fulfill the contract once it had been signed. The November contract called for delivery in January, which would have been impossible if it hadn't been for the staff's willingness to give up its New Year's vacation.

Field Testing under Harsh Conditions

Other challenges arose. Ethiopia's high altitudes have helped to produce many marathon runners, but the low air pressure can also affect the thin PDPs. Just to be sure, Kitada brought PDPs to Ethiopia for field tests under severe conditions, and ensured that there would be no problems. Tanaka got a scare when six containers carrying the equipment were temporarily lost in transit. In the end, they arrived three weeks later. Tanaka says, "The people were very forgiving and had a different sense of time. Sometimes 'to-



The three work in an office in Osaka, Japan. They reached Addis Ababa from Kansai International Airport by way of Dubai, a two-day trip.

morrow' means 'three days from now.'" Kawakita experienced another time problem. "In Ethiopia's calendar a year is 13 months. Their discussions of the delivery schedule also ran into glitches." Ethiopian local time is also six hours behind Ethiopian standard time, because Ethiopians start their day from sunrise. At crucial times during the bid, there were several near misunderstandings.

Admiration for People Erases Hardships

The three agree that even as the challenges continued, they were excited about the job. Kawakita says, "That is because the Ethiopian people are so pure. All of us who went there became their fans. It became our mission to do our best for them." The bonds were so strong with the staff of EMA that everyone embraced at the airport when they met again in Japan. When EMA members visited the Hall of Science and Technology and Matsushita Electric House of History, they were impressed by Matsushita's ideals of contributing to society.

Kitada's motivation eases any hardships encountered in the work, because he says that as he works he imagines "the children's joy when they see the actual images being projected."

Memories of Smiling Faces

Actually, at the time of this interview the PDPs had not yet been installed at the schools. Two weeks later, however, Kitada sent an E-mail from Ethiopia, where he had gone for the final check. "The children were all so happy. When I installed the PDPs and they began to see the images, they shouted, 'This is amazing! I love it!' One 15-year-old boy asked, in fluent English, 'What's the difference between Japanese and Ethiopian education? How successful do you think this educational system will be?' I was impressed by the earnestness of this question from a 15-year old, and I gave him my opinion." The expression on Kitada's face in the photograph (upper left) shows a sense of satisfaction amidst the smiling faces of the children. It will be interesting to see what these children do in the future with these tools.



あなたの大切な場所に
緑を贈ろう！

Yoichi Miura

Corporate Marketing Division
for National Brand

Many of us come home feeling tired, but wouldn't it relax us a little to see a baby's face under a seed packet?

A new poster printed up on the day of this interview. The greenery looks lovely. Yoichi Miura reflects, "Environmental activities are essential for both corporations and individuals." In June 2003, TV programs and newspapers across Japan announced that posters to which five different flower seeds, such as cosmos and sunflowers, were attached would be put up in public places. Underneath each seed packet was the picture of the face of a baby born in the 21st century. This was part of Matsushita's N's Eco Project sales promotion. Perhaps some readers of this report took home some seeds.

Eco-seeds to 1.13 Million People

"N's Eco Project": Environmentally Focused Sales Campaign



The posters with flower seeds were the result of an idea by Kei Mori of Corporate Marketing Division for National Brand. When a seed packet is taken off the poster, a baby's photo is revealed underneath.

URL N's Eco Project
national.jp/eco/ (Japanese only)



Lowering Hurdles Impeding Participation in Environmental Activities

Starting with the flower seed poster, N's Eco Project tried a number of ideas, such as giving seeds and tree seedlings to kindergartens throughout Japan. The campaign chose the slogan, "Grow as many trees as the number of babies born in 2003." Miura, of Corporate Marketing Division for National Brand, oversaw the campaign and felt, "People know that environmental problems are serious, but in some ways they are not excited about the environment. Many understand the issues logically in their heads, but can't take action." The impetus to participate in the project was the strong environmental performance of National products, as well as Miura's sense that society has changed. Miura stated, "Now there is a mindset that conservation is fundamental to life." So he thought about how to lower hurdles to give people a chance to participate in environmental activities. That is how the unique flower seed poster was born.

One Big Step Forward

"Buying New is Conservation" is also a surprising advertisement with a big impact. It brings the message that buying new products saves both money and energy more effectively than continuing to use old products. This advertisement is a lot more innovative than earlier environmental advertisements, which focused first on image. Miura admits, "At first I felt hesitant about it. I thought people would see this as a blatant sales tactic." Actually, this writer remembers being confused on seeing the advertisement for the first time, but confusion changed to surprise when I heard how much these products save: "This Hydrofluorocarbon (HFC)-free refrigerator saves 23,200 yen annually." Many customers who replaced their refrigerator wrote, "I saved a surprising amount on my electric bill!"

Total Participants: 1.13 million People

Matsushita ran a multi-front campaign with posters, newspaper advertisements, store displays and a "Buying New Eco Diagnosis"* on the Web. Magazines and web sites reported frequently on kindergartens that had been presented with seeds. Miwako Saito, who reported on kindergartens, remembers one girl's words: "The rain is not very good for me, but I'm happy because the flowers like it." At first, Saito hesitated at the idea of "using children's faces in sales promotion." However, when she saw how happy the children were growing plants, she thought, "In the end we did a really good thing." After many trials and efforts, the campaign was a big success. A total of 1.13 million kindergarten children and other people grew seeds and planted more greenery. The CO₂ reduction from the sale of energy-conserving products equals 244,000 tons, while consumers are saving approximately 15.6 billion yen on their electric bills. Moreover, the campaign won three advertising awards, including The FUJISANKEI COMMUNICATIONS GROUP Advertising Award. The response was greater than even Miura expected.

* Buying New Eco Diagnosis: A comparison of the energy efficiency of new and old products

Sending the Right Environmental Message

The spread of Matsushita's "Creating Value for a New Lifestyle" will finally create a sustainable society. As a manufacturer, Matsushita can most effectively affect society by selling goods. Matsushita's social mission, to put it another way, is to persuade people of the importance of using environmentally conscious products. Miura says, "We try various ways to sell goods, but it's best to attract customers' attention by conveying the right idea, which is that the environment is important to us." Miura believes that he is doing the right thing has encouraged him to continue with N's Eco Project. A new campaign, which started in April 2004, with the theme "Increase greenery in every place that is precious to you." Miura and his colleagues will give people new kinds of seeds so people can grow more and more beautiful flowers.



Advertising copy which emphasized "Buying new products" attracted a great deal of attention.



Members of N's Eco Project say that this project made them think more about the environment.



A girl named Asuka Aoyagi, born at the beginning of the new century (January 1, 2001), recently starred in a TV commercial. The adorable Asuka and heartfelt narration make peoples' eyes well up with tears.



Miwako Saito

Corporate Marketing Division
for National Brand

I know that we did a great job when I see the children watering flowers or even talking to cherry seedlings at their kindergartens. One boy told me with great excitement, "I was so surprised today to see that sprouts had suddenly appeared!"





This call center takes customer inquiries from six prefectures in the Kinki region. The anticipated 1,500 daily calls are shared by 240 service technicians at 17 sites.

Matsushita's environmental division received an interesting e-mail. The customer wrote that she wanted repair service on a TV more than 10 years old. This inspired Matsushita to invite the customer, Ms. Yukimi Ishihara, to Matsushita Technical Service to tell her more about repair services. Let's follow along with Ms. Ishihara on her tour of the facility.

Service: Direct Contact with Customers

Matsushita Technical Service, Where True Service Is the Goal



Masahiro Fukamachi

President
Kinki Matsushita
Technical Service Co., Ltd.

Both customer satisfaction and employee satisfaction are essential. The sense of satisfaction that employees get on the job always shows through in the service they provide to customers.

Repair or Buy New?

As time passes, electrical products may not function well. If one part breaks down, it does not mean the product's life is over, but nowadays people often find themselves urged to simply replace the product with a new one. Masahiro Fukamachi, of the service company, Kinki Matsushita Technical Service, says that the question of whether to repair a product or buy a new one depends on the condition of the product, so there is no simple answer. He recommends what is best for each customer, stating, "Home appliances generally last about 10 years. I recommend repair for products newer than that, but if the product seems likely to break down again, I recommend buying a new one." In recent years, the number of repair jobs has steadily declined (page 68). This is partly because product quality is better, but also because falling prices are encouraging people to buy new. But Ms. Ishihara echoed the feelings of many consumers when she said, "I want it repaired if it can be done inexpensively, because I want to make

From: "yukimi ishihara"
Date: Tue, 17 Feb 2004 11:05:57 +0900

Corporate Environmental Affairs Division
Matsushita Electric Industrial Co. Ltd.,

I'd like to ask for help with my TV. It is a Panasonic product and more than 10 years old. The CRT is fine and the picture still looks good. The problem is that the remote control does not work well, and the volume and channel change by themselves, so it is hard to watch. When I asked someone familiar with home appliances, I was told that part of the TV needs to be replaced. Is it possible to get the components? I understand that as everything goes digital in the future, it will be necessary to replace this one, but it would be a pity to throw away this one now while it still has several years of life left.



Ms. Yukimi Ishihara

Letter writer
Matsushita invited Ms. Ishihara to the center where customers bring in products for service and repair training sessions are given.

In the future, reliable repair service will be the standard by which people select products.

my purchase last."To meet such demands, Matsushita's service centers try to offer high quality repair service at low cost. Under Fukamachi's direction, a new service support system was completed after three years' work.

IT-based Onsite Service Management System

This is a new repair management system. This system uses computers to manage all the tasks that service technicians and site staff did manually in the past, such as matching technicians to customers in scheduling visits, arranging for the necessary parts and confirming the appointment with the customer. The system begins by identifying the product's condition, then selecting the best service technician and the parts needed for the job. It also determines the most efficient route automatically, taking into account the customer's desired time frame. Navigation systems in service vehicles follow the given route, and the GPS function relays the service technician's status in real time to the Onsite Service Management Center so that emergencies and other requests for technical support can be met promptly, while avoiding inconvenience to other customers. IT makes the flow of the repair work more efficient, allows service technicians to complete more service jobs with a single visit and minimizes repair costs and customer inconvenience. It is also better for the environment, since vehicles drive the minimum possible distance. Matsushita's technical service staff is working to harness the power of IT to provide a higher level of service.

Employee Satisfaction Is the Starting Point

Most people who have asked for repairs already feel some dissatisfaction or mistrust. They want to know why the product is not working, they want it fixed soon, and they do not want to waste money on ineffective repairs. Fukamachi says, "The system was developed because service technicians often walk into emotional situations. By handling indirect repair work at IT and the service sites, service technicians can concentrate more on the customer." Repair service is about fixing broken parts, but



Tomozou Kohda

Service Technician
Kinki Matsushita Technical Service Co., Ltd.

I want to be the kind of service technician that people ask for by name.

Katsuhiko Maeba

Corporate CS Division

We plan to expand our Onsite Service Management System to our service sites around the country.



True Service

Service is an indispensable part of business. However, service that is performed only because it has to be is extremely exhausting.

Not only is it tiring, but the customer will intuitively know that this is being done only because it is necessary. Service must be done because it makes the customer happy and, as a result, allows a sense of joy to be born in the person doing the service.

True service lies in this creation of joy both in the doer and in the recipient.

Konosuke Matsushita

also about turning customers' negative feelings into positive ones. To do this, the first job is to raise employee satisfaction. That was Fukamachi's answer after talking to service technicians about ways to improve customer satisfaction. Describing the advantages of the Onsite Service Management System, service technician Kohda adds, "Now we have more time to concentrate on our job. I'm happy to have time to spend on the customer." Employees praise the system for enhancing both customer and employee satisfaction.

Achieving True Service

Ms. Ishihara found out that in her case the parts she needed were available and repair was possible. After her tour, she smiled and said, "If I'd known the service was this good, I would have asked earlier." Service always seems good at the time of purchase, but particularly when problems with the product occur, or as the product ages, it may need real service. That creates an opportunity to prove the brand's reliability. Maeba says, "People let us come into their homes, even late at night, because they trust Matsushita." Fukamachi notes, "We're the only ones in Matsushita Electric Group who have direct contact with the customers. Recently we've gotten more non-repair questions such as how to use products now that digital technology is spreading and the population is aging. This is creating new needs." He adds, "Matsushita wants to expand its service area. I want us to become more sensitive to customers' changing needs and to try out new business areas." Fukamachi's vision is all part of the Founder's idea of true service.



Jiro Kubo

Developer of Monoshiri Talk
Matsushita Industrial Information
Equipment Co., Ltd. (MIIIE)

I go to the expositions myself, and I don't mind giving up holidays to do it because visitors are so glad to see this product.

Try to imagine being blind. You have no idea what is inside of cans and food packages. You get ready to make tuna salad but find that instead of tuna you have opened a can of soup. Medicines are even worse, because you cannot afford to make a mistake. The visually impaired face these problems every day.

Removing Barriers for the Visually Impaired

RF Voice Recorder Monoshiri* Talk

* Monoshiri: Japanese for "knowledgeable person"



Ms. Mayumi Kato

A user of Monoshiri Talk who helped in the development process as a product tester.

You understand how good it is once you use it. It is much more convenient than I expected when I first heard about its functions.



There is no margin for error with medicines, but it would be impossible to use Braille to write all the warnings on the package.

This necktie has a small tag with color and pattern information. The tag can be washed and dry cleaned. It also comes with a case resembling a bag.



Identifying Things: A Real Problem

Ms. Mayumi Kato, who is visually impaired, takes out a package of medicine with a coin-size tag attached to it. She points a device resembling a remote control at the package and pushes a button. A recorded voice says, "Painkiller and fever reducer. Take three tablets per dose, no more than two doses per day. Do not take on an empty stomach." This is how Monoshiri* Talk works. Each tag has an identification number and is attached to an item. Users can record the item information by voice and later MonoshiriTalk plays back the information when it is pointed at the tag. Ms. Kato, who helped as a tester in product development, says, "In the past I put Braille stickers on everything, but that was troublesome and the stickers can hold only a limited amount of information. And stickers often fall off of frozen foods. "Finding the space to put a sticker is one problem, and then another problem is asking someone to read the information slowly. And I didn't want to bother people," she adds. But with MonoshiriTalk, she can ask someone to record the information by voice without going to a lot of trouble. Also only approximately 10% of visually impaired people can read Braille as well as Ms. Kato can. For this reason, MonoshiriTalk has considerable potential to make people's lives more comfortable.

A Passion for Working Onsite

MonoshiriTalk developer Jiro Kubo of Matsushita Industrial Information Equipment (MIIE) says, "I love to go onsite." He loves it so much that, when developing a POS system for liquor stores, he spent a day working the register at a shop because he wanted to see for himself how his ideas work. He visited many visually impaired people while developing MonoshiriTalk to get their advice and ideas. He notes, "I really learned how hard it is for visually impaired people to identify things. It made me want to help them overcome that inconvenience." During the long recession, when development might have been stopped, he went to the President and said, "I want to develop this, even if it means moving to another company!" Kubo wanted to succeed for people urging Matsushita to bring MonoshiriTalk into mass production, and finally his determination paid off with the product launch in September 2003.



Identifying certain products is a big problem if they cannot be put away again after being opened.

Getting the Product Out to More Users

Kubo worked on the detailed specifications of the product based on many people's opinions. The size, shape and height of the buttons and the allocation of their respective functions were all crucial. Once he decided to set the maximum number of entries at 700, Kubo spent more than five hours recording that number of items. This process made his fingers hurt, which made him realize that the buttons were not high enough, and he also found it easy to make mistakes in some operations. Kubo argued these issues out with the engineers until he was satisfied. "Did you use it yourself?" Kubo asked. "Yes, I made about 20 entries," one engineer replied. Kubo cried, "Are you serious?! I made 700!" His persistent efforts paid off with an easy-to-use product that earned strong endorsements from its users. One customer said, "I have tried other devices like this in the past, but I've always given up on them. But MonoshiriTalk just gets easier the more I use it." Another customer who lives in a remote region said, "I'd like to go to Osaka and express my appreciation to the developer." The problem is the price, which is approximately 60,000 yen because of the limited market. Getting it out to more people requires convincing the government to designate MonoshiriTalk as "essential daily equipment" for visually impaired people. Since the product is very new, it is hard to understand how useful it is until one tries it. Kubo is visiting exhibitions and related groups to introduce MonoshiriTalk to as many people as possible and trying to get the device approved as essential daily equipment in 2005.

In the Near Future: Hotels and Restaurants

When asked if she had any complaints, Ms. Kato replied instantly, "Not at all!" Instead, she had plenty of dreams. "I'd like to see tags on the shelf with product information at supermarkets so that visually impaired people could enjoy shopping more. Then at hotels, tags could identify room numbers or floor plans. If more items had tags, we wouldn't mistake conditioner for shampoo, for example, and we could read restaurant menus too." Kubo says that he is encouraged by the smiles of users, adding "This is a fun job." MonoshiriTalk will help to realize their dreams in the near future.



MonoshiriTalk, to be in wide use starting in 2005, works with three types of tags. The large black tags work well for food and garments, the thin ones for CDs and documents, and the small ones are washable, and therefore suitable for clothes.

eas for life



Our interviewees for this section all say that all these awards resulted from a team effort—people in our sales, production, PR and environmental departments all worked together to achieve them.

Matsushita Electric Corporation of America (MECA) has won ENERGY STAR awards six consecutive years since 1999, with more than 400 products earning the ENERGY STAR label. The company's ENERGY STAR lineup includes models in 14 product categories—leading all other manufacturers in the program. Three pioneers in Matsushita's ENERGY STAR efforts collaborated across the ocean to make this happen.

Teamwork for an Environmental Brand

Energy Star Award Winner for Six Consecutive Years

Matsushita has won an ENERGY STAR award each of the last six years, picking up honors in the ENERGY STAR Home Electronics Holiday Campaign in FY'03.



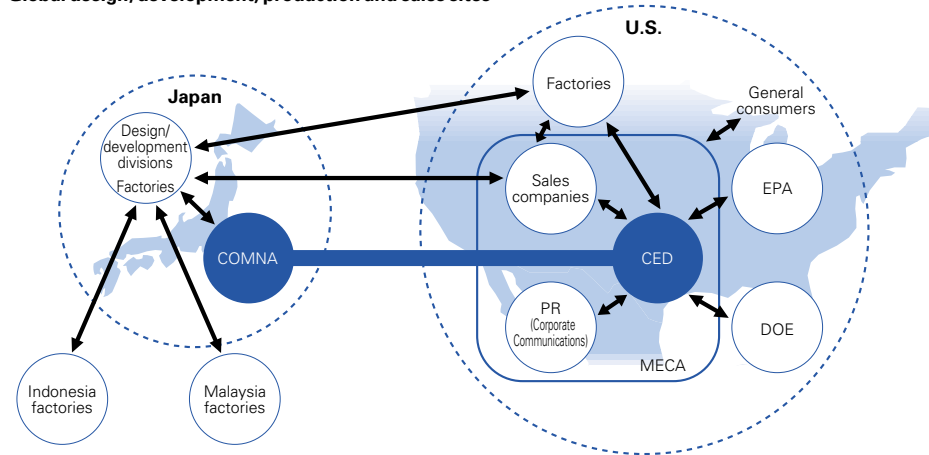
The ENERGY STAR label, a symbol for energy efficiency, was created by the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) to help customers identify products that can save them money and protect the environment by saving energy. Products conforming to the program's power consumption and other standards can carry the Energy Star logo. The categories range from computers and display monitors to TVs, telephones and even buildings. With more than one billion ENERGY STAR products already sold in the U.S., the Program has proven its success.

 www.energystar.gov/

ENERGY STAR as a Driving Force

David A. Thompson, Director of the Corporate Environmental Department (CED) of Matsushita Electric Corporation of America (MECA), has been leading Matsushita's environmental activities in the U.S. from the beginning. "We faced various requirements in the early 90s and realized that we must be proactive rather than simply reacting," said Thompson. "I came to think that our environmental activities could enhance our brand image and could benefit our sales activities." Around the same time, the EPA was considering an expansion of the ENERGY STAR program to cover consumer electronic products, in addition to information technology and office products. Thompson took this opportunity and set ENERGY STAR as a key environmental activity with the goal to establish an eco-conscious brand image. Mark J. Sharp, who joined CED in 1996, actively participated in the development process of the ENERGY STAR specifications for CE products including a two-year period to finalize a specification for TVs and video products. Cooperation with manufacturing divisions was crucial but they were under severe pressure to cut costs and some saw ENERGY STAR as an extra burden, according to Sharp, so "it took some time for everyone to fully appreciate" the value of the program. On the other hand, Matsushita had already been developing products with

Global design/development, production and sales sites



Success depends on cooperation among sites around the world. Teamwork and communication are the lifelines of a global enterprise.

Products meeting Energy Star standards

Item	No. of models
TVs	135
VCR/DVD players	24
TV-video combo units	44
Audio/visual devices	85
Telephones	32
Air conditioners	14
Digital imaging systems	14
Copiers	3
Fax Machines	18
Printers	5
Laptop PCs	32
Scanners	6
Compact Fluorescent Light Bulbs	15
Ventilation fans	18
Total	445

(as of March 8, 2004)

relatively high energy efficiency so working with ENERGY STAR was a natural fit. As the sales of covered products increased, sales managers realized the importance of ENERGY STAR and approached Sharp about the possibility of program expansion. Sharp continued to work with EPA to develop specifications for other categories like Compact Fluorescent Light Bulbs. The subsequent ENERGY STAR label has helped boost sales, with ventilation fan sales up 287% over the last three years compared with the previous three-year (pre-ENERGY STAR period). Today, Matsushita markets more than 400 ENERGY STAR qualified models across 14 product categories.

Teamwork across the Pacific

As the product categories expanded, more divisions became involved. Manufacturing divisions are located in various countries and it is hard to find who is the right person with whom communicate. "Breakdown over the Pacific," jokes Hiroko Nagaki of the Corporate Management Division for North America (COMNA), reflecting on those days. She offered to assist in collecting information from R&D and manufacturing divisions throughout the world. The ENERGY STAR activities accelerated with her coordination. "Many of these fruitful results could not be achieved without Nagaki," both Thompson and Sharp say. Her work was also well received by product design divisions who thrive on timely information. "It was not just because of the language problem, but the difficulties of communication between people of various functions," says Nagaki. The teamwork displayed by many divisions is bolstering Matsushita's environmental brand image.

Stepping up Partnership with Society

By 1999, Thompson decided to apply for the ENERGY STAR Partner of the Year Award, as a way to enhance Panasonic as an environmental brand. With various divisions rallying around the three, MECA entered the contest and won it on the first try, and has now won six consecutive times. "ENERGY STAR is not a regulation or law but a voluntary program in partnership with the U.S. EPA and Department of Energy. It is essential that every one of us, customers, government and each division cooperatively promote the program," emphasized Thompson. In FY'03, MECA was recognized for shipping ENERGY STAR informational pamphlets with more than 1.4 million TVs, phones and other products. David Garman, Assistant Secretary for Energy Efficiency, DOE, writes that "ENERGY STAR partners" are testament to how effectively

the public good and private interest can dovetail, and just how successful ENERGY STAR partnerships can be in the hands of motivated and creative individuals." Matsushita is a global company that makes and markets products throughout the world. What sustains a global company is teamwork that transcends division, country or region. Such teamwork with society becomes the driving force to make society sustainable.

David A. Thompson

Matsushita Electric Corporation of America (MECA)
Corporate Environmental Department

Matsushita has a very highly-minded corporate philosophy. That is all the more reason we can promote environmental activities proactively and with foresight. I hope that our customers and government will see our ENERGY STAR accomplishments as a good example of how to address other environmental challenges.



Mark J. Sharp

Matsushita Electric Corporation of America (MECA)
Corporate Environmental Department

Saving energy has recently catapulted into people's consciousness. As a consumer of energy, one easy way to help conserve is to purchase highly energy efficient electronic products. Panasonic products carrying the ENERGY STAR logos for energy efficiency make this an easy choice that brings great benefits to our environment.

Hiroko Nagaki

Corporate Management Division
for North America (COMNA)

Nothing is really concrete, but I am hoping to launch Internet sales of environmentally conscious products someday in the U.S. I am also encouraged by my 10-year-old daughter telling me that she wants to work to protect the environment when she grows up.





Tetsuro Homma holds a 1 GB SD Memory Card that Matsushita recently introduced to the flash memory card market. A steady increase in memory capacity for these cards, following its product development roadmap, has boosted the popularity of this product.

When Matsushita introduced its first SD Memory Card in 1999, several major companies were competing intensely for market share. Although Matsushita was latecomer to the market, two supervisors approached the challenge by seeking to design a product that could be used easily by anyone, including even the elderly and children.

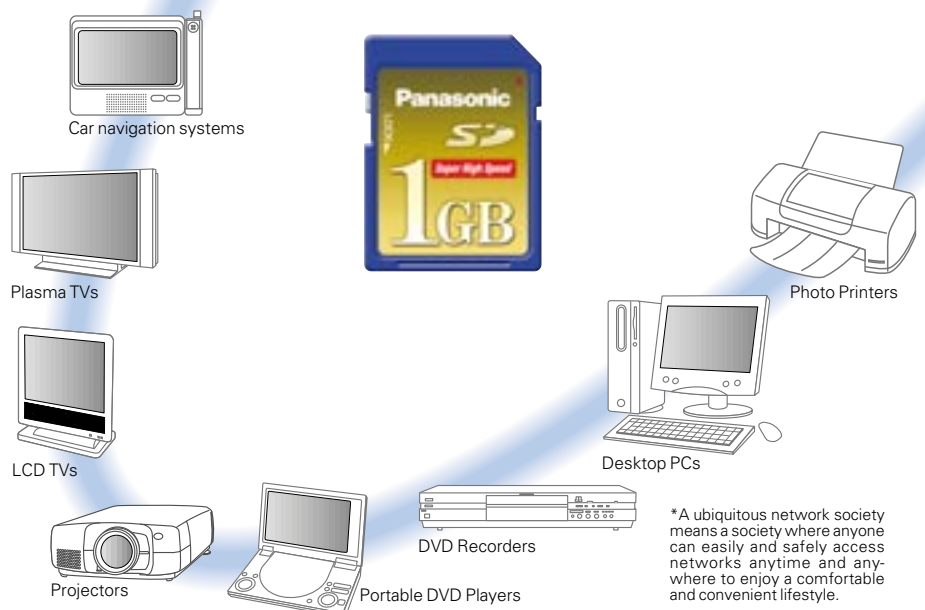
User-friendly Ubiquitous Networks*

SD Memory Cards: Born from the Spirit of Contributing through Electronics.

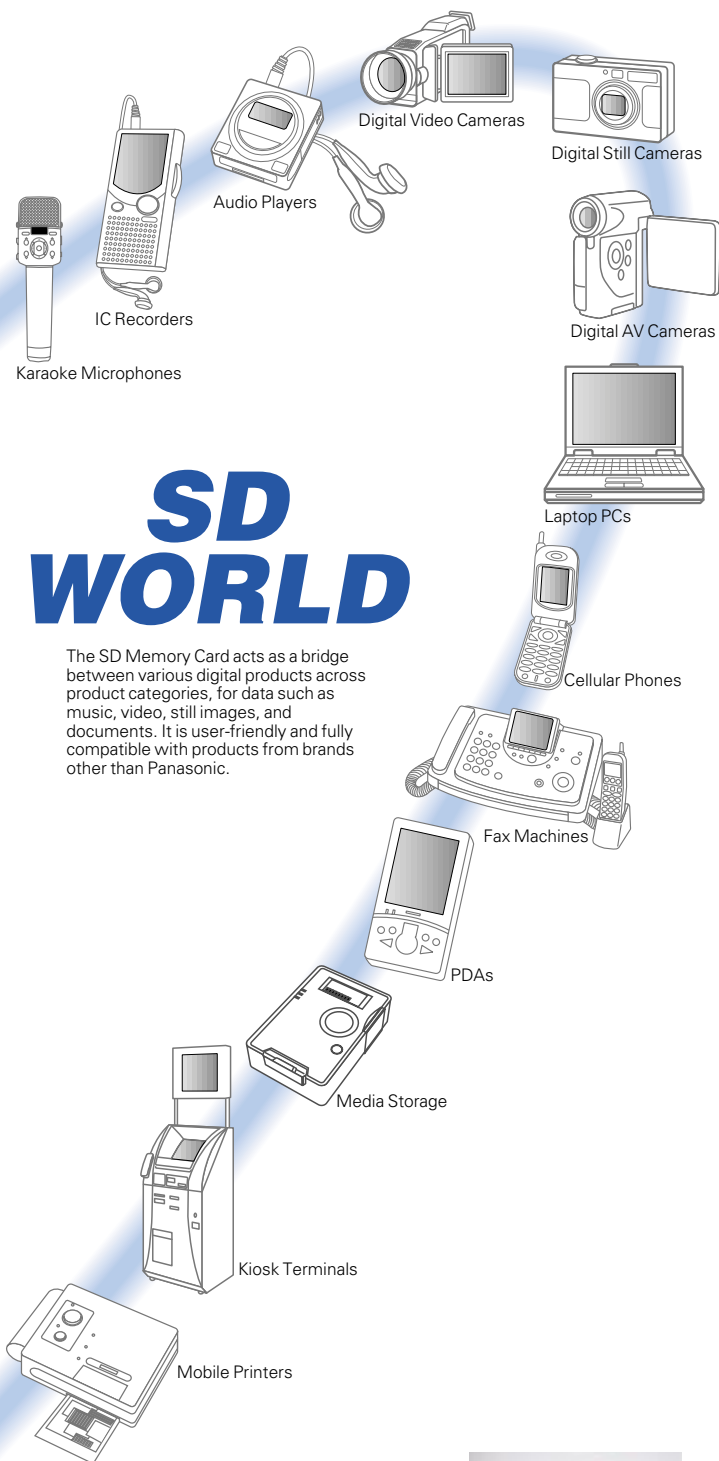


Tetsuro Homma
SD Solution Group
Panasonic AVC Networks Company

The compatibility of specifications among various brands and product categories is an important factor for market success. To achieve this, when formulating SD application specifications we made it a top priority to promote an "open development environment" within the SD Card Association (SDA), which formulates and drafts specifications for acceptance by member companies. This is a challenging task, given the different positions of each member company. But this cooperative approach is completely consistent with Matsushita's Basic Business Philosophy, and we are comfortable with it.



*A ubiquitous network society means a society where anyone can easily and safely access networks anytime and anywhere to enjoy a comfortable and convenient lifestyle.



SD WORLD

The SD Memory Card acts as a bridge between various digital products across product categories, for data such as music, video, still images, and documents. It is user-friendly and fully compatible with products from brands other than Panasonic.

Hisao Sakamoto

Mobile Server Development Center
Panasonic AVC Networks Company

What's good about doing the SD Card business is that I could get to know so many people from many different companies through my job. Human connections like these are the greatest asset. When we talk about a "networked society" maybe it means such a thing, unlike what many people imagine. After all, people need to be connected before products are connected.



The Battle Over Recording Media

When Matsushita entered the memory card market, there were formidable memory card formats, namely Compact Flash, Smart Media, and MemoryStick. In some product areas "de facto standards" eventually emerge, but a memory card format will not survive unless many host devices adopt that card's format. Matsushita was inevitably at a disadvantage as a late entrant into the market. Launched in August 1999, the future of SD Memory Card was not guaranteed.

Open Standard Supported by the All SDA Member Companies.

The SD format today is outperforming other memory card formats and has the top market share worldwide (March 2004), despite being a latecomer. What kind of strategy was implemented to achieve this? Homma says his top priority was to increase the number of people who use the SD Memory Card. In cooperation with Toshiba and SanDisk, Matsushita established an open standard formulated by the SD Card Association (SDA), which is open to anyone to join. Membership continued growing, to 690 companies worldwide by December 2003, making it the largest standardization consortium in the flash memory industry. Matsushita is just a member like any other, with one vote and no special privileges. Hisao Sakamoto, who is heavily involved with the SDA, says it is a truly democratic body. Members meet once a year to address compatibility issues among products from each company. With about 150 people in attendance, these meetings bring together both partners and competitors. Some bring in products still under development, so it can be a sensitive situation. Homma says, "The reality is that some product users would like to view photos on a Panasonic TV, taken by a digital camera that may be made by another company, right? Maintaining the inter-operability between the two products from different brands, in effect, enhances the attractiveness of both products." In this consortium, participants may be competitors, but at the same time they are allies who share the common objective of promoting the SD Memory Card.

Copyright Protection Comes as a Standard Feature

Copyright protection is a standard feature of SD Memory Cards. Many formats do not have this feature, or some offer two versions (with and without the copyright protection function) because of the additional cost associated with the technology. However, Homma and Sakamoto both believed that the function will be an indispensable feature sooner or later, and promoted this feature as a standard specification. Indeed, the copyright protection function has been growing more important recently. The additional cost can be minimized by Matsushita's technological innovation in LSI. To explain the rationale for his approach, Sakamoto says, "if you have one card with copyright protection and the other without it, it's confusing, isn't it?"

Easy-to-use for All Ages

Another interesting feature is the write-protect switch. Homma notes, "It's just like the tab of a cassette tape. It's self-explanatory." This changes the stereotype image of memory cards. When Homma and Sakamoto developed the cutting edge memory device, one criterion for the product feature was whether the feature was "simple" or "complicated." During product development, they imagined even the elderly and children using the card. That was a key point. Many people are already accustomed to using cassette and video tapes, but now the memory medium has evolved into stamp-sized cards. Users can use digital data just by inserting a pre-recorded memory card into a memory card slot. Homma believes that "the goal of SD Memory Card business is to create a society where we can bridge various digital information across numerous SD slots around us without complicated operations. This is the first step to realizing a society where digital connectivity is ubiquitous." Users can easily carry SD Memory Cards around with them, and their usage is very intuitive. Homma and Sakamoto are concentrating their competence and skills to bridge the "digital divide" between those who are comfortable with using digital devices and those who are not. They say that "we're after all a consumer electronics manufacturer," referring to the Matsushita ideal of contributing to customers and society by providing electronic products. This spirit is the driving force that helped the SD Memory Card win amid intense competition and become the most popular memory card format in the market.

President Masaru Maruo of Panasonic AVC Networks Kuala Lumpur (Malaysia) Sdn. Bhd., with Assistant General Manager, Babe Azaman Ahmad. Maruo's open and frank personality is one of the reasons behind the success of innovation. Behind him is the chassis line, which was cut to 25m from the original length of 100 m.



An employee from a rival company made a harsh comment when he entered the TV factory: "How nostalgic. This looks just like our factory five years ago," suggesting that Panasonic AVC Networks Kuala Lumpur Malaysia (PAVCKM)'s operation is five years out of date. Maruo felt indignant and his blood boiled at this remark made in 2001. The factory had been admired as a world leader in the early 1990s; what had happened since then?

Innovation Motivated by All Employees

The TV Factory that Learned from Others to Change Minds and Behavior Onsite



Masaru Maruo

President
Panasonic AVC Networks Kuala Lumpur
Malaysia Sdn. Bhd.

In marketing, no matter how dedicated I am, in the end a lot depends on the customer. Manufacturing is very different: once you decide to do something and act on it, the result totally depends on what you do yourself, which is what makes it so interesting.

Babe Azaman Ahmad

Television Assembly Department
Panasonic AVC Networks Kuala Lumpur
Malaysia Sdn. Bhd.

We tried so many different things. We'd make mistakes and we'd change something. Even now I wonder, isn't there a better way?



A Leading Factory Starts to Lose Money

PAVCKM enjoyed a period of strong growth since it started production in 1989, so much so that in 1995 it manufactured two million TV sets and generated a 5% profit. PAVCKM, however began to shrink during the Asian currency crisis, producing fewer than 1.5 million units in 1999. PAVCKM transferred production of several models from Japan to fill the gap, a move that actually created more chaos. PAVCKM was unaccustomed to the new models, and therefore suffered quality issues and missed delivery deadlines. The company posted a loss in FY'00. Masaru Maruo, who was Corporate Planning General Manager in Japan at that time, was transferred to Malaysia to deal with the situation. No one was more astonished than he. "I'd spent my career in marketing and planning, then suddenly I was forced to work in an overseas production plant."

Learning from Other Businesses

Upon being appointed the President of PAVCKM in April 2001, Maruo focused first on the number of models in production. The 65 models produced in 1995 had grown to 112, and 90 of those were built at a rate of less than 300 sets per month. The lines were changed about eight times a day, during which time 70 workers on 280 meters of line sat idle. The equipment was not well suited to small-lot production of a wide variety of models.

To solve the problem, Maruo looked outside. "I had no factory experience, so we made visits to other companies' factories." Having once worked in OEM sales, Maruo had no qualms about learning from others. To see was to believe. Babe Azaman Ahmad, assistant G.M. of assembly, reflected on the shock they experienced: "We had always thought we were number one, but we discovered that we had lagged behind." Mitsuyuki Tsutsui, head of Industrial Engineering, adds, "Competitors had changed things that we had not. It gave us a lot to think about." PAVCKM invited other companies' personnel to visit in return. One of those visits produced the caustic comment noted at the top of this column. Another criticized, "If it were me, I'd cut the line length in half within a week." Employees will always remember the sting of such comments.

Cutting the Conveyor Belt

Innovation began with a showy ceremony. The impetus was an NHK program, "Break the wall of commonsense," that discussed factory innovations implemented by Japan's electronics manufacturers. Azaman gathered more than 100 local staff members together to witness the breakdown. Everyone understood PAVCKM was in the same critical situation as the factories shown in the program. When they saw a consultant detach a conveyor belt, many said, "Great! We should try that!" Maruo did just that, ceremonially cutting a conveyor belt to signify the start of reform. Initially, they changed to a long line consisting of seven workers in a "cell." Unlike a long line, a cell needs only a few workers. A cell of four workers was able to accomplish as much as the earlier seven, while reducing the space to half. Because products moved less, they sustained 30% fewer scratches. The experiment in building large, heavy TVs without a belt was a success. Production lines previously 280 meters in length shrank to a mere 60 meters and all processes were consolidated to a single floor. They broke all the conventional notions of commonsense one after another.

Staff Unity: Another Driving Force

Maruo's consistent and strong will that "we will again be number one" undoubtedly was the key to this innovation, but that alone did not get the staff of more than 1,600 moving. When production of the TV components, called flyback transformers, began in Malaysia, there were frequent quality problems. Seiji Tanaka, charged with dealing with those situations, responded to complaints with a note saying that "our staff is working in unity to deal with the problem." Maruo asked him one day, "What do you mean by that?" After working for a year to eradicate defects, Tanaka knew the answer to that. "Real unity is when everybody from top to bottom recognizes each defect, and fulfills his or her assigned role to deal with it. If we do that, we can solve any problem." Tanaka's effort to turn component assembly processes into cells had achieved high productivity and this became the model for cell production for the finished product assembling line. The system penetrated the factory because it enabled what Tsutsui describes as "do-it-yourself innovation."

On to New Targets

The result was impressive in terms of figures: production floor area and in-process inventory declined 30%, production lead time fell from 14 days to 5, and the production system became more flexible. Matsushita's CCM business index went into the black for the first time in six years. But Maruo says, "there was still room for improvement. We will be the mother factory for CRT TVs and should support other factories." So he set new goals. "None of us can do anything alone; progress is made only through the strong will from each of us. When you have both cooperation and the will, then you can get things done." The staff is responding to Maruo's will with greater unity behind the ongoing innovations taking place in Malaysia.



Seiji Tanaka

FBT Production Department
Panasonic AVC Networks Kuala Lumpur
Malaysia Sdn. Bhd.

The new cell-based production system is suitable for conditions in Malaysia. The cell production requires the manual to be rewritten. It's not easy of course, but once it's accomplished we will be able to manufacture the strongest products.



Tanaka (right) oversees the assembly of flyback transformers, a key TV component. Cell production has led to higher productivity.



Tsutsui is presently in charge of preparing for the new production of digital high-definition TVs. The space it uses was opened up through earlier innovation efforts.

Mitsuyuki Tsutsui

Production Engineering Department
Panasonic AVC Networks Kuala Lumpur
Malaysia Sdn. Bhd.

In the past, manufacturing systems meant installing large production equipment and robots, all of which was carried out by mechanical experts. We've done the opposite. Now everyone can innovate.



President Akihiro Harada holds a "Matsushita-Juku" to explain Matsushita's management philosophy to its employees. Using a textbook filled with the ideas of the founder, Konosuke Matsushita, the sessions have continued on a monthly basis and provide an opportunity to exchange opinions with employees.



The questions come flying: "Why do we try to make a profit?" President Akihiro Harada began the "Matsushita-Juku" to create a system and atmosphere in which Czech employees could challenge themselves, but the initial differences in values were confusing. After three years, however, his ideas have borne fruit in an East European car audio factory which was founded on Matsushita's strong management philosophy and enjoys continued growth.

Cultivating Matsushita's Spirit in Europe

Fostering Human Resources at a Czech Car Audio Factory



Akihiro Harada

President
Panasonic Mobile & Automotive Systems Czech, s. r. o.

By dealing with the stringent demands of auto manufacturers, we began to take pride in being a global car audio manufacturer. The European market continues to grow, and PMACZ employees have the capacity to grow with it.

School Begins with "Sense of Incongruity"

After a long history of communism, the Czech Republic began its transition to a market economy after the 1989 revolution. Matsushita established its car audio manufacturing base, Panasonic Mobile & Automotive Systems Czech, s. r. o. (PMACZ) in 2001. In his previous posting, President Akihiro Harada learned that there is often a big gap in the way that Japanese and local staff members think. Believing in the importance of sharing the management philosophy with employees, he started the "Matsushita-Juku*" to teach this philosophy to members of the management class once a month. Having lived for so long under communism, however, employees couldn't comprehend Matsushita's management philosophy at all. Milos Padera, later a leader in school activities, confides, "I remember feeling a sense of incongruity at first."

*Juku: small school

Management Philosophy: Practical Thinking

The school began by having everyone read a chapter of a book describing the founder, Konosuke Matsushita's ideas. Harada then explained the passage based on his own experience, and employees discussed their ideas. They were often skeptical, not sure what a "Reasonable Profit" was, or uncertain why "Dam-style Management" was necessary, but gradually came to understand these ideas. Padera says, "We looked at problems that had actually happened and discussed what we should have done about it, and I began to realize how practical the management philosophy is."



Padera (right) says that after learning about Matsushita's management philosophy, he wants to pass it on to other Czech employees.

Milos Padera

Production Manager
Panasonic Mobile & Automotive Systems Czech, s. r. o.

My goal is to see PMACZ known as one of the best Matsushita Electric Group companies in terms of products, development, human resources and teamwork.



Investing 100 Million Yen in Employee Training

Improving skills and knowledge is a big part of improving quality. Accordingly, Harada has prioritized training for PMACZ's production staff. Under the firm's Certified Supervisor Training, production line team leaders set quality and productivity targets and spent as many as nine months in practical training. Success leads to rewards such as promotions. The company is introducing skill training and certification systems for workers in jobs such as soldering and applying screws. An investment of about 100 million yen went into such training over a three-year period. Ordinarily it is hard to put a monetary value on the benefits of such training, and thus PMACZ has invented an indicator called Human Resource Value (HR Value). This indicator demonstrates the value of the company's human resources for each employee. Practical training and an assessment system that is easy to understand have been raising both employee skills and motivation.

"Czech Employees Have Really Changed"

That is how Panasonic Automotive Systems Europe GmbH (PASE) described its "little brother" company PMACZ. The numbers are also a sign of PMACZ's success. As the company's HR Value has risen, its loss cost ratio has fallen. Harada believes that "It is possible to fully recover our 100 million yen investment." Padera says the added HR Value has made warehouse control more precise. IT Manager Coufal finished his nine-month training and rose to become an Assistant General Manager. He now oversees the core production system for both PMACZ and PASE. PMACZ's quality has earned praise and its products are being shipped to more places. Production capacity rose from 500,000 units in FY'02 to 1.2 million in FY'03.

Overcoming Cultural Barriers

Shuichi Ikeda, who took over "Matsushita-Juku" and expanded it to include employees in lower positions, notes, "The Czech Republic is so far from Japan, but I look forward to discovering that Matsushita's management philosophy works here, too." He adds, "Now employees point things out to us that take us by surprise. I think they are proud to be members of Matsushita." Padera states, "I want to get over the cultural barrier and convey Matsushita's management philosophy to our Czech employees. Czechs tend to be individualists. But I learned from the management philosophy that work, society and individuals are all connected. That is a refreshing way to think." He also says that dealing with auto manufacturers' demands has taught him the importance of the notion that "the customer comes first." He likes the phrase "contribution to society," which is embedded in the management philosophy. He senses that "as Matsushita makes a profit in the Czech Republic, it contributes to society through its business." On May 1, 2004, the Czech Republic became a member of the European Union. This means that this country is becoming increasingly important to Matsushita's European operations. Harada envisions a company where, in the future, "Czech employees can manage the company on their own." The idea of a company contributing to its native country's prosperity is bound to come true if founded on the strong management philosophy.



Matsushita-Juku and other forms of training have paid off, and the number of our auto manufacturer clients is steadily rising.

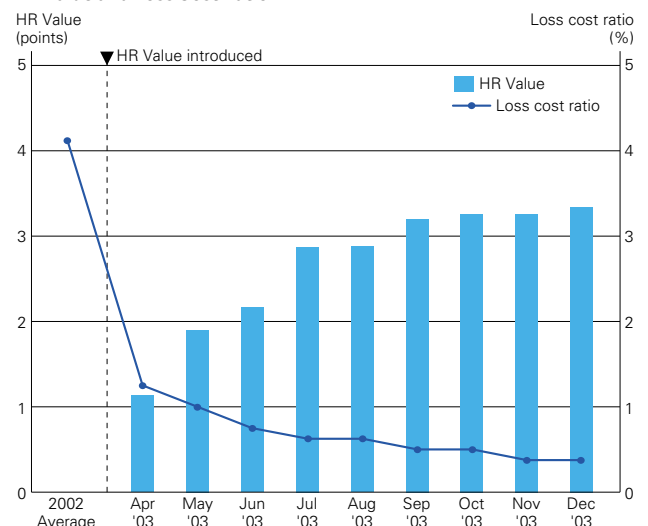


Shuichi Ikeda

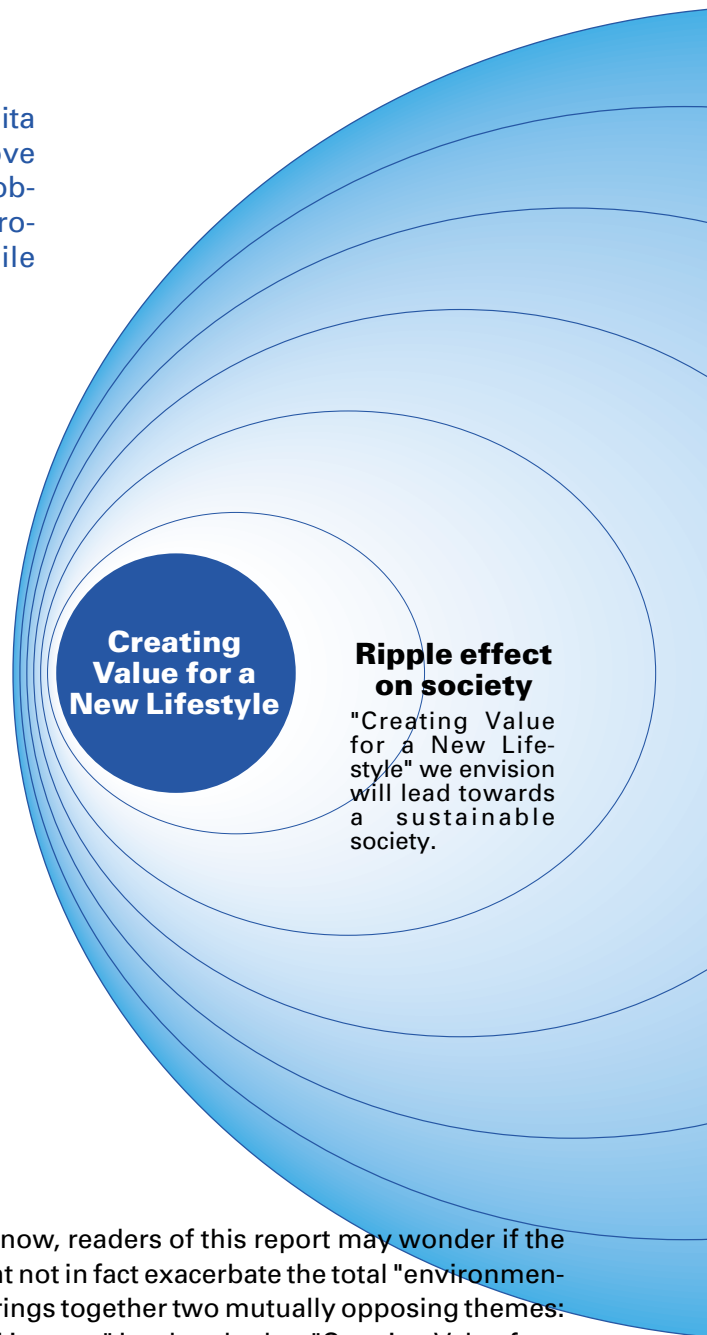
Finance General Manager
Panasonic Mobile & Automotive Systems Czech, s. r. o.

In school activities, employees are actively expressing their own ideas. Occasionally their sharp opinions motivate me.

HR Value and Loss Cost Ratio



"Creating Value for a New Lifestyle" is what the Matsushita pursues by providing products and services that improve the quality of life, while minimizing the impact on the global environment. In order to achieve this goal, we offer products and services that improve the quality of life while minimizing environmental impact.



While home appliances are more environmentally conscious now, readers of this report may wonder if the increasing number and size of such products in the home might not in fact exacerbate the total "environmental impact." The "Creating Value for a New Lifestyle" concept brings together two mutually opposing themes: improving the "quality of life" and minimizing "environmental impact." It asks whether "Creating Value for a New Lifestyle" is possible in the household. Matsushita has run simulations on about 150 products to find the information necessary to answer this question.

"Creating Value for a New Lifestyle"

Simulating "Creating Value for a New Lifestyle" for a Household

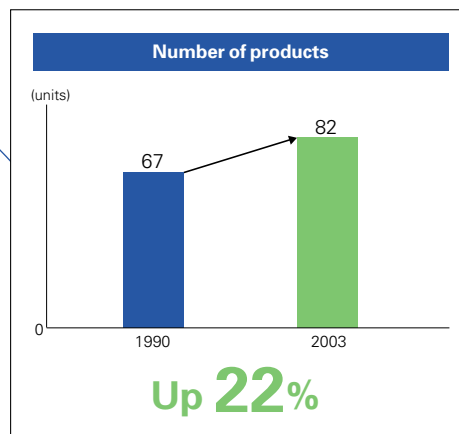


Panasonic Environmental Forum 2003, held in November in Ariake, Tokyo, gave visitors a look at "Creating Value for a New Lifestyle" simulation results as well as some product models. Along with seminars, a number of displays of environmental technology supporting Matsushita's environmentally conscious products were available. This was the first forum open to the general public and was attended by some 4,100 visitors, including Minister of the Environment, Yuriko Koike.

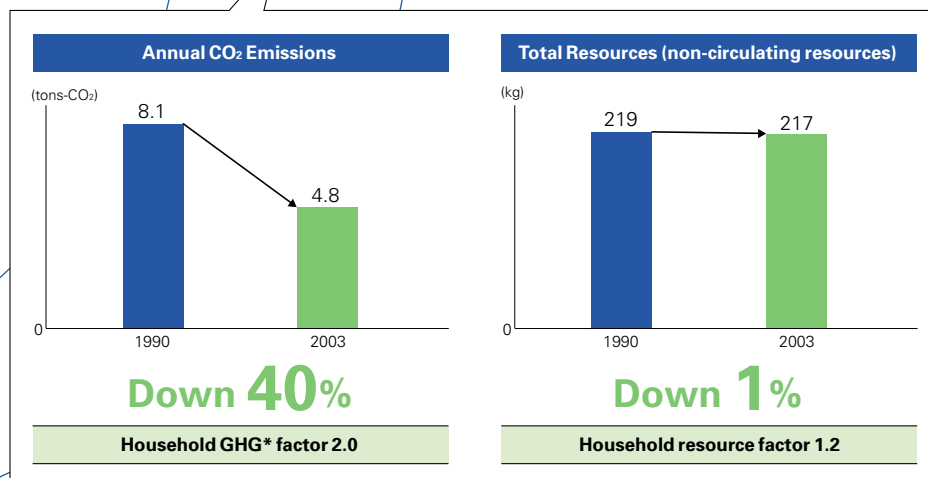
The "Creating Value for a New Lifestyle" Indicator

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Improvement in quality of life
Minimization on environmental impact



For this simulation, Matsushita defined a household's "quality of life" as the number of products under one roof in keeping with the belief that its lineup of new home appliances reflect society's changes and thus enhance lifestyles.



"Environmental impact" is defined as the CO₂ emissions (including GHG*) over the entire life-cycle and total non-circulating resources for each product. Dividing this impact by the years of a product's life and then adding up all categories eliminates the influence of different product lives.
*GHG: greenhouse gas

"Creating Value for a New Lifestyle" Simulation Results

Goal To study changes in "quality of life" and "environmental impact" in 1990 and 2003 for Matsushita products used throughout the household to determine whether this is contributing to "Creating Value for a New Lifestyle."

Lifestyle Model

Family and Home Four-member, three-generation household with grandmother (70), father (40), mother (37), and daughter (10). While no changes were made in family structure, for 2003 it was assumed that the father worked at home one day a week. The family was assumed to live in a two-story, single-family home with three bedrooms, a living room, dining room, kitchen and Japanese-style room with a total area of 136.9m² (average for Japan).

Home Appliances For 1990, the household products were assumed to be the latest models of products with high penetration rates. For 2003, to reflect social changes, the household products were assumed to be the latest products recommended by Matsushita regardless of their penetration level. Additionally, the simulation reflects the increasing number and size of products in use.

Overview of Results The number of home appliances used in the household increased 22%, bringing the family into the information age and enhancing health and comfort—in other words, improving the "quality of life." At the same time, these products are minimizing "environmental impact" because they help prevent global warming and use resources more effectively. Therefore, we have made progress in "Creating Value for a New Lifestyle." Expressed as Factor X (page 32), the indicator of "Creating Value for a New Lifestyle," the results are a household GHG factor of 2.0 and a household resource factor of 1.2.

How Has "Quality of Life" Changed?

The number of products, our basis for assessing "quality of life," rose 22% from 67 to 82 products. Product models were increasingly oriented toward information technology and health care, and existing products became larger and added more functions, suggesting that consumers have gained new value in many aspects of their lives.

Lamps and Air Conditioners

Compact fluorescent light bulbs were used in place of all incandescent lamps. Oil fan heaters and electric fans were replaced with air conditioners, and the number of such products was increased by two.

Living room

Plasma TVs provide consumers with excellent image quality on the big screen. DVD recorders replaced video recorders, making the move from analog to digital.



Study/Home Office

As more people work at home, PCs replaced word processors, digital telephones replaced analog, and mobile telephones have become widely used. Fax machines and digital cameras have also become more popular.

Kitchen

Refrigerators are using non-harmful hydrofluorocarbon (HFC)-free refrigerants, and capacity has risen from 410 to 458 liters. Gas cooking appliances gave way to IH cooking heaters, while heat pump water heaters using natural refrigerant (CO₂) replaced older water heaters. New appliances include an alkaline ion water purifier, dishwasher and household-use kitchen waste processor.



Utilities

Automatic washing machines are now integrated with dryers, and an electric bidet with shower is installed in the bathroom.

How Has "Environmental Impact" Changed?

Prevention of Global Warming

The household CO₂ emissions declined 40%, from 8.1 tons to 4.8 tons, even as household products grew in number, size and functionality. This suggests that when consumers replace their products with the latest energy-efficiency products, these reduce the home's overall energy consumption and play a major role in preventing global warming. Products that particularly conserve energy include compact fluorescent light bulbs, hydrofluorocarbon (HFC)-free refrigerators, heat pump water heaters, air conditioners and electric pots.

With three categories of products in particular—air conditioning, refrigerators and lighting—that account for about 56% of energy consumption in the home (according to the ECCJ's Handbook for the Rational Use of Energy, which applies to Japan), replacing 10-year old models with the latest models greatly reduces energy consumption by about 29%.

Effective Use of Resources

The 22% rise in the number of products caused resource inputs for each household's products to rise 13%, but total life-cycle non-circulating resources (i.e., the volume of resources newly extracted and used only once before being thrown away) declined 1%, from 219 to 217 kg, largely limiting the increase in resource inputs. This is in part due to the active use of reused and recyclable materials in the four products subject to the Home Appliance Recycling Law (TVs, air conditioners, refrigerators and washing machines), and in part due to smaller and lighter products as consumers switch to digital.

Products Highly Effective in Reducing CO₂ Emissions



Compact fluorescent light bulb EFA13EL
Vs. an incandescent lamp
78% reduction



Air conditioner with oxygen supply function CS-X284A
Vs. 1990 product
55% reduction



Heat pump water heater using natural refrigerant (CO₂) ECO CUTE™ HE-37K1QLS



Hydrofluorocarbon (HFC)-free refrigerator NR-F462U
Vs. 1990 product
77% reduction

Further Development

The household simulation described above was a first trial, but the results have been very informative. Matsushita believes that such simulations will make it possible to increase the "quality of life" (defined as an increase in products owned) while reducing "environmental impact" (as evidenced by the prevention of global warming and the effective use of resources).

The results suggest that energy conservation designs are not only effective for the product itself but very effective for the household as a whole. Matsushita will step up its efforts by actively reusing materials and expanding recycling designs for the effective use of resources. We look forward to further advances in "Creating Value for a New Lifestyle" for the household.

The Story of Developing "Factor X"

How Does One Measure "Creating Value for a New Lifestyle"?

Taeko Aoe of the Corporate Environmental Affairs Division, which created the Factor X indicator introduced in this page, laughs, "It was a somewhat reckless undertaking!" Factor X is a measure of the amount a product is "Creating Value for a New Lifestyle." Matsushita calculates "Creating Value for a New Lifestyle" by dividing "product/service value" by "environmental impact." This concept makes it easy to assess and understand both increases in product functionality and reductions on "environmental impact" in a comprehensive way. How could that be reckless?

Aoe comments, "From the very beginning Matsushita has pursued product functionality, but this had never been quantified." For example, suppose there are two TVs. It is easy to compare simple numbers, like screen size, but it is a much more complex task to measure products in total. What if a TV has a good picture, but poor sound; how do you measure which has the greater product functionality? When one looks at not just picture and sound but "functionality" in general, the points of comparison are endless.

Assessment from Customer's Point of View

So how does one quantitatively measure function when that term covers so much? Members working on devising the new factor attacked this problem directly. They made sure it was the customer's point of view they were using. Yuichi Matsuoka, a TV designer, says that looking at a few predetermined items and saying, "We improved it this much" would be easy, "but that would be a one-sided statement and would do little to satisfy the customer." For TVs, members developed a technique to quantify approximately 50 items found in catalogs. Washing machine designer Moriki Fukuda did not even include washing power as an indicator. "It's a meaningless question, because greater washing power means more damage to clothing," he says. He chose to assess drying function using the price of a stand-alone dryer, because "it's easy to understand, if you put everything in monetary terms." Each member considered the options, asking themselves what kind of assessment would be most convincing for each product. The result was a measure that defined the functions users demand as equivalent to the function that the manufacturer strives for.

Seeking to Provoke a Debate

"Function" is not an easy idea to handle, however, recently, members have been wrestling with the concept of universal design. An example is the popular Tilted Drum Washing Machine that can be easily loaded and unloaded by children and people in wheelchairs. Fukuda notes, "This is completely different from the washing function." He says that he still has not figured out how to quantify such functions. Universal design is treated as a single idea, but it includes



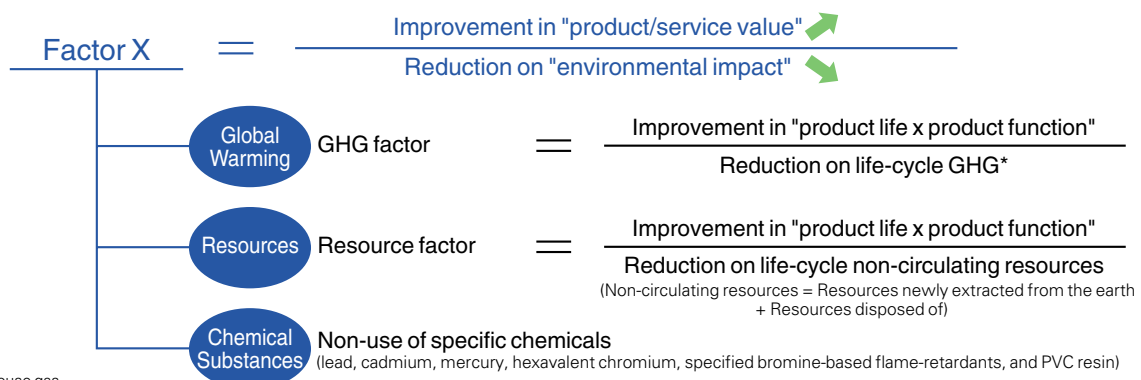
From the left, Moriki Fukuda (Matsushita Home Appliances Company), Yuichi Matsuoka (Panasonic AVC Networks Company), Taeko Aoe (Corporate Environmental Affairs Division)
The three are core members and leaders of the indicator project.

many elements, such as usage, color and size. Matsuoka points out the issues that come up with TVs: "What is universal design? Ease of viewing? A remote control that is easy to use? How do you assess these things?" Even during their interview, these members got into a lively argument over the universal design concept. "But provoking debate is the very thing which makes this indicator so valuable," says Aoe, "and I hope this debate will lead to revolutionary products."

Creating a Global Standard

As the interview continued, I became overwhelmed by their deep, even philosophical argument. These professionals are devoted to using "the Customer's Perspective," backed up by product assessment results and a mountain of LCA data. They are not simply playing with numbers. Aoe says, "What is 'Creating Value for a New Lifestyle'? What products should we make to achieve a sustainable society? What lifestyles do we want to offer our customers? These are the questions we must answer." These questions concern us all. Aoe adds, "This indicator is also a tool for communicating with society." When Matsushita uses an indicator to express the functions it hopes to achieve, it encourages users to offer their opinions. The three all emphasize, "We have just begun this process, so some failures in assessment methods are to be expected. We will keep trying and will create a better indicator." Eventually, they hope to create a global standard. The universal use of Factor X as a measure can bring us closer to a sustainable society.

Factor X: Indicator of "Creating Value for a New Lifestyle"



*GHG: greenhouse gas

Financial Performance

In order to continue fulfilling our social responsibilities, a sound financial structure is essential. In FY'03, Matsushita aggressively launched an array of "V Products" onto the market stepped up measures aiming for further growth, thereby achieving increases in both sales and profits.

Note: Each FY indicates the fiscal year beginning from April 1 of the year mentioned to March 31 of the next year. This notation is different from which is in the Annual Report.

Overview of FY'03

Matsushita designated FY'03 as the year we would "re-declare" our founding and pursue integrated group-wide initiatives to achieve further growth. To be more specific, we have launched a new series of competitive "V Products," particularly those in the digital AV area, to maximize both sales and profits. We also positioned the "Panasonic" brand as a globally unified brand under the slogan, "Panasonic ideas for life," to enhance brand value. Meanwhile, Matsushita continued to carry out restructuring at various business domain companies to strengthen our overall management structure.

As a result of these strenuous endeavors, Matsushita saw solid sales of digital AV equipment, such as flat-panel TVs and DVD recorders, automotive electronics, and cellular phones in the AVC Networks segment, washing machines, dishwasher/dryers, ventilating fans in the Home Appliances segment, system LSIs in the Components and Devices the segment, and FA equipment in Other segment. These and other initiatives resulted in consolidated net sales of 7,479.7 billion yen, increased 1% from a year ago, operating profit of 195.5 billion yen, income before income taxes of 170.8 billion yen, and a net income of 42.1 billion yen.

The "Leap Ahead 21" Plan

Matsushita is now committed to the mid-term (three-year) management plan "Leap Ahead 21," which covers the period from FY'04 to '06.

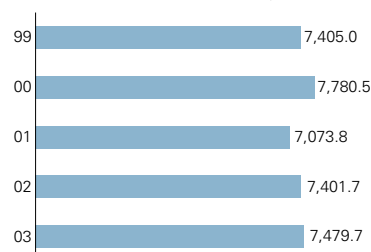
As part of our "Leap Ahead 21" plan, we are aiming to evolve into a "Customer Value Creation Company" in 2010 by achieving a twin business vision: contributing to "Realizing a Ubiquitous Networking Society" and "Coexistence with the Global Environment" through our cutting-edge technology. As a milestone, we aim to secure our growth track by achieving operating profit ratio of 5% or more, and CCM* zero or higher by FY'06.

From FY'04, Matsushita has started a comprehensive collaboration with Matsushita Electric Works, Ltd. in actual operation, aiming at mutually enhanced corporate value

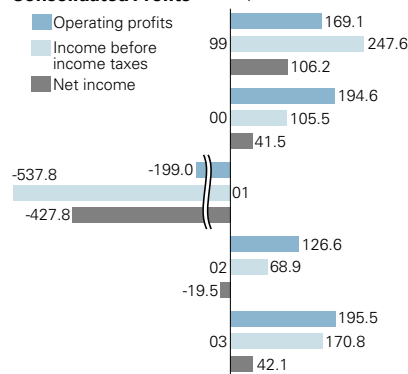
through realization of a new Matsushita Electric Group with an optimum management structure from a customer viewpoint. By combining each company's management resources under a unified brand and management strategy, the two companies aim to achieve synergy effects, offering "solutions for comfortable living," to create greater growth opportunities and increased productivity, thus envisioning a leap towards a globally excellent enterprise.

* CCM, stands for Capital Cost Management, is a management benchmark created by Matsushita that emphasizes return on capital. CCM zero or higher indicates that the return on invested capital meets the minimum return expected by shareholders.

Consolidated Net Sales (billion yen)



Consolidated Profits (billion yen)

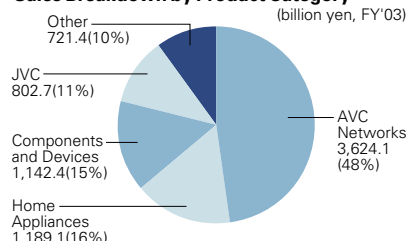


Notes:

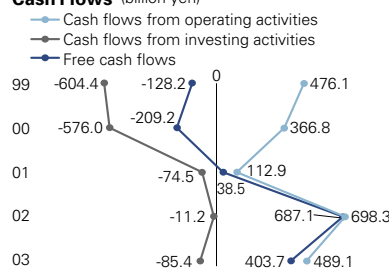
1. The number of consolidated companies (parent company and consolidated subsidiaries) is 372 and the number of companies reflected by the equity method is 59 as of March 31, 2004.
2. From FY'02, the Company began consolidating certain previously unconsolidated subsidiaries, primarily overseas subsidiaries of Victor Company of Japan, Ltd., a consolidated subsidiary of the Company, and has restated prior year amount. However, FY'99 figures for "Cash flows" have not been restated in this report.
3. Effective from FY'03, the company changed its business segment classification for "Sales Breakdown by Product Category," which differs from "Business Structure of Matsushita Electric Group" shown on page 34. For details, please refer to the Annual Report (available at the following URL).
4. In order to be consistent with financial reporting practices generally accepted in Japan, operating profit (loss) is presented as net sales less cost of sales and selling, general and administrative expenses. For details, please refer to the Annual Report (available at the following URL).
5. Free cash flow is the combination of net cash provided by operating activities and investing activities.
6. For details and other financial information, please refer to the Annual Report (available at the following URL).

ir-site.panasonic.com/

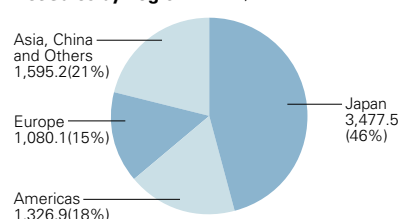
Sales Breakdown by Product Category



Cash Flows (billion yen)



Net Sales by Region (billion yen, FY'03)



Capital Investment (billion yen, FY'03)

271.3

R&D Expenditures

579.2

Total Assets (as of March 31, 2004)

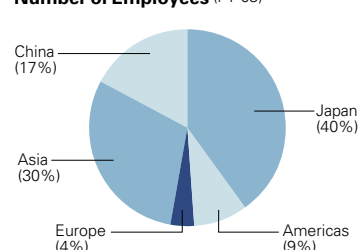
7,438.0

Stockholders' Equity (as of March 31, 2004)

3,451.6

Reference

Number of Employees (FY'03)

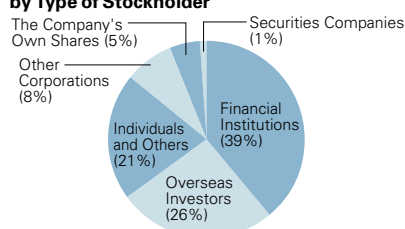


Note: The "Reference" data shows rough figures only and is not prepared in conformity with accounting principles.

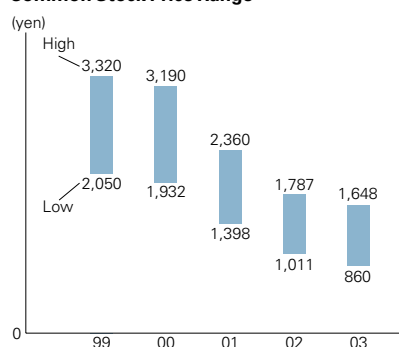
Common Stock Information

The commemorative dividend for the 85th anniversary of our founding was added to the ordinary year-end cash dividend for the fiscal year ended March 31, 2004. Total cash dividends for FY'03 were 14.00 yen per share of common stock, consisting of an ordinary dividend of 12.50 yen (total of mid-term and year-end dividends) plus a 1.50 yen commemorative dividend, representing a dividend payout ratio of 54.9%.

Breakdown of Issued Shares by Type of Stockholder



Common Stock Price Range



Number of shares issued (as of March 31, 2004) (Excluding the company's own shares)

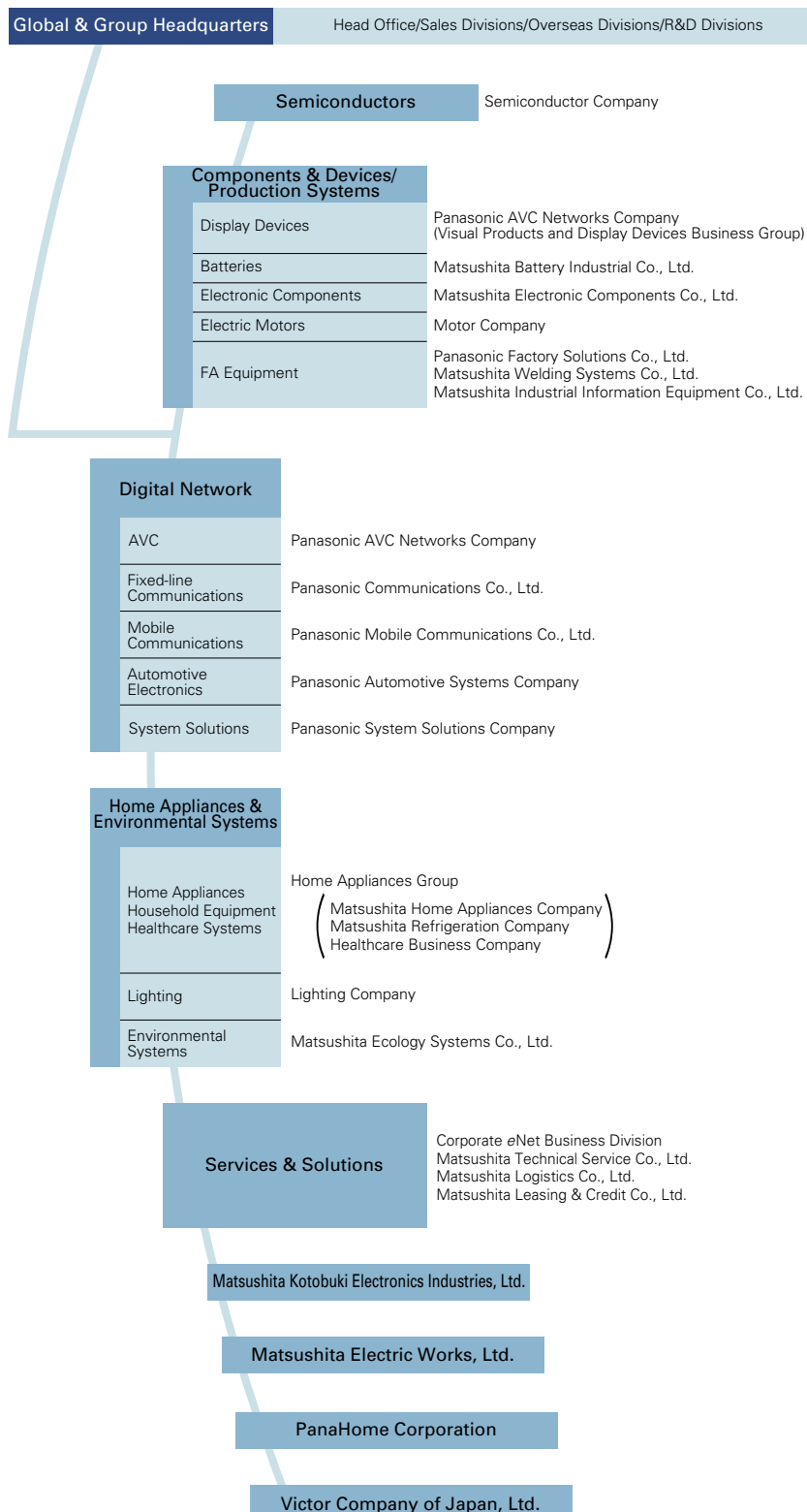
2,318,407,612

Notes:

1. Holdings of less than one unit of shares (1,000 shares) have been excluded from "Breakdown of Issued Shares by Type of Stockholder"
2. Common stock price range of the Company are those at the Tokyo Stock Exchange.

Business Structure of Matsushita Electric Group

(As of April 1, 2004)



Basic Policy for the Environment

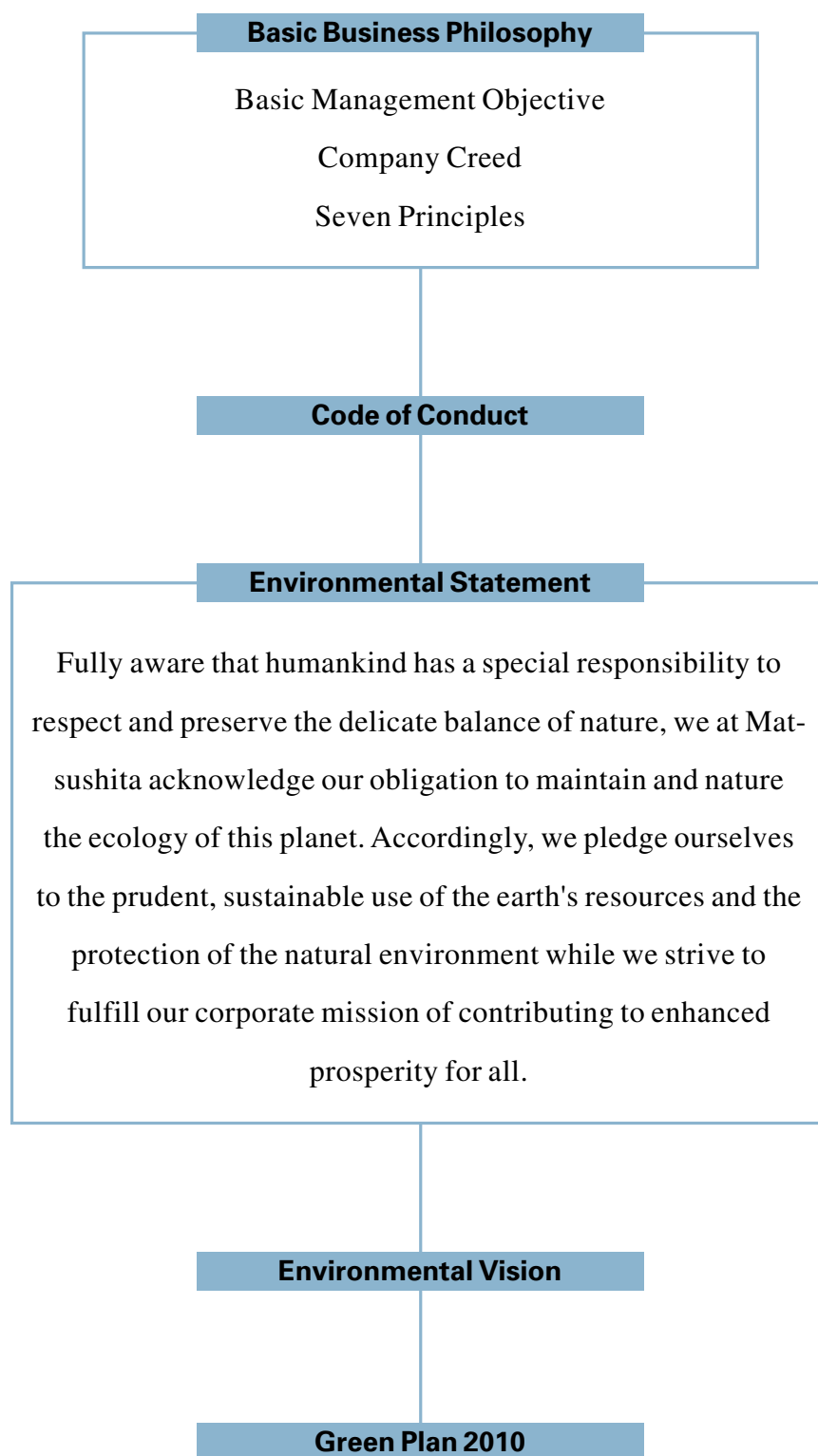
With the aim of achieving a sustainable society, Matsushita has formulated an "Environmental Vision" that specifies the direction the company should take and has formulated our action plan, entitled "Green Plan 2010" having our eyes on 2010.

Policy for the Environment

Matsushita's business activities benefit greatly from the Earth in various forms, such as the resources and energy needed for production. The global environment encompasses not only individuals' living and social environments, but also nature. Unless the global environment is maintained in a healthy and productive state, we cannot enjoy a secure living environment. Always keeping this in mind, all divisions at Matsushita are dedicated to promoting environmental activities so as to be able to bequeath a global environment in better condition to future generations. Matsushita's corporate mission is to "devote ourselves to the progress and development of society and the well-being of people through our production and marketing activities." Based on our management philosophy, such as the "Basic Management Objective," which states the guiding principles for management, Matsushita established an "Environmental Management Basic Policy" in 1991, and subsequently made an "Environmental Statement." In 2001, we devised an "Environmental Vision," which specifies the goals of the company's environmental initiatives in seven areas, and our action plan, "Green Plan 2010" having our eyes on 2010. We are fully committed to enhancing environmental sustainability management with the aim of accomplishing all the goals specified in the plan.

Environmental Statement

The Environmental Statement illustrates our belief based on "The Law of Nature," which genuine progress and prosperity cannot be achieved without the co-prosperity of all beings on the earth. The statement also reflects our view of social responsibilities with the awareness that humankind has the obligation to make the best use of creation with thoughtfulness and in a fair manner.



Environmental Vision

In October 2001, we established our "Environmental Vision," which specifies the direction to be taken by Matsushita and our "Green Plan 2010," which is our concrete action plan. We will dedicate with our full efforts to enhancing environmental sustainability management in response to changes in conditions, while revising our "Environmental Vision" and action plan as needed.

ET²!

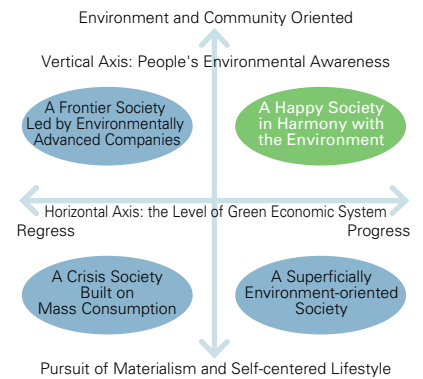
Cutting-edge Environmental Technology is essential to develop environmentally

conscious products. We believe that Ecological Thinking is crucially important for the development of Environmental Technology. Our "ET²!" environmental concept consists of these two elements and lays the foundation for our Environmental Vision.

Scenario Planning for Sustainability

We have adopted a method called "Scenario Planning" to develop our "Environmental Vision." In the Vision, the roles and responsibilities that Matsushita must fulfill are presented based on social systems and lifestyles predicted for 2025.

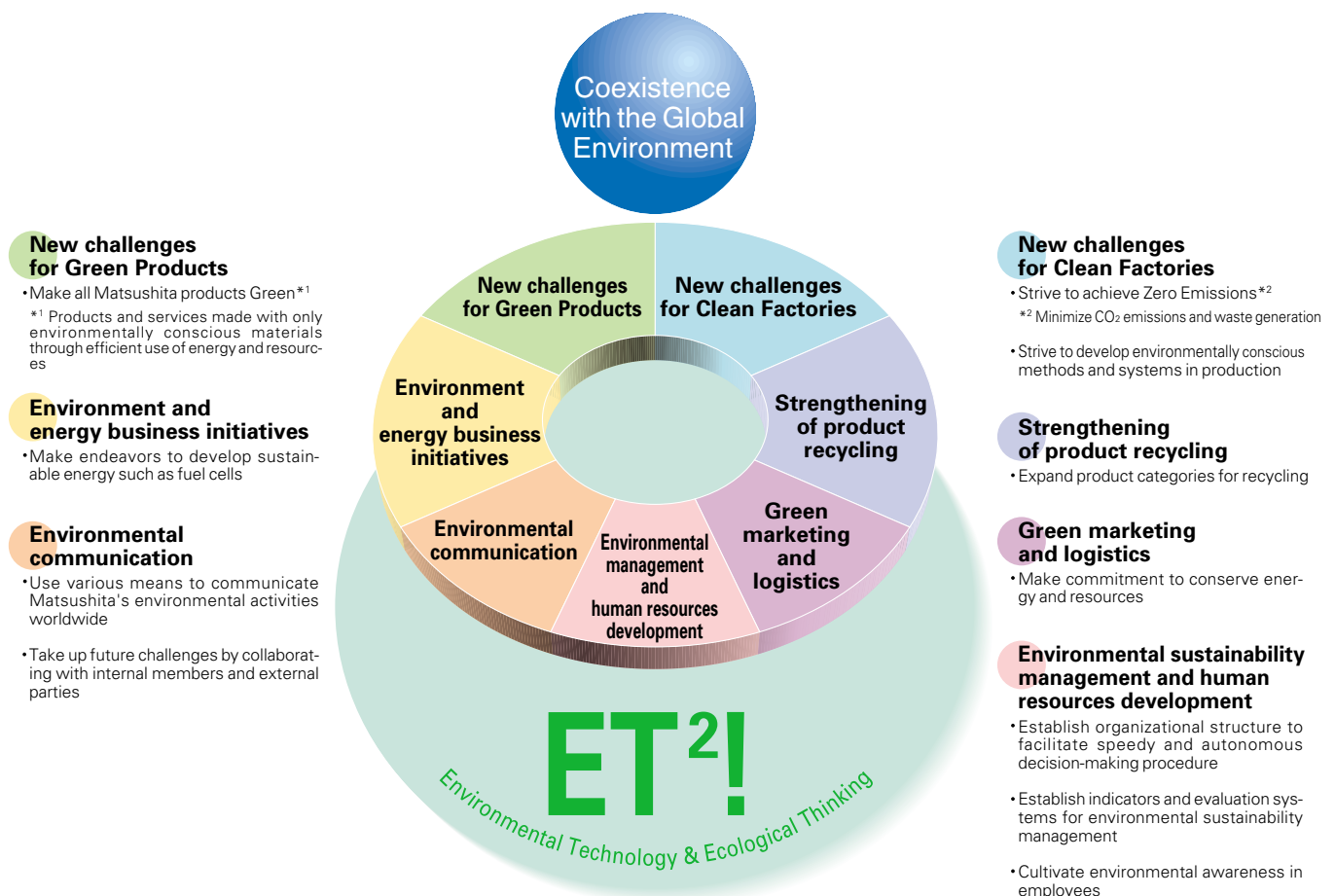
Scenarios for Society and Lifestyle in 2025



panasonic.co.jp/eco/2001e/er01e_11.pdf

Environmental Vision

The Matsushita Electric Group contributes to "Coexistence with the Global Environment" through Environmental Technology and Ecological Thinking (ET²!).



Targets and Performance

In 2001, Matsushita devised the "Green Plan 2010," its corporate action plan to operate business in the "Century of the Environment." With our FY'03 performance, our efforts to reduce CO₂ emissions, waste generation, and the use of chemical substances have yet to yield substantial positive effects. We plan to further strengthen our initiatives outside Japan.

Green Plan 2010

Base year: FY'00, global targets formulated in October 2001

Item		FY'05 Target	FY'10 Target
New challenges for Green Products	Prevention of global warming	Increase the energy use indicator* ¹ by 30%	Increase by 50%
	Chemical substances	<div>Discontinue use in products shipped in April 2005 and after</div> <div>Discontinue immediately</div> <div>Discontinue by March 2006</div> <div>Lead, cadmium, hexavalent chromium, and mercury</div> <div>Specified brominated flame retardants (PBB, PBDE)</div> <div>Polyvinyl chloride resin</div>	
	3Rs (Reduce, Reuse, Recycle)	Increase the resource use indicator* ¹ by 50%	Increase by 70%
	Product development	Increase the development of Green Products to 70% or more	Increase to 90% or more
New challenges for Clean Factories	Prevention of global warming	Reduce CO ₂ emissions per basic unit by 5% Maintain CO ₂ emissions at the same level as FY'90 (Japan)	Reduce by 10% Reduce by 7% (Japan)
	Chemical substances	Reduce the amounts of use, release and transfer by 40%	Reduce by 60%
	Waste and recyclable waste	Reduce emissions per unit of sales by 10%	Reduce by 20%
	Water	Reduce consumption per unit of sales by 5% Promote effective use of water resources	Reduce by 10%
	Production methods and systems	Establish new production methods and systems to enhance the efficient use of energy and resources	
Strengthening of product recycling		Establish a system to expand product categories for recycling Improve recycling rate	Establish recycling systems for all home electric appliances
Environment and energy business initiatives		Start full-fledged sales of home-use fuel cell cogeneration systems Strengthen energy management business	Make the system fully diffused Expand the business
Green marketing and logistics	Conservation of resources	Conserve resources by making use of the web for marketing activities	
	Prevention of global warming	Promote modal shift and increase rail freight to 20,000 containers (Japan)	Increase rail freight to 30,000 containers
Environmental communication	Information disclosure	Develop the Environmental Report into a Sustainability Report Publish site reports Promote communication with a wide range of stakeholders	
	Green investment/contribution to local communities	Continue forest preservation activities Increase greenery in factory sites and on rooftops Promote green investment/establish a Green Fund	
	Corporate citizenship	Expand the Love the Earth (LE) Citizens' Campaign outside of the company Increase LE families to 50% of total employee households or more	Build an inter-company network for LE activities Increase to 80% or more
	Partnership	Strengthen partnerships and form networks with environmental NPOs Actively cooperate toward and contribute to environmental activities of international organizations, governments, and municipalities	
Environmental sustainability management and developing people	Organizational structure	Strengthen the environmental promotion system of Group companies throughout the world Strengthen decision-making functions in each region throughout the world	
	Development of human resources	Prepare environmental training curriculums for each corporate level and division	
	Management evaluation system	Establish a comprehensive environmental accounting system Reflect the reductions in environmental impact of products and operations in performance evaluations	Reflect the results of environmental accounting in performance evaluations

*¹ For the definition of indicators, see page 42. *^{2 & 3} Some components are now under RoHS review and may be temporarily exempted.

FY'03 Performance

FY'04 Target

	FY'03 Target	FY'03 Performance	Self-evaluation	FY'04 Target
	Increase the energy use indicator by 18% or more	Achieved the target with 507 models (page 42)	○	Increase the energy use indicator by 24% or more
	Promote the No Hazardous Substances in Products Project	Developed project promotion frameworks on a global basis (page 41) Conducted a survey of chemical substance content in components	○ △	Eliminate lead, cadmium, hexavalent chromium, and mercury from products to be shipped from April 2005 onwards* ³
	Increase the resource use indicator by 30% or more Identify the material balance of 15 major products	Achieved the target with 396 models (page 42) Identified the material balance of 15 major products (page 39)	○ ○	Increase the resource use indicator by 40% or more Identify the material balance of 30 major products
	Increase the development of Green Products to 42% or more of the total	Achieved the target (68%, 732 models) (page 42)	○	Increase the development of Green Products to 56% of the total or more
	Reduce CO ₂ emissions per unit of sales by 3% Control CO ₂ emissions to 2% increase from the FY'90 level (Japan)	Increased by 19% (page 45) Increased by 7% from the FY'90 level (Japan)	×	Reduce CO ₂ emissions per unit of sales by 4% Control CO ₂ emissions to 1% increase from the FY'90 level (Japan)
	Reduce the amounts of use, release and transfer : by 45% from the FY'98 level (Japan) by 33% from the FY'00 level (Asia and Oceania) by 11% from the FY'02 level (others)	(Japan) Use: Reduced by 82%, Release and transfer: Reduced by 62% (Asia and Oceania) Use: Increased by 48%, Release and transfer: increased by 29% (page 47) (Others) Use: Reduced by 77%, Release and transfer: Reduced by 65%	△	Reduce the amounts of use, release and transfer : by 50% from the FY'98 level (Japan) by 39% from the FY'00 level (Asia and Oceania) by 22% from the FY'02 level (others)
	Reduce emissions (including recyclable waste) per unit of sales by 6% Continue zero waste emissions (Japan)	Increased by 26% (page 48) Continued zero waste emissions (Japan)	×	Reduce emissions (including recyclable waste) per unit of sales by 8% Continue zero waste emissions (Japan)
	Reduce water consumption per unit of sales by 3% Formulate a water consumption reduction plan in devices divisions	Increased by 7% (page 48) Completed the plan formulation in devices divisions	×	Reduce water consumption per unit of sales by 4%
	Establish an energy-conservation manufacturing management system	Conducted a research of internal cases (page 46)	△	Establish an energy-conservation manufacturing management system
	Establish basic policies to comply with the EU Recycling Directive	Established policies for a recycling scheme in Europe Conducted lobbying activities for the EU Recycling Directive	○ ○	Develop a recycling scheme in Europe Identify concerns and establish policies to increase the recycling rate
	Step up the development of home-use fuel cell cogeneration systems for practical use Expand energy management systems for home and business use	Completed commercial models and conducted verification evaluations (page 51) Founded an energy service provider in the consumer business sector, E-cubic Co., Ltd. (page 52)	○ ○	Introduce to the market by the end of March 2005 Expand energy management business for home and business use
	Promote Green Products	Implemented the "N's Eco Project" (page 54)	○	Continue the "N's Eco Project"
	Promote the use of rail transport, increasing freight to 15,000 containers	Promoted the use of rail transport, increased freight to 10,931 containers (an increase of 16% from the previous year) Introduced 15 hybrid trucks for local product transportation (page 53)	△	Promote the use of rail transport, increasing freight to 15,000 containers Formulate plans for completing the 100% introduction of environmentally conscious vehicles in FY'07
	Develop the Environmental Report into a Sustainability Report and increase the disclosure of information Enrich the environmental pages of business domain companies' websites Hold stakeholder meetings	Issued the Sustainability Report 2003 Disclosed environmental site reports from all global sites on the web (page 55) Held a meeting for reading the Sustainability report	○ ○ ○	Develop the Sustainability Report into a corporate report Enrich the disclosed contents of environmental site reports Hold stakeholder meetings
	Conduct trials of in-house CO ₂ emissions trading Step up tree-planting activities	Conducted trials of in-house CO ₂ emissions trading (page 46) Started the "Forest to grow co-existence with Environment" campaign for on-site greenery (page 56)	○ ○	Continue trials of in-house CO ₂ emissions trading Promote the "Forest to grow co-existence with Environment" campaign
	Conduct effective publicity through events such as the LE Symposium 2003 Increase LE families to 30,000 households	Held the first local symposium in Kumamoto, Japan, participated by 250 people Increased LE families to 27,000 households (page 56)	○ △	Organize promotion frameworks and enhance communication using the media Increase LE families to 40% of total employee households or more
	Take leadership of the electronics industry to promote the energy conservation campaign	Participated in a "Candle Night – Summer Solstice 2004" event calling for turning off of all lights nationwide	○	Promote energy-conservation campaigns
	Promote environmental sustainability management through the Corporate, Domain, and Regional Environment Conferences and the Environmental Working Committee Operate the environmental information system globally	Held the Corporate, Domain, and Regional Environment Conferences and the Environmental Working Committee (page 57) and enhanced environmental sustainability management Completed the development of an environmental performance system (page 58)	○ ○	Start the integration of environmental management at non-manufacturing sites Collect data about the chemical substances contained in products by using the Product Chemical Substances Management System (GP-Web)
	Provide environmental education to all employees through the e-Learning system	Promoted general education across the company through e-Learning (page 58)	○	Enrich the contents of general education and promote their utilization
	Increase understanding of the effects of environmental accounting Reflect the results in performance evaluations on a business domain level	Promoted environmental investment and environmental impact reduction evaluations to logistics divisions (page 59) Evaluated environmental performance on a business domain company basis (page 57)	○ ○	Promote the internal use of environmental accounting Evaluate environmental performance on a business domain company basis

Self-evaluation rating: ○ Targets accomplished, △ 80% or more of targets accomplished, × Less than 80% of targets accomplished

Product Life-cycle and Environmental Impact

We regard accurate assessments of environmental impact over the entire product life-cycle as the foundation of Environmental Sustainability Management. In this section, we report our business activities in FY'03 from material balance view.

INPUT		OUTPUT	
Material procurement		Manufacturing	
Manufacturing		Marketing and logistics	
Product materials		Products	
Metals.....133,000 tons		Mass of products sold	
Plastics.....78,000 tons	280,000 tons	
Glass.....36,000 tons			
Others.....31,000 tons			
Packaging materials...54,000 tons			
Manufacturing		Manufacturing	
Electricity.....2.16 billion kWh		CO ₂1.45 million tons-CO ₂	
Oil.....60,000 kl		NOx.....1,183 tons	
Gas.....210 million m ³		SOx.....105 tons	
Water.....42 million m ³		Water.....5.82 million m ³	
Chemical substances...67,000 tons (consumption)		Chemical substances...269 tons (Release and transfer)	
		Amount of waste for final disposal	
	2,000 tons	
Marketing and logistics		Marketing and logistics	
Fuel for vehicles.....34,000 kl		CO ₂98,000 tons-CO ₂	
		NOx.....280 tons	



We procure many resources as materials and also utilize valuable resources such as energy and water in our manufacturing processes. The products consume energy in being used and then will be collected when they become disused at last. In this section we report on our business activities in FY'03 from material balance view. Although the calculation model is limited in scope, we have expanded this scope every year. As new calculation items in FY'03, the mass of products sold, NOx emissions during marketing and logistics operations, and the mass of collected PCs have been added.

INPUT		Use	OUTPUT	
Energy consumption		Customers	Emissions	
Electricity ······ 27.29 billion kWh			CO ₂ ······ 11.1 million tons-CO ₂	

INPUT		Collection and recycling	OUTPUT	
Collected products		Matsushita Collection and recycling points	Recycled resources	
Air conditioners..... 11,000 tons			Metals..... 42,000 tons	
TVs..... 21,000 tons			Glass..... 11,000 tons	
Refrigerators..... 36,000 tons			Fluorocarbons..... 212 tons	
Washing machines..... 17,000 tons			Others..... 3,000 tons	
PCs..... 18 tons				

Calculation Model

Region covered: Japan

Fiscal year covered: FY'03

Products (material procurement)

The amount of resource input and the weight of products sold for 16 major product categories.*

The amount of resource input is calculated not from the amount of material procured but from the raw mined material by calculation based on the composition of each product item. Packaging materials include those imported from overseas manufacturing business units.

Manufacturing

The amount of resources input to and output from production activities. 118 sites in Japan were covered.

(Input)	Electricity	Amount of electricity purchased from electric utilities
	Oil	Amount of fuel oil and kerosene used
	Gas	Amount of city gas and LPG used
	Water	Amount of municipal water, industrial water, and groundwater used
(Output)	CO ₂	CO ₂ emissions associated with the use of electricity, gas, oil, etc.
	NOx	Emissions of nitrogen oxides resulting from the use of gas and oil
	SOx	Emissions of sulfur oxides resulting from the use of oil
	Waste water	Amount of discharged water into the sewage system

Marketing and logistics

The amount of fuel input for vehicles and CO₂ and NOx emissions during product transportation. Transportation from manufacturing sites to retailers is covered. With imported products, transportation within Japan that follows their arrival to Japan is covered. Ten sites in Japan for all home appliances are covered.

Use

Electricity consumption and CO₂ emissions during the lifetime for 16 major product categories.* Lifetime electricity consumption is estimated based on the hours of use and the life of each product.

Collection and Recycling

Weight of collected products of the five product categories, namely, TVs, refrigerators, air conditioners, washing machines, and PCs. Collected resources refer to resources transferable for profit or free of charge to the manufacturers who use these for parts and materials in their products.

*16 major product categories

TVs, PDP TVs, VCRs, DVD recorders, Laptop PCs, fax machines, phones, cellular phones, air conditioners, refrigerators, washing machines, microwave ovens, dishwashers, vacuum cleaners, rice cookers, and air purifiers

New Challenges for Green Products

To realize a sustainable society, we see our role as creating products and services that will underpin the achievement of this goal. Matsushita is seeking for the creation of products that have less impact on the global environment, with a main focus on energy, resources, and chemical substances.



Why are you reducing the chemical substances contained in home appliances?

Green Procurement

The chemical substances contained in our products do not harm human health during normal operations. We are concerned about the harmful effects that some chemical substances may have on ecosystems in the future through soil and groundwater after the disposal of products. This is why we need to develop products that are free from highly hazardous substances as well as to recycle products that have become disused and ensure appropriate waste disposal.

Laws regulating the chemical substances contained in products have grown more stringent in recent years. In Europe, the EU has put into effect Directive on the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment (RoHS Directive) that will ban the use of the following six substances: lead, mercury, cadmium, hexavalent chromium, and specified brominated flame retardants (two types) in electric and electronic equipment from July 2006 onwards. Such regulatory moves are spreading worldwide.

Chemical Substances Regulated by the RoHS Directive and their Application

Substance	Application
Lead* ¹	Solder* ² , plating, pigments, plastic stabilizers, etc.
Mercury* ¹	Switches, sensors, etc.
Cadmium* ¹	Fuses, relays, pigments, plastic stabilizers, etc.
Hexavalent chromium* ¹	Rust prevention, plating, etc.
Polybrominated biphenyls (PBB)	Plastic flame retardants
Polybrominated diphenyl ethers (PBDE)	Plastic flame retardants

*¹ These substances and their compounds will be regulated.

*² Matsushita completed the adoption of lead-free solder in all products at the end of March 2003.

To comply with this directive, we moved up our action plan by one year and determined to totally ban the use of the regulated substances in products shipped after April 2005. This policy was published in May 2003. As one measure to achieve this goal, Matsushita has established the "No Hazardous Substances in Products Project" and is taking group-wide action. The biggest challenge we have to deal with is the huge volume of information we need to manage. For example, one product is composed of a number of parts and materials. We need to check the inclusion of specified

substances in each of these items. It is also important to ask our worldwide suppliers to cooperate with us and ensure their appropriate actions. We are accelerating chemical substance content surveys based on the "Green Procurement Standards" and the "Chemical Substances Management Rank Guidelines (for Products)." We have developed the "GP-Web," a product chemical substance management system that enables the centralized management of these huge volumes of information. Approximately 5,000 suppliers in Japan have adopted this system since April 2004. We are currently proceeding with the introduction of this system in approximately 10,000 suppliers outside Japan.



Explanatory meeting for suppliers in Thailand

Also, as represented by ensuring through checks of chemical substance included in parts and materials and giving Techno-School courses globally as a means of sharing analysis technique and manufacturing know-how using alternative substances, we are working together under a united commitment achieve our goal.



Hands-on training at a Techno-School course in China

Global Release of Restricted Chemical Substance-free Cellular Phones

Our development of cellular phones free from RoHS-specified substances has entered the verification stage. We are promoting the release of these phones in Japan and Europe during FY'04. The use of magnesium alloy for the chassis has improved recycling efficiency and reduced their weight.



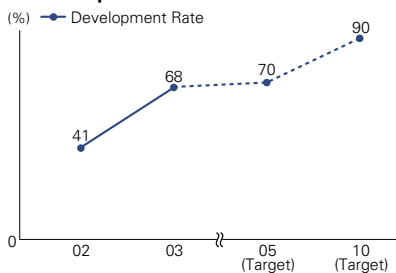
Environmentally Conscious Design Initiatives

Matsushita has defined "eco-efficiency" indicators to assess energy and resource efficiencies and is developing products based on these indicators. To help customers easily understand eco-efficiencies, we are enhancing the "Factor X."

Criteria for Accrediting Green Products

We have defined products that have improved eco-efficiencies, that are free from specified chemical substances and that will contribute to addressing environmental issues as "Green Products (GP)." Out of these GPs, we designate the products that will contribute to the creation of a sustainable society with their industry's top level performance as "Super Green Products (Super GP)." Among the products developed in FY'03, 732 models were accredited as Green Products.

GP Development Rate



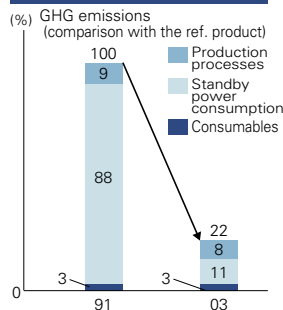
Personal Fax

The standby power consumption of this model has been reduced by 88% from the 1991 model, achieving the industry-leading level. Advanced mounting design of printed circuit board assemblies has contributed to resource conservation. As a result of publishing quantitative environmental impact information over its life-cycle, the Type III Environmental Label "ECO LEAF" was authorized to this model.



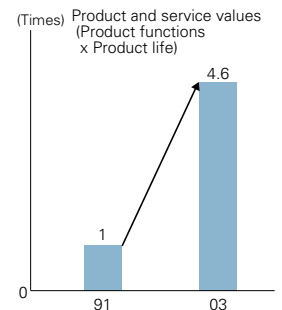
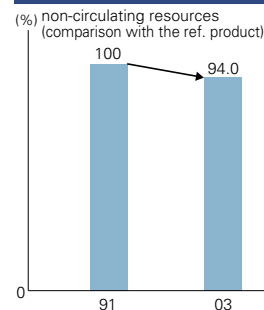
KX-PW501DL

GHG*1 Factor 20.8



Reference product: 1991-model phone with facsimile functions
Product functions*2: 4.6 times
Product life: 1.0 the same
*1 GHG: greenhouse gas

Resource Factor 4.8



Tilted Drum Washing Machine

We are globally promoting this model as a universal design product, which many people can easily use by tilting inlet itself as well as its drum. In addition, the model conserves approximately 66% of water consumption by tilted drum effect compared with our 1997 model (NA-F70VP1).

GHG Factor	1.6
Resource Factor	1.7

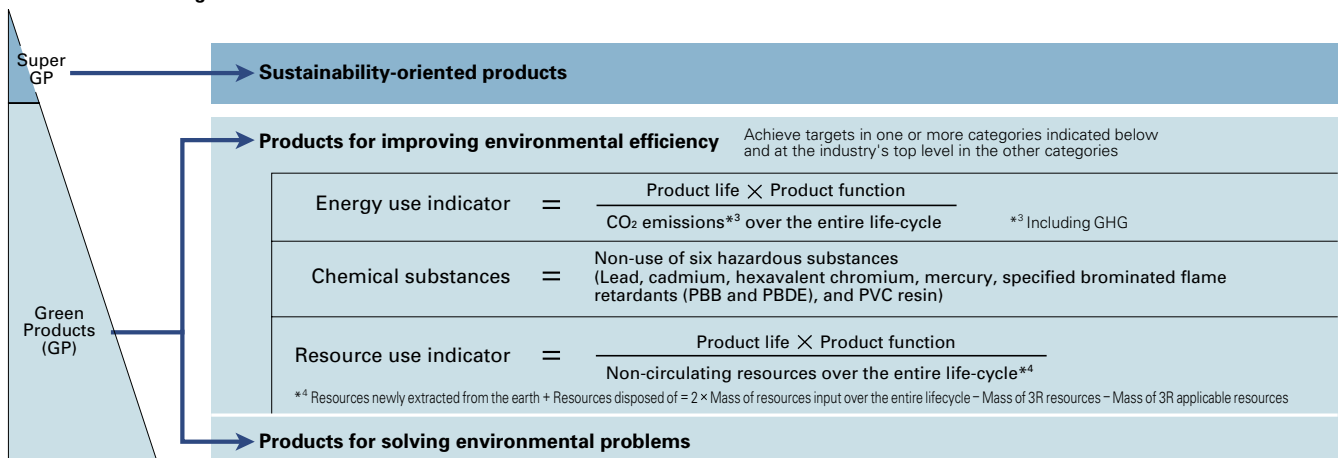
Reference product: 1997-model drum washer/dryer
Product functions*2: 1.4 times Product life: 1.0 the same



NA-V80

*2 Details of product functions
panasonic.co.jp/eco/en/factor_x/

Criteria for Accrediting Green Products



TOPICS

Ecological Rucksacks

Ecological Rucksacks are a method used to represent the impact of a product on the environment over its life-cycle from material mining to product manufacturing, use and disposal, by likening the total mass of resources and energy packed in a rucksack shouldered by the product. This method focuses on natural resources. In nature, resources such as iron exist mixed with other materials, and so require refinement after mining. Accordingly, surface soil, rocks and earth resources are extracted, mined and discarded in far larger quantities than the resources utilized in a product. The quantity of these materials is also calculated as part of the amount of the substances shouldered by a product.

The World's First Ecological Rucksacks Calculation

Matsushita has defined an indicator of resources and is utilizing them for designing products that have less environmental impact over their life-cycles. Matsushita has chosen the Ecological Rucksacks as the subject of its studies it

carries out aiming to improve an indicator. In November 2003, we calculated the Ecological Rucksacks for our 36-inch high-definition TVs produced in 1993 and 2003 first in the world, in collaboration with the Wuppertal Institute in Germany. Product mass of the 2003 model has been reduced by 11.5 kg, while the Ecological Rucksacks revealed that the earth resources shouldered by the product have been reduced by approximately 380 tons. At Panasonic Environmental Forum held in November 2003, we exhibited the Ecological Rucksacks by displaying the amount of resources calculated using models.



Ecological Rucksacks Display at Panasonic Environmental Forum 2003

Resource Conservation with System LSIs

System LSIs have greatly contributed to conservation of earth resource. With the use of system LSIs, mounted circuit boards such as electronic circuits and power circuits have become lighter from 8 to 3.5 kg and smaller, leading to a reduction in the use of earth resources such as mineral ores and fossil fuels from 9.2 to 2.9 tons or by approximately 68%. Annual power consumption has also been reduced by approximately 60%.



System LSI "PEAKS" providing high quality picture and sound

Ecological Rucksacks of TVs (36-inch high-definition TVs)

1993model			2003model		
TH-36HV10 Product weight 91 kg			TH-36D50 Product weight 79.5 kg		
Product life-cycle and displaced earth resources			Ecological Rucksack		
		Consumption	Materials*4	Water*5	Air*6
Production*1	Mounted printed circuit boards	8.0kg	9,200kg	220,000kg	2,500kg
	Copper	1.1	550		
	Gold	0.00053	290		
	Silver	0.0039	30		
	Others	6.89557	8,330		
	Copper	3.1kg	1,500kg		
	Glass	49.0kg	540kg		
	Steel	10.0kg	89kg		
	Polystyrene	11.0kg	32kg		
	Aluminum	1.4kg	51kg		
Others		29kg			
Use	Power consumption during use*2*3	5,040kWh	7,800kg	340,000kg	2,700kg
Transportation	Diesel	6.7kg	9kg	65kg	0.1kg
Recycling	Power consumption during the disassembly processes*3	1.8kWh	3kg	120kg	0.9kg
Total	Subtotal		19,253kg	560,185kg	5,201kg
			584,639kg		

2003model					
TH-36D50 Product weight 79.5 kg					
Ecological Rucksack					
		Consumption	Materials*4	Water*5	Air*6
Production*1	Mounted printed circuit boards	3.5kg	2,900kg	75,000kg	780kg
	Copper	0.42	210		
	Gold	0.00014	74		
	Silver	0.0016	12		
	Others	3.07826	2,604		
	Copper	2.6kg	1,300kg		
	Glass	50.0kg	550kg		
	Steel	11.0kg	97kg		
	Polystyrene	9.3kg	26kg		
	Aluminum	0.6kg	24kg		
Others		19kg			
Use	Power consumption during use*2*3	1,800kWh	2,800kg	120,000kg	980kg
Transportation	Diesel	6.2kg	8kg	60kg	0.1kg
Recycling	Power consumption during the disassembly processes*3	1.8kWh	3kg	120kg	0.9kg
Total	Subtotal		7,727kg	195,180kg	1,761kg
			204,668kg		

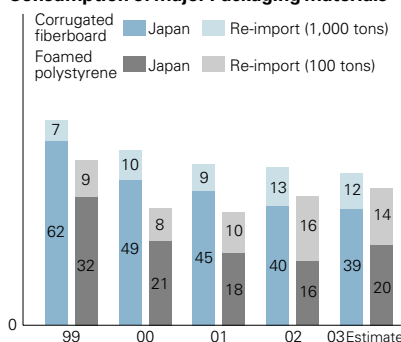
*¹ From material mining to product assembly *² Operating time 4.5 hours/day x Useful life of 8 years *³ Power generation is based on the data provided by OECD member states.

*⁴ Mineral ore and soil mining, fossil fuels, etc. *⁵ Including water used for power generation *⁶ Fuels, chemical reactions, etc.

Packaging Material Initiatives

Aiming at reducing the quantity of packaging materials used, we are improving packaging methods and developing systems jointly together with logistics divisions. We are promoting the switchover to substitute materials that have less environmental impact, improving distribution methods, incorporating universal design ideas in packaging design, and promoting the reuse of packaging materials.

Consumption of Major Packaging Materials



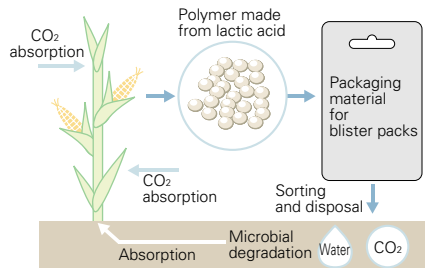
Packaging Materials Made of Biomass Resources

We have adopted biodegradable plastics made from cornstarch for blister packs of dry batteries. As a result of offsetting the CO₂ emitted after disposal with the CO₂ absorbed during the growth of the plant, biodegradable plastics have less environmental impact

than petroleum-based materials. By using these plastics, CO₂ emissions have been reduced from 197 to 114 tons in FY'03.

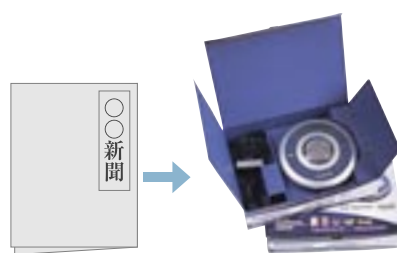


Circulation of Biodegradable Plastics



Packaging Materials Made of 100% Recycled Newspaper

To promote the active use of recycled materials for packaging, we have introduced recycled newspaper to packaging materials.



Two portable CD player packages can be produced from one copy of a newspaper.

TOPICS

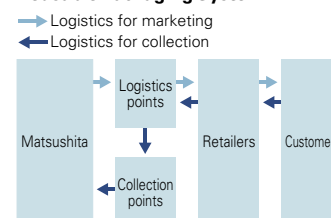
Packaging Materials Reuse System

We have developed reusable packaging materials (reusable trays) and established a system for collecting and reusing these materials after unpacking. The introduction of this system has reduced by 30% of packaging waste from 3 to 2.1 kg per one compact refrigerator.



Left: Reusable trays
Right: Conventional packaging materials

Reusable Packaging System



We have been verifying the system for reusing packaging materials mainly in Chubu area in Japan since December 2003. To raise the collection rates, we think the first step is to gain recognition of this collection system by customers and retailers. Accordingly, we are requesting the return of packing materials with leaflet packaging together with each product and promoting the establishment of networks with retailer staff members.

In the future, we would like to establish a nationwide system for collecting all packaging materials including body covers.



Hiroaki Esaki
Matsushita
Refrigeration Company

Global Environmental Legislation Concerning Packaging and Matsushita's Responses

	Legislation	Responses
Japan	Law for Promotion of Sorted Collection and Recycling of Containers and Packaging	Recycle containers and packaging (contract treatment).
	Law for the Promotion of Effective Utilization of Recyclable Resources	Develop structures and materials that facilitate recycling. Indicate identifications for sorted collection (plastics and paper marks).
Europe	European Parliament and Council Directive on Packaging and Packaging Waste Packaging waste collection ordinances by each national government	Collect and treat packaging waste (contract treatment). Indicate materials on plastic packaging materials. Control total content of heavy metals (lead, cadmium, mercury and hexavalent chromium) contained in packaging materials up to 1,000 ppm.
U.S.	Regulations concerning the collection and recycling of packaging waste in each state	Collect and treat packaging waste (contract treatment).
Canada	Ontario Regulations concerning packaging waste collection and recycling	Collect and treat packaging waste (contract treatment).
Korea	Packaging Materials Separate Discharge Mark System Regulation concerning the use of foamed polystyrene cushioning materials	Indicate Selective Release Marks to facilitate separate waste discharge. Replace the use of foamed polystyrene for packaging electronic products with other materials.

New Challenges for Clean Factories

Towards the creation of "true zero emission" factories in all aspects — not only in waste, but also in GHG, the use of chemical substances, and water during the production processes. We will ensure compatibility between environmental impact reduction and enhanced economic performance.



How are you working on the reduction of CO₂ emissions?

Prevention of Global Warming

In Japan, we are enhancing energy conservation measures in factories and utilizing the Kyoto Mechanisms. On a global basis, we are strengthening our efforts, particularly in China, which faces a rapid increase in CO₂ emissions, and promoting energy management by local staff.

Energy conservation activities are implemented according to the "Three-year Energy Conservation Plan" that is composed of specific energy conservation measures and investment plans to be carried out by each business unit based on the environmental management system established group-wide. An energy-conservation rate*¹ has been set up as a CO₂ emissions reduction index. Efforts are ongoing towards the overall goal by setting the target for the devices business units that emit a large amount of CO₂ emissions at 7%, and 3.5% for the set business units.

We have incorporated the progress in achieving this energy-conservation rate in our environmental performance evaluations. The scope of this system has been expanded worldwide since FY'03.

During FY'03, 1,112 energy conservation measures were implemented on a global scale. As a result, a 6.0% energy-conservation rate was attained in the set segment, a 5.9% energy-conservation rate in the devices segment, and a 5.9% energy-conservation rate on average: CO₂ emissions were reduced by 154,000 tons due to the energy conservation plan. Global total emissions, however, amounted to 3.81 million

tons, an increase of 450,000 tons from the FY'02 level with CO₂ emissions per unit of production increasing by 19% from the FY'00 level. These results are caused by the increased CO₂ emissions attributable to overseas expansion of production and the broadening of the scope of manufacturing site due to business integration with other companies.

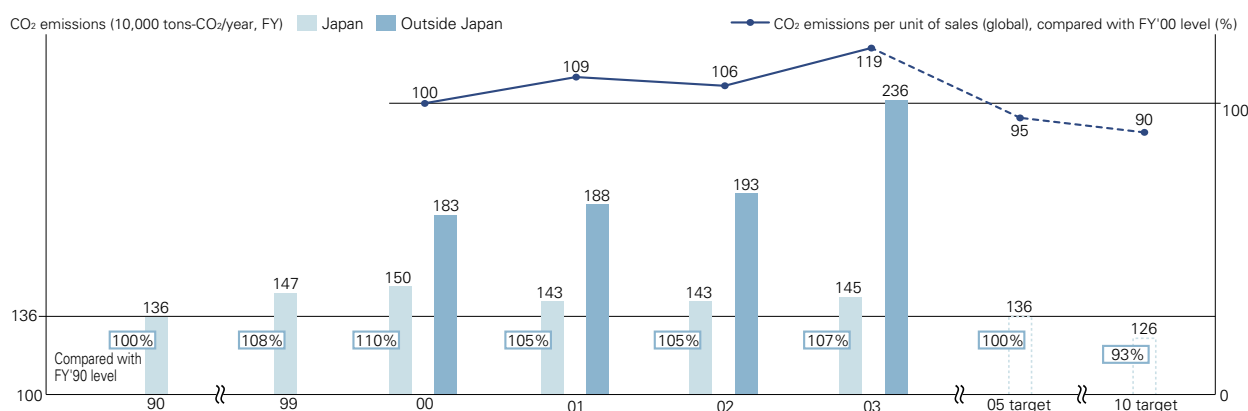
We predict CO₂ emissions to increase. Because in Japan, the device business such as semiconductors and PDPs, which consume a large amount of energy during production, will expand in future and outside Japan the amount of production will increase mainly in China.

To prevent this, we will introduce highly efficient production equipment, and reform production methods mainly in the device business units. Thus, we'll establish and implement an energy-conservation manufacturing system globally. Also, with the aim of accelerating initiatives in China, Chinese business units are moving quickly toward the energy conservation management system with the assistance of Japanese parent business units.

By means of the utilization of the Kyoto Mechanisms, such as a test run of in-house CO₂ emissions trading, and the introduction of the Clean Development Mechanism (CDM), we will accelerate our CO₂ emission reduction efforts, and thus achieve our 2010 target.

*¹ Energy-conservation rate (%) = Amount of energy conserved in the current fiscal year (amount of CO₂ emissions reduced) ÷ Amount of energy used in the previous fiscal year (amount of CO₂ emissions)

CO₂ Emissions per Unit of Sales



Note: Basis for calculating Matsushita's CO₂ emissions

• Calculation was based on the Environmental Reporting Guidelines issued by Japan's Ministry of the Environment. The CO₂ emission factor used was the coefficient given by the Ministry of the Environment. The electricity factor in the Review was the coefficient given by The Federation of Electric Power Companies Japan had adopted (both factors are based on the average of all power sources at the receiving end). The factors used for calculation were 0.378 kg CO₂/kWh for FY'00, 0.379 kg CO₂/kWh for FY'01 and 0.407 kg CO₂/kWh for FY'02 or later.

• The amount of CO₂ reduction resulting from the use of a cogeneration system is based on a comparison with the CO₂ emission factor of thermal power generation of the purchased electricity.

• The CO₂ emission factors of electricity for business units outside Japan were calculated based on the composition of fuels used for power generation in those countries.

Energy Conservation Initiatives

Efforts at Factories in Japan

Over 75% of Matsushita factories in Japan have conducted "Energy Conservation Diagnoses," during which energy consumption by equipment and manufacturing processes is measured and assessed to identify energy conservation measures required. Matsushita Electronic Components Co., Ltd. has carried out these diagnoses at its seven major sites where increase of energy consumption is predicted.

Based on the results, measures to reduce CO₂ emissions by 6,000 tons per year were identified, mainly for molding machines and heating ovens. Approximately 20% of these measures were implemented during FY'03. These successful outcomes were applied to other existing equipment and incorporated in the assessment standards for the introduction of new equipment.

Scenery of "Energy Conservation Diagnoses"

"Make the consumption visible through measurements and analyze loss in comparison to production fluctuations."



Detailed analyses with measurement of the current flow of wire of each equipment in the control panel.



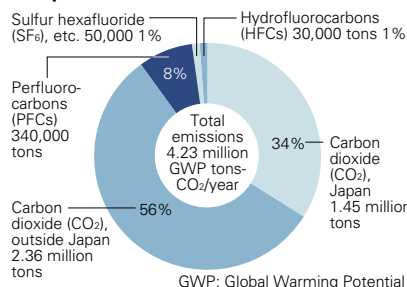
Efforts at Factories outside Japan

Factories outside Japan are implementing energy conservation programs in collaboration with Japanese parent business units. At the air conditioner factory of the Matsushita Home Appliances Company in China, Japanese engineers and Chinese staff members jointly conducted energy conservation diagnoses. As a result of the diagnoses of resin molding machines and hydraulic pumps and the remedial measures taken, electric power consumption per unit of production has declined by 10 to 27%, which translates into a 258-ton reduction in CO₂ emissions.

Reductions in the Emissions of Greenhouse Gases (GHG)

With GHG other than CO₂, HFC is used as a refrigerant for air conditioners and PFC and SF₆ are used in the production of semiconductors. Semiconductor Company in Matsushita has formulated voluntary action plans to achieve the goal agreed upon at the World Semiconductor Council (WSC), which is to reduce total emissions in FY'10 by 10% from the FY'95 level. It carried out intensive efforts, such as the optimization of gas consumption, the adoption of substitute gases, installation of tail gas scrubbers, and recovery equipment. As a result of efforts focused on the installation of tail gas scrubbers, annual GHG emissions were reduced by 30,000 tons.

Composition of GHG Emissions FY'03

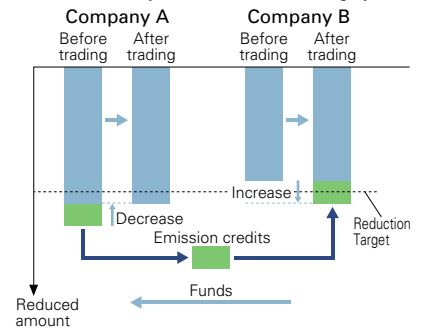


In-house Emissions Trading

As a measure to accelerate the reduction of CO₂ emissions in Japan, we are discussing the introduction of in-house emissions trading. Our in-house emissions trading system is based on an independent energy index, the energy-conservation rate, which has the advantage of not being affected by the business form or the fluctuation of production. With the aims of establishing a complete system and verifying its effects, we tested non-cash virtual trading with all of our business domain companies during FY'03. As a result, 256 tons of CO₂ were traded, worth 22.03 million yen. Full-scale in-house emissions trading with money transferring is expected to accelerate energy conservation and maximize financial efficiency. We will contin-

ue to study the introduction of this system.

Matsushita's Independent Emissions Trading System



Clean Development Mechanism

Towards the achievement of the GHG reduction target, Matsushita has started to study the Clean Development Mechanism (CDM). To gain approval of a GHG reduction project as a CDM, we need first to undergo a screening by a U.N.-designated CDM/JI certification body. In January 2003, the Ministry of Environment commenced a model project designed to develop certification bodies.

The Kyushu Institute of Technology and Ex Corporation Urban & Environment Planning Research have been jointly studying the recycling of effluent and wastes generated at a Malaysian palm oil factory, and this study has been designated as a model project. Matsushita is participating in this project as a candidate enterprise and has undergone a screening by a candidate CDM/JI certification body, Chuo Aoyama Sustainability Certification Organization Co., Ltd.

We are continuing to study how to develop this project into a business, the dissemination of energy-conservation products in developing countries, and the feasibility of a CDM based on the reduction of GHG emissions through energy conservation initiatives in factories outside Japan.

Comprehensive Management of Chemical Substances

With the aim of reducing environmental pollution by hazardous substances, we set up the "Matsushita Electric Group Chemical Substances Management Rank Guidelines (for Factories)" in accordance with legislation and the hazard assessments. In these guidelines, controlled chemical substances are categorized into three ranks: "Prohibition," "Reduction," and "Adequate Management." Based on these guidelines, the "33/50 Reduction Plan" is being implemented with the aim

Matsushita Electric Group Chemical Substances Management Rank Guidelines Ver. 2.1 (for Factories)

Rank	Definition	Substance Group
Prohibition	Prohibit use	33
Reduction	Reduce the amount handled	112
Adequate Management	Reduce the amount released/transfered	361
Total: 506 substance groups (1,413 substances)		

Targets of the 33/50 Reduction Plan

Region	Base year	In 3 years	In 6 years	FY'03 target
Japan	1998			45% reduction
Asia and Oceania	2000	33% reduction	50% reduction	33% reduction
Other regions	2002			11% reduction

The scope of this program is the handled amount of reduction-ranked substances and the reduction of release and transfer of adequate management-ranked substances.

of reducing the use of reduction-ranked substances and the amount of transfer and release of adequate management-ranked substances by 33% over three years and by 50% in six years.

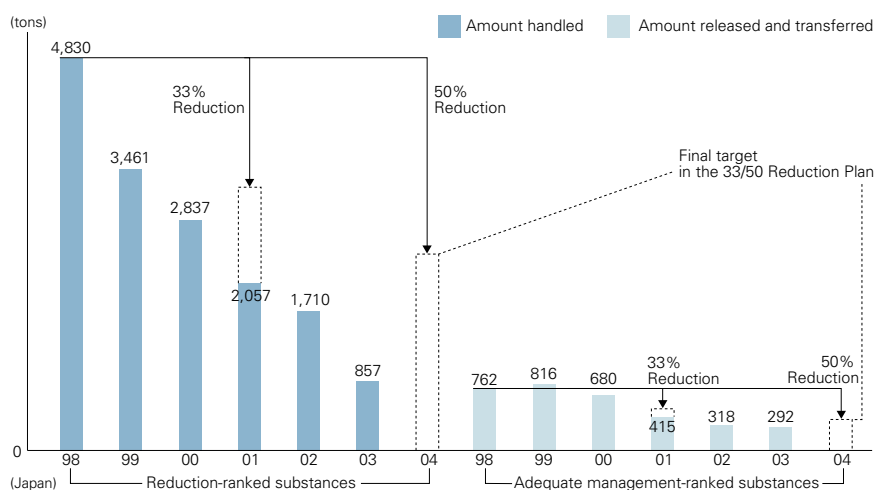
FY'03 Performance

The target of the 33/50 Reduction Plan in Japan for FY'03 was a 45% reduction from the FY'98 level. With this target, the use of reduction-ranked substances was decreased by 82% and the release and transfer of the Adequate Management-ranked substances were reduced by

62%, substantially surpassing this target. The major contributing factor in the reduction of the reduction-ranked substances was the global introduction of lead-free solder completed in FY'02, which had a great effect on the reduction of lead.

As an activity to reduce the release and transfer of Adequate Management-ranked substances, Matsushita Battery Industrial Co., Ltd. succeeded in recycling manganese dioxide generated from the dry battery manufacturing to use as an additive for steels such as stainless steel.

Handle, and Release and Transfer of Chemical Substances



TOPICS

Fruit-based Cleaning Solution Reduces the Use of Chemical Substances

Matsushita Electronic Devices (M) Sdn. Bhd., which manufactures capacitors and resistors, has striven to remove dirt from the jigs used during the inspection process. The company used to clean these jigs by hand with using a very time-consuming process that required a brush and a file. To solve this problem, a project team was set up in this company. Initially, the team discussed the feasibility of using commercial cleaners or hydrochloric acid, but these present safety problems and are expensive. When it looked as if the problem was insoluble, Nazli Husein and Afendi Mad Zain, the members of the team, remembered a

traditional pan-cleaning liquid, which is made by soaking fruit in water and washing the pan after steeping it in this water for a while. The members tried the idea immediately. The jigs became perfectly clean and the defect generation rate declined significantly. Of course, this method had no problems with safety. The solution they developed was granted a patent in Malaysia and Japan and was named "Super Natural Solution." They have started to market this solution outside the company and it has been very well received. Efforts to reduce the use of chemical substances at the production site created an environmentally conscious cleaning solution, greatly assisting business management.



"Super Natural Solution" Malaysia Matsushita Environmental Engineering Co., Ltd. is in charge of marketing this agent.



Nazli Husein (left) and Afendi Mad Zain (right) took the leading role in the project.

Waste Reduction

To minimize the amount of waste subject to final disposal, we have set up a target of "zero waste emissions" in Japan and taken measures to promote reuse and recycling. Thanks to these measures, we achieved the target in FY'02, with the recycling rate reaching 98.2%.

In FY'03, we continued zero waste emission initiatives in Japan and expanded their scope world-wide. In addition, we are making efforts achieving a 6% reduction in waste generation (including recyclable waste) per unit of sales from the level of the base year FY'00 and control waste generation itself.

Definition of Zero Waste Emissions

Recycling rate: 98% or more

$$\text{Recycling rate} = \frac{\text{Mass of recycled materials}}{\text{Mass of recycled materials} + \text{Mass of waste for final disposal}}$$

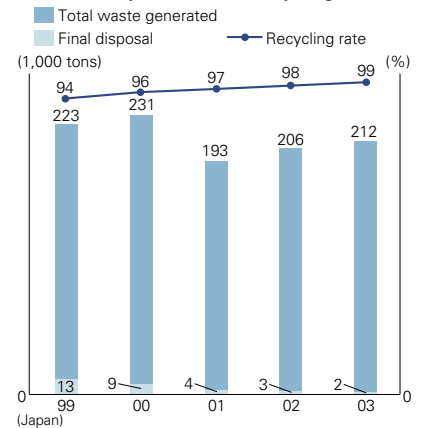
FY'03 Performance

The Japanese zero emissions target was successively attained, with a recycling rate of 99.0% in FY'03 further improving from 98.2% in FY'02.

Global waste generation per unit of sales has increased by 27%, thus failing to achieve the target. This resulted from increases of 5% in Japan and 51% outside Japan. One of the reasons is that although total sales of digital home appliances have risen, retail prices have fallen, not to balance the cost increase in production. With the control of waste generation itself, the generation in FY'03 amounted to 212,000 tons, which is 19,000 tons below the 231,000 tons in FY'00. Outside Japan, 298,000 tons of waste was generated, increasing by 112,000 tons from 186,000 tons in FY'00.

The issues in promoting zero waste emissions outside Japan are that recycling infrastructures are insufficient when compared with Japan and different laws applied in each region. We will carry out the recycling rate improvement programs while reviewing waste reduction targets in accordance with the local recycling infrastructures and regulations.

Amounts of Waste Generated and Final Disposal and the Recycling Rate



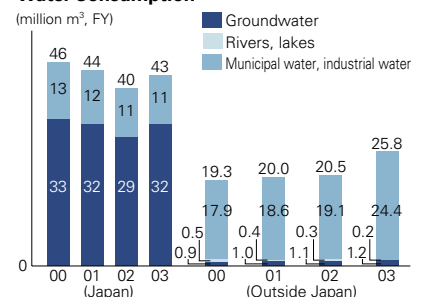
Note: FY'02 data has been revised as a result of improvements in data accuracy.

Effective Use of Water Resources

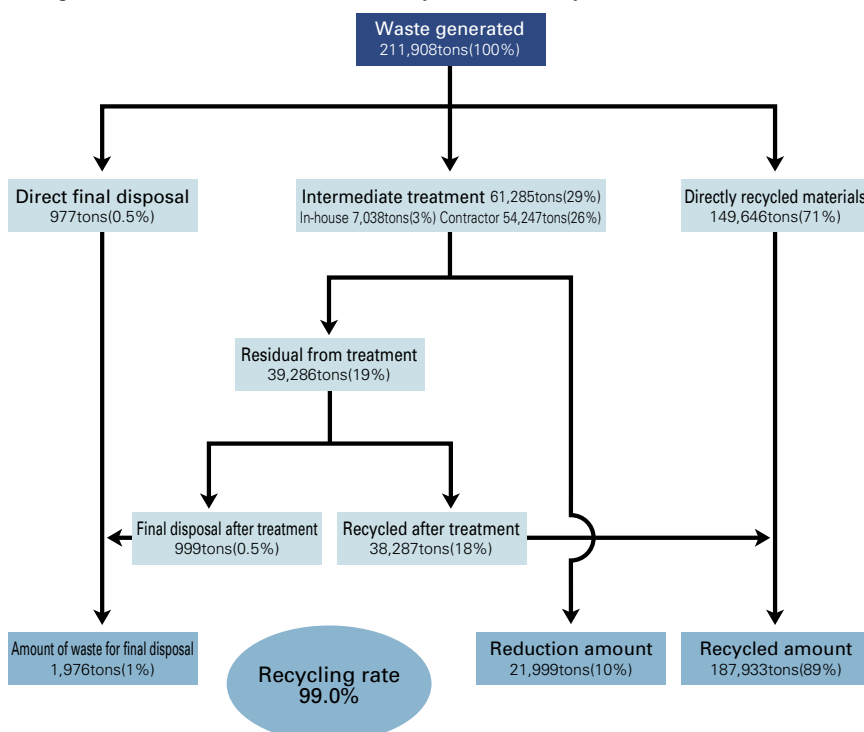
The target for water consumption per unit of sales in FY'03 was to reduce it by 3% from the level of the base year FY'00. We failed to meet this target: there was a 9% increase in Japan, a 14% increase outside Japan, and a 7% increase worldwide. This resulted from the fact that although total sales have risen, retail prices have fallen, not to balance the cost increase in production as is the case with waste. The device business uses a large volume of water in cleaning and cooling, accounting for approximately 80% of the total amount used within the Matsushita Electric Group. In particular, the semiconductor business, which is playing a leading role in the favorable sales of digital home appliances, consumes huge amounts of water resources, thus affecting our water consumption figures in Japan.

We will review measures, including target setting for each business domain, and promote effective water resource use group-wide.

Water Consumption



Management Flow for Industrial Waste and Recyclable Waste (Japan, FY'03)



Evolution of Product Recycling

The collection and recycling of end-of-life products is a duty which grows ever more important in the 21st Century. Based on the experience of the recycling of home appliances started in Japan in April 2001, Matsushita is striving to further progress of recycling.

How can the resources extracted from end-of-life products be put to use?

We have been making an effort to turn parts and materials back into resources since Japan's Law for Recycling of Specified Kinds of Home Appliances (2001) came into effect, but our efforts to reuse plastics, in addition to metals and CRT glass in products are really making progress.

With the Matsushita Eco Technology Center (METEC) serving as a recycling and testing center, Matsushita's home appliance recycling embraces the concept of "from products to products." This is the concept of endeavoring to reuse resources recovered from end-of-life products as materials in new products, and because of this, the recovery of high-quality materials is more important. Here, we present some examples of the results.

For TVs, CRT glass is collected and recycled, being reused in the CRTs of new products. At the same time, resin used in the back cover is reused as resin components for the front control panel and circuit boards mounting bracket. For air conditioners, copper and aluminum from the heat exchanger are recovered with a

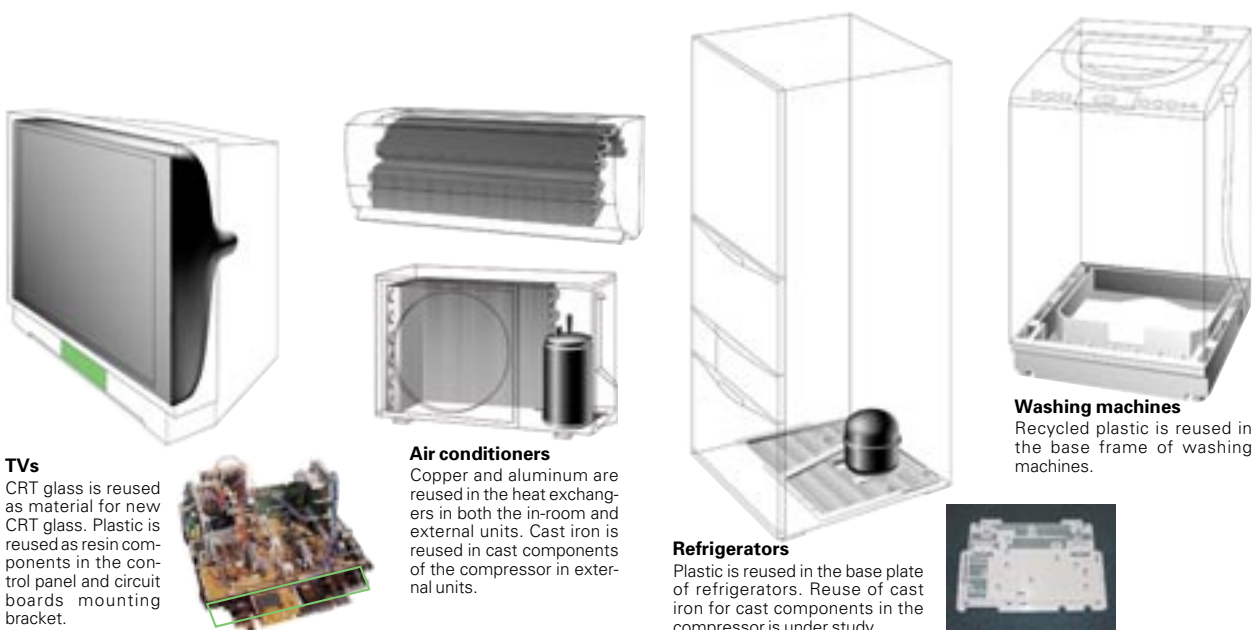
high level of purity and are reused as copper piping and aluminum fins, while iron from the compressor is reused in iron casts. For refrigerators, plastic is reused in refrigerator base plates and as material for other products. Research is also in progress to allow the reuse of iron casts in cast components of compressors. For washing machines, plastic is reused in the base frame and in other products.

End-of-life products are disposed in Japan, while the manufacturing of new products have been shifted outside Japan to such countries as China.

Because of this, in order to reuse resources recovered from end-of-life products, those resources need to be exported to the area of manufacture. This problem remains to be solved, but we will further step up our efforts to advance application development.

Legislation for the recycling of home appliances is also being drawn up in Europe and other countries such as USA and China. Matsushita will also expand outside Japan the recycling technology and know-how that we have fostered so far and will endeavor to make effective use of global resources.

Examples of Recycled Resources in New Products



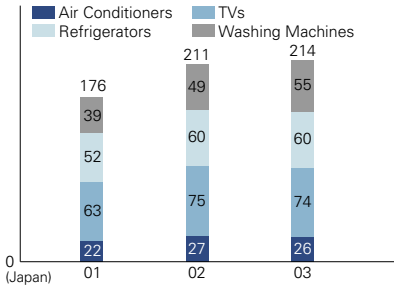
Home Appliance Recycling

FY'03 Performance

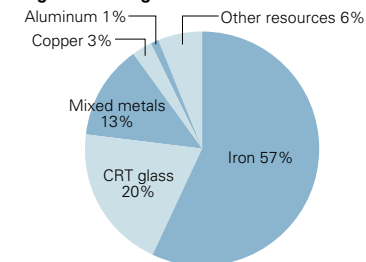
Recycled Matsushita products at the 28 recycling centers throughout the country amounts to 2.14 million units in the four legally designated product categories in FY'03, which is an increase of about 1% over the 2.11 million units in FY'02. We attribute this increase to greater understanding and cooperation on the part of our customers in regard to home appliance recycling.

Number of Units Recycled

(10,000 units, rounded to nearest 1,000)



Weight Percentage of Recovered Materials (FY'03)



Matsushita Eco Technology Center (METEC)

METEC, which serves as Matsushita's recycling and testing center for home appliances such as TVs, air-conditioners, refrigerators, and washing machines, but also researches design techniques to improve the recyclability of products and ways to reuse the recycled materials, embracing the concept of "from products to products."

In FY'03, METEC processed 700,000 units disposed of in the six prefectures of the Greater Osaka region. In addition, as a facility open to the public, the center received 8,500 visitors during FY'03 and has received a total of some 27,000 visitors since it began operation.

Recycling of Personal Computers

Matsushita undertakes the recycling of end-of-life personal computers through assigned transportation and recycling companies. We have been accepting business-use end-of-life PCs since FY'01, and extended this to home-use PCs in October 2003.

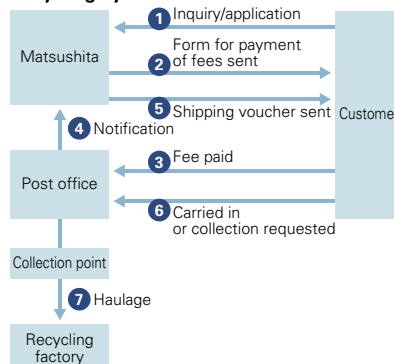
URL Recycling of Personal Computers
panasonic.biz/pc/recycle/ (Japanese only)

Personal Computer Recycling Performance (Unit)

	Business-use	Home-use
FY'01	2,752	—
FY'02	3,036	—
FY'03	1,540	418

Note: Performance for the recycling of home-use PCs is from Oct. 2003 onward

Overview of Home-use Personal Computer Recycling System



Recycling of Rechargeable Batteries

In Japan, Matsushita participates in the End-of-Life Portable Rechargeable Battery Collection System managed by JBRC (Japan Portable Rechargeable Battery Recycling Center), which include Ni-Cd, nickel hydride and lithium ion batteries, as well as some of the valve regulated lead-acid batteries. To improve the collection rate of the portable rechargeable battery, we endeavor to educate the general public, while staging a variety of campaigns in concert with manufacturers of battery-built-in appliances.

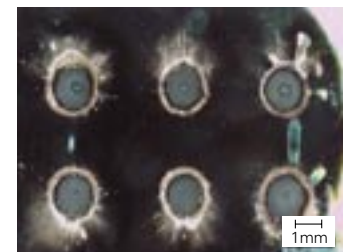
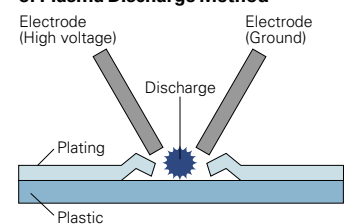
TOPICS

Metal Delamination Technology using Plasma Discharge

Panasonic AVC Networks Company, in collaboration with Professor Akiyama of The Pulsed Power & Plasma Laboratory, Kumamoto University has developed the world's first technology using plasma discharge to delaminate and remove metal film, such as metal plating, which has been formed onto plastic.

Since this technology enables material recycling with hardly any deterioration to plastic collected from end-of-life products, it is considered an important recycling technology supporting Matsushita's concept of "from products to products." A plasma discharge similar to lightning (approximately $20\mu\text{s} = 1/50,000$ of a second) is released from an electrode, delaminating the metal film with its shock wave and heat. It is planned to start practical use in the recycling of metal-plated TV cabinets during FY'05.

Theoretical Diagram of Plasma Discharge Method



The surface of plated plastic with the substrate resin exposed by plasma discharge. By shortening the discharge period, the surface plating can be removed entirely.

Environmental/Energy Business

Combining the high-level technology that Matsushita possesses, we are striving to expand our environmental solution business in preparation for the growth of the market in the future.

Here, we introduce some representative examples of our efforts in the fields of energy-conservation, waste disposal/recycling, and water purification.

How will our lives change with household fuel cells?

Realizing a comfortable lifestyle, by making abundant use of high quality energy, while reducing environmental impact such as global warming. We propose a new eco life for the 21st Century.

In current residences, many of the conveniences depend on the consumption of energy. For example, products such as lighting and air conditioning use electricity to make them work and a bath uses gas to heat the water. This increases the amount of CO₂ emission, which is linked to the global warming. This means that the choice of a new type of energy is needed to provide a comfortable lifestyle while preventing global warming.

One solution being considered is the Household Fuel Cell Cogeneration System (below, fuel cell). These fuel cells synthesize water from hydrogen and oxygen and use the electricity generated in this process as a household energy source. Because of this, they have more attention as a possible dispersion type power generator for each household. In addition, the cogeneration system, by utilizing the heat produced when generating electricity to heat water, can increase the overall energy-use efficiency to 70%. This improves an energy conservation of over 15% compared to the power supplied by electric power companies and conventional water heating, and leads to a reduction in the amount of CO₂ emissions of over 20%. The hydrogen used in the generator is synthesized from city gas or LPG, so there is no need to install hydrogen tanks, etc. and it is consid-

ered this will expedite the spread to ordinary households.

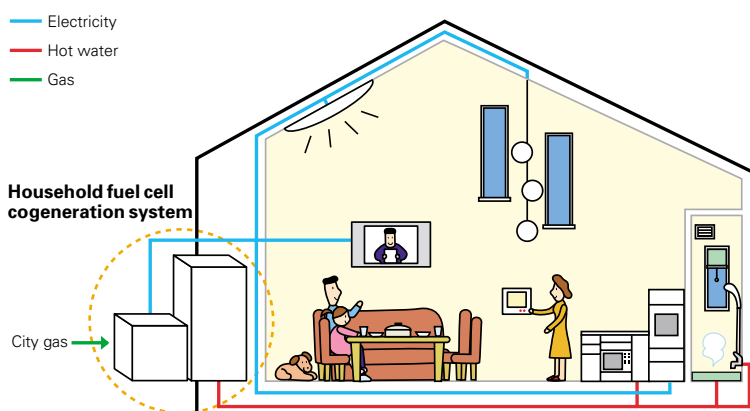
In this way, the fuel cells, as an electric generator system contributing to the prevention of global warming, and, by utilizing heat effectively, realize "a comfortable life with hot water on demand." In terms of household expenses, these energy saving measures can cut utilities bills by approximately 50,000 yen a year. We are also studying ways to realize further energy saving by connecting the electric appliances in a household a network system and carrying out energy management for them all (page 70).

We at Matsushita view these fuel cells as a core technology for supporting "coexistence with the global environment" and are putting every possible effort into their development as a special president's project. In addition, in FY'03, we started field testing in the "Lifestyle Research Laboratory LivLa," Matsushita's research facility for the creation of 21st Century lifestyles. As a result, gas supply companies have selected Matsushita as a supplier of commercial fuel cell equipment and deliveries are due to start in the fourth quarter of FY'04. Some challenges remain, such as guaranteeing endurance over an assumed period of 10-year-use and ways of cost reduction towards full-scale market expansion, but we will focus every effort on overcoming them in the near future. We will soon be in a position to introduce to everyone the energy system of your dreams, the "Household Fuel Cell Cogeneration System."



The Household Fuel Cell Cogeneration System under Development

A Proposal for a New Eco Life with Household Fuel Cells



Energy Saving Diagnosis Business for Chain Stores, etc.

Japan's energy consumption is in the increasing trend. The consumer business sector is showing the highest growth, with consumption in FY'01 increased by 45% from FY'90, according to a report released by the Agency for Natural Resources and Energy.

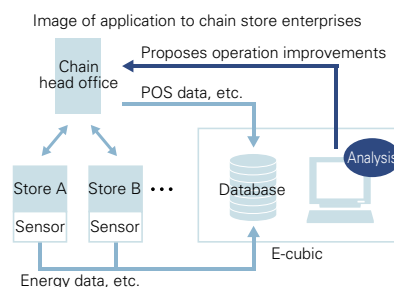
Matsushita, along with The Japan Research Institute, Limited and 22 other companies, established E-cubic Co., Ltd. in July 2003 as energy service providers (ESP) for the consumer business sector, to make proposals for the regulation of energy use in corporate activities.

E-cubic "makes visible" where energy wastage exist for each store in a string of chain stores, such as convenience stores, and makes proposals for improvements in operations. In detail, several sensors are installed in a store which measure electric power, gas, temperature and humidity. This data is sent, along with POS data for the store, to the E-cubic database, where it is analyzed by specially developed software. Based on the results, we make proposals in energy usage through the three improvement service in operation, equipment, and procurement.

The system works by the client implementing these proposals and making actual cost reductions, a part of which E-cubic receives as a fee.

As a result of measurements carried out in a trial at the store of a leading restaurant chain, it was found that of the 500,000 yen monthly electricity bill, some 110,000 yen could be reduced. The client is currently considering the introduction of the system in all its stores.

Structure of E-cubic Service



Light and Trust Service

The "Light and Trust Service" sells the function "lighting" rather than selling the objects "lamps". This is a new environmental solution business aimed at corporate users. The service company (a dealer of an electrical equipments with which Matsushita has concluded a business model contract) retains the ownership rights of the lamps, meaning the clients can obtain just the service of "lighting."

In the past, the disposal of end-of-life lamps has been a great problem for the clients aiming at zero emissions. With this service, the owner of the lamps, the service company, collects end-of-life lamps, carrying out proper management and disposal. Especially with fluorescent tubes containing mercury, we are progressing with the thoroughness of processing to render them harmless and material recycling, aiming for "lamps to lamps" in the future. As far as the customer is concerned, this service offers advantages not only in terms of total cost, such as management costs and for risk management, but also offers great advantages from the environmental perspective. Since starting the service in April 2002, we already have contracts with 350 businesses, including Toray Industries, Inc. The service catches attentions on many fronts, such as in newspapers and magazines, and in October 2003, in the United Nations University Zero Emissions Forum, it was presented as a representative of an environmentally conscious business model.

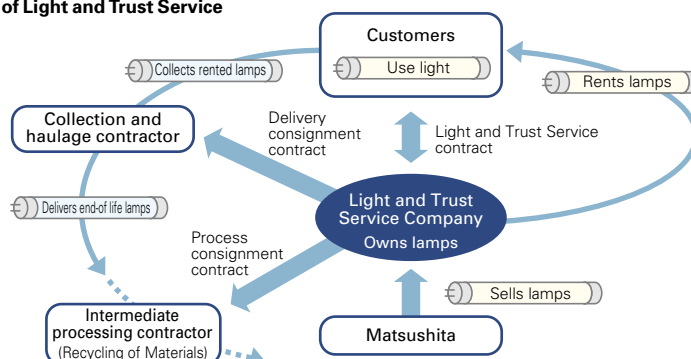
Water Purification Business

Matsushita Environmental & Air-Conditioning Engineering Co., Ltd. is actively developing its water purification business in both the consumer and industrial spheres.

In the field of consumer waste water treatment, we have developed a "High Speed Bio-Processing Sludge Reduction System" in collaboration with the Osaka Institute of Technology. By applying proprietary ultrasound/biolysis technology, this system enables the reduction of excess sludge from organic waste water treatment by about 70% compared to conventional methods. The system was put on sale in the spring of 2003 as a sludge control system.

In the field of industrial waste water treatment, we have developed an "Activated Carbon Fiber Catalytic Filter" for semiconductor factories. In the factories, large amounts of cleaning fluid containing hydrogen peroxide are used in the wafer-cleaning process. After cleaning, the hydrogen peroxide is separated and removed from the waste fluid using catalyst-containing granular activated carbon filters. The rest of the fluid is reused in the factory. However, the filters need to be changed frequently. To solve this problem, we developed catalytic filters using activated carbon fibers with high treatment capacity in collaboration with activated carbon manufacturers. In FY'03, a plant with these activated carbon fiber catalytic filters was delivered to the Semiconductor Company in Japan and is contributing to cost reductions and the stabilization of the manufacturing process.

Diagram of Light and Trust Service



Shift to Green Marketing and Logistics

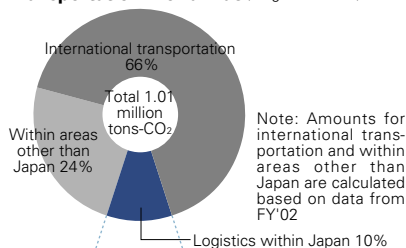
We call efforts to reduce environmental impact at the stage of transporting products to customers "Green Logistics," and are actively pushing ahead with such measures.

In addition, at the marketing stage, we are promoting the spread of environmentally conscious products.

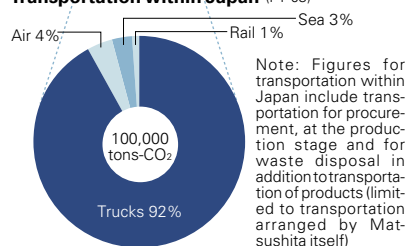
CO₂ Emissions from Transportation and Their Reduction

In the area of logistics, Matsushita's CO₂ emissions reached 1.01 million tons-CO₂ worldwide. In FY'03, as a result of promoting the reduction of CO₂ emissions, a number of sites achieved positive results, including Matsushita Logistics Co., Ltd, which is responsible for logistics. Elsewhere, Panasonic AVC Networks Company America have achieved a reduction of 223 tons-CO₂ in emissions over one year by reviewing their TV transportation routes.

Breakdown of CO₂ Emissions from Transportation Worldwide (rough estimates)



Breakdown of CO₂ Emissions from Transportation within Japan (FY'03)



Major Efforts for the Reduction of CO₂ Emissions

Company/site	Measures implemented	Reduction in CO ₂ emissions (tons-CO ₂)
Matsushita Logistics Co., Ltd.	Promotion of modal shift	1,718
	Transportation sharing with other companies	151
	Promotion of "eco drive"	113
Victor Company of Japan, Ltd.	Unloading of imported products at closest port to market, etc.	1,167
Okayama Site, Lighting Company	Co-transportation of shipping between Osaka site and Okayama site	313
Panasonic AVC Networks Company	Modal shift for PDP panels	117
Panasonic AVC Networks Company America	Direct transportation of TVs to customers	223

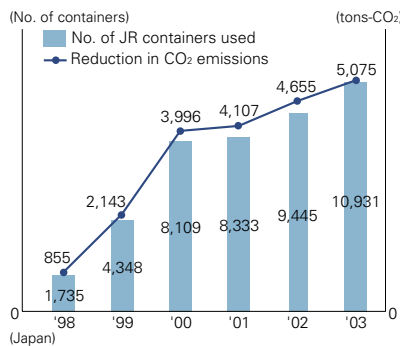


The two mainstays supporting Matsushita's "Green Logistics": Our environmentally conscious trucks and 31-foot rail freight containers. The environmentally conscious trucks are Toyota hybrid vehicles equipped with Panasonic EV Energy Co., Ltd.'s nickel hydride batteries.

Promotion of Modal Shift

Modal shift is the shift of transportation modes from trucks to railroads and ships, which exert less of an environmental impact. The shift from trucks to rail transportation can cut CO₂ emissions to approximately one-eighth. In FY'03, Matsushita pressed ahead with modal shift centered on the transportation routes connecting the Greater Tokyo, Greater Osaka, and Kyushu regions. As a result, the number of rail freight containers in use rose to 10,931 (calculated on the basis of 5-ton containers), an increase of 16% over the previous year. Due to delays in the introduction of containers in some transportation routes, the target figure (15,000 containers) was not achieved, but by measures such as the addition of new transportation routes in FY'04, we will increase the pace of modal shift and aim for the achievement of the mid-term target (20,000 containers in FY'05).

Reduction in CO₂ Emissions Due to Modal Shift



Introduction of Environmentally Conscious Trucks

Matsushita established the "Environmental Policy for Company Vehicles" in December 2002 and is pushing ahead with measures to replace all company vehicles with environmentally conscious vehicles. In November 2003, when the world's first hybrid light truck was announced, Matsushita moved immediately for its introduction. Hybrid trucks possess outstanding environmental performance capabilities and can cut CO₂ emissions by approximately 25% and air pollutants by over 50% in comparison with conventional diesel trucks. At the end of March 2003, out of the 440 trucks owned by Matsushita Logistics, 15 are hybrid trucks and are used in deliveries, such as to retail stores. In the future, we will further accelerate the introduction of environmentally conscious vehicles, with hybrid, and are drawing up plans enabling the target by FY'10 to be achieved by FY'07.

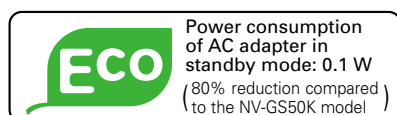
Plans for Introduction of Environmentally Conscious Trucks (Japan)

	Achievement in FY'03	Target for FY'10
Low emission gas trucks	48 vehicles	48 vehicles
Natural gas trucks	2 vehicles	2 vehicles
Hybrid trucks	15 vehicles	390 vehicles
Ratio of environmentally conscious trucks	15%	100%

Environmental Label

To let our customers understand that certain products have met Matsushita's own standards more easily, Matsushita has displayed the details on an "Environmental Characteristics Sticker" since FY'97. From April 2003 it has been replaced by a Type II (self-declaration claims) label, the "Environmental Label," which will be stuck on products and in catalogs to widely convey details concerning environmentally conscious products.

Matsushita's "Environmental Label"



LCD Digital Video Camera
NV-GS55K

Sales Promotion Campaign "N's Eco Project"

Matsushita has promoted a campaign based around the keyword "Eco" and centered on the two activities of promoting the spread of energy-conserving products and increasing regional greenery. As a part of the campaign, special displays of environmentally conscious products are being exhibited in stores in order to make energy-conserving and water-conserving products known to as many customers as possible. At the same time, Web contents allowing customers to compare the running costs of past products with new products is being displayed on the Matsushita Website and has attracted many visitors.



Special exhibits of energy-conserving and water-conserving products in a large retail store

Green Purchasing

Based on the "Green Purchasing Standards for Company Vehicles," established in July 2003, Matsushita is proceeding with the replacement of company vehicles with low-pollution vehicles and low-emission gas vehicles, aiming for 100% introduction by FY'10.

In addition, Matsushita is pushing ahead with the active purchasing of Green Products and is proceeding with the creation of an in-house purchasing system based on "Green Purchasing Standards for Office Stationery" for office supplies. Matsushita has achieved a 100% ratio in the use of recycled paper in copiers since December 2003.

Performance in Green Purchasing of Office Supplies (FY'03, Japan)

Classification	Copier paper	Stationery
Total purchasing	160 mil. sheets	164 mil. yen
Purchasing of environmentally conscious products	135 mil. sheets	115 mil. yen
Implementation rate of guidelines	84%	70%

Note: Performance as ascertained by staff for in-house bulk purchasing

Introduction of Company Cars (FY'03, Japan)

Classification	Current State
Total no. of vehicles owned	2,247 vehicles
No. of environmentally conscious vehicles	985 vehicles
Rate of introduction of environmentally conscious vehicles	43.8%

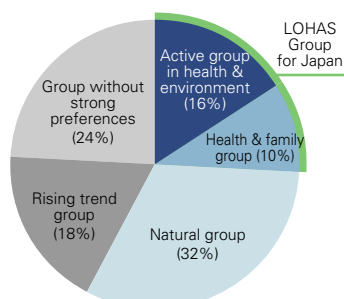
Note: Environmentally conscious vehicles conform to the purchasing guidelines of the "Green Purchasing Network"

TOPICS

LOHAS Survey Carried Out for Japan (Lifestyle of Health and Sustainability Survey)

In the United States, according to the marketing survey a group of people who consider environmental problems as one part of a "healthy and plentiful lifestyle" are gaining prominence (LOHAS: Lifestyle of Health and Sustainability) and that this group accounts for some 30% of the total population. With this as impetus, a lifestyle survey was carried out in October 2003 aimed at Japanese consumers. The results show that the groups that display great interest in health and the environment account for some 60%, and, in particular, the two groups with active purchasing behavior can be considered the dominant LOHAS group for Japan. These results will be put to use in our various communication activities.

Classification of Lifestyle Groups based on the Matsushita Survey



Subjects of survey: Japanese, 20-69 year-old males and females
Valid responses: 1,483

Group without Strong Preferences

This group does not exhibit strong preferences in their lifestyles and is conservative.

Active Group in Health & Environment

This group is serious about maintaining their health and preserving the environment. They have a high level of social awareness and are greatly interested in environmental problems. Many of those in this group will select environmentally conscious products even though the price may be high.

Health & Family Group

This group pays much attention to hygiene and shows great interest in family health. They are highly inclined to consider environmental problems for the sake of health or savings. There are many women raising children in this group.

Natural Group

This group places emphasis on spiritual wealth and harmony and is inclined towards a natural and simple life. They carry out everyday energy saving and recycling.

Rising Trend Group

This group shows the least interest in health and the environment. There are many single men in this group.

Environmental Communication

Only one company cannot build a sustainable society. Partnerships with people of the different positions is very important. Environmental communication plays an important role in linking Matsushita with stakeholders from different positions.

Environmental Communication Activities

Matsushita is promoting the publication of environmental information via the Sustainability Report, via various media, and at exhibitions. We carried out activities aimed at raising mutual understanding by communicating with people from many different positions of society.

Accomplishments in Environmental Communication (FY'03)

Media/activities	Results
Sustainability Report	35,000 copies
Website	Approx. 150,000 accesses
TV commercials	3
Newspaper advertisements	7
Exhibitions	10
Lectures	44
News releases	23
Interviews	22
Replies to questionnaires	28
E-mail inquiries	1,058

Information Disclosure through Our Corporate Report and the Website

Our "Sustainability Report" changed its title to "The Panasonic Report for Sustainability 2004" to reflect its status as a corporate report. This title conveys Matsushita's stance for contributing to a sustainable society. In addition, in FY'03, out of all the sites worldwide, 244 sites displayed environmental reports on their websites.

Holding Exhibitions and Our Participation

The Environmental Forum 2003 (page 29) was held on the topic of "Achieving a 'New Prosperity,'" on November 12th - 15th, 2003, and we had 4,100 visitors. We also actively participated in several exhibitions such as Eco-Products 2003 and ENEX2003 and appealed Matsushita's environmental activities.



Renovated environmental display at Panasonic Center

Meeting for Reading the Sustainability Report

The Sustainability Report is the core medium for conveying Matsushita's environmental activities.

We held the "Meeting for Reading the Sustainability Report" to learn the readers' impressions and questions, and to find out the tasks we should tackle. This meeting was held as a part of the Environmental Forum 2003 to discuss this report with the readers, and we had more than 200 participants.

panasonic.co.jp/eco/communication/yomukai2003/
(Japanese only)



A participant asking a question

Stakeholders' Feedback

When we are pushing ahead with our environmental activities, Stakeholders' feedback is invaluable. In FY'03, we received a total of 1,508 comments and suggestions.

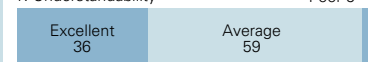
Opinions and Requests (FY'03)

(%) Questionnaire in the Sustainability Report 16

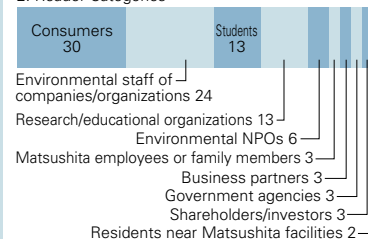
Requests for the Sustainability Report 61	Inquiries 23
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Results of the Questionnaire in the Sustainability Report (%)

1. Understandability



2. Reader Categories



3. Topics of Interest: Ranking

- No.1 Accomplish the Lead-Free Soldering Project
- No.2 Zero Waste Emissions
- No.3 Product Life-cycle and Environmental Impact
- No.4 Environmentally Conscious Product Design
- No.5 Matsushita Eco Technology Center
- No.6 Relationship with Customers
- No.7 Recycling of End-of-life Products

TOPICS

Panasonic Children's Eco-rally

"Panasonic Children's Eco-rally" was held with the theme "Let's Discover & Feel Eco with Panasonic" at the Panasonic Center on November 15, 2003. In this "Eco-rally" children enjoyed learning ecology with their parents. The event, held in collaboration with NPOs, was attended by about 70 families.



Children enjoying "Eco-rally"



Children learning and making batteries



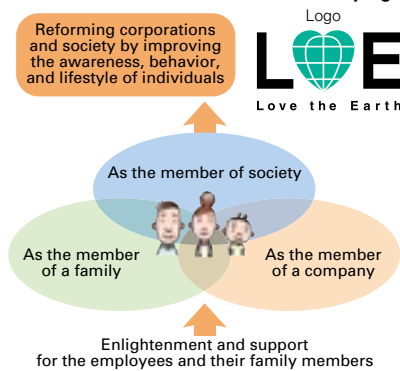
Miwako Matsuda
Environmental Education
Institute (NPO)

I think that we can improve our environmental activities by creating partnerships between government, citizens, schools and companies, each with an awareness of the role it has to play. I would like companies to actively take part in environmental activities by providing funds, personnel and information.

Love the Earth Citizens' Campaign

Matsushita has been promoting the "Love the Earth Citizens' Campaign (LE activities)" group-wide since 1998. In this campaign, employees and their families actively participate in environmental activities, not just in their business activities, but also at home and in their communities, with the aims of raising levels of environmental awareness and reforming lifestyles.

The Goal of Love the Earth Citizens' Campaign



Survey: How much the employees consider the environment

Matsushita carried out a survey on the level of employees' practice of eco-lifestyles. From the results of this survey, we are planning to grasp potential leaders for the LE activities and to create a network of "Environment Masters" who can work as community volunteers or in environmental education activities.

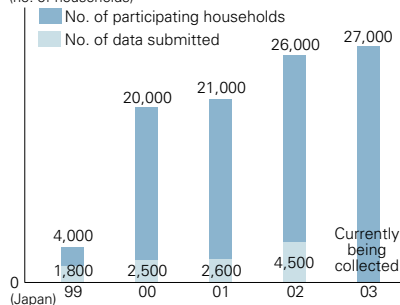
Activities to Reduce Plastic Shopping Bags by using "Eco-bags"

Matsushita is recommending the employees to use "Eco-bags" instead of receiving plastic bags in shopping. In FY'03, 412 households joined this activity, and we were able to reduce the usage of plastic shopping bags by 39% in 3 months.

The Environmental Household Budget Ledger

To reduce CO₂ emissions, Matsushita is recommending the employees to record the amount of energy used and the amount of garbage in everyday life in the environmental household budget ledger and to improve their lifestyle. CO₂ emissions had been cut by about 17% in total during the four-year activity since 1998.

Number of Households using the Environmental Household Budget Ledger (no. of households)



URL Love the Earth Citizens' Campaign
panasonic.co.jp/eco/en/le/

Matsushita Green Volunteer (MGV) Club

The Matsushita Green Volunteer (MGV) Club was established in 1993 with funds contributed by approximately 70,000 of Matsushita's current and retired employees and the Labor Union with the aim of "each individual being concerned with environmental problems and cultivating greenery." In support of the Club, Matsushita also donated almost the same amount as a matching gift. In FY'03, we had a 10th anniversary ceremony and invited supporters of the activities. We clean parks, try to preserve forests and go nature watching around nationwide Matsushita's site such as the Osaka Tsurumi Ryokuchi Park and Izumi Forest in Izumi-sano City.



We appreciate the supporters at the 10th anniversary ceremony.

"Forest to grow co-existence with Environment"

The "Forest to grow co-existence with Environment" is a part of the promotion of activities to increase greenery in the grounds of Matsushita business units. We cooperated with the Panasonic Automotive Systems Company, which is in charge of automobile-related business, such as car navigation systems. In August 2003, we made an appeal to all of our business divisions for a "Promotional Plan for Employee-cultivated On-site Greenery," and began planting trees at the sites of five model business divisions. Matsushita plans to continue the creation of forests by employees in the future.



A tree-planting festival in March 2004 at the Panasonic Mobile Communications Co., Ltd. (Saedo, Kanagawa)

TOPICS

LE Regional Communication Meeting

We held a public symposium on the theme of "To Look for Eco Life," at the Kumamoto City Youth Hall, on May 24, 2003, so that we could promote our regional corporate citizenship.



The meeting was attended by some 240 local government officials, educators and citizens.



A special lecture by Professor Takashi Miyakita, Kumamoto Gakuen University
 "Our Lives and the Environment"
 - An Introduction for Green Consumers -

This symposium was very significant since it gave a good opportunity to create new relationships among citizens, NPOs, private business people and government, to resolve various problems through the allocation of roles and coordinated activities according to their respective individual characteristics.

Environmental Sustainability Management and Developing People

In coordination with the new business structures started in FY'03, operations in the corporate, business domain and regional frameworks have commenced. To strengthen environmental sustainability management on the business domain level, Matsushita is promoting joint ISO14001 certification. In addition, we are pushing ahead with the creation of environmental information systems using IT and the reinforcement of environmental education.

Environmental Sustainability Governance

Based on the Annual Corporate Management Policy announced in January every year and the decisions of the Corporate Environment Conferences held twice a year the policy for environmental activities is drawn up and widely conveyed to employees of the business domain companies. Each business domain company draws up an action plan according to its business characteristics and executes the specific programs, supported by related corporate committees and projects. Business domain companies evaluate the results of these activities according to the "Performance Evaluation Criteria for Environmental Sustainability Management," which are based on the targets of the Green Plan 2010. With the results of performance evaluation and third-party evaluations, environmental sustainability management are verified and reassessed from a corporate view point.

Promotion System

The most important place for the deliberation on and determination of policies and principles regarding environmental sustainability management is the Corporate Environment Conference presided over by the President. Corporate committees and projects are established for the promotion of group-wide policies and principles. Various subcommittees and working groups, made up from members of relevant functional divisions and business domain companies, are placed under these committees and project to proceed with specific activities. In April 2003, the No Hazardous Substances in Products Project was established. This project is a group-wide activity to completely stop using substances restricted by EU RoHS Directive in products shipped after April 2005, ahead of the official deadline for the directive. The scope of non-use is from technical development through procurement to the management of shipped products.

Global Promotion System

In response to the increase in environmental legislation in the world, and in order to strengthen global environmental sustainability management, the Regional Environment Conferences were established for each region of the world from April 2003. The specific aim of these conferences is to carry out discussions focused on the problems particular to each region and to strive for policy decisions which can help to solve these problems. In FY'03, the Regional Environment Conferences were held for Europe in September, for China and Northeast Asia in October, for the Americas in January 2004 and for Asia and Oceania in February. These Conferences aimed at the sharing of policies for major activities.

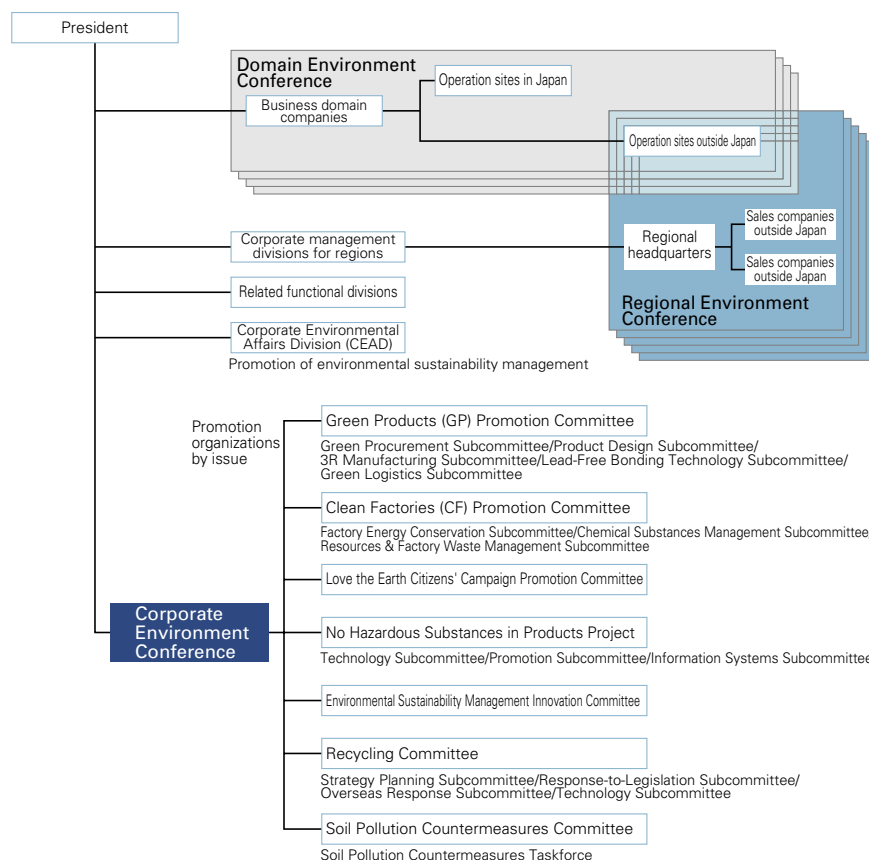


The European Environment Conference held in London, U.K. in September 2003

The Strengthening of Environmental Sustainability Management in China

Product sales in China are growing and its importance as a worldwide supply base is increasing. However, the environmental impact of, for example, its energy consumption continues to be a growing problem. There is also the problem of procuring the relevant parts and materials to be able to complete initiatives for the non-use of hazardous substances. In response to these problems, Manufacturing Enhancement Center in China was established in the Matsushita Electric (China) Co., Ltd. in February 2004 with the cooperation of the Corporate Procurement Division, Corporate Manufacturing Innovation Division, Corporate Quality Administration Division and the Corporate Environmental Affairs Division. The aim of the Center is to reinforce manufacturing ability and to respond to environmental issues in China.

Environmental Sustainability Management Promotion System



Acquisition of ISO 14001 Certification

In FY'96, we announced our policy to acquire ISO 14001 certifications at all of our manufacturing sites worldwide, and achieved this target at the end of FY'98. Currently, we are promoting certification of non-manufacturing sites. Due to the promotion of joint certification and the abolition or merger of sites by business structure reforms, the number of sites with certification has decreased and is currently 237 sites (as of March 2004).

Acquisition of ISO 14001 Certification

Region	Number of certified sites		
	Manufacturing	Non-manufacturing	Total
Japan	69	14	83
Americas	28	1	29
Europe	15	2	17
Asia and Oceania	56	8	64
China and Northeast Asia	44	0	44
Total	212	25	237

Compliance with Laws and Regulations

In recent years the content and scope of laws and regulations has expanded worldwide, reflecting an anxiety of environmental problems. We ask all our sites to comply with these laws and regulations strictly. At each site, voluntary standards are established for daily management, such as for air and water quality. These standards are usually more stringent than those required by laws and regulations and, in the case of violations, remedial measures are taken immediately. In FY'03, the number of violations in Japan and overseas, where the values stipulated in laws, ordinances or agreements were exceeded unfortunately: discharge of waste water, 7 cases; noise pollution, 2 cases; air pollution, 1 case; odor, 1 case; waste emissions, 5 cases. All cases were reported to the government and measures taken to prevent their reoccurrence (corrected in July, 2004).

Numbers of Violations of Laws and Ordinances (FY'03)

	Manufacturing	Non-manufacturing	Total
Japan	7	1	8
Outside Japan	6	2	8
Total	13	3	16

Development of Environmental Information Systems

Operation of the Product Chemical Substances Management System started in December 2003 to support green procurement as part of the world-wide promotion of the non-use of specified hazardous substances in products, such as the substances restricted by the EU's RoHS Directive. Actual operation of the System commenced in April 2004 after explanatory meeting had been carried out for both domestic and overseas suppliers. In addition, operation of the Environmental Performance System, which is able to manage monthly performance, also commenced. In the past, the period of group-wide data for most environmental performance categories was collected once per year. However, by collecting monthly data, this system can speed up the group-wide PDCA cycle and contribute to the promotion of environmental sustainability management.

Outline of Environmental Information Systems

Environmental Performance System

Factory Chemical Substances Management System (PRTR Management)

Product Chemical Substances Management System, GP-Web (Green Procurement)

Electronic Manifest System, ET manifest (Waste Emissions Management)

Environmental Education System

The environmental education system consists of general education to teach the basic environmental knowledge required to a corporate employee and an understanding of Matsushita's principles, policies and activities, and professional education for each job function to promote environmental activities. This education system is carried out at each site as a part of the activities to maintain environmental management systems responding to business characteristics and job type. Moreover, group education regarding important knowledge and technologies is carried out by the Human Resources Development Company, which supports group-wide human resources development.

Environmental Education System

General Education by Level	
Employees with overseas assignments	Pre-assignment training
Promoted employees	Training for newly appointed supervisory staff
New employees	Introductory education

Specialist Education by Job Function	
Environment	Environmental auditors
Design (Quality)	Green Products, recyclable design, non-use of hazardous substances in products
Material procurement	Green procurement

With the need for a global management, all employees assigned to work in overseas are required to attend environmental training before departure. In FY'03, a total of 194 employees attended courses on six occasions.

e-Learning System

In FY'03, the e-Learning System was launched to provide a thorough and efficient environmental education for every employee in Japan using the Internet. The education available includes an introduction to environmental problems, Matsushita's environmental activities, introduction of outstanding sites and a final test. In FY'03 some 10,000 employees joined the program. The same contents are also being used to provide general group education for manufacturing workers.



A screen from the e-Learning System

Environmental Accounting

Environmental accounting consists of environmental conservation costs and environmental benefits. Environmental benefits consist of general in-house economic benefits (in monetary terms) and environmental conservation benefits (in physical terms). However, we also evaluate Environmental Conservation Benefits (in monetary terms) and Customer Economic Benefits due to savings in electricity bills from using a product.

In FY'03, environmental conservation costs totaled 53.9 billion yen, which includes 13.2 billion yen for capital investments and 40.7 billion yen for expenses. Compared to FY'02, this marks a 10% (5 billion yen) increase. This is due to increases in investments in green procurement and investments in cleanup measures for contaminated soil, etc.

Environment-related capital investments accounted for 4.9% of the Matsushita Electric Group's total capital investments (271.3 billion yen) (compared to 4.6% in FY'02) and environment-related R&D costs accounted for 2.5% of total R&D costs (579.2 billion yen) (compared to 3.1% in FY'02).

Due to the increased energy-conservation capabilities of products compared to FY'02 products, customer economic benefits amounted to 18.2 billion yen. When combined with environmental conservation benefits and evaluated including the contribution to society, the results exceeded the environment conservation costs of 13.8 billion yen for environment-related R&D.

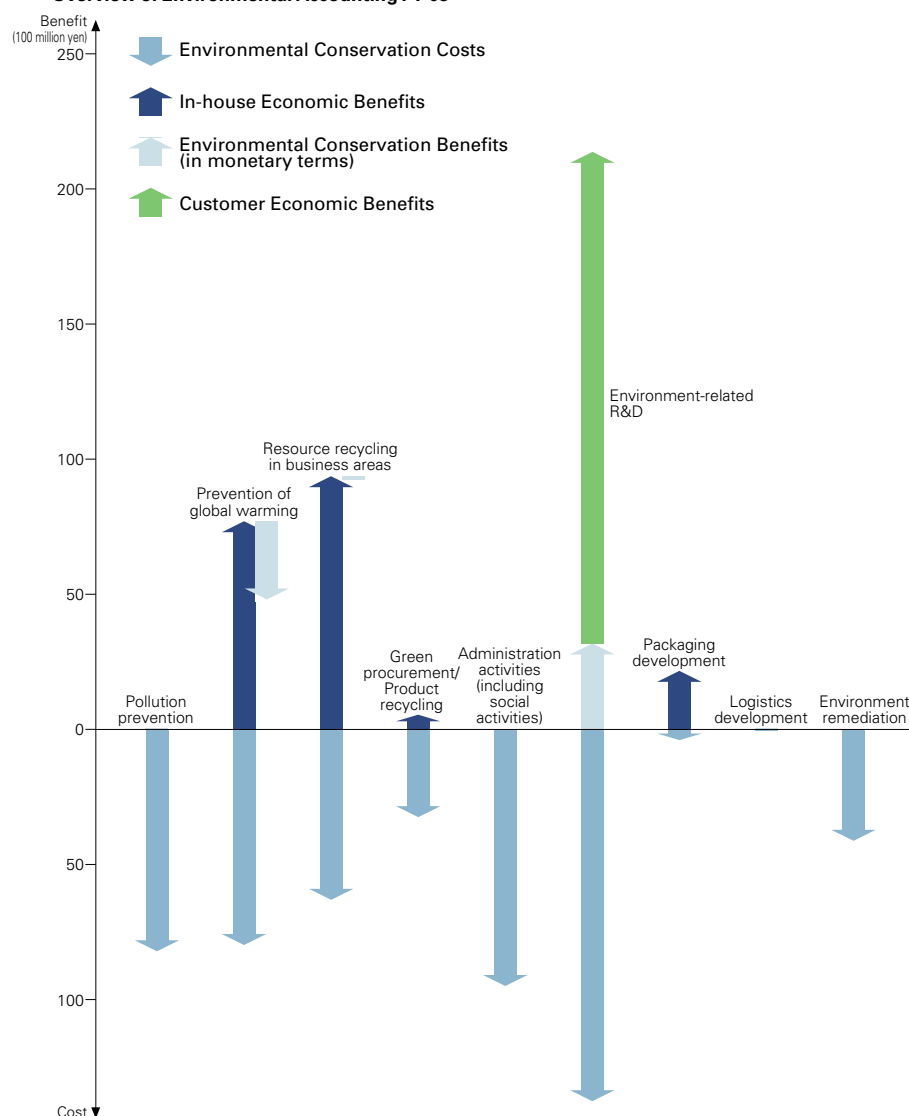
Scope of Environmental Accounting

Accounting period: April 1, 2003 - March 31, 2004

Companies covered: Matsushita Electric Industrial Co., Ltd. and affiliated companies in Japan and overseas

Panasonic Communications Co., Ltd.
Panasonic Mobile Communications Co., Ltd.
Matsushita Ecology Systems Co., Ltd.
Matsushita Battery Industrial Co., Ltd.
Matsushita Electronic Components Co., Ltd.
Panasonic Factory Solutions Co., Ltd.
Matsushita Industrial Information Equipment Co., Ltd.
Matsushita Kotobuki Electronics Industries, Ltd.
Victor Company of Japan, Ltd.
Matsushita Refrigeration Company
Matsushita Toshiba CRT Display Co., Ltd.
Matsushita Logistics Co., Ltd.

Overview of Environmental Accounting FY'03

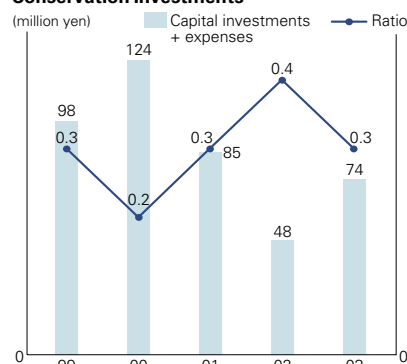


Future Directions

We continue to invest in the reduction of greenhouse gas (GHG; such as PFCs) emissions. Since it has greatly increased production amounts in its device business, GHG emissions also increased in FY'03 and the calculation of environmental conservation benefit in relation to the prevention of global warming amounts to minus 2.9 billion yen. We will continue carrying out measures for the reduction of GHG emissions in the future. On the other hand, the transition in expense-to-benefit ratio of investments in factory energy conservation tells us that the investment can be recovered by its in-house economic benefit in approximately three years. In the future we consider it necessary

to strengthen our investments, while avoiding cost rises, and control increases in CO₂ emissions.

Expense-to-benefit Ratio of Factory Energy Conservation Investments



Environmental Conservation Costs (million yen)

Category		Capital Investments	Expenses	Major Areas Addressed
Costs within business areas	Pollution prevention	2,772	5,444	Pollution prevention (air, water, and soil contamination, noise, vibration, offensive odor, land subsidence, etc.)
	Global environment conservation	5,551	2,433	Prevention of global warming, energy conservation, ozone layer protection, etc.
	Resource recycling	955	5,363	Reduction, recycling, and proper treatment of wastes; reduction of water consumption
	Subtotal	9,278	13,240	
Upstream/downstream costs		1,353	1,901	Collection, recycling, and proper treatment of end-of-life products; green procurement
Administration costs		373	9,082	Development and implementation of environmental management system, information disclosure, environmental advertisement, employee education, etc.
R & D costs	Technology development	1,945	11,822	Development of environment-oriented elemental technology and installation of facilities for its production
	Packaging/logistics development	7	454	Development and introduction of environmentally conscious packaging, R&D for reducing environmental impact in logistics
	Subtotal	1,952	12,276	
Social activity costs		0	51	Donation to and support for environmental activities conducted by environmental conservation organizations and local residents
Environment remediation costs		232	4,130	Studies on and measures against past contamination (groundwater, soil, etc.)
Total		13,188	40,680	

Note: Expenses include labor costs but not the depreciation of capital investment. When the entire amounts of capital investments and labor costs cannot be regarded as environmental conservation costs, differences or appropriate portions (divided proportionally) are calculated. R&D costs are limited to investments and expenses for environment-oriented technology development, and do not include product development costs utilizing such technology.

Environmental Conservation Benefits

Category		Reduced Amount
Environmental conservation benefits from business activities	CO ₂ emissions	(450,400 tons)
	Emissions of greenhouse gases(excluding CO ₂) *1	168,100 tons
	NO _x emissions(Japan)	53 tons
	SO _x emissions(Japan)	77 tons
	Emissions of controlled chemical substances (Japan)	157 tons
	Industrial waste for final disposal (Japan)	754 tons
	Water consumption (Ground water)	(3 million m3)
Environmental conservation benefits during product use	CO ₂ emissions*2(Japan)	336,360 tons
	Packaging materials used Corrugated cardboard Expanded polystyrene	997 tons (306 tons)
Environmental conservation benefits during product transportation	CO ₂ emissions*3 (Japan)	3,802 tons

Note: *1: CO₂ equivalent

*2: Estimated amounts of emissions from four major home appliances sold in Japan (Lifetime CO₂ emissions when using FY'02 models - Lifetime CO₂ emissions when using FY'03 models) X Number of units sold in FY'03 in Japan (The appliances are TVs/PDPs TVs, refrigerators, air conditioners, and washing machines.)

*3: CO₂ emissions during product transportation in Japan. Transportation accompanying product imports/exports is not included.

*4: The coefficient used to convert physical terms into monetary terms is set based on the costs necessary for curbing 1 ton of environmental impact in Japan. CO₂ = 9,425 yen/ton is derived from the costs necessary for curbing CO₂ emissions in order to achieve the target specified in the Kyoto Protocol (amount of carbon tax estimated by the Ministry of the Environment). The following coefficients are derived from the costs used to curb environmental impact in the past: NO_x = 66,315 yen/ton, SO_x = 50,159 yen/ton, VOC = 50,090 yen/ton, underground water = 36 yen/ton (using research data from Integrated Environmental and Economic Accounting, published by the former Economic Planning Agency).

*5: Volatile Organic Compounds (VOC), major chemical substances discharged

*6: Groundwater which does not incur any cost for the supply

*7: Figures in parentheses denote negative values.

Environmental Conservation Benefits (in monetary term)*4 (million yen)

	(4,245)
	1,584
	4
	4
	8*5
	-
	(115)
	3,170
	-
	36
Total	446

In-house Economics Benefits (million yen)

Category		Investments during FY'03	Investments over past years
Cost savings	Energy conservation at business units	2,390	5,309
	Reduction of waste treatment expenses	418	1,362
	Reduction of water and sewage costs	156	637
	Reduction of packaging materials and distribution expenses	931	1,229
Gains	Gain on sale of recyclable waste from business units	5,316 (single year)	
	Gain on sale of recyclable waste from end-of-life products	546 (single year)	
Total		18,295	

Note: Presumed benefits attributable to avoidance of potential risks and enhanced corporate image are not included in the figures.

The effects of the investments over past years is derived from reduction effects obtained in FY'03 from capital investments made in the past four years.

Customer Economic Benefits

Savings in electricity costs during product use (Japan)	
Savings in electricity	826.44 million kWh
Savings in electricity costs	18.182 billion yen

Notes:

Estimated amounts of emissions from four major home appliances sold in Japan (Lifetime electricity consumption by FY'01 models - Lifetime electricity consumption by FY'02 models) X Number of units sold in FY'02 in Japan (The appliances are TVs/PDP TVs, refrigerators, air conditioners, and washing machines.)

Monetary conversion coefficient of electricity price/ 22 yen/kWh

Source: Revised Reference Prices of Electricity Bills, published by the Home Electric Appliances Fair Trade Conference

Environmental Risk Management

Corporate environmental risks consist of environmental accidents, environmental pollution, and compliance with environmental laws. We incorporate the risks into our environmental management system and are continually striving to improve those measures. This section reports on the conservation of soil and groundwater.

How is Matsushita responding to the problems of PCB waste?

Once on-site pollution from buried PCB-containing capacitors was confirmed and voluntarily disclosed to the public, Matsushita pushed ahead with countermeasures at each site. The work to prevent off-site migration was completed in December 2003, and most of the work of excavating buried capacitors was also finished.

In the past, we manufactured capacitors that employed PCBs (polychlorinated biphenyls) as insulation oil for use in power line, lighting ballasts, and electronic circuits. PCBs were widely used because of their highly advanced chemical properties. However, the toxicity of PCBs became a matter for social concern and, in response to the administrative guidance issued by the Ministry of International Trade and Industry of Japan, we discontinued the production of PCB-containing capacitors in 1972.

Subsequently, in 1998, while carrying out a survey on VOCs (volatile organic compounds), we found PCB contamination on the premises of the Toyonaka and Matsue factories. We carried out measures to prevent the off-site migration of the contamination at both plants and have been engaged in ongoing monitoring, since then.

In April 2002, Toyama Matsushita Electric Co., Ltd. made a public disclosure of the burial of PCB-containing capacitors. We took this opportunity to urge all sites to conduct surveys and as a result we learned that end-of-life capacitors containing PCBs had been buried at the Toyonaka and Matsue factory and at the former Tsukamoto factory sites. The results of hearings suggested the on-site burial of end-of-life PCB-containing light ballasts, at the Takatsuki factory and Nagaoka factory. Responding to the results of these surveys with sincerity, in January 2003, we report-

ed these findings to local governments and made a voluntary public disclosure. We established the Soil Pollution Countermeasures Committee in February and started all-out efforts to institute corrective measures. As a result, excavations at the Toyonaka factory, former Tsukamoto factory and Takatsuki factory have been completed and measures at the Nagaoka and Matsue factory are continuing according to plan. Recovered PCB waste has been appropriately stored and reported to authorities.

To promote the processing of PCBs to render them harmless, the PCB Management Team was established in May 2003. However, to accelerate the measures further, this team was dissolved to form the new PCB Management Office in June 2004. This office will continue to devote every effort to solve problems relating to PCBs.



Public briefing session



Water cutoff work with steel sheet piles



Excavation work



Remediation pumping equipment

Status of Cleanup Measures at Each Factory

Plant name	Status of cleanup	Prevention of off-site migration	Remediation pumping	Excavation work	Date of completion
Toyonaka Factory	Suspected 10 burial points split into 5 zones and excavation carried out. Completed in March 2004.	Yes	Yes	Yes	March 2004
Former Tsukamoto Factory	Survey of burial points and soil confirmed pollution. Countermeasures include water cutoff with steel sheet piles and covering of soil with asphalt. Remediation pumping is being carried out.	Yes	Yes	Yes	December 2003
Matsue Factory	Excavation work commenced in 2004.	Yes	Yes	(Commencing in FY'04)	
Takatsuki Factory	Excavation of lighting ballasts completed in December 2003.	Prevention of off-site migration is not required as neither soil nor water pollution detected.		Yes	December 2003
Nagaoka Factory	Excavation of lighting ballasts from suspected burial points in progress. Completion expected by September 2004.			(In progress)	September 2004

Conservation of Soil and Groundwater

Preventive Measures

In the latter half of the 1980's, soil and water contamination by chlorinated organic solvents was found at some of our sites. Since then, preventative measures have been carried out group-wide. In FY'91 we issued the "Manual for Preventing Contamination of Soil and Groundwater" and have been progressing with surveys of contaminated areas and appropriate countermeasures. The use of chlorinated organic solvents was abolished totally during FY'95 and the "Guides for the Prevention and Management of Environmental Pollution" was issued during FY'99 to prevent reoccurrences of pollution.

Examples of Pollution Prevention Measures

Plumbing inside a pit
Underground plumbing is suspended inside a pit, the surface of which is treated with chemical resistant material. In case of pipe damage, this structure prevents the leaked liquids from infiltrating the soil.



Installation of a spill prevention dike around chemical storage tanks
In the event of a chemical spill while the tank is being replenished, the dike serves as a wall to contain the spilled liquids, preventing them from infiltrating the soil.



Installation of an inspection well to monitor leakage from an underground tank
In the event of a chemical leakage from the underground tank, this inspection well will detect the leakage at an early stage.



Ensuring Inspection and Implementation of Countermeasures

With the progress of legislation such as the "Guidelines for Surveys of and Countermeasures for the Contamination of Soil and Groundwater" by the Environment Agency in 1999, the addition of fluorine and boron to the list of substances regulated by environmental standards and the "Law for Countermeasures against Soil Pollution," which came into effect in 2003, we launched about reconfirming surveys and the implementation

of countermeasures for pollution by elements such as VOCs (volatile organic compounds) and heavy metals in FY'02. For the safety and ease-of-mind of local residents a top priority, and in close contact with local government, we are putting into action thorough, effective and efficient countermeasures.

Soil Risk Management Policy

Policy: As the basis for maintaining the safety and ease-of-mind of local residents, all soil risks shall be "placed under management."

Conditions for "placed under management:"

1. Surveys have been completed,
2. Countermeasures have been launched,
3. Inspection wells have been installed,
4. Preventive measures have been taken for leakage, and
5. Operational management is thorough.

Measures at Sites in Japan

In FY'03, we aimed to swiftly "place under management" the state of soil and groundwater contamination and to implement surveys and countermeasures thoroughly. The state at the end of FY'03 is that out of the 143 sites surveyed, 65 sites reported "No pollution," 19 sites reported "Countermeasures completed" and 59 sites reported "Countermeasures underway."

By the introduction of the latest technology, the sites where pollution countermeasures are underway are striving to complete them as soon as possible.

In the case of sites where pollution exceeding the legal limits has been detected, while accepting guidance from the municipalities, we are proceeding with explanations to local residents and making voluntary public disclosures via the press.

Examples of Soil and Groundwater Pollution Countermeasures

Pumping/Aeration facility
Polluted groundwater is pumped and aerated, VOCs being absorbed and disposed of using active carbon.



Countermeasures using Iron Filings
VOCs in groundwater are broken down by the reduction process of iron filings.



Measures at Sites outside Japan

Since the latter half of the 1990s, surveys and countermeasures have been carried out at sites which in the past made widespread use of chlorinated organic solvents. In addition, in coordination with the reconfirmation of surveys and countermeasures domestically, from FY'03, we are actively tackling measures to "place under management" pollution by VOCs and heavy metals at all overseas sites by FY'05.

In FY'03, in addition to general surveys on the status of use of hazardous substances, detailed survey such as historical surveys by on-site inspections and hearings were carried out at 152 sites in 22 countries. It was determined that surface soil testing actually needs to be carried out at 57 sites.

From now on, surface soil testing will be carried out at these sites and if levels of pollution exceeding the regulatory standards are detected, we will determine the scope of the pollution by more precise drilling tests and proceed with thorough countermeasures.

In the world, legislation, infrastructure for surveys and countermeasures, and operational status vary greatly depending on the country. As a basic principle we comply with laws and regulations, but in countries that lack a legal system, we apply our own standards and carry out measures voluntarily.

On-site Inspections and Hearings

Inspectors visit facilities using and processing hazardous substances, asking local staff about the present and past state of management.



Inspectors visit storage and waste storage facilities for hazardous substances, asking local staff about the present and past state of management.



Global Soil Surveys in FY'03

Region	No. of sites where historical surveys have been carried out	No. of sites requiring surface soil testing
Americas	28	10
Europe	19	5
Asia	96	36
Others	9	6
Total	152	57

Fair Business Practices

To continue earning the trust of customers and achieve sustainable growth for Matsushita Electric Group, the company has put measures in place to ensure that all directors, executive officers and employees apply good compliance, information security and risk management practices in their day-to-day work.

Compliance

Matsushita has created a group-wide management system that will ensure compliance with laws, regulations and business ethics. In December 2000, Matsushita appointed a director in charge of Business Ethics, and also established a Business Ethics Office in its Corporate Legal Affairs Division, which is responsible for providing training in business ethics for employees, monitoring their understanding and performance of business ethics, and updating and promoting awareness of our Code of Conduct. In addition to the Export Control Office and Fair Trade Office of the Corporate Legal Affairs Division, the legal division in each group company and primary subsidiary assists in ensuring legal compliance.

Compliance Committee

Matsushita's President heads the Compliance Committee, which was established in March 2003. The members include executive officers with specific responsibilities and a Senior Corporate Auditor. This committee has three purposes: to ensure a corporate culture in which compliance is essential, to fulfill Matsushita's social responsibilities in keeping with social norms and corporate ethics, and to make these activities into a foundation enhancing Matsushita's management quality. The committee meets once in the first and second halves of the year. In FY'03, the committee particularly focused on ensuring fair trade practices.

Promoting Fair Trade Practice at Business Units

All sales divisions began appointing a fair trade officer in November 2000. The role of a fair trade officer is to examine business practices, promote improvements in the corporate culture and take necessary actions when a problem occurs in any division. In FY'03, each fair trade officer redoubled its efforts in light of the cease and desist order issued against Matsushita in February by the Japan Fair Trade Commission (JFTC)

over allegations of bid rigging on traffic light installation offered by the Metropolitan Police Department. Matsushita has not accepted that order and is disputing it in a hearing procedure with JFTC.

Code of Ethics for Directors and Executive Officers

In March 2004 Matsushita established a "Code of Ethics for Directors and Executive Officers," requiring that directors and executive officers conduct their duties and business activities with high ethical standards and in good faith.

Enhancing Employees' Understanding of Ethical Practices

Employees undergo different types of training at initial hiring, promotions and other points in their careers. They can also access relevant information through the company intranet at any time. In FY'03, Matsushita also formulated a Compliance Guide (in Japanese), which explains laws with which employees must comply when working. Approximately 20,000 group

employees in management positions received this booklet, which was also posted on the intranet. To assist directors, executive officers, and employees when making decisions on the job, Matsushita also formulated "Five Aspects of Our Business Ethics," which are listed on posters located at all business units.

In-company Hotline

Matsushita's in-company hotlines provide employees with another venue for discussing issues with management. Employees can access this hotline via email or direct phone to contact hotline staff directly. Employees using the hotline are not subject to any disadvantages because of contacting hotline.

Matsushita's In-company Hotline

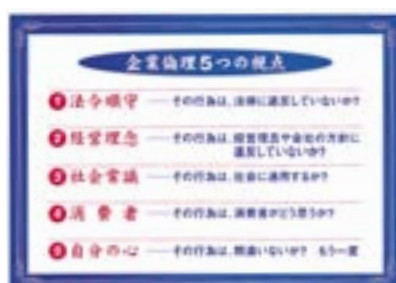
Business Ethics Hotline
Fair Trade Hotline
Women's Hotline



Business Ethics Hotline Website



Compliance Guide



Poster of "Five Aspects of Our Business Ethics"

Business Ethics Monitoring

"Business Ethics Monitoring," a program held in December 2003, involved 110,000 employees. This program measured employees' awareness and understanding of Matsushita's Code of Conduct, the in-company hotline, and other tools for education, and also sought frank opinions from employees regarding business ethics issues. Results of this monitoring program have led to a number of specific improvements in business domain companies, including seminars offered to top management.

Questions Posed during Business Ethics Monitoring

Understanding of the Code of Conduct and Compliance Guide
Awareness of In-company Hotline
Ideas to Prevent Unethical Behavior
Other

Information Security

To obtain the public's trust, companies must provide proper protection of personal information and information security management. Matsushita's Basic Rules for Information Security Management (established May 2000) and its information security system ensure the prevention of problems and enable the company to respond to any potential issues promptly and in good faith.

Establishment of Corporate Information Security Division

Matsushita established the Corporate Information Security Division in January 2004. This division sets group-wide information security policies and enhances information security management in business domain companies and business units. It pursues a three-part policy of ensuring Matsushita's status as a reliable corporation, enhancing

corporate value, and improving corporate culture.

Information Security Management in Business Unit

All business domain companies and business units have an information security committee. Each business domain company and business unit also appoints a Chief Security Officer (CSO), whose responsibility is to manage and monitor information security in his business unit, manage protection of personal information and supervise measures to solve problems.

Education for Employees

Matsushita endeavors to enhance employee awareness by putting up posters stating the Basic Information Security Policy and related rules and explaining information security during new-hire and promotion training sessions. Matsushita formulated the "Information Security Guide [Basics]" in April

2004 and has distributed it to approximately 110,000 employees.

Protection of Personal Information

Matsushita is stepping up its efforts in this area in accordance with the Act for the Protection of Personal Information in Japan in April 2005. Matsushita is also enhancing its system for preventing problems and solving them quickly in the event that they do occur.



Information Security Guide [Basics]

Basic Information Security Policy

Our company's objective is to provide customer satisfaction and reliability through advanced technology, products and services based on our Basic Business Philosophy. In order to achieve this goal, we recognize the importance of securing information such as customer's information, personal data and proprietary information, and prioritize information security as an important business strategy. Thus, by implementing information security as follows, we will strive towards the realization of a sound information-oriented society.

1. Information Security Structures

Implement appropriate information management by establishing structures of responsibility for information security in each organization, and creating and implementing appropriate rules.

2. Management of Information Assets

Manage information appropriately by specifying security protection measures according to importance and risk level.

3. Education & Training

Perform education and training on information security continually for all executives and employees with the intention of raising levels of awareness and imparting a full understanding of the various rules regarding information security. Offenders will be dealt with strictly, including possible disciplinary action.

4. Supply of Reliable Products and Services

Strive to provide our customers with products and services they can use with ease of mind by paying special attention to the security of user's information while using our products/services.

5. Compliance with Laws and Continuous Improvement

Comply with related laws and other regulations, and strive for the continuous improvement and reinforcement of information security measures in accordance with changes in circumstances.

Risk Management

As business globalizes, risk management becomes more important throughout the world. Matsushita's risk management system is predicated upon "Human Safety" and "Company's Credibility."

Overseas Risk Management

Matsushita implemented its Overseas Risk Management System in November 2002 with the objective of reducing accident rates, minimizing damage in emergencies, and restoring services to customers as soon as possible after interruptions.

Risk Management in Japan

Corporate functions are responsible for management of risks in various categories. The Domestic Risk Management Committee was set up in Matsushita's Head Office in January 2004 to allow for flexible, cross-functional action. This committee sets disaster prevention strategies and builds emergency communication networks to minimize damage. Each business unit in Matsushita is enhancing its own system to follow these efforts by the Head Office.

Relationship with Employees

Since its beginning, Matsushita has conducted its operations in the belief that people are the foundation of any business. As a global enterprise, moreover, we respect the diversity of our employees and seek to empower them to realize their talents and find self-fulfillment.

Personnel Principles

Consistent with its belief that people are the foundation of business, Matsushita maintains relationships with employees based on the idea of "developing people before making products." We also hold that the three ideas described below are fundamental.

"Participative management" refers to achieving objectives through strong teamwork among highly original individuals with the understanding that "the customer comes first." In Matsushita's "merit system," personnel appointments are made regardless of gender, age or nationality, and appraisals and compensation are based on ability and achievement. "Respect employees" means building a win-win relationship between the company and employees. In such an organization, possessing specific and valuable skills that benefit the business and the company provides opportunities in which those skills can be used. Matsushita seeks to establish a personnel system which realizes these ideals.

Basic Stance on Human Resources

Realizing a "Vigorous Matsushita"

"Participative management"
Implementation of "customer-comes-first" principle by autonomous individual employees

"Merit system"
Evaluating and rewarding according to present skills and results

"Respect employees"
A win-win relationship between a company and its employees

Strategy for Developing Human Resources

To achieve the three ideals of our Personnel Principles, each person must aim to develop his or her talents autonomously and shape his or her own career, while Matsushita must actively encourage these objectives.

Matsushita actively promotes specific measures to this end by providing opportunities for employees motivated to pursue challenges to interact, sponsoring "e-Learning," available through the Group intranet, and expanding management

training to encourage employees' independence.

Global Human Resources Development

Matsushita is strengthening its program for bringing executives and leaders from companies abroad to Japan to learn management techniques, thus promoting global human resources development. In one program, internal and external teachers train officer candidates from companies outside Japan in management philosophy and business skills, case studies of global strategy, problem identification and resolution, and leadership. Besides giving participants new skills, this training also gives them a good opportunity to develop a common understanding of management issues and strategies and encourages a global mindset.



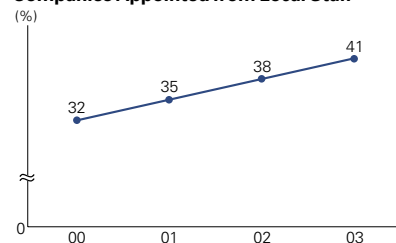
Executive Vice President Yukio Shohtoku and students of the global human resources development program



Achieving Diversity

Matsushita is actively promoting the appointment of local staff members as officers. As a result, local staff members at Matsushita companies around the world make up an increasingly high share of all officers' posts.

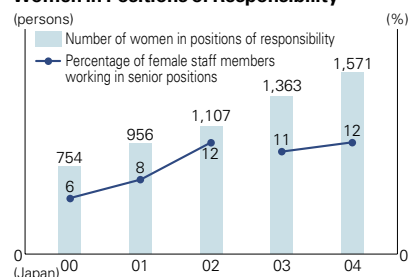
Percentage of Officers in Overseas Companies Appointed from Local Staff (%)



Appointment of Women to Positions of Responsibility

Matsushita is also actively promoting women, and the number of women in positions of responsibility is growing steadily in Japan.

Women in Positions of Responsibility



Note: The scope of companies covered by these figures expanded in FY'03.

TOPICS

President Runs Polish Company

My work at Panasonic fills my life with fascinating challenges. They were changing in time but one was always the same: development. I eagerly want people to grow as leaders in their jobs. It is both demanding and rewarding work. For me, it means not only teaching others but also learning from them and ultimately improving myself both as a businessperson and human being.

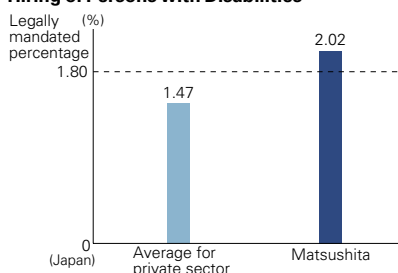


Wieslawa Wasilewska
President, Panasonic Polska Spolka Z.O.O.

Hiring of Persons with Disabilities

Matsushita strives to hire a higher percentage of persons with disabilities than is legally mandated or achieved by the private sector on average.

Hiring of Persons with Disabilities



Panasonic Spin-up Fund

Using this fund, Matsushita invests in business ventures created by employees, who can start new businesses while remaining Matsushita members. Launched in FY'01, the fund has received some 350 applications, 19 of which have led to new companies after undergoing review by outside organizations and having their plans brushed up. New businesses are expected to achieve certain results; if they do not, Matsushita cuts off its investment.

To give one example, PDC Co., Ltd., established in 2001, offers a new service beaming advertising and news on projectors installed in retail shops and on city streets. Sales to large commercial facilities, airports and other facilities are on the rise.

Hiring and Labor/Management Relations

At Matsushita, providing a safe and healthy working environment in compliance with national and local law is our basic policy.

Fundamental to labor/management relations is the idea that labor and management recognize the social mission of the business and work together to improve the lives of citizens, develop our business and maintain and improve working conditions for union members. Matsushita also practices participatory management in which employees monitor management and discuss the entire range of business and working conditions at the level of the Group, business unit and workplace.

The Charter for Matsushita Electric's Occupational Safety and Health

Grounded in our ideal of respect for mankind, we will endeavor to ensure safety and health, anticipating changes in the workplace.

The Charter of Matsushita Electric Occupational Safety and Health

Occupational Safety and Health Declaration

To fulfill our corporate philosophy of "respect for mankind," we will make consistent efforts to build a safe and pleasant workplace to ensure the physical and mental health of all employees.

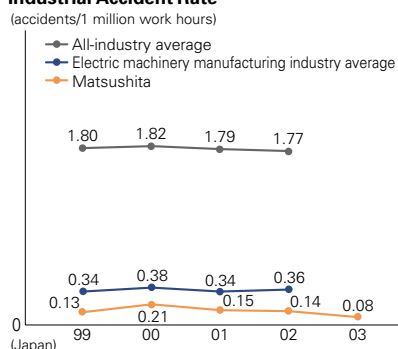
Guidelines for Occupational Safety and Health

1. Comply with legal requirements
2. Invest management resources
3. Establish and maintain an occupational safety and health management system
4. Clarify responsibilities and authority, and establish an organizational structure accordingly
5. Eliminate and reduce dangerous and harmful factors
6. Set goals and make and implement plans
7. Implement audits and carry out management reviews
8. Provide education and training

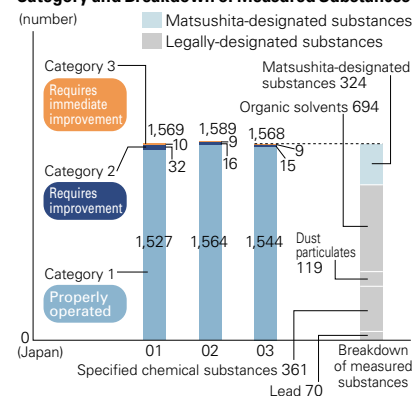
State of Occupational Safety and Health Management

In FY'03, Matsushita improved safety by taking equipment safety measures and raising employees' sensitivity to risk. We established independent health standards, took measures to reduce noise and made voluntary improvements in hazardous substance control. Underlying all these efforts was our Occupational Safety and Health Management System. These efforts resulted in a 37% decline in lost-time accidents in Japan vs. FY'02, and the number of workplaces needing improvement declined by 38%.

Industrial Accident Rate



Number of Workplaces by Management Category and Breakdown of Measured Substances



Notes: 1. Scope expanded since 2002 (excluding Victor Company of Japan, Ltd.)
2. Data collected from January to December

Supplier Health and Safety Management Support

Matsushita supports health and safety conferences and networking efforts of its suppliers in Japan and checks on supplier health and safety initiatives. We have added work environment and health and safety to the list of categories assessed in Matsushita's annual supplier awards program for excellent suppliers, and have worked to raise awareness on these issues.

Healthy Matsushita 21

In FY'03 the program focused on smoking issues by designating separate smoking areas and improving anti-smoking education and guidance to employees. Specific events include the Matsushita Group No-Smoking Day and the Smoke-Free Rally. Such events have created a steady decline in the percentage of smokers.

SARS Response and Risk Management

Five employees in two Beijing factories contracted SARS in May 2003. The Overseas Risk Management Committee acted effectively, getting the information out quickly and taking appropriate action, which prevented any secondary infection and allowed the factories to re-open after two weeks.

Matsushita considers risk management to be inseparable from business management, and therefore establishes risk management business plans and follows these as part of day-to-day work.

Products and Services

In all of its business activities, Matsushita seeks to provide products and services useful to customers. This section focuses on Matsushita's initiatives for quality, customer relations, universal design, and R&D.

Establishment of Customer Value Enhancement Committee

In FY'03 Matsushita established the new Customer Value Enhancement Committee to put into practice our ideal that "all activities shall help maximize customer value."

The committee meets four times a year and is attended by the President and other directors, officers and Group company presidents. Committee members gain a common awareness of customer satisfaction issues, including quality, customer relations, environment, compliance and information security, and seek to increase customer value.

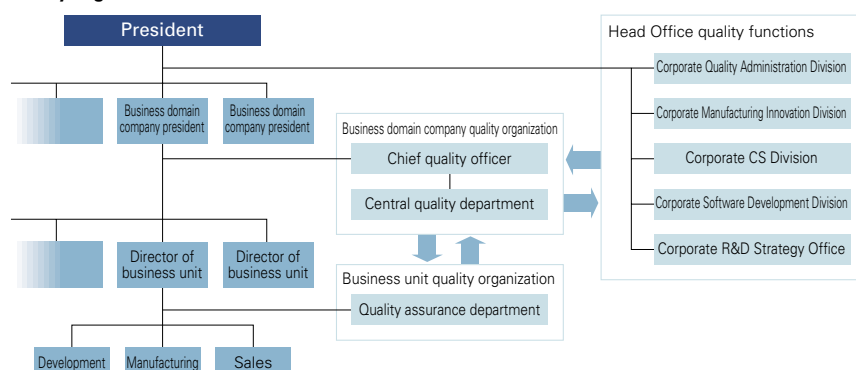
Quality Policy

Matsushita's Quality Policy reads, "We shall truly serve our customers by always offering products and services that match the needs of customers and society and satisfy those needs." Matsushita provides quality assurance in all activities including planning, design, production, sales, and service in order to bring customers satisfactory products and services.

Quality Organization

We have quality-related organizations such as the Quality Office in the head office, while each business domain company has a Chief Quality Officer (CQO) and a Central Quality Department. Affiliated business units in Japan and abroad also have quality assurance departments.

Quality Organization



Global Quality Administration

Matsushita has a quality committee in every region of the world to share issues and initiatives and conduct quality control globally. Further, Matsushita established its China Manufacturing Enhancement Center in February 2004 to enhance productivity and quality assurance systems in China. Also, the China Material Test Center provides speedy reliability testing of components and devices.

Regional Quality Committees



Offering Safe Products and Services

To provide safe products, Matsushita builds safety assurance systems complying with national laws and safety standards, and establishes internal technical standards. On the design side, we use our knowledge and past experiences of internal and external failures to create safety regulations and apply these to products manufactured and sold around the world. Matsushita also sets rules for warning statements accompanied by correct usage information in user's manuals.

Responding to Quality Problems

Quality Problem Response System

Matsushita holds the Quality Policy Meeting chaired by the President, the Group's highest body for setting quality policy. The conference responds promptly to product safety and other quality problems, with the emphasis on disclosing information to the customer as based on the "customer-comes-first" policy.

Example of Quality Problem Response —Gas leak from built-in gas ovens—

A problem occurred in 2003 in Japan in which gas was found to leak from the connecting pipe between the oven and stove of a built-in gas oven. Upon investigating, Matsushita determined that some of components manufactured at a certain time had been mistakenly supplied with two O-rings when installed, and that this could cause the gas leak problem.

In response, we held a press conference, and apologized to consumers in newspapers and on our web site, asking for their cooperation. Since then we have been inspecting products and ensuring that this incident does not recur. Current products are being redesigned so that extraneous O-rings will not be left behind during installation. The business domain company in charge created a Corporate Quality Innovation Division, indicating the seriousness with which it approached this incident. The President and Executive Vice President of the business domain company serve as this unit's General Manager and Vice General Manager, respectively, and have stepped up efforts to raise quality.

Contact for this case:

Toll-free number in Japan:0120-252-156

<https://sec.panasonic.co.jp/appliance/info/built-in/> (Japanese only)

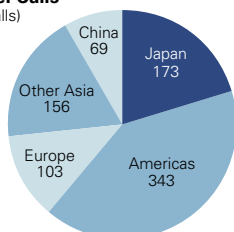
Improving Customer Satisfaction

Following the corporate philosophies that have existed since our founding of putting the "customer first" and contributing to society through products and services, we try to meet requests from customers with sincerity and use customer comments to improve our manufacturing and management activities.

Customer Inquiry Response System

Our Customer Care Center in Japan and similar customer centers at sales companies abroad take about seven million comments and questions every year (not counting calls to service hotlines). Matsushita also works to improve customer satisfaction by supplying full information on our web site and through other mediums.

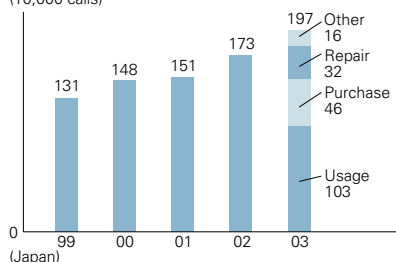
Customer Calls
(10,000 calls)



Note: Number of calls in 2002
Excludes calls to service center hotlines.

Customer Calls over Time

(10,000 calls)

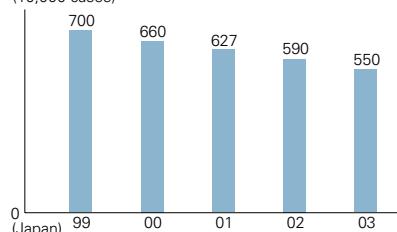


Repair Service System

In Japan, retail shops and service and repair centers operated by Matsushita Technical Service Company provide prompt product repair service throughout the nation. We assume that one of the reasons for the decrease in the number of repair services is that improvement in quality and energy efficiency and price declines have encouraged more and more people to decide to purchase new products.

Repair Service Cases

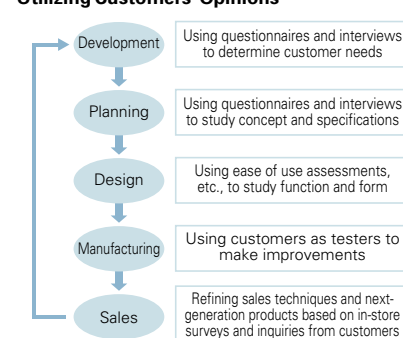
(10,000 cases)



Incorporating Customer Comments

Matsushita uses the valuable voice of customers to improve products and services with strict protection of personal information. We are putting systems in place to use the customer's opinion at each step of product development by using questionnaires, evaluating products for ease of use and asking customers to test products at the home.

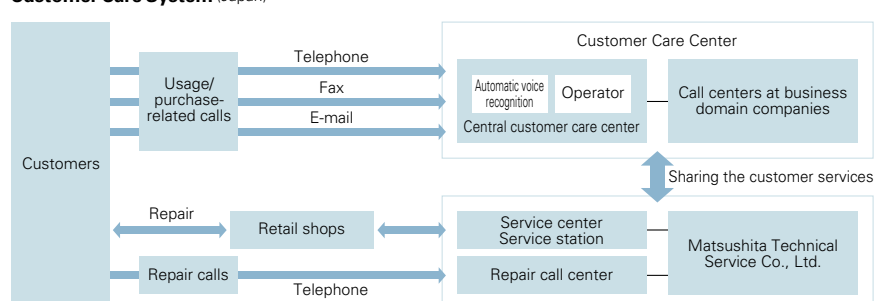
Utilizing Customers' Opinions



PACS365 Call Response and Feedback System

This system, developed in 1997 in Japan, enables Matsushita to respond to calls from customers quickly and use their opinions as feedback in product development and quality improvement. The system stores customers' voices so that development, planning and other departments involved can access the data through the intranet.

Customer Care System (Japan)



TOPICS

Example of Use of Customer Opinions

Matsushita Home Appliances Company, which handles washing machines, vacuum cleaners and other appliances, took 490,000 calls in FY'03 and used them in the ways listed below.

- The call taker sends feedback from the caller to the department in charge
- The feedback received in the three-month period after a new product is released is reviewed and product issues are treated promptly
- Quality issues are checked and improvements are monitored



Oxygen concentrator

Product Feedback Examples

Product	Customer comment
Waste processor	The lid is heavy and hard to open
Oxygen concentrator	The headset comes out of position and it is hard to fix the position of the oxygen mouthpiece
IH cooker	When cooking, I brush against the button accidentally and turn on the switch

Improvements in new products
Changed lid so that it opens with a single push
Changed headset so it mounts on the ear
Redesigned the control panel so that user will not turn on the power accidentally

Promoting Universal Design

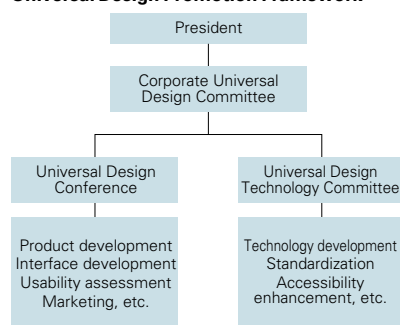
Matsushita works to achieve universal design in its products, users' manuals, packaging, and catalogs by focusing on five basic elements. Starting at the development stage, we work to improve usability from the customer's perspective, addressing considerations such as ease of operation, efficiency and comfort.

Basic Elements of Universal Design

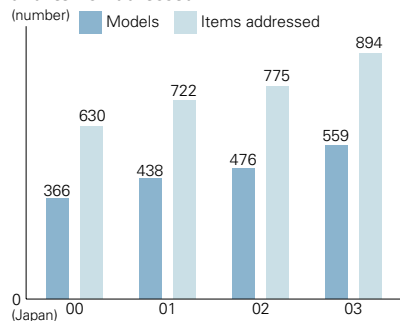
1. Simple operations
2. Displays and phrases that are easy to understand
3. Comfort of position and motion
4. Safety and security
5. Environment in which product will be used

In FY'03, we have established the Corporate Universal Design Committee chaired by Executive Vice President Kazuo Toda as it accelerated initiatives in this area. Matsushita counted 559 universal design products in FY'03, and the number of universal design items addressed expanded to 894.

Universal Design Promotion Framework



Number of Universal Design Products and Items Addressed



Examples of Universal Design Products

Tilted Drum Washing Machine

Agitation washers of the type particularly common in Japan are increasing in capacity and their drums are getting deeper as a result. Short people or people in wheelchairs have trouble reaching the bottom, and even tall people have to bend far.

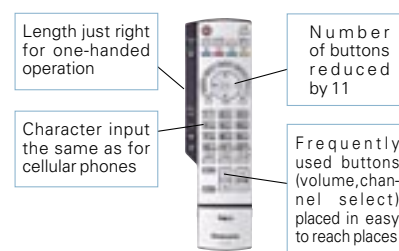
Matsushita responded by developing a washer/dryer with a drum tilted 30 degrees. Persons in wheelchairs who tested the product said that it was far easier to remove garments than was the case with non-tilted drum washers.



national.jp/product/house_hold/wash/
(Japanese only)

TV Remote Control

While TVs have added more functions, customers increasingly complain that the remote control has too many buttons and that its lettering is too small. Matsushita set out to develop an easy-use remote control and is using it with certain of its TVs.



Remote control for the PX20 plasma TV

Digital Camera

Matsushita was the first to offer a digital camera with a 3x optical zoom lens and an optical image stabilizer. This eliminates shaking from hard-to-take photos (shooting with one hand, in dark places, or self-portraits).



panasonic.co.jp/pavc/global/lumix/

TOPICS

Universal Design is Corporate Social Responsibility

In 1942, our founder, Konosuke Matsushita said, "It is my fundamental belief that a product should invoke kindness, charm and grace and be delightful to the customer." Today we interpret "kindness" as the mindset that brings us modern universal design. As our society ages, many people face inconveniences. While technical innovation is constantly advancing, it is also creating a divide. Matsushita believes that bringing prosperity, fun, and comfort to more people through products and services is a corporate social responsibility. The tilted drum

washing machine has earned strong praise, including a recent Good Design Award. Universal design is also, we believe, a new business opportunity.



Kazuo Toda
International Association for Universal Design
Chairman of the Council
Executive Vice President
Matsushita Electric Industrial Co., Ltd.

R&D Examples

Kurashi Net*: Assurance, Convenience and Comfort for Life

Home electronics are increasingly being linked together in a network, changing our lives at home.

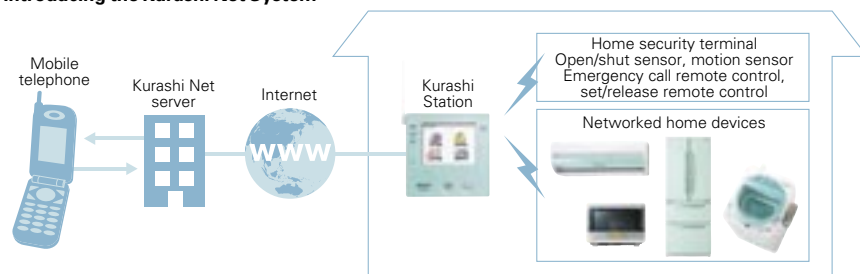
Until now, refrigerators, air conditioners and other appliances have functioned independently to make housework easier and our lives richer. In September 2003, Matsushita launched Kurashi Net, a product developed to connect appliances, sensors and cell phones in the home. Among its many functions, Kurashi Net has a home security service that detects suspicious home entries and automatically dials an emergency number at the push of a button. There is also a networked home appliance service to control appliances via cell phone, to download washing instructions or obtain recipes for the microwave. Moreover, users can easily obtain useful information through a lifestyle information service.

This technology will one day provide energy management by tangibly illustrating appliance energy consumption and giving conservation advice and controlling devices for energy conservation. They will also include home fuel cell cogeneration systems that Matsushita is now developing. To enable better service, devices will self-diagnose and send



Kurashi Station

Introducing the Kurashi Net System



the results over the network to a service center so proper action can be taken in the event of a breakdown.

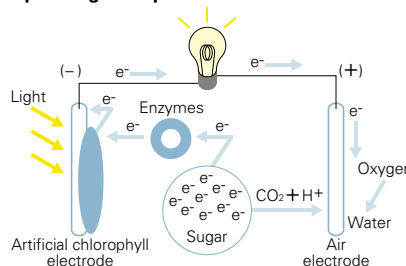
* Kurashi Net: Japanese for home network life

Solar Bio-fuel Cell R&D

With this technology, sunlight causes electron-emitting electrodes to interact with enzymes, forcing sugar to emit electrons, which are used as electric energy (about one volt of electromotive force). The only emissions are water and carbon dioxide. This will also encourage recycling of food waste, since sugar can be derived from such waste.

Solar bio-fuel cells are expected to be used as a future fuel cell because they generate electricity more efficiently than ethanol-consuming fuel cells.

Operating Principle of Solar Bio-fuel Cell



Universal Design R&D

In our research on age-related vision and hearing loss, Matsushita developed goggles that simulate vision for people with cataracts. We are also developing products capitalizing on research on easy-to-hear sounds.

Other efforts are targeting multilingual voice recognition and synthesis. Such technologies will one day make car navi-



Goggles simulating vision with cataracts

gation systems and mobile telephones that can be operated in many of the world's languages.

Industry/Academic Collaborations

Matsushita's many collaborations with universities and research institutes have brought the world numerous new technologies and products.

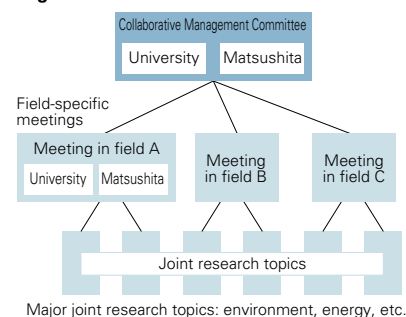
Future product development will try to bring out technologies that push the limits while offering high reliability and yield at low prices, and this demands technical development at ever higher levels.

Universities offer advanced knowledge and a proven record of research, while companies have the knowledge to turn new technologies into products and to contribute to society through business. We believe that combining these areas of expertise can create new industries and prove useful for the global society. Therefore, Matsushita funded the R&D Academia Collaboration Center in FY'03 to pursue joint opportunities more actively.

Major Functions of the R&D Academia Collaboration Center

1. To promote joint research between Matsushita and universities
To assess joint projects and set direction through steering committees made up of top personnel
To identify joint research topics by openly soliciting ideas and hosting field-specific meetings
To introduce each other to needs and seeds through technically oriented exchanges
2. Promoting different types of collaboration along with joint research
Exchange of personnel, information sharing, cultivation of venture businesses from universities, etc.
3. Promotion of organizational collaborations with universities
4. Collaborations with government and public agencies

Organization for Academic Collaborations



Relationship with Society

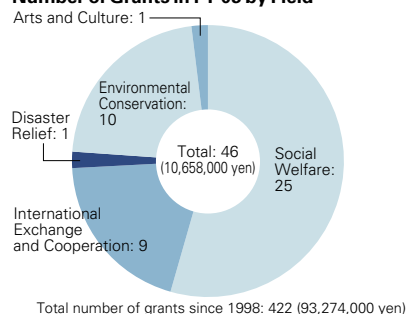
Based on the belief that "a company is a public entity, supported by and prospering with society," Matsushita engages in a wide array of activities to contribute to society as a corporate citizen.

Support for Employee Volunteer Activities

Volunteer Activity Financial Support Program

Established in 1998 to encourage employees to take an active part in volunteer activities, the program provides financial support to nonprofit organizations (NPOs) in which employees, their spouses, and retirees are actively involved. The program supported a portion of activity costs for 46 organizations in FY'03.

Number of Grants in FY'03 by Field



Bird-watching with the Visually Impaired

In cooperation with the Wild Bird Society of Japan and the Japan Braille Library, Matsushita has held bird-watching trips with the visually impaired every spring and autumn since 1999. The bird-watching activities, occurring mainly in parks throughout Tokyo, focus on using the senses of hearing and touch. Many employees participate as volunteers in this program.



¹ Matsushita's Corporate Citizenship web site

URL panasonic.co.jp/ccd/index_eng.html

Support for Personal Development, the Arts and Culture, etc.

Kid Witness News (KWN)

Matsushita Electric Corporation of America launched this hands-on video production program in 1989 to enhance the educational activities and creative development of elementary and middle school students throughout the U.S. In FY'03, the program was implemented in Japan and other countries and is expected to grow to include approximately 300 schools located throughout 10 nations in FY'04.



"Shakespeare for Children" Series

Matsushita supports this series of Shakespearean plays that has been adapted for both children and adult audiences by the Shakespeare Company for Children and has toured Japan since 1995. In addition, Matsushita, along with the play's cast and crew, hold workshops and other events to provide middle and high school students with the chance to become familiar with the stage.



Japan Wildlife Film Festival in Tokyo

Matsushita and the Nature Film Network hosted screenings of the Japan Wildlife Festival's award-winning films at The Panasonic Center in Tokyo. The films offered a glimpse at rarely seen wildlife, and the event further conveyed the importance of the natural environment with a photo exhibition, a lecture and Q&A session with Shoichi Sengoku, a wildlife specialist popular among children, and other activities.



Related Foundations, etc.

The Japan Prize (The Science and Technology Foundation of Japan)

The Japan Prize, established with the help of the founder, Konosuke Matsushita, is awarded to people who have made original and outstanding accomplishments in the fields of science and technology and have significantly contributed to peace and prosperity. The award ceremony marked its twentieth year in April 2004, at which time the prize categories grew by one to a total of three.



Matsushita Educational Foundation

The Matsushita Audio-Visual Education Foundation was founded in 1973 with the goal of promoting audio-visual (AV) education, researching and developing technologies for using AV educational equipment, and enhancing personal development through AV education. In April 2004, the foundation changed its name to Matsushita Educational Foundation in commemoration of its 30th anniversary to reflect its new mission to work with information technology in today's information-based society.



Panasonic Scholarship Office

To commemorate the 80th anniversary of the founding of Matsushita, the Panasonic Scholarship Program was established in 1998 to foster future leaders of Asia for the 21st century. Students from Asia apply in their home countries and, if selected, are provided with scholarships to attend science and engineering graduate schools in Japan. A total of 180 students, including the newly selected candidates for FY'04, have been awarded the scholarship.



Support for and Cooperation with NPOs/NGOs

Panasonic Supporters Matching Funds

The Panasonic & JIYD Children's Supporters Matching Fund and the Panasonic & EFF Environment Supporters Matching Fund support the infrastructure strengthening of youth and environmental-related NPOs as well as the cultivation of a giving culture in Japan. The funds were established and are jointly managed with the Japan Initiative for Youth Development and Eco Future Fund, respectively.

Children's Supporters Matching Fund Environment Supporters Matching Fund

(In FY'03, the two funds combined provided a total of 11,708,000 yen to 12 organizations.)

Citizenship Collaboration College

This series of educational programs, enables participants to learn about and contemplate issues they face as global citizens. Matsushita develops and co-hosts each program with NGOs/NPOs. In May 2003, Matsushita and Greenpeace Japan co-hosted an event called, "The Non-Chlorofluorocarbon Life Forum" as a part of this series.



OBP ARTS PROJECT

As a member of the OBP Arts Project Committee, Matsushita helps plan and run the project, which provides young artists with a venue for expression at Osaka Business Park (OBP) as well as other support.



Interacting with Citizens

Matsushita Electric House of History

Every year 25,000 visitors come to the House to learn about history of Matsushita Electric Group since its founding. The Kids' Campaign enables schoolchildren to enjoy learning the history of electric/electronic products when schools are out of session.



[URL panasonic.co.jp/rekishikan/en/](http://panasonic.co.jp/rekishikan/en/)

Hall of Science and Technology

Displays Matsushita's advanced products and technologies, including those addressing environmental concerns. More than 30,000 individuals visit yearly.



[URL panasonic.co.jp/exhib/eng/](http://panasonic.co.jp/exhib/eng/)

Corporate Sports Center

Matsushita sponsors company teams in baseball, basketball, and volleyball and encourages interaction with the community by holding children's sports clinics and opening its facilities to the public.



Contributions to Enhance Public Interest

As one of the leading manufacturers in Japan, Matsushita is playing a key role in government-affiliated councils, economic organizations, and industry groups with the objective of contributing to enhance public interest.

TOPICS

[URL panasonic.co.jp/center/en](http://panasonic.co.jp/center/en)

Panasonic Center (Ariake, Tokyo)

Panasonic Center is the Corporate Global Communications Hub for the Matsushita Electric Group, demonstrating our twin business mission: "Realizing a Ubiquitous Network Society" and "Coexistence with the Global Environment." Panasonic Center is also a place where people all over the world can communicate with each other through various events.

Fureai Festa

The Fureai Festa is designed to enable the hearing impaired to enjoy art and cultural events along with everyone else. Concerts with special hearing-assist systems and other events can also be enjoyed by non-impaired persons, allowing participants to expand their range of interactions.



Kids' Guernica

In this program, created in Japan and hosted by the KIDS' GUERNICA International Committee, children from around the world create works of art equal in size to Picasso's famous Guernica painting to express their hopes for peace. Matsushita has supported this project continuously since 1995 and hosted it in the Panasonic Center in 2003.



Third Party Comments

Sustainability Analysis by The Natural Step

Hidetsugu Otsuru
Managing Director, Member of the Board
Matsushita Electric Industrial Co., Ltd.

March 31, 2004



Sustainability Analysis Report on Activities of Matsushita

Strategy/Vision

Matsushita's environmental vision and statement are heading toward sustainability, but still there is a need to further evolve the vision into an environmental policy, with a clear and defined vision and company commitments. Furthermore there are still important areas that lack long term objectives.

Product Development and Lineup

Matsushita is involved in the major parts in their products' life-cycle, from production, development, service of products and recycling/reuse, and has made numerous improvements and innovations in design and product development. However, the share of such products among launched products is still low.

Materials and Substitution

Matsushita's definition of hazardousness is insufficient from a sustainability perspective. Matsushita works actively with the supplier chain by communication, setting requirements and training suppliers. These activities could be applied further and some tools would benefit from additional development, such as the Green Procurement tools.

Logistics

Action to shift logistics to rail and ship has been taken to support the shift to more sustainable logistics. Introduced measures for logistics should be followed up by activities integrating a sustainability perspective on logistics into planning and existing tools such as the procurement process.

Energy

Reducing energy use in production is an important step. But it will not be sufficient to limit measures to reduction of energy use. To make energy use more sustainable, focus must also be put on the substitution of energy sources.

External communication

Matsushita's external communication is extensive and covers most aspects in the sustainability field. Good measures are communicated. Stakeholders would also benefit from a description of the challenges that Matsushita faces.

Social Sustainability

Matsushita's values and principles are a solid base for CSR. The next step is for the CSR Office to depart from the existing guidelines and formulate a vision and strategies for a sustainable Matsushita.

Analysis Action Items and Information Used

Action Items

- Sustainability analysis survey response
- Respond to questionnaire on progress, comparing to FY'01 results
- Interviews with CSR and environmental staff by The Natural Step's office in Japan
- Analyst interview of environmental staff by international teleconference

Information Used

Sustainability Report, Annual Report, "Factor X" pamphlet, Green Procurement Standards and explanatory material, Matsushita product assessments and minutes from Environmental Forum 2003

Analyst's Comment

During the last few years good achievements have been made and initiatives have been taken by Matsushita, such as, working with suppliers, introduction of lead-free solder and alternatives to fluorocarbon refrigerants. Problems have been solved. However, it seems that society's stricter laws and regulations are still a driving force for the sustainability work. Several recent concepts have clear environmental benefits. I look forward to seeing Matsushita develop more of their opportunities, backcasting from success and integrating sustainability principles. The next challenge for Matsushita could be going from environmental management systems to management and integration of CSR issues into overall business planning, enabling a focus on business as well as sustainability.



Helene Lindman

Helene Lindman

Chairman's Comment

It is with pleasure I note that Matsushita's top management has made very clear statements about sustainability as a major driver for Matsushita's future progress. Concrete innovations towards sustainability involve a series of technical improvements. I am particularly impressed by the strengthening of the CSR organization, the clear early signs of a more radical transport philosophy, and clear plans for "selling services." The latter holds perhaps the greatest possibilities. I look forward to Matsushita's further challenges.



Karl-Henrik Robèrt

Karl-Henrik Robèrt

We first asked The Natural Step, an NGO working with environmental issues, to perform a sustainability analysis on our overall business operations in FY'01. Since then, we have had more in-depth analysis performed, shifting the focus to product creation and recycling. In FY'03, we asked The Natural Step to perform a new sustainability analysis on overall business operations, and we report here on developments over the preceding three years.



What Kind of NGO Is The Natural Step?

What Is The Natural Step?

The Natural Step (TNS) provides a visionary blueprint for a sustainable world by using a science-based, systems framework to help organizations and communities understand and move towards sustainability. The upstream approach address problems at the source and turn them into opportunities for innovation. As an international advisory and research organization TNS has ten offices around the world.

What Is a Sustainability Analysis?

TNS Sustainability Analysis demonstrates a company's environmental and social vulnerabilities and opportunities, how emerging global issues, current ability and capacity may impact the organization. The analysis uses a future sustainability perspective, where the company's activities, flows and strategies are analyzed from a perspective when the organization is sustainable.

Analysis Process

The organization's critical resource-flows, processes and impacts during use of the products/services along with the company's flexibility to change, capacity-building, strategy and the linkage between vision, policies, objectives and results are examples of areas that are mapped out and analyzed.



Sachiko Takami
The Natural Step International,
Japan

The Four System Conditions for Sustainable Societies

In the sustainable society, nature is not subject to systematically increasing:

- ① concentrations of substances extracted from the Earth's crust,
- ② concentrations of substances produced by society,
- ③ degradation by physical means and, in that society...
- ④ people are not subject to conditions that systematically undermine their capacity to meet their needs.



How Did Matsushita Change Over the Three Years? What Will It Do Now?

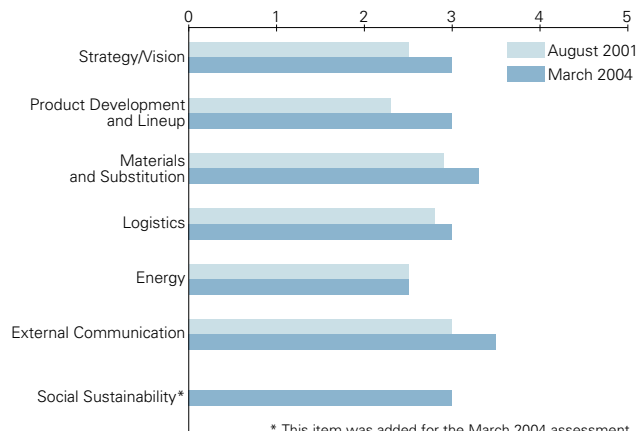
Using the results of TNS's sustainability analysis, we gauged our progress over the past three years and additionally compared ourselves to three of Northern Europe's environmentally progressive companies. The comparison showed that we had made steady progress vs. 2001 in all categories except for energy. There was an obvious gap between us and studied Northern European companies, but the results showed clear progress.

This comparison did, however, reveal deficiencies in some areas: in our renewable energy and resource vision and initiatives, in initiatives relating to material procurement and logistics systems, in the further

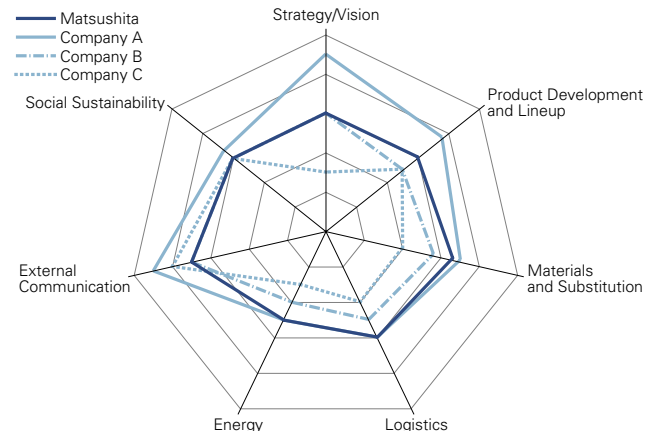
diffusion of green products, and in substantive communication for sustainability.

We will incorporate these objectives into our action plans and make steady efforts on the manufacturing side, for examples, by limiting CO₂ and waste emissions, taking steps on chemicals. In addition, we will strengthen Green Products development and eco-marketing, thus working with customers to advance objectives. We will further work with suppliers on the flow of resources (i.e. not using harmful substances in products) and expanding green logistics. We eagerly continue to take the challenge to achieve a more sustainable society.

Matsushita's Progress towards Sustainability over Three Years



Benchmarks Vs. Environmentally Progressive Companies in Northern Europe



Panasonic
ideas for life



Date of Issue: August 2004 Next issue: August 2005