SAMSUNG ELECTRONICS

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Respecting Nature
Serving Communities

Samsung Electronics 2005 Green Management Report

About the Samsung Electronics 2005 Green Management Report

Report Outline

Samsung Electronics has examined its performance results for 2004 and would like to reflect on them for future improvement. This report introduces Samsung Electronics environmental management activities and social contributions and is based on data from each of the company's operational divisions in Korea as well as from its overseas subsidiaries.

Report Scope

Period Covered

This report mainly concerns Fiscal Year 2004. However, data from Fiscal Years 2002 and 2003 are included to provide more accurate comparisons when necessary.

Figures in US dollars have been converted from Korean won at ₩1,000 : US$1.00.

Reference Materials

Additional information concerning this report and other reports can be found in the following sources:

Samsung Electronics Green Management Report

The most recent Green Management Report contains information of the environmental, safety and health promotion activities by Samsung Electronics through 2004. The Samsung Electronics Green Management Reports that have been issued between 1999 and 2004 are accessible on the company homepage.

www.sec.co.kr

www.samsung.com

White Paper on Samsung Electronics Social Contribution Activities

Examples and results of social contribution activities at Samsung Electronics are described in detail by the Samsung Volunteer Service Corps in the annual Samsung Social Contributions White Paper. This document can be found on the Samsung Volunteer Service Corps homepage (www.samsunglove.co.kr).

Samsung Electronics Annual Report

Samsung Electronics issues an annual report to disclose performance data to shareholders and customers. The annual report can be viewed on the Samsung Electronics homepage (www.sec.co.kr).

Other information concerning on company reports can be obtained at the following websites:

www.sec.co.kr (Korean)

www.samsung.com (English)

If you have any additional questions about this report, please email Samsung Electronics at: e-mail_esh.sec@samsung.com.

Samsung Electronics will contribute to the advancement of all people.

Greetings.

In the rapidly changing business environment, companies are more compelled than ever to leverage their managerial experience to achieve excellent operational results and maximize corporate value. Equally important, however, are corporate responsibilities and obligations to act in the interest of the environment and society to obtain the loyalty of various stakeholders, and such companies can be assured a greater chance for sustainable development of their own operations.

With this in mind, I am pleased to present to you, who have shown continued interest in Samsung Electronics, the extensive details on our efforts and activities regarding environmental preservation as well as on our contributions to society inside and outside Korea.

In recent years, we have grown remarkably in global terms, thanks to our steady improvements on operations and our ongoing technology development. As a result, we achieved a record performance in 2004 and reinforced our financial structure. We will continue to strengthen our core competitiveness for the future, enhance operational innovation and expand our global operations as we emerge to become one of the world's premiere enterprises. At the same time, we will contribute even more to the Korean economy as well as to the economies of all the local communities in which we operate. Our consistent goal is to introduce and foster changes and innovations such as digital convergence that benefit all people.

On the environmental front, we announced our first comprehensive plan to include the establishment of an environment management system, back in June 1992. In May 1996, we formally endorsed and advanced the idea that issues relating to environment, safety and health (ESH) are integral parts of our business operations. We announced our Green Management proclamation, detailing our commitment to helping preserve the earth and providing people with a higher quality of life.

In 2005, the Samsung Management Principles were promulgated. This is a set of guidelines that govern how all employees are to act, bringing our corporate ethics in line with global standards.

Henceforth, we will reflect an even greater reverence for life and the "Green Management" philosophy in our operational decisions, and develop a broader range of environment-friendly products and services. We will maintain safe and pleasant conditions at all our worksites and faithfully perform activities to ensure ESH protection.

All employees are also aware of the need to be involved in the larger community, participating in programs that benefit the community, regularly giving donations, offering assistance and doing volunteer work.

For the past 35 years, Samsung Electronics has adhered to a management philosophy that aims to "contribute to society by offering superior products and services." We have grown by continuously leading the way for change and advancement.

We will also bear in mind that our achievements would not have been possible without the interest and loyalty of people in the community as a whole, and we pledge to continue our efforts to contribute as a company to the betterment of all people.

Jong-Yong Yun
Vice Chairman & CEO

About Samsung Electronics

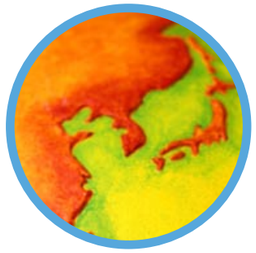
The digital technology of Samsung Electronics is spreading worldwide, transcending the boundaries of time and space to change markets, technologies and lifestyles. These changes will ultimately bring greater value and convenience to people everywhere.

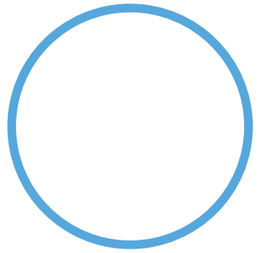
Samsung Electronics is currently engaged in four strategic areas: home networks, mobile networks, office networks, and core parts and components. The Company constantly works to maximize synergy among its various internal units and to leverage its unique competencies to cultivate these four strategic operations into core businesses that will be highly competitive in the digital convergence era.

Samsung Electronics professes to be a "Digital-ε company" intent on leading the digital convergence revolution. The Company has also declared its "Green Management Initiative," which is designed to fulfill its obligations to society. Samsung Electronics is committed to working with all people for the greatest good.

Samsung Electronics is determined to be the very best in its fields of endeavor and is already a major global player in digital media, digital appliances, semiconductors, telecommunications and LCDs. Management focuses both on corporate profitability and customer benefit, selling Samsung's value-added products throughout the world.

Samsung Electronics contributes economically to many communities worldwide. Moreover, the Company continues to seek new ways to make ever-larger contributions to the societies in which it operates.

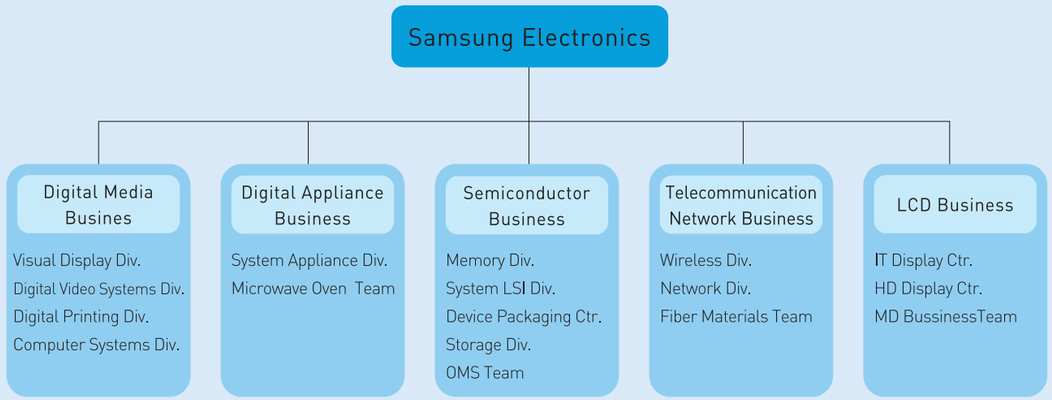




Corporate Summary

Samsung Electronics was established in 1969 and now produces a full range of items, from digital media and digital appliances to semiconductors, telecommunications products and displays. As of 2004, global operations included 27 production subsidiaries, 37 sales subsidiaries, 2 logistics subsidiaries, and 11 research centers. In Korea, the Company operates factories that produce digital media products and appliances at Suwon and Gwangju; semiconductors at Giheung, Hwaseong and Onyang; information and communications products and systems at Gumi; and LCDs at Giheung, Cheonan and Tangjeong. The Company employs 123,000 people, including more than 80,000 at Korean operations and 43,000 overseas.

Organization Chart



Current Operations

Samsung Electronics has achieved excellent performance results during the past three years. To ensure future growth, the Company continues to diversify operations, upgrade marketing activities, elevate brand value and invest in advance.

Digital Media

Positive market assessments helped to provide stable growth in digital media product performance during 2004. US TV sales broke US$1 billion and Samsung TVs were the best sellers in Southeast Asia. As a result, Samsung Electronics maintained its top share of the global TV market. The Company also leads the world market in most of its other digital media product categories, which include color monitors, laser printers, DVD recorders, digital camcorders and MP3 players.

Samsung digital media products are widely recognized for excellence in every respect, including design and overall quality, and they have garnered such prestigious honors as the EISA Awards and CES Innovation Awards in 2004. Samsung has been at the forefront of the flat panel TV market, unveiling the world's first 102" PDP TV at the Consumer Electronics Show in the US in early 2005, and introducing the world's largest LCD TV (82") at the CeBIT Show in Germany last March. The Company has also demonstrated leadership in the digital TV market, introducing a unique ultra-slim digital TV only one-third the thickness of conventional models.

Meanwhile, Samsung Electronics continues to come out with new digital media products that are setting new trends worldwide. These include the world's thinnest notebook PC and LCD monitor, printers capable of connecting with various other digital devices, portable DVD players, TVs with built-in digital multimedia broadcasting, and MP3 players with various multimedia functions.

Digital Appliances

Samsung aims to be a "lifestyle innovator" whose products provide customers with fun and excitement. Customer-oriented innovations have enabled the Company to bring a steady stream of environment-friendly appliances with outstanding functions and designs into customers' living rooms.

The Samsung Electronics is striving to emerge as a top-tier player globally. Therefore, the number of R&D engineers is being increased; the lineup of top-end products is being expanded and plants are being restructured to enhance competitiveness. In fact, all available competencies are now being focused on developing innovative new products and increasing sales. Consumers are now showing greater interest in premium products such as side-by-side refrigerators, system air conditioners, and front-loading washing machines, and Samsung is accordingly bolstering its capabilities in built-in appliances and home networks to assume a leadership position in the digital appliance market.

Such efforts have shown tangible results already. The Company's Internet Homepad refrigerator, which incorporates Web access and TV viewing functions, won the Best New Product Award at the Kitchen & Bath Industry Show in Chicago. *Time* magazine also selected Samsung's nano-silver technology as one of the Top 10 innovative Technologies, raising the Company's stature as a consumer electronics maker with some of the world's best digital technology.

Semiconductors

Memory chips have been a major driving force behind Samsung Electronics overall success, and the Company is now the undisputed world leader in memory devices. As of the end of 2004, the Company has remained the world's leading producer of overall memory chips for 12 straight years, DRAMs for 13 years, SRAMs for 10 years, and flash memory for 2 years.

The most important market for memory chips has changed from personal computers to mobile phones and other digital products. Samsung invested at the right time to accommodate this paradigm shift, thereby maintaining its competitive advantage and emerging as the world's foremost producer of flash memory. Company officials expect both the flash memory and DRAM operations to grow further in the days ahead. The trend toward embedded chips has led Samsung to develop its own multi-chip packages and fusion memory devices, and the Company will continue to introduce new memory chips and commercialized nanotechnologies to remain a step ahead of the competition.

The System LSI Division is focused on four main market segments. The first is driver ICs for the digital displays in mobile phones, LCD monitors and LCD TVs. Next are mobile solutions that offer CMOS image sensors, mobile application processors, chip card ICs, and RF semiconductors for handheld information products. Third is the home solution segment that includes system-on-a-chip (SOC) devices for digital TVs and DVD recorders. Last but not least are application-specific integrated circuits (custom-made ICs) based on cutting-edge processing technologies and distinctive Internet protocols.

The Storage Division is Korea's only business unit dedicated exclusively to the development of hard disc drives, allowing people everywhere to rapidly and easily store and exchange data.

Telecommunication Networks

This segment of Samsung Electronics operations performed remarkably well in 2004. Samsung's mobile phones have emerged as a world-class brand, thanks to outstanding product quality, technology and design.

Despite challenging market conditions, Samsung sold 86.5 million mobile phones in 2004, up 55% from 2003. The strong showing is attributable to the superior technology that has allowed the Company to constantly introduce new high-end models that set market trends. Furthermore, the strong sales growth has enabled Samsung to maintain the second highest share of the world mobile phone market based on sales revenue, and the Company edged up to third in the world on the basis of units sold. Samsung is the world's largest seller of CDMA mobile phones and now receives a higher average price per unit than any other mobile phone manufacturer.

In 2005, the Company will continue to prepare for future leadership in mobile phones and related technologies. Samsung is at the forefront of technologies regarding the 3G CDMA, WCDMA and TD-SCDMA formats; terrestrial and satellite DMB, which integrates communications with broadcasting; and mobile broadband Internet access. The Company continues to pursue technology development and standardization for 4th-generation mobile communications and pave the way for truly ubiquitous communication access.

LCDs

Samsung's LCD operations had a banner year in 2004. Steady demand for notebook PCs, LCD monitors and LCD TVs enabled Samsung to surpass its original sales targets and achieve record growth. The Company has maintained the world's top spot for LCD production and sales for each of the past three years. This performance can be attributed to a competitive edge secured through an ongoing R&D program into distinctive technologies and aggressive, timely investment in the LCD sector as a future growth engine.

Samsung produces small/mid-sized LCDs (mobile displays) at Giheung, Korea; LCDs for IT applications (monitors, notebook PCs) at Cheonan, Korea; LCDs for TVs at Tangjeong ("Crystal Valley"), Korea and LCD modules at Suzhou, China. The Company will start up what will be the world's largest LCD factory at Tangjeong, Korea in 2005. This joint venture with Sony is equipped with 7th-generation TFT-LCD panel fabrication lines and monthly output will reach 60,000 units by October.

Major Products

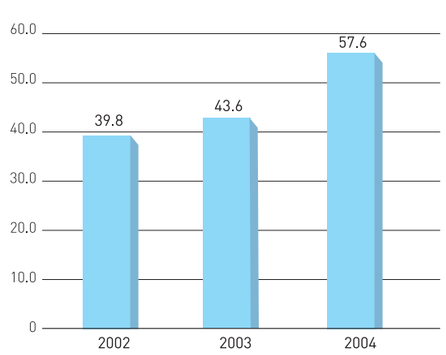
The global Samsung Electronics network produces an impressive array of items. These include multimedia products (monitors, color TVs, PCs and more), communications products (such as mobile phones, PDAs, mobile network hardware), semiconductor devices (including DDR SDRAMS, SDRAMs, flash memory, display driver ICs), LCDs in all sizes, and appliances (refrigerators, air conditioners, microwave ovens, etc.)

Business Segment	Product Categories
Digital Media	TVs, monitors, VCRs, DVD players, camcorders, printers, computers
Digital Appliances	Refrigerators, washing machines, air conditioners, microwave ovens, vacuum cleaners, air purifiers
Semiconductors	DRAMs, SRAMs, flash memory, LCD driver ICs, hard drives, optical disc drives
Telecommunication Networks	Mobile phones, networking systems, optical components
LCDs	TFT-LCDs, OLEDs

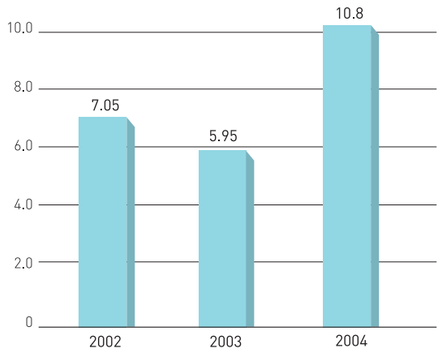
Performance Results

Since its founding, Samsung Electronics has striven to become a highly respected leader in the global electronics industry. The value of the Samsung brand was estimated at US$12.6 billion in 2004, and annual net income broke the US$10 billion mark. The *Asian Wall Street Journal* ranked Samsung Electronics 11th on its list of the world's most admired companies for 2004 and has consistently ranked Samsung Electronics the best in Korea for the past six years.

Sales (in billions of dollars)



Net Income (in billions of dollars)



Global Network

Most Samsung Electronics products are manufactured at more than one location, and they are sold worldwide. Furthermore, the Company holds the top share of the world market for TVs, VCRs, monitors, DRAMs, SRAMs, flash memory, LCD driver ICs, and CDMA mobile phones.

The Samsung Electronics Headquarters is located in Korea, along with various operations at eight other domestic locations. The overseas network consists of 27 production subsidiaries, 37 sales subsidiaries, 2 logistics subsidiaries, and 11 research centers. There are eight Regional Headquarters that cover, respectively, North America, Central & South America, Europe, China, the former CIS, Southeast Asia, Southwest Asia, and the Middle East & Africa. Samsung boasts all the competencies befitting a truly global enterprise, conducting regional-specific R&D and marketing activities as well as providing services tailored for specific regions.

Samsung aims for growth that benefits society as a whole. Production and sales are conducted within specific regions, contributing to local economies and communities. Expansion into overseas markets is accompanied by thorough studies of the social environment.

The Samsung corporate spirit stresses win-win relationships for all stakeholders. Samsung Electronics performs faithfully as a global enterprise, working with local partners to reflect the needs of local communities.

Global Network

	Europe HQ	N. America HQ	C. & S. America HQ	Former CIS HQ	SE Asia HQ	SW Asia HQ	Mid-east & Africa HQ	China HQ	Japan	Total
Production subsidiaries	2	3	1	-	6	1	-	14	-	27
Sales subsidiaries	12	4	3	3	4	-	2	8	1	37
Logistics subsidiaries	1	1	-	-	-	-	-	-	-	2
Research centers	1	2	1	1	-	1	1	3	1	11
Other (branches, etc.)	3	-	3	4	-	-	8	1	-	19
Total	19	10	8	8	10	2	11	26	2	96

*For more details on the global network, click onto www.sec.co.kr or www.samsung.com

Management Philosophy

The philosophy of Samsung Electronics is summed up as follows: "We will devote our human resources and technology to creating superior products and services, thereby contributing to a better global society."

Samsung Electronics considers people to be its most important asset and is committed to ongoing human resources development. Every employee is allowed to refine his or her talents to the full and play an important role in today's global era. Samsung encourages its people to have an open mind and be creative in finding ways to help improve society. In other words, human resources development at Samsung ultimately aims to contribute to society by cultivating genuine ways to shape new lifestyles and allowing customers to get more from life.

Samsung Electronics brings human talent together with cutting-edge technologies, empowering employees with responsibilities. The Company also strives to ensure that every corporate activity is beneficial for people and society as a whole.

The "Samsung Employee Spirit" is a set of behavioral guidelines and a pledge by all organizational members to practice the corporate philosophy faithfully: "We work with the customer." "We take on all challenges worldwide." "We shape the future." Samsung employees have internalized this spirit and made it an integral part of their way of doing business day to day.

Samsung Business Principles: Preface

Mar. 2005

Samsung aims to be a world leading company, devoting our human resources and technology to create superior products and services, thereby contributing to a better global society. To this end, we share and pursue Samsung Values; People, Excellence, Change, Integrity, Co-prosperity. As part of the effort to realize these values, we follow the Samsung Business Principles. These are not only our promise to comply with laws and good ethical practices, but also a concrete expression of our commitment to these values. The Samsung Business Principles will be the guiding standards for everyone in Samsung, outlining the conduct expected of all our employees both individually and collectively.

Principle ❶	We comply with laws and ethical standards	1-1. We respect the dignity and diversity of individuals 1-2. We compete fairly, complying with laws and business ethics 1-3. We maintain accounting transparency by keeping accurate records 1-4. We do not intervene in politics and we maintain a neutral stance on all political issues
Principle ❷	We maintain a clean organizational culture	2-1. We draw a strict line between public and private affairs in all business activities 2-2. We protect and respect the intellectual property of the Company and others 2-3. We create a healthy organizational atmosphere
Principle ❸	We respect customers, shareholders and employees	3-1. We value customer satisfaction the top priority in our business activities 3-2. We focus on shareholder value 3-3. We endeavor to improve employees' quality of life
Principle ❹	We care for the environment, health and safety	4-1. We engage in environmentally friendly management practices 4-2. We value human health and safety
Principle ❺	We are a socially responsible corporate citizen	5-1. We actively perform our duties as a corporate citizen 5-2. We respect the characteristics of local custom, culture, and society, and strive to prosper together with local communities 5-3. We build win-win relationships with business partners

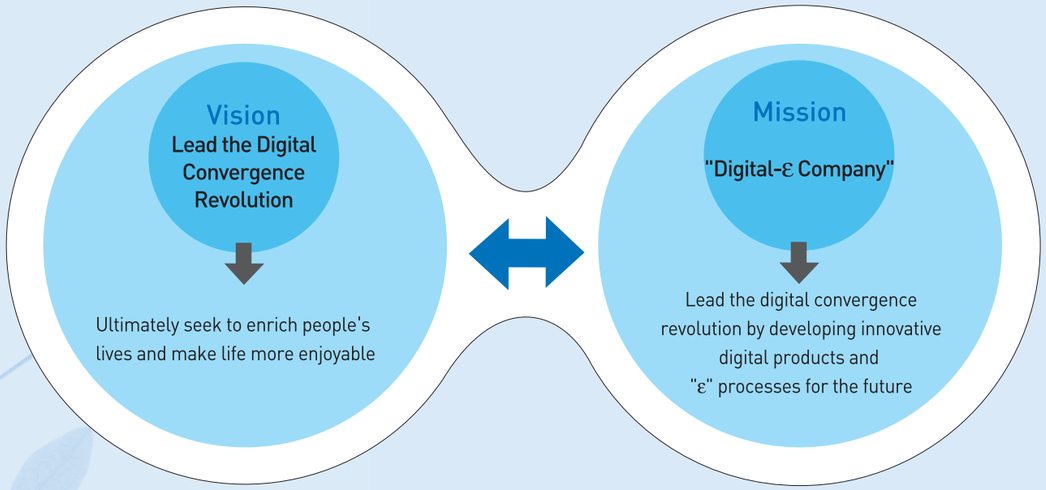
Vision and Strategies

Samsung Electronics aims to be a true leader in the 21st century era of digital convergence. To achieve this goal, the Company is continuously developing technologies that will improve people's lives and wellbeing while at the same time pursuing the Green Management program as the centerpiece for the Company's sustainable growth.

The electronics industry has been changing fast. Samsung Electronics continues to advance in this fast-faced market by developing new products and technologies befitting the 21st century. One of these new technologies, for example, allows the production of slimmer electronic goods through function integration, while another such technology developed by Samsung enables expanded product interoperability. The Company is always working hard to establish new paradigms for sustainable profitability. However, stakeholders are increasingly demanding that companies take greater responsibility toward society and the environment. In other words, employees, investors, customers, dealers and NGOs will continue to expect more from Samsung Electronics in terms of both profits and social contributions.

In response, Samsung Electronics is striving constantly to create technologies that will enrich people's lives, following its management philosophy that stresses the importance of respecting all people and taking care of shareholders, customers, communities and the environment.

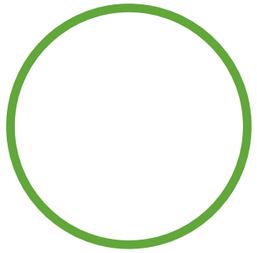
Samsung has an ongoing R&D program that is generating innovative technologies that put the Company at the forefront of the digital convergence revolution. These technologies enable the Company to create products and provide services that help make people's lives more comfortable while adding greater value to life itself. Samsung Electronics' vision is to lead the digital convergence movement through the continuous development of innovative, future-oriented technologies, ultimately becoming a leader of life enhancement for all people.



Green Management Implementation

The Samsung Electronics' Green Management Initiative puts the Samsung "win-win" philosophy into practice through corporate activities related to the environment, safety and human health (ESH). The program is also extended to subcontracted suppliers and local communities inside and outside Korea. As such, Samsung is showing leadership in the effort to balance the needs of people with those of nature in the 21st century. Green Management consists of five major segments that are all aimed towards helping to preserve the global environment:

The Greening of Management is a constant improvement of the program through the public disclosure of corporate information. The Greening of Products is the Company's assumption of responsibility for all processes related to its products. The Greening of Processes is the application of clean process technologies, and the Greening of Workplaces is a set of actions aimed to eliminate pollution, occupational illnesses and accidents on the job. The Greening of Communities, as the name suggests, is a "green partnership" between Samsung and society at large. Samsung Electronics is reducing waste and minimizing energy use through programs that promote natural resource conservation and alternative material development. The Company is engaged in numerous activities designed to lessen human impact on ecosystems and to preserve the environment. Now local communities are also joining Samsung's effort to make human life more pleasant.



Green Management at Samsung Electronics

Samsung Electronics recognizes that working and prospering together with society is the only way to sustain corporate survival, and the Company is committed to making contributions to people everywhere. The Green Management Initiative places the priority on ESH concerns, as Samsung works to increase the "greenness" of management, products, processes, workplaces, and local communities. Samsung Electronics will continue its efforts to create value and make life more comfortable, contributing to a world in which companies and society advance together.

Green Management Policy

Jan. 2004

Based on the reverence for Life all of our business activities observe our Green Management Policy, which encourages respect for nature and contributes to the prosperity of human life and conservation of the environment. The Company plays a leading role in creating a sustainable society by recognizing and implementing the environment, safety and health as crucial factors in all our business endeavors.

❶ Operation of Green Management system

Under the Green Management system, we continue to make efforts to improve how we manage environmental, safety and health impacts occurring in production and service. We have committed to periodically publish the performance results of our Green Management system.

❷ Compliance with Local and International regulations

We apply rigorous standards in the management of matters pertaining to the environment and safety. In addition, we strive to faithfully observe relevant laws, regulations and international agreements in order to be a good corporate citizen.

❸ Fulfillment of life cycle responsibility for products and services

We will fulfill our responsibilities for our products and service, with environment and safety conscious designs, use of environment-friendly materials and the recycling of end-of-life products.

❹ Continuous improvement of environmental aspects

We will continue to minimize the use of resources and energy through clean production technologies. The development of new advanced technology is used to reduce the output of materials known to cause negative environmental impacts such as Carbon Dioxide.

❺ Realization of a safe and pleasant workplace

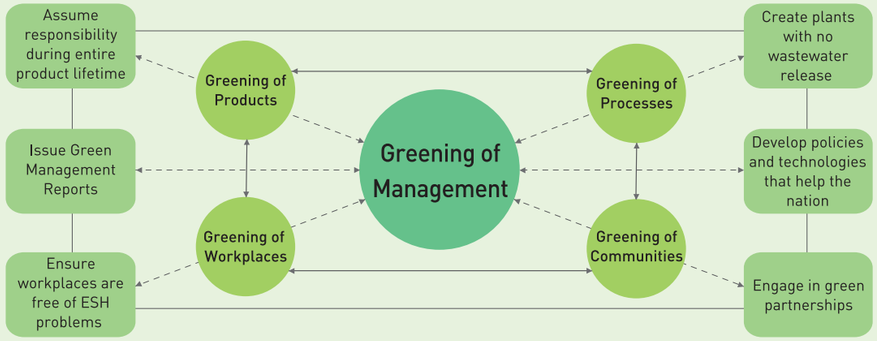
We will do what we can to prevent environmental or safety-related accidents, foster the atmosphere of a safe and pleasant workplace to help improve employee health and the quality of our lives.

❻ Solid partnership with suppliers and contribution to the community

We will cooperate with suppliers in fulfilling Green Management policies, and will maintain excellent partnerships with them. This includes carrying out activities for environmental conservation and development of the local communities together.

Green Management Structure

The Green Management program consists of five major areas: Greening of Management, Greening of Products, Greening of Processes, Greening of Workplaces, and Greening of Communities.



The Greening of Management

Samsung Electronics recognizes ESH issues are key considerations for a business to develop continuously. An advanced ESH system is being installed; new ESH strategies are being developed and new action plans are constantly being devised as well. The Company's efforts to green its products, processes, workplaces and the local communities are carried out through the same basic system.

- Samsung continues to acquire globally recognized certifications such as ISO 14001 and OHSAS 18001. The Green Management Information System (GMIS) has been created to increased efficiency, and a new system for assessing environmental accounting and environmental results will be in operation by the end of 2005.

The Greening of Products

Production, product usage and end-of-life disposal are considered when designing new products to minimize environmental impact, and all production processes are examined for environment friendliness. Design for the Environment (DfE) and Life Cycle Assessment (LCA) software are now being used to improve the environment friendliness of all products.

- Eco-Designs and Eco-Products are being developed using the DfE and LCA programs. • WEEE and RoHS systems are being built. • Disposal of waste electronics products is also being improved and a new Extended Producer Responsibility program has been implemented as well.

The Greening of Processes

Various clean technologies have been developed that allow the Company to continue upgrading processes and facilities as well as to aid in the search for alternatives to replace hazardous materials.

- Resources previously discarded are now being recovered and more wastewater is being reused, reducing the amount of pollution released into the environment. • Clean production technologies are being applied to solve pollution problems before they occur. • Waste heat is being recovered and energy is managed in measurable units to increase efficiency.

The Greening of Workplaces

Various activities are underway to ensure that the workplace is free from pollution, occupational disease and accidents. An automated monitoring network helps prevent pollution, and the Company is carefully evaluating its basic pollution control facilities, food hygiene levels and fire prevention systems. Various upgrade projects are in progress, and employees receive training that motivates them to participate in ESH programs voluntarily.

- Automated environmental monitoring network and various prevention activities are helping to ensure that the workplace is free of pollution, occupational disease and accidents. • Processes are being improved constantly to reduce pollution emissions.

The Greening of Communities

Samsung Electronics fulfills its ESH obligations to society, and management focuses on trust to earn the respect of local communities and the general public. The corporate philosophy of "co-existence and co-prosperity" is put into practice by organizing clean-up drives of local mountains and rivers, participating in environmental protection activities with local citizens, and supporting ecosystem restoration projects.

- The "environmental sisterhood" program with local schools is being expanded. • Each worksite assumes responsibility for cleaning up a designated river and mountain in the local vicinity. • Ecosystem restoration projects are organized. • Samsung urges its employees to volunteer for community service.

The Greening of Management

The Company-wide Environment/Safety Management Committee has been formed to implement Green Management policy. The Committee sets targets for specific areas and establishes the mid-/long-term vision for the Company as a whole. In addition, the Company has embraced international ESH standards, installed the Green Management Information System (GMIS) and adopted environmental accounting practices, providing a framework for continued improvement.

The Green Management Organization

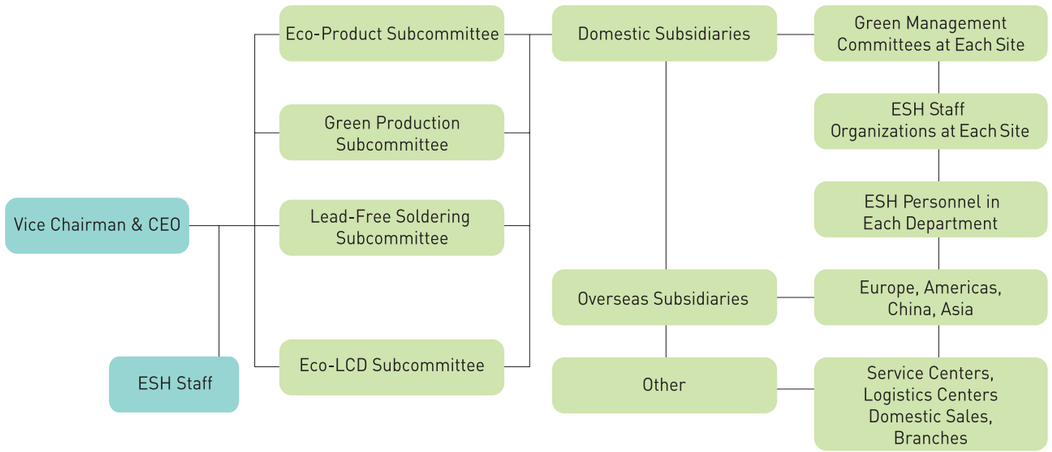
Samsung Electronics plays a leading role among Korea's corporate circles in regard to ESH issues. The Company represents the private sector position in the establishment of national policy, analyzes and participates in international environmental issues, and supports environment-friendly product development. Samsung also researches ESH policies at home and overseas, offers advice on these policies and partners with environmental NGOs.

Every worksite has an Environment/Safety Management Committee consisting of senior executives. The Committee sets mid-/long-term targets as well as specific objectives for each area within the Green Management Initiative. Members also periodically examine performance results to ensure progressive improvement. Under the auspices of the Committee are the Eco-Product, Green Production, Lead-Free Soldering, Eco-Device and Eco-LCD Subcommittees, each consisting of ESH specialists.

Company-wide ESH Committee

- Deliberates on and decides ESH policy and strategies for the entire company.
- Supports the manufacture of environment friendly products
- Evaluates Green Management program results and pursues sustainable development.
- Monitors and troubleshoots ESH issues, with the participation of the division chiefs (senior management)

Environment/Safety Management Committee Organization



The Green Management System

Samsung Electronics has established an ESH management system that involves all organizational members in he problem-solving process. Each organizational unit is first required to identify the factors with environmental impact. Specific objectives are then set for each factor, and improvements are made continuously. As part of the effort, all employees receive training relative to their organizational rank, while separate programs train environmental specialists to work in for each major area.

The Environment/Safety Management system is an ongoing cycle of planning, doing, checking, and correcting. The Company also runs internal audits to assess system results, which are examined by top executives to ensure constant progress is made.

In Korea, Samsung Electronics also takes part in the government-sponsored Environment Friendly Company program, which requires that emissions of pollution-causing substances are reduced at the end of the pipe. At the same time, environment friendliness enhancement campaigns are conducted for every operation. As a result, every domestic Samsung Electronics worksite has been designated Environment Friendly by the government, and the Company serves as a role model for others to emulate.

Green Management System

ESH Certifications by Worksite Worldwide

Certifications Received			
Domestic Subsidiaries	**Environment Friendly Company**	**ISO 14001**	**OHSAS 18001**
Suwon	Apr.'96	Oct.'96	Nov.'00
Giheung/Hwaseong/Onyang	Aug.'95 / Aug.'02 / Nov.'95	Nov.'96	Dec.'99
Cheonan	Sept.'99	Sept.'96	Dec.'99
Gumi	Jan.'96	Nov.'96	Oct.'01
Gwangju	Jan.'96	Oct.'96	Oct.'02
Overseas Subsidiaries	**Subsidiary Name**	**ISO14001**	**OHSAS 18001**
US (4 locations)	SAMEX	Dec.'00	Dec.'03
	SAS	Jan.'01	-
	SEDA	Feb.'01	-
	SEM	Nov.'04	-
Europe (2 locations)	SEH	Oct.'01	-
	SESK	Oct.'03	Oct.'03
Southeast Asia (6 locations)	SEIN	Apr.'03	Oct.'03
	TSE	Dec.'01	Nov.'03
	SDMA	Aug.'99	Aug.'02
	SIEL	Jun.'00	Aug.'03
	SAVINA	Dec.'01	Dec.'02
	SEPHIL	Sept.'02	Oct.'03
China (10 locations)	TSED	Jan.'01	Dec.'03
	TSTC	Aug.'04	Apr.'05
	TSEC	Dec.'00	Oct.'04
	SST	Sept.'04	Nov.'04
	SSEC	Nov.'03	Apr.'05
	SESS	May.'04	May.'04
	SESC	Feb.'04	Feb.'04
	SESL	Nov.'04	Nov.'04
	SSKMT	Apr.'05	Apr.'05
	SEHZ	May.'05	-

Certification of Environment/ Safety Management System

"Environment Friendly Company" designation

Legal Compliance and ESH Controls

Samsung Electronics strictly adheres to relevant laws when overseeing environment and safety performance. In fact, the Company does much more than just control pollution; it continues to develop new technologies and upgrade existing environment friendly processes. Samsung's management principles stress the need to preserve the planet, and all production operations are conducted in consideration of ESH factors.

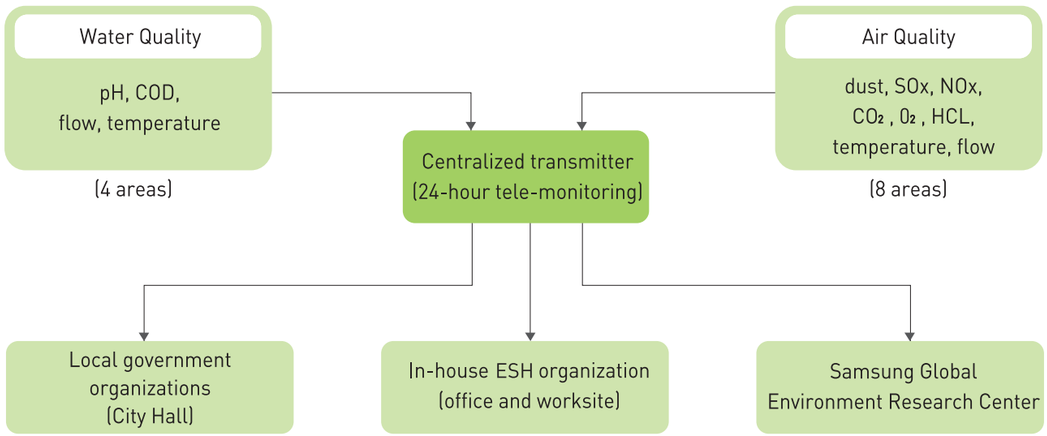
Samsung Electronics is committed to being a leader in corporate environmental protection. The company has never accidentally released toxic chemicals or been found guilty of violating environmental laws. All operational factors with environmental impact are carefully analyzed, and corrective programs are implemented according to those findings. Sources of pollution are strictly controlled, and the Company faithfully abides by international pacts and accords on protecting the earth.

Samsung Electronics does more than comply with the law, as internal pollution control regulations are even stricter than the legal requirements. Tele-metering systems monitor emissions 24 hours a day and in-house laboratories are employed to assist in controlling emission sources. Processes are constantly becoming cleaner as well.

Senior managers are in charge of overall ESH control at each factory and division, and they are assisted by an ESH staff. In addition, ESH personnel are assigned at the department or section level to enable onsite self-regulation. Best practices are awarded and presented in a conference format at least once a year, and emergency teams can be assembled at a moment's notice. Crisis response scenarios are created for training purposes, and ESH supervision is online for quicker response capability.

For example, troughs have been added to the intakes for chemical tanks to prevent spills, and oil/water separators have been installed outside the plant perimeter. Closed circuit TV and pH meters are used for round-the-clock monitoring; pumps and drainage pipes are also in place in case of an emergency.

Tele-monitoring System



Environmental Accounting

Samsung Electronics adopted a pilot environmental accounting (EA) system to more effectively manage monetary outlays related to environmental protection, and implementation is being expanded in stages. In the past, environmental expenditures were categorized into air quality, water quality, solid waste disposal, etc. and were managed accordingly.

However, in October 2000, the Company joined a demonstration program sponsored by the Korean Ministry of Commerce, Industry & Energy and the Ministry of Environment and implemented the EA system (from October 2001 to September 2002). EA specialists were trained for each factory, and EA guidelines were developed. The demonstration program was run at domestic factory sites, and a new classification formula was applied to analyze environmental expenditures.

Samsung Electronics participated in Phase 2 (January-September 2003) of the EA demonstration program, was part of a study on environmental efficiency, and revised the accounting guidelines. For Phase 3 (October 2003-September 2004), the Company installed an online EA system and employed it on a trial basis.

(in thousands of dollars)

		Suwon	Onyang	Cheonan	Gwangju	Gumi	Giheung & Hwaseong	Total
Pollutant treatment facilities	Air quality	7,885	2,441	30,030	5,755	4,081	26,964	77,156
	Water quality							
	Solid waste							
	Other							
Pollution prevention	EMS operation	9,661	1,418	2,625	6,738	1,132	824	22,398
	Resource conservation and recycling							
	R&D							
	Greening of workplaces							
Programs with interested parties	Cooperation with outside organizations	433	21	9	155	13	45	677
	Other							
Response to laws and restoration activities	Response to laws	325	1	0	0	105	103	534
	Restoration activities							
Environmental expenditure		**18,305**	**3,881**	**32,664**	**12,648**	**5,331**	**27,936**	**100,764**
Investment		9,764	5,917	10,212	52	4,177	57,050	87,172
Environmental return on investment		9,177	12,826	12,557	2,078	4,491	2,580	43,709

Semiconductor Business Declares "New EMS"

Samsung Electronics launched its Green Management Initiative in 1995. On the tenth anniversary of the program, the Company announced the new Environmental Management System (EMS), which includes an environment-friendly production and material supply system that ensures all the semiconductors, hard disc drives and data storage devices made by the Company are free of hazardous materials. This "second phase" EMS is designed to allow the large manufacturer and its smaller suppliers to prosper together, leading markets in the era of environmental competition.

The Samsung Electronics Semiconductor Business is implementing the new EMS in three phases. Phase 1 is already completed, providing a system at domestic plants that procures resources and manufactures products that are free of six major hazardous substances. The system was then expanded to overseas factories during Phase 2, which was finished in the first quarter of 2005. In Phase 3, Samsung Electronics will strive to be first in the global industry to introduce new environment friendly products, enhancing customer satisfaction and leading the market for such products.

Since 2002, the Semiconductor unit has been working with subcontracted suppliers to establish a procurement system for materials that do not contain cadmium, lead, mercury, hexavalent chromium (chromium 6), or two flame retardants from the bromide group--polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs). A total of 229 suppliers contracted by the unit have been certified as "Eco-Partners," which confirms that they do not use the six hazardous substances mentioned above and have passed the standards mandated by Samsung Electronics.

Crisis Management & Response System

Samsung Electronics operates a scientific and systematic program for responding to various emergencies that could occur during production. An automated system helps to prevent accidents, while the Samsung 3119 Rescue Unit and in-house firefighting teams are trained and ready to respond quickly in a crisis.

Crisis scenarios have been devised to fit individual factories and work sections, and the scenarios are used in training exercises. All employees are drilled each year to respond to simulated emergencies, and different responsibilities are assigned for rapid and efficient response to chemical spills, toxic gas leaks, fire outbreaks, power outages or injured workers.

The Samsung 3119 Rescue Unit was established in 1995 as the first organization of its kind in the Korean private sector. The Unit helps to prevent or minimize the effects of on-site accidents and is also mobilized to help out when disasters strike the community. The professionalism of these rescuers has helped save lives and property, earning it praise from the general public.

GIS-based Integrated Disaster Management

Samsung Electronics now operates an integrated disaster management system that takes advantage of the Geographic Information System (GIS). Emergency response scenarios have been created for each building and other facilities on the factory sites. Moreover, the old system has been upgraded by adding geographical data on the buildings, topography, and underground facilities. The Company intranet is used to manage floor plans of factory buildings, and all available data are used to help prevent accidents or disasters.

In Phase 1, which is already completed, a standardized method of organizing factory floor plans was devised to help create the GIS. The Company has combined a graphics database of firefighting systems, architectural drawings, civil engineering drawings, and hazardous material storage facilities with a geographic database covering buildings, site boundaries, aerial photographs, altitude maps, and contour maps. The current data system has been linked with the weather analysis and in-house CCTV systems, allowing for rapid data confirmation.

In the future, all the data regarding buildings and structures belonging to Samsung Electronics will be integrated to improve responsiveness to accidents and disasters. Once all these systems are completed, the Company will be able to run simulations that predict damage from fires or environmental accidents at all factory sites. Such a capability will help the Company to construct an even more effective system for disaster prevention.

Technical Support & Supplier Certification

The Samsung Electronics Suwon Factory provides ESH technical guidance to subcontracted suppliers each year to help them operate an EMS in-house and prevent environmental accidents and employee injuries. These vendors follow a systematic environmental management program designed to prevent accidents and achieve constant improvement in environmental performance. They are strongly encouraged to adopt the voluntary measures that will earn them the Environment Friendly Company designation.

In 2004, Samsung employees were assigned to specific vendors to help them obtain ISO 14001 certification, improving their capability to prevent environmental accidents and to minimize potential risks. Samsung offers comprehensive EMS training programs such as Basic ISO 14001, Applied ISO 14001, Environmental Law, and Environmental Protection Facility Operation. An additional program is designed to train internal environmental system examiners.

In 2004, Samsung officials spent seven months at vendor sites to help them install new systems and to reduce production costs through unit-cost analysis for improving production processes and efficiently controlling the operation of air quality control systems, wastewater treatment plants and solid waste disposal facilities.

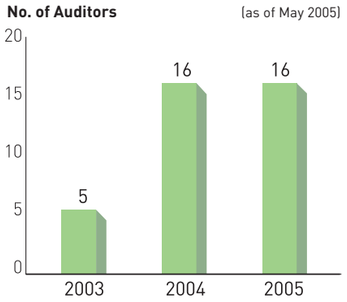
Launching ceremony of Certification Support Program for Samsung Electronics vendors

EMS installation naturally raises employees' environmental awareness, and 30 of Samsung's subcontracted suppliers are now ISO 14001 certified. The overall transparency of environmental management has improved as a result, and Samsung Electronics continues to assist its suppliers in this regard in 2005.

Training of EMS Auditors

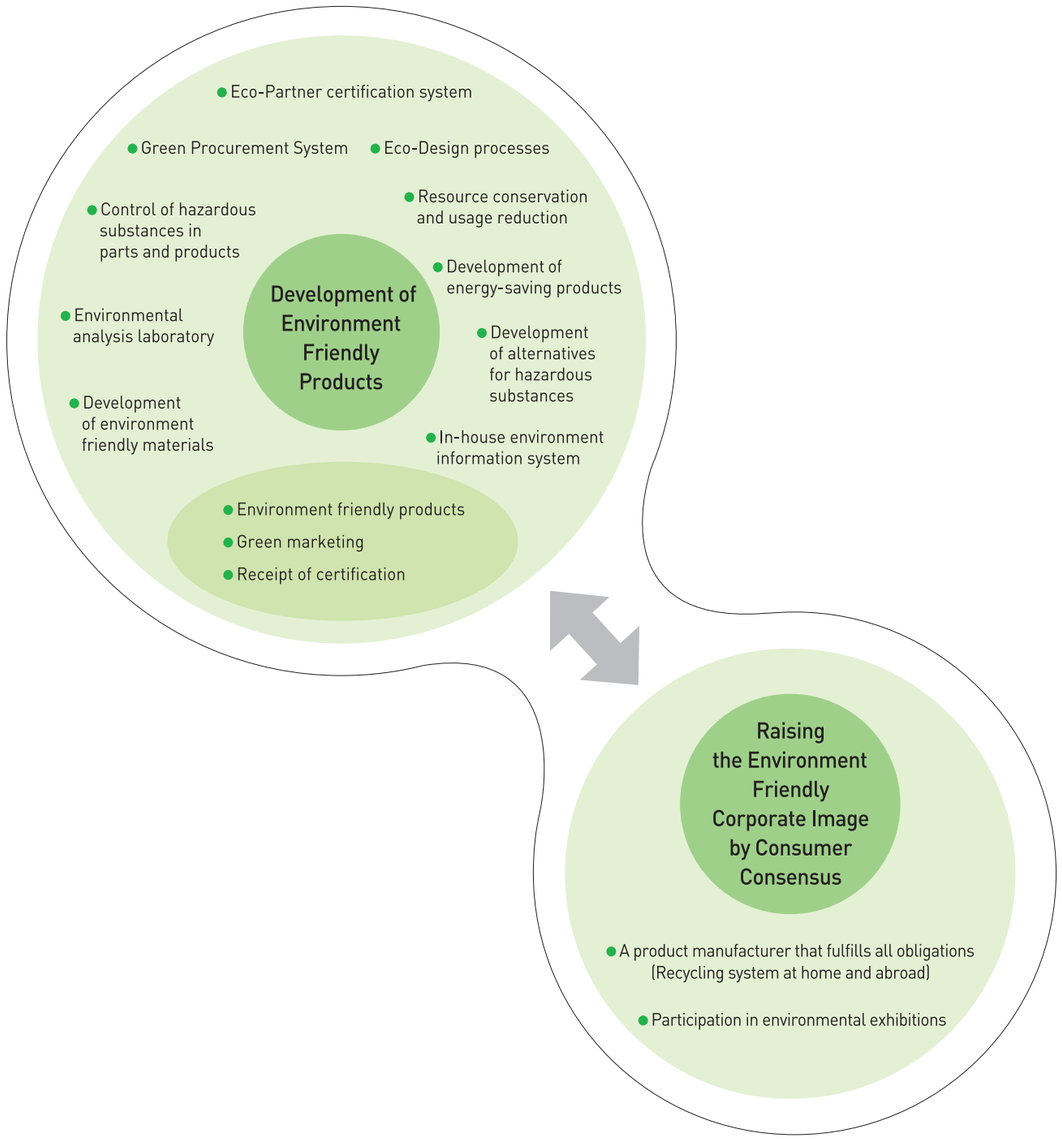
As part of EMS establishment, Samsung Electronics policy mandates training of auditors for internal environment management systems as well as for ISO 14001 certification. This training is part of Samsung's full support for expanding environmental management to suppliers, and this support is accelerating the Eco-Partner certification of suppliers.


Examiner training



The Greening of Products

Samsung Electronics is firmly established as a global company and is fulfilling its concomitant obligations by engaging in diverse activities based on a "product environment" strategy. The Company's ability to develop environment friendly products continues to strengthen; a global recycling system is being established and the environment friendly corporate image is improving. The Company's goal is to provide consumers with products that are the most environment friendly.



Development of Environment Friendly Products

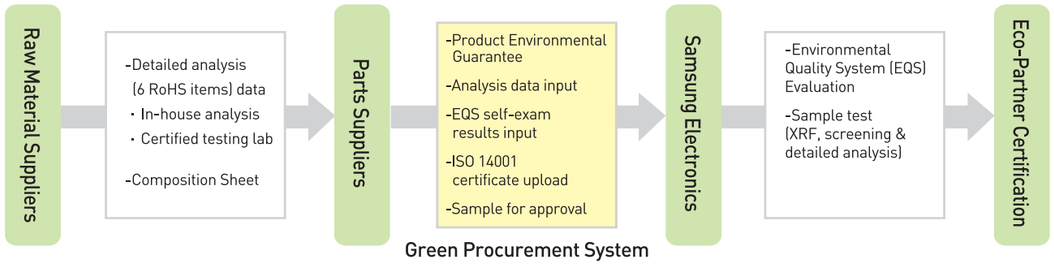
Eco-Partner Certification Program

EU Directive 2002/95/EC (RoHS) will ban the placing on the EU market of new Electrical and Electronic Equipment (EEE) containing more than the set levels of lead, mercury, cadmium, hexavalent chromium, and both plolybrominated biphenyls (PBB) and polybrominated diphenyls (PBDE) flame retardants from July 1st of 2006. Samsung Electronics is fully prepared for complying with the RoHS Directive by controlling restricted hazardous substances in parts, components and materials, as well as by establishing environmental quality system (EQS) in subcontracted suppliers. Samsung's Eco-Partner certification program was launched in May 2004, and about 650 Samsung employees have been qualified as auditors so far. Samsung Electronics has trained all suppliers worldwide, while continuing to evaluate vendor performance and helping them to improve.


Vendors are briefed on the Eco-Partner certification system.

Suppliers can use the Green Procurement website to upload general information on themselves and complete documents on substances targeted for environmental management. These documents include the Product Environmental Guarantee, List of Environmentally Controlled Substances, Detailed Analysis Data, List of Product Constituents, and Improvement Plan. Samsung's suppliers must be certified as Eco-Partner by June 2005.

Eco-Partner Certification Process



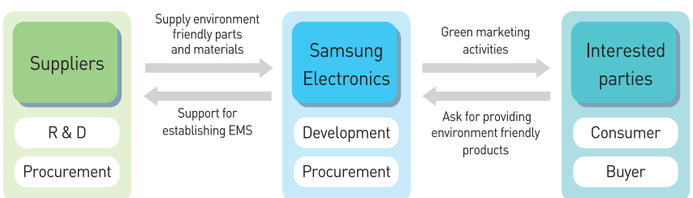
Green Procurement System

Green Procurement System

The Green Procurement System is an internal data management system to control quickly and efficiently the information concerning all hazardous substances used by vendors who work with Samsung Electronics. Suppliers use the intranet to register general information on themselves and specific information on the hazardous substances currently being used in their products. The R&D and Procurement Departments examine these data to approve product quality and complete the procurement process.

This system provides hazardous substance data for use by Samsung Electronics when developing new products. In addition, it provides data for product recycling and can be used as a tool for providing customers with environment friendly products.

Uses for Green Procurement System



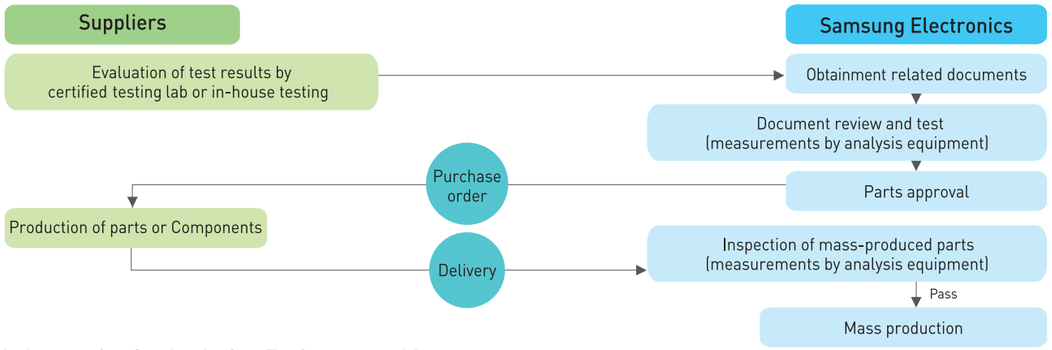
PBB:Polybrominated biphenyls **PBDE**:Polybrominated diphenyl ethers **RoHS**:Restriction of the use of certain Hazardous Substance in electrical and electronic equipment

Control of Hazardous Substances in Parts and Products

Samsung Electronics has drawn up regulations on the control of environmentally relevant substances as part of ongoing efforts to reduce environmental impact during production or disposal as well as possible effects on product users. The regulations were revised for the third time in February 2005 and were expanded to Samsung Electronics operations worldwide. Currently, the Company is working to replace all hazardous substances contained in its products with safer alternatives.

Company regulations cover a total of 20 substances: the six banned by RoHS, those restricted by EU Directive 76/769/EC, and those restricted by the laws of individual countries. The regulations identify environmentally hazaardous substances contained in parts, basic materials, wrapping materials and batteries and either prohibit or limit the use of these substances. In addition to internal controls, the standards are linked to the Eco-Partner certification system and are applied to parts and materials supplied by vendors.

Samsung Electronics Hazardous Substance Control System



Laboratories for Analyzing Environmental Impact

In 2003, Samsung Electronics installed X-Ray Fluorescence Spectroscopy machines at all domestic factories and sixteen overseas factories to screen the composition of materials used in products and their parts. The Company invested an additional US$3.5 million in 2004 to construct precision laboratories at three domestic factory sites to detect the six hazardous substances banned by RoHS. These labs are equipped with Inductively Coupled Plasma analyzers as well as High-Resolution Gas Chromatography/Mass Spectrometry instrumentation for detecting the presence of bromide flame retardants down to parts per billion.

Analysis accuracy depends greatly on the laboratory environment and operator expertise, so Samsung Electronics rigorously trains its lab technicians. The Company participates in the International Electro-technical Commission Working Group for developing GC/MS analysis methods for detecting bromide flame retardants. This methodology is yet to be standardized globally, but the IEC analysis is now in the process of standardization.

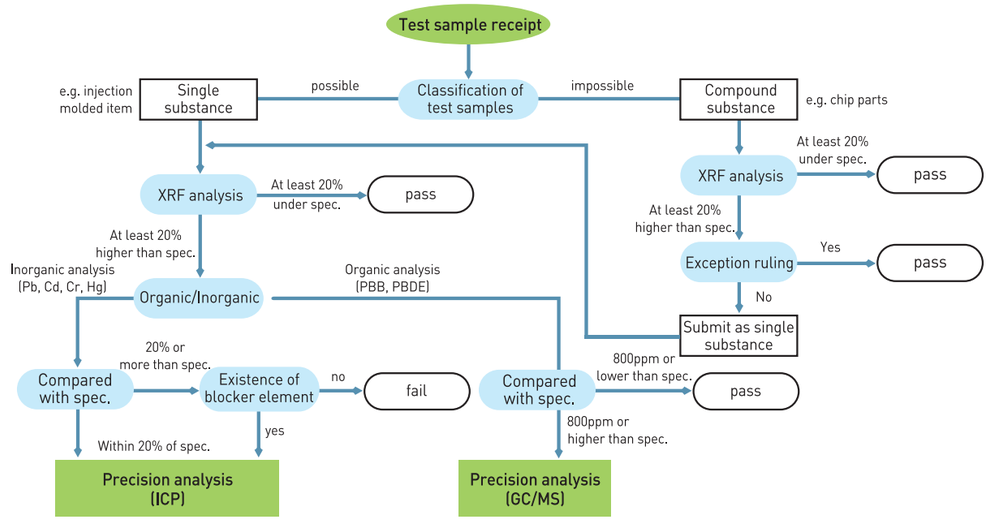
Samsung has also classified the hazardous substances that can be in individual products. The classifications are based on theoretical analysis of raw materials as well as precision analysis of products. It saves money for vendors applying for Eco-Partner certification, as they only have to submit test results for the substances pertaining to the parts they supply.

Precision Analysis Equipment

Screening Equipment

XRF : X-Ray Fluorescence Spectrometer **ICP** : Inductively Coupled Plasma Spectrophotometer
HR-GC/MS : High Resolution Gas Chromatograph/Mass Spectrometry **ppb** : part per billion **IEC** : International Electrotechnical Commission

Analysis Process

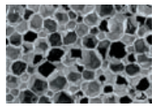
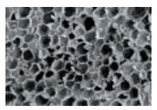


Development of Environment Friendly Materials

❶ High-efficiency Insulation

Samsung Electronics uses environment friendly cyclo-pentane foam in its refrigerators and has reduced the cell sizes in urethane foam to lower the cell-based radiation. As a result, the insulation efficiency has improved by 10.6%, lowering power consumption by the refrigeration and freezer units by 6.9%.

Enlarged View of Insulation Foam in Refrigerator Walls

Regular insulation	High-efficiency insulation
	
▶ large cells ▶ high radiation energy	▶ fine closed cells ▶ low radiation energy

Insulation Performance Comparison

	Regular insulation (1998)	High-efficiency insulation (2005)
Blowing agent	cyclo-pentane	cyclo-pentane
Cell size	250~300㎛	80~100㎛
Thermal conductivity	0.0160kcal/m.hr.℃	0.0143kcal/m.hr.℃
Power consumption	-	6.9% improvement

Gamma (λ) radiation is a factor that contributes 20-30% of total thermal conductivity, and this radiation decreases as the cells become smaller, lowering the ability of a material to transfer heat, resulting in enhanced insulation performance.

Application of Eco-Design Processes

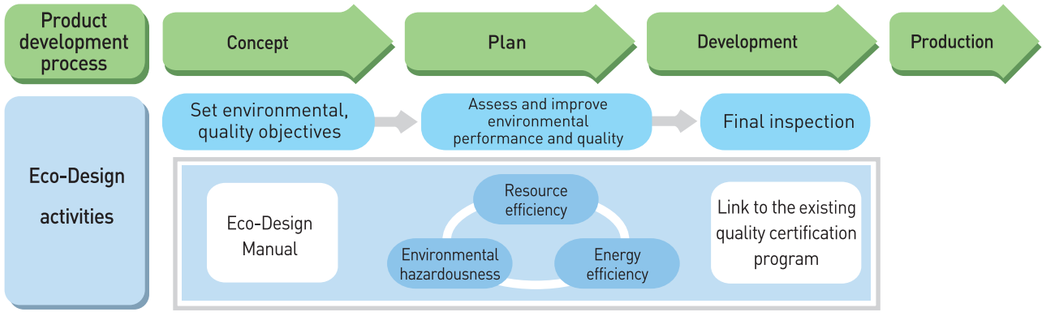
Samsung Electronics has been applying Life Cycle Assessment (LCA) and Design for Assembly/Disassembly/Recycle/Service (DfX) methods to all products since 1995, constantly evaluating and improving the environmental performance of major products. However, environmental regulations regarding products have been tightened recently, and the number of stakeholders who want environmental information on those products continues to grow. Therefore, the development of environment friendly products is now a very important issue.

In 2004, Samsung Electronics adopted the Eco-Design process to help determine and improve environmental quality at the product development process. Product environmental performance is divided into three general groupings: Resource Efficiency, Environmental Hazardousness, and Energy Efficiency. Each of these groupings is classified into specific areas for assessment, and performance targets are established and applied in the process of new product development.

To this end, the Company has selected environmental categories that are implemented throughout the organization, and these categories are linked with the quality certification program. Thus, environmental considerations are part of overall product quality assurance activities. Samsung has also developed forms for offering stakeholders information on the environmental performance of its products.

Eco-Design began as a pilot program for some printer and refrigerator models in 2004, and the Eco-Design process is expected to be applied strategically to all product lines in 2005. From 2006, it is expected to be in force for all new product development. At the same time, assessment categories and performance targets are being upgraded steadily to improve the environmental quality of all Samsung products.

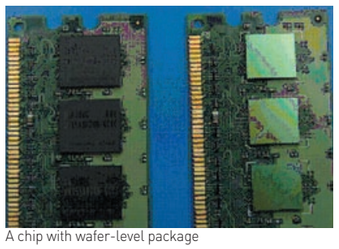
Eco-Design Processes



Resource Conservation and Usage Reduction

❶ Wafer-level Fabricated Packages

Samsung Electronics came out with a unique wafer-level package (WLP) that remains connected to the chip from the wafer fabrication stage. The conventional approach is to assemble the package on each chip individually after it is cut from the wafer. Instead of plastic, the WLP is made of light-sensitive insulation material, which is simply laid over the chip after the wiring has been connected. The new technology eliminates the need for the wire bonding or plastic package molding steps during semiconductor assembly while significantly reducing production costs and the usage of various materials (plastic, rinted circuit board, wire).

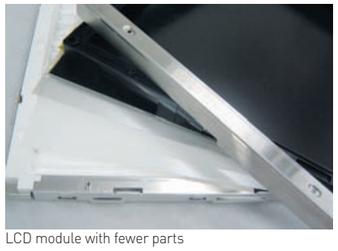

A chip with wafer-level package

DfX : Design for Assembly/Disassembly/Recycle/Service

❷ Improved Recyclability through Parts Reduction

Samsung has developed new LCD module designs that require 70-80% fewer screws than previous modules, reducing the time necessary to disassemble the product at the end of its lifecycle. For example, whereas the old LCD module for a 26" TV needs 73 screws, the new version requires no more than 16 screws. As a result, disassembly time has been cut from 530 seconds to 340 seconds.

The new design approach is being applied to the company's entire LCD module lineup. The number of screws in the LCD for a 32" TV has been cut from 98 to 27, and the number of screws in a 40" LCD for TV has been reduced from 112 to 32. The faster disassembly and improved recyclability will allow Samsung products to meet the Waste Electrical and Electronic Equipment (WEEE) directive being proposed by the EU. Samsung is also improving the structural designs of its VCRs and optical disc drives, steadily reducing the number of required parts. The benefits include lower production costs as well as reduced resource consumption.


LCD module with fewer parts

	Before		After	
	Model No.	No. of Parts	Model No.	No. of Parts
VCRs	SV-J599	430	SV-K811	420
CD-R/RW drives	SW-252S	298	TS-H292A	244
Slim combination units	SN-324F	332	TS-L462A	230

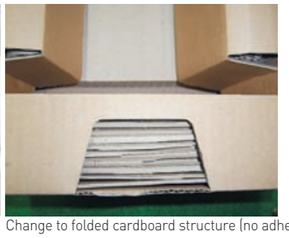
❸ Reduced Packing Materials

The MZ30 desktop is packed in recyclable cardboard, and the cardboard is structured to reduce the airspace in the packing material. Folded cardboard is used in place of the hotmelt polyamide adhesive, lowering the environmental load. The job of recycling the adhesive-less packing material is cleaner and requires fewer people.


Original packing design


Improved packing design


Use of hotmelt adhesive (30g)


Change to folded cardboard structure (no adhesive)

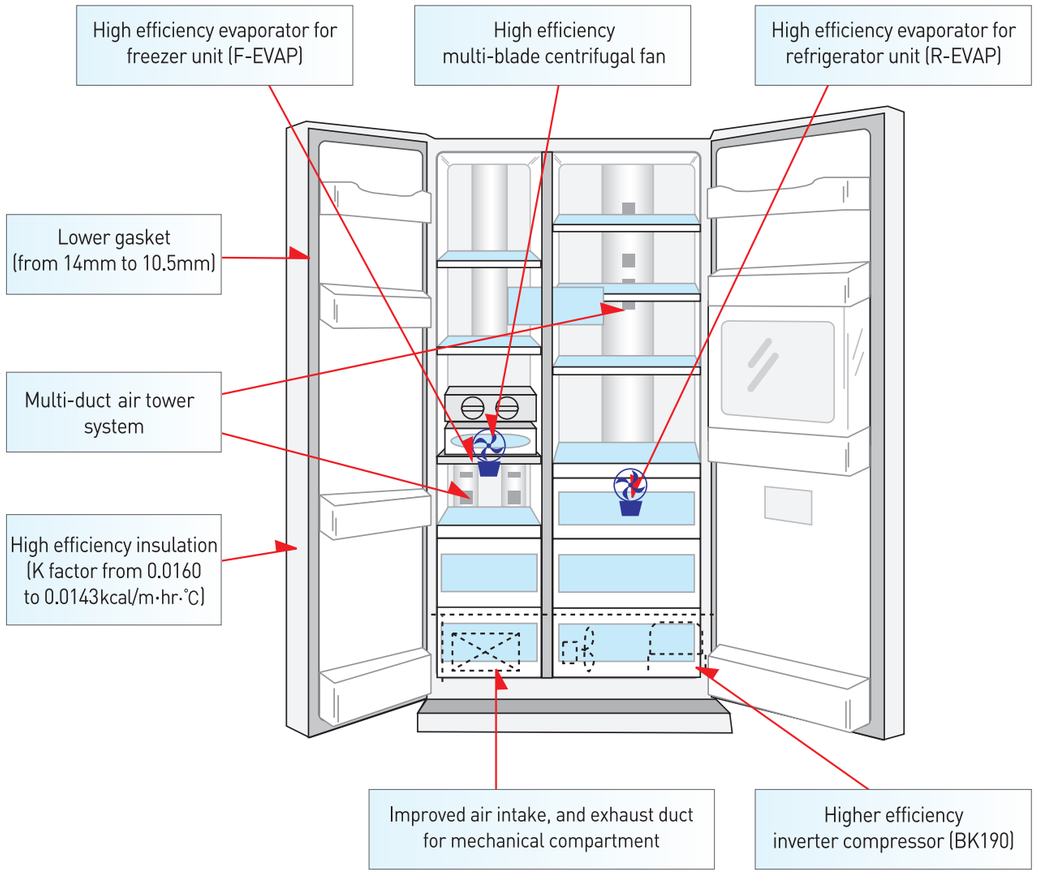
Hotmelt : polyamide adhesive

Development of Energy-saving Products

❶ Zipel Inverter Twin Home Bar 680-ℓ Refrigerator

Samsung Electronics has been upgrading all the parts and components in its refrigerators to improve energy efficiency. This enables the Company to satisfy requirements for greater environmental friendliness and avoid import restrictions based on national regulations governing energy use. Improvements to compressors, evaporators, insulation materials, and fans have raised the overall product efficiency by 48% and allowed users to save about US$125 a year on their electricity bills.

Improvements Items on the New High Efficiency Refrigerator



	Zipel ('98 model)	Inverter Zipel
Monthly power consumption	72 kWh	36.4 kWh

Costs some US$125 less to run per year than other models of the same capacity.

❷ Induction Heating, Instant Fusing System for Printers

Samsung Electronics has applied proprietary technology to develop an instant fusing system for printers to comply with strict energy use laws and to boost the product's cost competitiveness. The new-concept heating method employs induction and resistance simultaneously, eliminating energy loss and providing the fastest warm-up time of any printer on the market.

(Performance Comparison between Previous and New Technologies)

	Before	Now
Warm-up time	120sec.	25sec.
Power consumption	352Wh	250Wh


New-concept instant fusing unit

❸ Redesigned Circuits Lower Notebook PC Power Use on Standby

The addition of semiconductor chips to electronic products will boost power consumption in two ways. The chip itself will require power to operate, and it will cause other components such as related chips, the power supply unit and cooling system to consume more power as well. In other words, the overall system power requirement will be higher than that for each additional chip. Taking this phenomenon into account, Samsung Electronics redesigned the circuitry for adapters and other major components in notebook PCs to lower power consumption on standby mode to 215.7mW.


Notebook PC


Components with newly designed circuitry

Warm up time : time for fuser to reach optimum temperature
Fuser : heating device that fixes toner to paper

Development of Alternatives to Hazardous Substances

❶ Removal of Hazardous Materials in LCD Modules

"U"-shaped CCFL Lowers Product Mercury Content

Samsung Electronics began to switch over from straight-shaped cold cathode fluorescent lamp (CCFL) tubes to "U"-shaped tubes as the backlight in its LCD module for 23" TVs in January 2004. Use of the new backlight has been subsequently expanded to include the new 17", 19", 20" and 26" LCD modules for TV. The brightness of LCD modules has not been affected by the change, but the amount of mercury in the lamps has been halved. The result has been a reduction in resources used as well as hazardous substances in the LCD modules.

"U"-shaped CCFL tubes for LCD modules

Complete Removal of Hexavalent Chromium in Screws

Samsung Electronics began eliminating the six hazardous substances identified in the RoHS directive eighteen months before it goes into effect in July 2006. This effort is satisfying customer demands for environment friendlier products and complying with ever tighter environmental regulations. For example, hazardous hexavalant chromium was previously added to screws to make them rust resistant, but Samsung Electronics completely switched over to using the benign trivalent chromium in 2004, increasing the environment friendliness of its LCD products.

Screws without Hexavalent Chromium

❷ Packing Material Replaced for Lower Hazardous Fumes

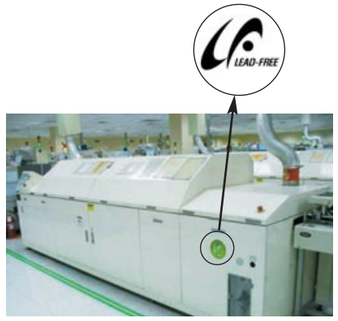
In January 2004, the OMS Business Team of Samsung Electronics began using recyclable low-density polyethylene instead of expandable polystyrene (EPS) as the cushioning in cartons for optical disk drives. EPS emits dioxins and other toxic fumes when burned.

Master carton cushion

❸ Use of Lead-free Solder

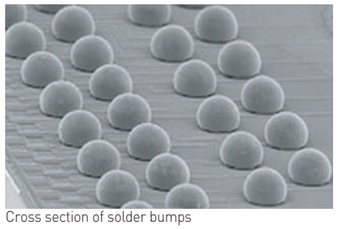
Lead-free Solder Policy

Starting in July 2005, Samsung Electronics has mandated that all parts and products made in-house or by suppliers shall use solder that contains no lead. The Eco-Partner certification program requires suppliers to verify that all the materials in their solder are lead-free. The Company also has a "lead-free mass production certification program" to ensure that lead is not used.



Lead-free Flip Chips

Currently a tin-lead solder bump* is used as the interconnect on flip chips, and technical problems have so far prevented the replacement of the near eutectic tin/lead solder (lead content of 45% or less) in the bump with a lead-free alternative. Eutectic tin/lead solder is an exception to the RoHS directive banning the use of certain hazardous substances in electric and electronic products by 2010. However, Samsung has developed a lead-free flip chip package for high-speed SRAMs using lead-free bumping technology of a tin-silver alloy. This is one of the most sophisticated new technologies in the semiconductor industry and a prime example of Samsung's industry leadership.



Cross section of solder bumps

Lead Out of CD-ROM Drives, DVD-ROM Drives and Some TVs

Samsung has completely eliminated the lead component in the solder for parts in some optical disk drives as well as in certain direct view TV models. The lead has been replaced by various combinations of tin, silver, indium and copper. As a result, the internal lead content of the product has been reduced to 0.1wt% (1,000ppm).

Models: SC-148A, SC-148A/SOBE, SD-616E/SOBE

CD-ROM drive

Direct view TV

In-house Environment Information System

Samsung Electronics has set an environmental information system called Eco-Net to support company policies and programs. Each division can use this link to request analysis of specific environmentally relevant substances that are to be managed. Eco-Net serves as a basic tool in implementing the Eco-Partner program. Also, the system is accessible by all employees inside and outside Korea, helping the Company to boost its global environmental competitiveness.

Eco-Net

Bump is a conductive material that acts as the electric connector between the chip and the substrate on a flip chip device. The bump consists mainly of solder and gold.

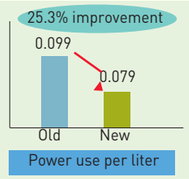
Environment Friendly Products

Case 1 200-ℓ *Kimchi* Refrigerator

Samsung Electronics has continued to improve the efficiency of its *kimchi* refrigerator line through design innovations such as the cooling cover system, fuzzy-logic cooling system, high efficiency insulation, and high efficiency condensers. In addition, the Company has added a power-saving temperature control function and a low-noise motor that let the customer truly appreciate the difference in overall performance. Today, Samsung refrigerators are among the most energy efficient on the market.

Furthermore, the Company has now using environment friendly R-134a as refrigerant and cyclo-pentane as insulation foam in its *kimchi* refrigerators. The products are also easy to disassemble for recycling at the end of their useful life.

5-surface cooling action

		Old model	New model	Comparison
Effective interior space		202 liters	202 liters	
Energy efficiency	Monthly power use	20Kmh	15.88Kmh	
	1st rank ceiling	24.22Kmh/mo	24.22Kmh/mo	
	R value	0.826	0.656	
	Ranking	1st	1st	
	Power use per liter	0.099	0.079	

Case 2 World's First RoHS Compliant Hard Disk Drive

In September 2003, Samsung Electronics completed the development of the first-ever 3.5" hard disk drive containing none of the hazardous substances proscribed by the RoHS directive. Since then, the Company has mass-produced the drives for use in Canon's multifunction digital products. The environment friendly production technology has subsequently been applied to 65% of the Samsung hard disk drives for PCs and will continue to be used in future models.

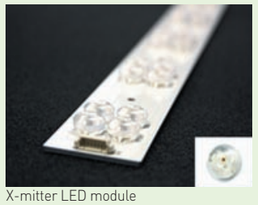
Samsung has replaced the tin/lead alloy solder with a tin/silver/copper alternative for attaching the parts inside the hard drive. The bearing lubricant, shock absorbent rubber and exterior paint are all lead-free as well. These products do not contain any cadmium, mercury, hexavalent chromium, or halogen flame retardants (PBB or PBDE), making them fully compliant with the RoHS directive.

RoHS compliant hard drive

Case 3 LED Backlight for TFT-LCDs

Samsung Electronics has developed a TFT-LCD backlight that utilizes light-emitting diodes (LEDs) instead of cold cathode fluorescent lamp (CCFL) as the light source, and the prototypes of the new component are now in production. The "Xmitter LED backlight" for LCD TVs and edge-type LED backlight for TV/monitors contain no mercury. Moreover, LEDs operate much cooler than CCFL tubes do, rendering the conventional cooling fan, heat sink and heat pipe unnecessary.

As a result, the total number of parts is now less, and power consumption can be lowered by at least 40W compared with the previous CCFL models. Currently Samsung installs LED backlights only in LCD modules used in its 40" TVs and 24" TV/monitors, but their application will be expanded to modules for 32" TVs and larger as well as to 24" monitors and larger.



X-mitter LED module

X-mitter LED BLU

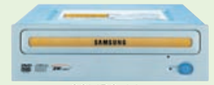
40" LCD TV (using LED BLU)

Case 4 Lead-free CDT Monitors and Combination Drives

CDT monitor

In January 2005, Samsung Electronics eliminated all lead from the solder used to attach parts in the CDT monitors that are supplied to Dell. In addition, the Company no longer uses lead in the plating or structural materials of all parts. The solder containing lead was replaced with solder consisting of tin, silver and copper. In addition, parts suppliers are now running lead-free production lines and receive external certification to ensure that they comply with environmental requirements.

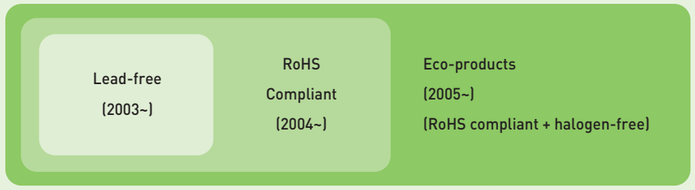
Meanwhile, Samsung Electronics has taken the lead out of the plating and structural materials that go into the optical pick-up unit for optical disk drives (both COMBO drives and CD-RW drives). Technical problems and rising production costs have forced other companies to make exceptions to their lead-free policies regarding critical points in their products such as connectors, flat flexible cable and flat printed cable. However, Samsung has applied gold plating (instead of lead) and the technology and reliability of the Company's optical drives have proven to be excellent.



COMBO drive

Case 5 Leading Manufacturer of Environment Friendly Semiconductors

Samsung Electronics has long been aware of the need to make semiconductor chips that are friendly to the environment. The Company began research in this area in 1998, completed its first lead-free chip prototypes by 2001 and started mass production in 2003. The Company also began mass-producing RoHS compliant chips (free of lead, cadmium, hexavalent chromium, mercury, PBB and PBDE) in 2004. Samsung has been developing a new line of "Eco-Product" which are not only RoHS compliant but also free of halogenated flame retardants and antimony trioxide. Qualification testing of these Eco-products will be completed in 2005, and they will be available upon customer's request.



Environment friendly semiconductor website: www.samsung.com/product/semiconductor/Division Policy/ECOproducts/index.html

LED : light-emitting diode

Green Marketing

Case 1 Proper Disposal of Printer Toner Cartridges

On August 1, 2004, Samsung Electronics launched a "Love Green" drive to encourage the users of Samsung printers to return their old toner cartridges. Previously, the cartridges would get mixed in with the other garbage and be placed in landfills, regardless of the possibility that the residual toner could seep into the soil and damage the ecosystem. Now, users can arrange by phone or the Internet for a person to drop by their homes or offices on a prearranged date to pick up the old cartridges. Samsung Electronics pays all the costs to run this program.

Related website: http://www.sec.co.kr/product/printer/index.jsp

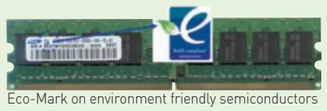
"Love Green" campaign

Case 2 Free Herb Seeds

On November 18, 2004, Samsung Electronics kicked off its environment friendly hard disk drive launch by handing out packets of herb seed (more than ten varieties) along with product leaflets to dealers and consumers in Seoul's Yongsan Electronics market. The uniquely clean hard drives are just the start for Samsung, for the Company intends to make all of its product lines equally environment friendly. The herb seed giveaway is a way to express Samsung's ongoing commitment to the environment.

Case 3 Eco-Mark for Semiconductors

Samsung Electronics is applying lead-free assembly technology at its semiconductor factories. Moreover, the Green Procurement program confirms whether the parts in any given chip are free of substances proscribed by the RoHS directive. If they are, the Company affixes the "RoHS compliant" label on the outside of their boxes and cartons as well as on the barcode label that is placed on the modules that contain the chips. These labels assure users that the chips are environment friendly and promote Samsung's pro-environment stance.



Eco-Mark on environment friendly semiconductors

The Samsung Eco-Mark

Samsung Electronics' Eco-Mark is a symbol used to effectively communicate Samsung's environmental friendly product activities to interested parties such as consumers, NGOs, and buyers by labeling the product's environmental information on the product or package. The lower case "e" stands for "electronics" and the spouting leaf suggests the emergence of new life.

The "Eco" logotype is the first syllable for the words "ecology" and "economy". It expresses the will of the Company to grasp environmental needs quickly, respond to those needs appropriately and create new value-added products accordingly. The Eco-Design processes are applied to develop environmentally sound products from the beginning of development stage, and the Eco-Mark can be used to highlight the special environment friendly features that are built into these products.

Becoming and Staying Certified

Type I Environmental Label Certification

Case1 Air Purifiers

The "wellbeing" craze in 2004 drove up sales of air purifiers. Samsung's air purifiers were certified to be outstanding by testing agencies in Korea, Europe and the US, and the Korea Environmental Labelling Association conferred its Korea Environmental Label on the product for its environment friendliness. The filter can be washed with water and is extremely durable, thus reducing its impact on the environment and lowering maintenance costs at the same time.

Models eligible for label: AC-120AW/121B/121BR/100B/100BR/ 121BG/100BG

Air purifier

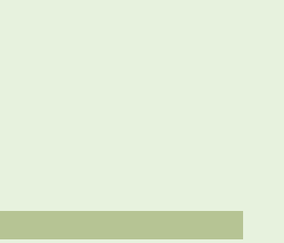
Case 2 Laser Printers

Samsung applied environmental friendly designs to lower the power consumption of its laser printers. With the CLP-500G color laser printer, power use on standby can be reduced by as much as 80%. After being idle for a preset duration, the product automatically lapses into the power saving mode. Operation noise is a whispering 50dB, lower than the 56dB limit required for Germany's Blue Angel Mark.

The ML-1750 laser printer generates only 0.0038ppm of ozone, which is also under the 0.01ppm limit for Blue Angel compliance. Thus, the product contributes to a healthier office environment.

One of Samsung's popular office facsimile machines has also received several environmental labels, qualifying them for use in government offices and attesting to their environment friendliness.

Printer models eligible for label: CLP500G/550G/511G; ML-8700G/8300G/2555G/1750G
Fax machine model eligible for label: CF-550S



CLP 500G laser printer

Environmental Labels (Type I)

The Eco Label Program in Korea was launched in 1992 and subsequently modified in line with the ISO Type I (ISO 14024) environmental labels, declaration and certification system. The program encourages environmentally friendly production and consumption.

The Eco Label Program certifies environmentally-friendly products from the life-cycle perspective. Certified products are distinguished from other products on the market for their pollution prevention or raw materials and energy conservation from the time of resource acquisition to production, recycling and disposal.

In addition to environmental performance, the Korea Environmental Labelling Association (KELA) also considers product quality in the certification process. In this regard, KELA incorporates quality criteria equivalent to International Quality Standards and Korean Industrial Standards into the certification process.

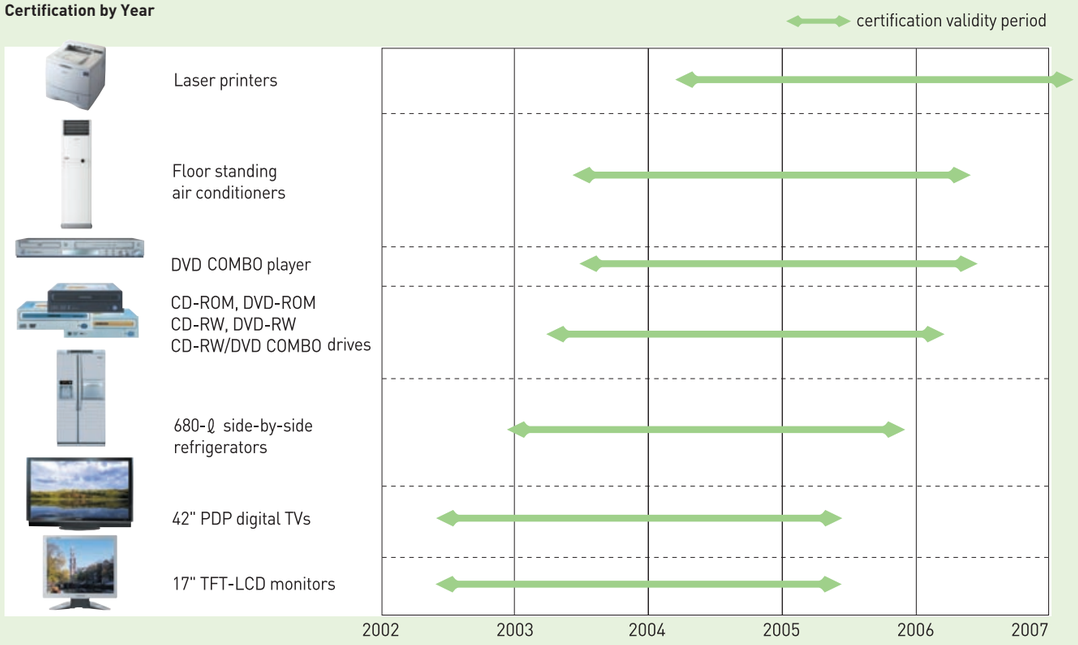
Type III Environmental Label Certification

Case 1 Laser Printers

In March 2004, Samsung's line of ML-2150 laser printers was authorized for the Environmental Declaration of Products (EDP) program run by the Environmental Management Corporation, a non-profit public organization under Korea's Ministry of Environment. The EDP is a quantitative calculation of the environmental impact of a given product throughout its lifetime, and the data are supported by a public agency. Thus, the product's environmental performance is publicly disclosed in a highly transparent manner.

Eligible models for label: ML-2150/2150G/2151N/2152W

Certification by Year



Environmental Labels (Type III)

The Environmental Declaration of Products is a Type III Environmental Declaration program that evaluates the natural resources used and the environmental pollutants discharged during the product life cycle. More information is available at www.edp.or.kr.

Obtaining Domestic and Overseas Energy Marks

Cases TVs and Monitors

Samsung TVs and monitors have been authorized to display the Korean Energy Saving mark since 1999. As of the end of 2004, a total of 307 monitor models and 276 TV models are qualified as such.

The EPA Energy Star was first conferred on Samsung TVs and monitors in 1994, and 336 monitor models as well as 163 TV models bear the mark as of the end of 2004.

510T monitor authorized for the energy mark

Labeling Programs for Energy Savings

Electronics manufacturers participate in a voluntary agreement to limit power consumption when the product is turned on but not in use. They adopt power saving modes, and the label certifies that the product satisfies the government standard for power conservation.

EPA Energy Star Program

The US Environmental Protection Agency sponsors the Energy Star program, which encourages manufacturers to make products as energy efficient as possible. Consumers (both public and private) are also asked to purchase products that bear the Energy Star label to promote environmental protection. Energy Star was the world's first mark of its kind and serves as a model for the energy saving labels of other countries.

Korean Energy Saving label/Energy Star label

Raising the Environment-friendly Image through Consumer Consensus

Fulfilling All Obligations as a Product Manufacturer

❶ Domestic Recycling Program

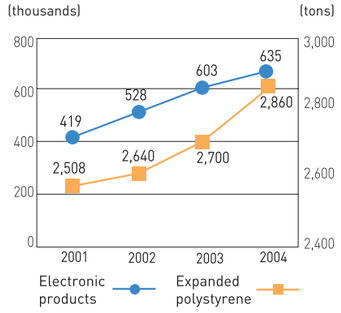
Samsung Electronics has a program for recycling end-of-life products. The program, which went into effect in 1995, has helped to make all Koreans more conscious of the need to reuse resources and has helped to relieve the pollution problems caused by improper waste disposal.

End-of-life Product Recycling System

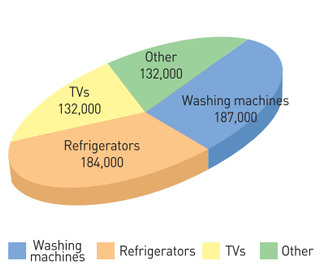
Samsung Electronics has established a nationwide system for collecting old products and the packaging materials (expandable polystyrene, etc.) at some 1,560 sales outlets and 24 regional logistics centers. Seven recycling centers, including one run directly by Samsung at Asan, dispose of the collected items properly. Iron, copper and other raw materials are recovered for industrial use, and the packaging materials are sent to one of twelve contracted companies for processing into picture frame parts or construction materials.

Product Recycling Performance

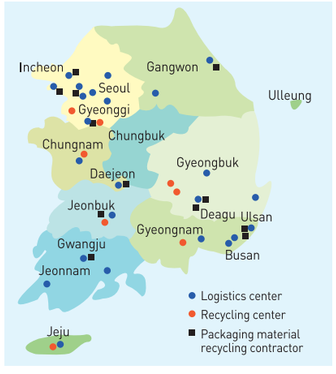
Recycling of Products/Packaging Materials



End-of-life Products Recycled in 2004



Domestic Recycling Facilities



Resource Recovery Performance (2004)

● Amounts of Materials Recovered from Waste Products

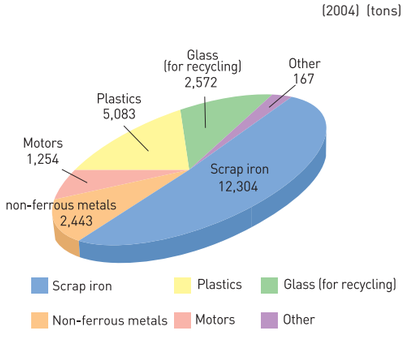
In 2004, the recycling ratio of end-of-life refrigerators was 84%, while the rate for scrapped washing machines was 94%. Both figures were about 5% higher than in 2003. Iron, non-ferrous metals or plastic made up most of the materials recovered. The Company is working to raise the recycling ratio still further by developing recycling technologies to be used in the disposal stage. At the same time, new products are being designed in consideration of recycling and enhanced environment friendliness.

	TVs	Refrigerators	Washing machines	Others
Disposed tonnage	4,092	11,736	9,343	1,625
Recycled tonnage	3,300	9,820	8,739	1,551
Recycling ratio	81%	84%	94%	95%

*Manufacturers have been obligated to recycle six product categories (refrigerators, washing machines, TVs air conditioners, personal computers and monitors) since 2003 and mobile phones and audio products were added to the list in 2005. Samsung Electronics has established a system for the efficient disposal of each product category and operates a recycling center as well.

*Recycling ratio (%) = input material weight-material weight to incineration and landfill/input material weight × 100

Resource Recovery from End-of-life Electronics



Enhancing Waste Collection Efficiency (Time-based Charges)

A new time-based schedule calculates logistics costs with greater transparency and objectivity. The specific types of services, transport equipment and collected items are all factored in separately, from the time that the waste product is collected to the time it is transported to the recycling center. The new approach improves the efficiency of the collecting system.

Joint Recycling Management

Samsung Electronics has an agreement with other Korean electronics manufacturers in the management of end-of-life electronics. Each company is assigned to specific regions, reducing storage time and logistics costs while boosting efficiency significantly. Cooperation on environmental protection by domestic electronics makers promotes the public good and can be cited as an excellent example of the "co-prosperity principle" in action.

Parts Reuse Service

Some reusable parts from old products are reused. With the customer's consent, a warranty service is provided for products with expired guarantees.

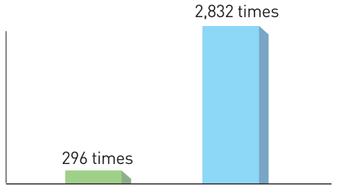
EPS Crusher

The expanded polystyrene (EPS) disposal work has mainly been performed by hand, and efficiency has been low. However, Samsung Electronics has recently installed crushers to mechanically reduce the bulk of EPS by at least 50%. As a result, conveyance costs are reduced, and the storage area can now be made smaller. Other benefits include a decrease in the number of needed workers, cleaner recycling center premises and improved customer services.

Higher Purity of Shred Scrap Iron

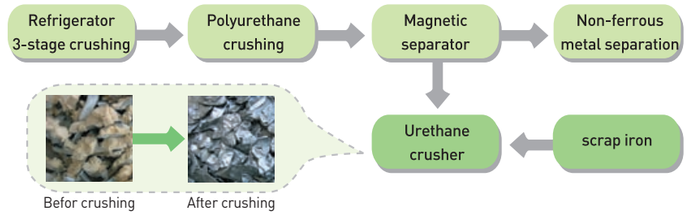
Urethane mixed in with the scrap iron recovered from recycled refrigerators has lowered the recovery rate. Therefore, the Company installed separator-crusher machines to recover more of the scrap iron and improve its market value.

Parts Reuse (2004)



EPS Crusher

Refrigerator Recycling Processes



❷ Global Recycling Activities

Europe

The Waste Electrical and Electronic Equipment (WEEE) directive, announced in the EU in February 2003, requires manufacturers to undertake responsibility for taking back and recycling their own products at the end of their life cycles, starting in August 2005. Products put on the market after August 13, 2005 are to bear the Recycle symbol, and producers will be obliged to provide information on environmentally safe recycling to the government authorities, consumers and recycling companies.

Samsung Electronics is making significant efforts to save the environment and comply with the WEEE directive by joining or establishing the recycling schemes for each country. Samsung Electronics is a member of the European Recycling Platform (ERP), a consortium established by major electronics companies (Sony, Hewlett-Packard, Gillette, and Electrolux). In the countries, not covered by ERP service, the Company is joining a monopolistic recycling consortium to fulfill recycling obligations.

The WEEE directive sets the recovery target for waste electronics (65% for IT and audio-video products), which will go into effect in January 2007. To comply, Samsung Electronics is applying its Eco-Design program to all products, using it as a means to evaluate the existing recovery ratio and to identify areas for improvement. The Company will continue to work with European research institutions to develop the best recycling technology for mobile phones, LCD panels and other items.

Japan

The Consumer Electronics Recycle Law was enacted in Japan from April 2001, making the recycling practice mandatory for refrigerators, washing machines, TVs, and air conditioners. In response, Samsung Electronics joined RKC, a home appliance recycling ticket center. The Company has actively involved in the recycling of consumer electronics by joining the A Group, a recycling alliance with GE, Toshiba and others. In 2003, the Company managed to recover at least 60% of the raw materials in more than 22,000 discarded TVs, refrigerators and washing machines and increased the total figure to some 26,000 units in 2004.

Furthermore, a joint recycling program was launched with Mitsubishi Electric and others in October 2003 to recycle PCs, and over 300 end-of-life PCs were retrieved and recycled in 2004.

North America

Each US state and Canadian province is discussing and prepararing to enact its an law on taking back and recycling waste electronics. California has already passed the Electronic Waste Recycling Act of 2003 (SB 20/SB 50), which covers monitors and TVs. The law is scheduled to go into effect in January 2005, and other states such as Minnesota, Maine and Washington are preparing similar legislation as well.

In Canada, meanwhile, Ontario and Alberta are leading the movement to enact recycling policies that comply with the European WEEE directive. In fact, Ontario already requires manufacturers to bear the cost of recycling packaging materials. As a leader, Samsung Electronics is both cautious about and responsible for environmental protection.

eCycling Program

Samsung was pleased to sponsor an experimental take back and recycling program organized by electronics manufacturers, the Washington State government and the major US electronics retailer Good Guys in Washington in June 2004. The effort is part of the Plug into eCycling Program promoted by the US Environmental Protection Agency

China

The Chinese government is expected to announce its "Management Regulations on Recycling and Disposal of Waste and Used Household Electrical Appliances" in 2005 that conforms to the WEEE regulations of the EU. Samsung Electronics is going to establish a complete waste electronics take back and recycling system to comply with the new law and to be an industry trendsetter in environmental management. For example, Samsung joined local electronics makers in announcing "environmental friendly mobile phone management" (October 2003), a program organized by the State Environmental Protection Administration of China (SEPA). The Company is also managing to ban or reduce the use of hazardous substances in its mobile phones and is encouraging consumers to participate in various environmental activities.

Participation in Environmental Shows

❶ UNEP Special Environmental Exhibition

The United Nations Environment Program (UNEP) Special Session of the Governing Council/Global Ministerial Environment Forum was held in Asia (on Jeju Island, Korea) for the first time between March 29 and 31, 2004. In conjunction with this event, UNEP and the Korean Committee for the Global Civil Society Forum organized the 5th Earth Citizens Society Forum. Various theme-based events were on the agenda, advancing the goal of global environmental protection through sustainable production and consumption.

Samsung Electronics provided desktop computers, PDAs and displays in support of this event. The Company also exhibited various environment friendly products at the UNEP Special Environmental Exhibition, which also was held in conjunction with the Forum. This was an ideal opportunity to inform environmental specialists inside and outside Korea of Samsung's pro-environmental activities and policies.

The exposition featured parts and components such as semiconductors and data storage devices, finished goods that have earned various environmental labels, products that use lead-free solder, and examples of environment friendly packaging. A separate room was equipped with air purifiers to allow visitors to experience the difference in air quality.

Exhibit on Jeju Island

❷ Environment Friendly Product Pavilion at KES 2004

Samsung Electronics took part in the Korea Electronics Show, held inside the Pacific Hall at COEX between October 6 and 10, 2004. In addition to the regular corporate booth, the Company also demonstrated its environment friendly product development activities by taking part in a pavilion promoting environment-friendly product manufacturers. Samsung displayed 32 different items exemplifying product development activities in areas beyond sophisticated technology functions. On display were appliances (refrigerators, washing machines, air conditioners, air purifiers), media products (LCD TVs, TFT-LCD monitors, printers, DVD player-combination units), and components (semiconductors, storage devices, optical disc devices, toner cartridges, compressors).


Korea Electronics Show

SB 20/SB 50 : Senate Bill (California Recycling Law)

The Greening of Processes

Samsung Electronics has been working hard to reduce the use of substances that contribute to global warming. The Company is also devoting great effort into energy control, developing products that conserve electricity and reduce energy use. Production processes continue to be improved and new technologies are being developed to curtail the required amounts of industrial water and various material inputs. These combined efforts have made Samsung an industry leader in reducing the environmental load.

Global Warming Prevention

The Climate Change Convention went into effect on February 16, 2005 as part of the effort to prevent global warming. The pact requires that greenhouse gas emissions in the 39 signatory nations be reduced 5.2% from their 1999 levels between 2008 and 2012. Samsung Electronics has adopted a proactive stance with regard to this international trend and is engaged in various activities designed to help prevent global warming.

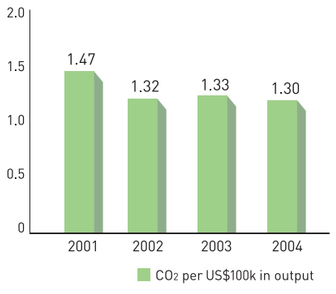
The Company participated in a pilot project supported by the Korea Business Council for Sustainable Development and the Korea Energy Management Corporation (KEMCO). The project, a mock CO_2 emissions trading, was conducted to ascertain in advance problems that are likely to surface under the Climate Change Convention and find effective countermeasures for those problems.

In addition, KEMCO organized a trial "National Greenhouse Gas Reduction Performance Evaluation and Certification System" from June 2003 to February 2004. Samsung took part in this opportunity to understand the controls that will be imposed under the Climate Change Convention. Samsung also organized a task force to respond appropriately to the Kyoto Protocol and all units inside the Company have voluntarily agreed to reduce their energy consumption. As such, the Company is at the forefront of the effort to prevent global warming.

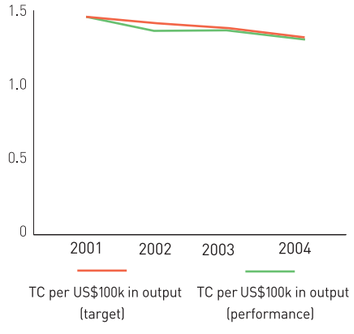
CO_2 Emissions

Samsung Electronics has devised a voluntary plan to lower by 30% the emissions of substances (in the Energy category) that contribute to global warming from their 2001 level by 2010. In 2004, the Company achieved an impressive 11% reduction from the 2001 level, and systematic measures will continue to be taken to reach the 2010 target.

CO_2 Emissions



CO_2 Emission Reduction



	TC per US$100k output (target)	TC per US$100k output (performance)
2001	1,470	1,470
2002	1,421	1,320
2003	1,372	1,330
2004	1,323	1,300

Energy Management

Samsung Electronics has implemented internal campaigns to reduce energy waste in production processes. The Company is now leading the industry in developing products that require less energy when used by consumers.

Energy reduction campaign

Present Energy Use

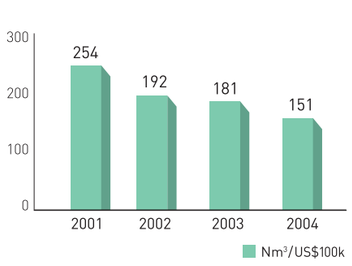
Electricity, LNG and steam are the principle forms of energy now used by Samsung Electronics. In 1994, the Giheung Factory began to switch its boiler fuel from light oil to cleaner burning LNG, and a Company-wide drive has continued since then to conserve energy and reduce pollution-causing substances. Electric power consumption was 9.1mwh/US$100,000 in output in 2004, down 9% from the previous year, and LNG utilization stood at 151Nm^3/US$100,000 in output, a 17% drop from 2003.

Ongoing Energy Use Reduction

Samsung Electronics systematically implements energy conservation activities throughout the organization. All employees are encouraged to save energy and to eliminate factors that contribute to energy waste. This includes habitually turning off office machines that are not in use, stopping energy (electricity, steam, water, air) leaks and making sure electrical equipment is not left idling. Weekly news reports on energy are provided on the Company intranet to foster employee awareness as well.

Electricity Use

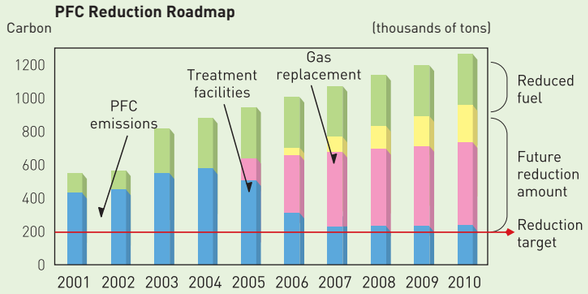
LNG Use



Global Warming Prevention Activities

New Semiconductor Process Technology (Non-PFC CVD Cleaning)

In 1999, the Semiconductor Business agreed to the World Semiconductor Council's voluntary perfluorocarbon (PFC) reduction program (10% less by 2010 from the 1997 level). PFCs are substances that contribute to global warming and are generated during the semiconductor chemical vapor disposition (CVD) and etching processes. PFCs and HFCs constitute about 2% of the global warming substances in the earth's atmosphere, and semiconductor production contributes about 2% of the total PFC/HFC generation. Some 90% of the PFCs generated in semiconductor fabrication are from the CVD cleaning process.



Although the percentage of PFCs being released into the environment is only a few thousandths as much as the amount of carbon dioxide being generated, PFCs have millions of times higher global warming potential (GWP) than CO_2 does. Therefore, a worldwide effort is underway to lower PFC emissions.

Samsung's Semiconductor unit is preparing to use F_2 (zero GWP) instead of NF_3 (a PFC gas) in the CVD chamber washing process. The new technology, which will be applied starting from 2006, will dramatically reduce the effect of the semiconductor industry on global warming.

PFC Reduction Plan for LCD Unit

The LCD Business has pledged to the World LCD Industries Cooperation Committee that it would reduce the predicted PFC emission level by at least 90% before 2010. The LCD unit has formed the PFC Countermeasure Committee for this purpose. Samsung Electronics is developing large-scale PFC treatment facilities and alternative gases as well as optimizing processes to achieve its PFC reduction target.

Energy Reduction from High-efficiency Transformers

The transformers at the Suwon Factory are made of silicon steel plate, and the heat they generate requires a cooling system that adds to the overall air conditioning load in the summer. The Company is addressing this problem by replacing the transformers when they reach the end of their life cycle with energy-saving models made of amorphous metal that help to stabilize the power supply. As a result, the temperature inside the transformer room can be kept lower, and some US$14,000 worth of power is now being saved a year. Electricity losses by the transformers are decreased along with unwanted operation noise and the pulse effect. The Company will continue to replace the old transformer models in the future.

Transformer

High-efficiency Stabilizer for Energy Savings and Fire Prevention

The coil stabilizers at the Giheung Factory consume much power (50W), and the condenser can overheat from internal heat generation, posing the danger of an electrical fire. In response, the Company is now installing Cormack electric stabilizers that operate on 32W, thus saving 18W and eliminating the source of internal heat and the fire danger. The Company has already replaced 57,546 old units and recently added 14,339 more for a total of 71,885 new stabilizers. This translates into annual power savings of US$570,000.

New Air Dryers Save Energy through Optimized Production Conditions

The Giheung Factory has eliminated a source of unnecessary operation expense and has optimized production conditions by more effectively controlling the inflow of compressed air used in production processes. The old air dryers equipped with heaters have been replaced by heater-less models, and the increased usage of recycled air (7-8% with heaters, 15-20% without heaters) saves some US$190,000 a year in energy costs.

Reduced Use of Raw and Secondary Materials

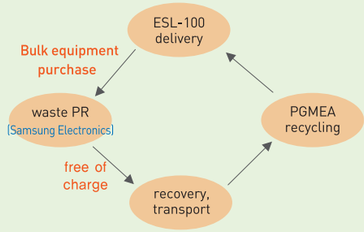
Lower Gas and Chemical Usage

The Cheonan Factory continues to decrease the amounts of gas and chemicals used in production operations. Extension of the cleaning cycle has reduced the required volume of NF_3 gas, and residual amounts are more strictly controlled, lowering the amount of SiH_4 in use. Aluminum etchant usage has been reduced by increasing the number of glass panels being etched with the same material. Changes to the photoresist (PR) scanned range and adjustments in bypass amounts have helped to reduce PR requirements. The factory has lowered its overall gas consumption by 6,110 kiloliters per year and its chemical use by 2,272 tons per year. Plans are being devised for further reductions in gas and chemical usage.

Resource Circulation System with Suppliers

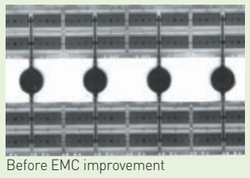
The LCD Business continues to identify raw and secondary materials that can be reused in production to further the greening of processes. One key example is the recovery and purification of waste organic liquids (PRS-2000 and PGMEA), an effort that reduced the amount of waste liquids by 2,950 kiloliters per year. The recycling of defective backlights has decreased material usage by 70%, and 244 tons of waste reels are now recycled yearly. The LCD unit continues to find new items for recycling.

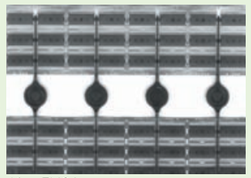
Suppliers' Recycling Flowchart



Reduced Lead Frame Package Inputs

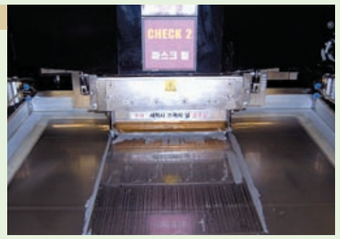
Epoxy molding compound (EMC) is used to complete the half-finished semiconductors. A facility upgrade at the Onyang Factory has reduced the amount of EMC culled during the molding process. The density of the maximum lead frame has also been improved, decreasing EMC input. Overall, EMC cull has been cut 23%, or some 70 tons a year. Now, the factory is working to eliminate EMC cull completely by implementing micro-tablets and to maximize the results through cross-implementation with other products.


Before EMC improvement


After EMC improvement

Waste Reduction from Upgraded Mobile Phone Production Processes

The Gumi Factory has upgraded the sensor for monitoring the supply to the printing wipers used during mobile phone production. This minimizes the number of times the wiper turns empty because of sensor malfunction or operator error. In addition, the materials and structure have been improved for the squeegees that apply the printer solder cream, minimizing the lead input during squeegee operation. Amounts of solder cream usage, waste lead and wipers have all been reduced, saving money and cutting waste volume.



Mobile phone waste reduction

The Greening of Workplaces

Samsung Electronics practices an environmental management program that minimizes pollutants from production processes. Strict control at the source of pollution generation and ongoing process improvements are reducing pollution emissions. Company policy dictates that the party who generates the waste is responsible for disposing of it properly. Therefore, Samsung is expanding its in-house treatment and recycling facilities, and the Company engages in various activities to protect resources and nature.


Scrubber


VOC treatment facility

A Clean Workplace

Air Quality

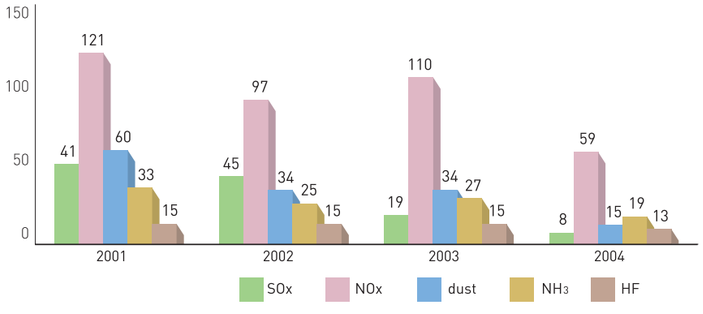
❶ De-Nox System for Incinerators

Samsung Electronics operates a 70ton/day rotary kiln and stoker incinerator for handling combustible waste generated by Samsung affiliates (at the Suwon Factory). A two-stage bag filter system is most efficient in treating various pollutants generated by the incinerator.

In 2004, the Company invested over US$1 million to install a de-NOx system (selective catalytic reduction and selective non-catalytic reduction) to eliminate nitrogen compounds from the airborne emissions. Now, NOx emissions are below 50% of the legal limit.


De-Nox System

Airborne Emissions (g/US$100k)



Water Quality

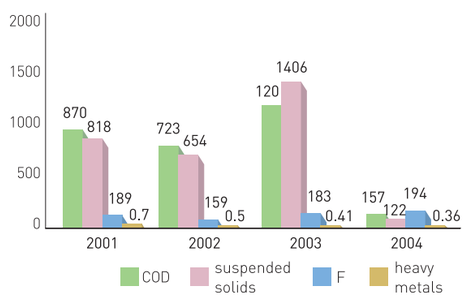
❶ Less Wastewater Generation

The Cheonan Factory continues to find ways to lower the amount of wastewater being generated and is applying these approaches to production processes. The facility produced 289,000 fewer tons of wastewater in 2004 than it did the year before. Some major areas of improvement include a decreased supply of de-ionized water, recovery of cooling water from production processes and less condensate forming in exhaust pipes.

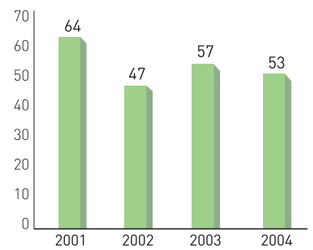
A water reclamation system with pore control filter was installed at the Suwon Factory, reducing the wastewater generated during washing machine tests by 132,000 tons per year. Samsung's wastewater reduction efforts at each plant have helped preserve the environment and cut production costs.


PCF filter

Release of Water Pollutants (g/US$100k)



Wastewater Generation (m^3/US$100k)



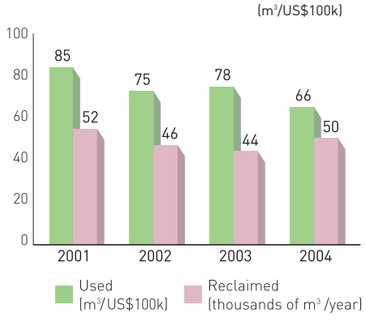
❷ Improved Water Reclamation

The Onyang Factory continues to improve its wastewater generation system, laying the groundwork for an effluent-free operation. The reclamation rate was 48% higher in 2004 than in the previous year. Major improvements include the installation of co-treatment facilities for both sewage and industrial wastewater, ultra-filtration membranes, continuous membrane filters, and reverse osmosis system.

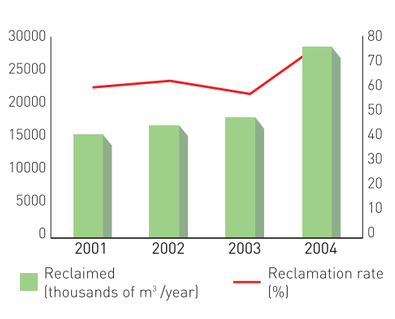
These systems will help to ensure a steady supply of industrial water over the mid-/long term and to reduce the generation of wastewater. Multifaceted efforts continue to minimize environmental impact at all Samsung plants.


Industrial water treatment system

Industrial Water Use and Reclamation



Industrial Water Reclamation Rate



	Reclaimed (thousands of m^3/year)	Reclamation rate (%)
2001	16,754	61.1
2002	18,790	62.0
2003	19,078	56.2
2004	28,649	75.8

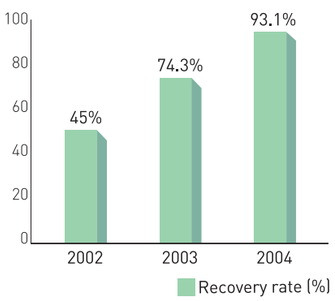
Solid Waste

❶ Higher Recovery Rate from Waste Recycling Categories

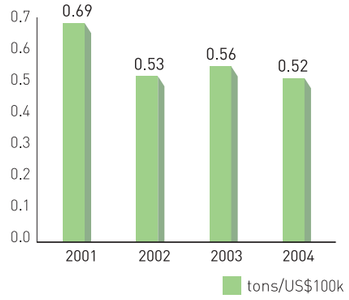
The LCD Business unit continues to expand the items slated for recycling and to adjust production processes accordingly. In 2004, the sludge generated during the treatment of wastewater contaminated with organic chemicals was recycled for the first time. The recovery rate improved 47% compared with the rate from the previous year.

Meanwhile, waste nitric acid is now used to make saltpeter. Waste synthetic resins are put into cement as reinforcement. The type of material for photoresist containers was changed to reduce the volume of waste glass bottles, and material separation and sorting has lowered the amount of waste synthetic resin. The LCD Business has adopted the "Waste Zero 2006" slogan, is seeking out recycling technologies and contractors, and is controlling raw and secondary materials so that the overall recovery rate reaches 100% by 2006.

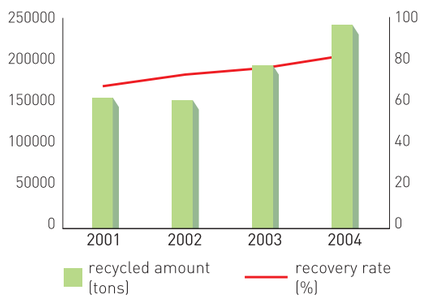
Recovery Rate



Waste Generation



Waste Recycling



	Recycled amount (tons)	Recovery rate (%)
2001	160,302	71.0
2002	157,544	73.1
2003	198,636	78.4
2004	242,489	81.3

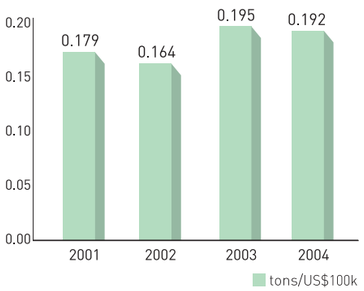
Chemical Substance Management System Reinforced, Expanded to Suppliers

The Cheonan Factory is implementing strict control measures to ensure safe chemical use and to prevent environmental accidents. First, warehouse inventory is now limited, and the procurement cycle has been shortened to store the minimum amount of chemicals on site. Chemical tanker trucks must follow strict rules when on site to ensure safe loading and unloading. Samsung also provides guidance and performs inspections to improve chemical control at subcontracted suppliers.

Leak sensors have been installed on major storage tanks and supply facilities to enable a quick response in emergencies. Drills are conducted to train people on the procedures to follow in the event of a tanker truck accident. The drills are run jointly with employees from suppliers to improve on-site response capabilities.

Tanker truck emergency drill

Toxic Substance Usage



Proactive Environmental Management

Pollutant Analysis and Control

Samsung Electronics installed tele-metering systems at all factory sites in Korea between 1994 and 2004 (at a total investment of US$2.2 million) to monitor the amount of pollutants being released into the environment 24 hours a day. The data are relayed to the Samsung Global Environment Research Center as well as to the relevant government authority to provide a second layer of control. On-site laboratories have been installed at each plant to carry out analysis in greater depth, and personnel have been trained to perform the analysis. Thus, the release of pollution causing substances is carefully managed in advance.

Environmental Analysis Labs

	Suwon	Giheung/Hwaseong	Onyang	Cheonan	Tangjeong	Gwangju
Personnel	2	2	1	2	3	2
Main analysis equipment	GC-MS, ICP, AA	GC, GC-MS, ICP, IC, LC	IC, ICP, AA	GC	IC, ICP, XRF	AA
Areas covered	water quality, hygiene, work environment	water quality, work environment, product analysis	water quality, air quality, hygiene, work environment, product analysis	water quality, air quality, hygiene	water quality, air quality, product analysis	water quality, hygiene

Tele-metering System Installation

		Suwon	Giheung/Hwaseong	Onyang	Cheonan	Tangjeong	Gumi	Gwangju
Areas covered	Water quality	pH, COD, Flow	pH, TOC, COD, SSF, T-N, Flow	pH, COD, SS, F, Flow, Temp	pH, F, Flow	pH,TOC, COD, F, T-N	COD, SS, pH, F, Temp, Flow	pH,COD, SS, Flow, Temp
	Air Quality	SOx, Dust, NOx, HCl, CO, Flow	SOx, NOx, O_3, NH_3	SOx, HCl, Flow	-	-	-	-
Time of installation		1994	1994-1998	1994-2001	2003	2004	2000	2004

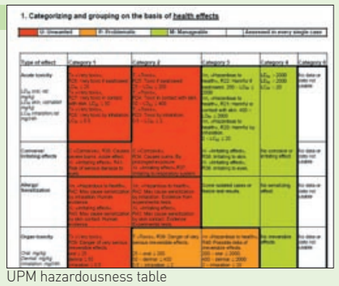
TMS

Environmental Analysis Lab

Advance Assessment of Chemical Substances

The LCD and Semiconductor Businesses evaluate the hazardousness of gases and chemicals prior to their deployment. The program satisfies the workers' rights to a healthy workplace, complies with the EU's RoHS directive, and prohibits the use of substances that are harmful to the environment or humans and are restricted internationally. Specifically, the pre-assessment program completely bans the 83 different carcinogenic substances listed in the Korean Industrial Safety and Health Law, and it stipulates other substances that are subject to prohibition, control or reduction on site.

Moreover, hazardous substances at Samsung are weighed against those listed on Denmark's Unwanted Problematic Manageable system, and toxicity values can be compared more effectively. The advance assessment is performed on materials currently in production as well as on materials in development to limit harmful content in the next generation of products.



UPM hazardousness table

Upgraded Oil/Water Separation System

The Hwaseong Factory has improved the oil/water separation system operated outside the factory perimeter, to block the release of oil or chemicals in rainwater on plant site roads. The old system consisted of oil/water separation tanks, and the emergency water collection facility could be opened or closed depending on the pH (acidity) level. With the recent upgrade, the emergency water collection facility can be opened and closed on the basis of either acidity or electrical conductivity levels.

A distance control network has been built to enable employees on the site to directly operate the emergency water collection tanks and the various control values. The time needed to open and close the emergency water collection tanks has been reduced to 45-60 seconds. Therefore, it can be blocked before rainwater can get mixed in with the oil-contaminated water. The oil/water separation system is now better equipped to prevent the release of contaminants outside the plant.

In addition, a sophisticated new surface oil analyzer is being tested in 2005, and if proven effective during the first half of the year, its use will be expanded to the other factory sites as well.


Oil/water separation system

Storm Water Detention Pond Reduces Leakage of Contaminants

Rainwater at the factory site passes through a detention pond before being released into local streams. However, when the rain starts, there is a higher chance of the effluent being tainted from surface runoff around the factory premises. A separate detention pond for oil-contaminated water has been dug at the Tangjeong Factory to block polluted effluent from being released into the environment. The pond collects rainwater, controls flood water and eliminates oil particles. Influent is tested for pollutants, and when verified to be clean is sent through the final wastewater treatment process. Use of the detention pond prevents accidental release of polluted effluent off the premises.


Tangjeong Factory detention pond

Safety and Health

Making the Safest and Healthiest Place to Work

Samsung Electronics considers safety on the job to be a fundamental part of doing business and an essential part of the workers' quality of life. Top management pays particular attention to creating a safe and pleasant place to work.

The Company constantly applies the latest safety and health (S&H) management approaches, promotes employee health and invests heavily in ways to eliminate S&H problems at the source. As a result, Samsung worksites have achieved world records in terms of accident-free operation.

The Samsung philosophy stresses treating all people with respect, and the ideal is to advance the quality of all people's lives. The corporate S&H regulations are up to the global standard.

Samsung Electronics employs people worldwide, and each worksite has its own Industrial Safety and Health Committees, which convene monthly. The Committee is structured like a labor-management cooperative.

Samsung Electronics strictly adheres to Korean law and has standardized all S&H activities required on site. Global standards are being applied to govern risk assessment, S&H targets, dangerous machinery, dealing with accidents, dealing with compensation and the work environment.

The Company offers 30 different training courses covering one of four areas: the Law, work skills, personal safety and health, and outsourcing. Professional S&H courses, independent studies on S&H for a specific factory, and various new training materials are being constantly developed, to raise employee awareness.

The S&H activities are systematically applied at each organizational level (company-wide, business unit and product division). Professional courses are available for each risk area, and all employees are required to take the practical training offered at the Safety and Environmental Experiential Hall.

Samsung's training approach goes beyond the classroom. It is practical and contributes to lowering existing risk factors while preparing for future ones. The 330m^2 Safety and Environmental Experiential Hall has twenty-two stations covering four areas: safety and health, disaster prevention, environmental issues, and common problems. The facility is used to train Samsung Electronics employees, subcontractor employees, as well as students from universities and other educational institutions.

Daily Health Promotion

Samsung Electronics has a committee to encourage healthy lifestyles for employees. The Daily Health Campaign promotes employee health, a pleasant and safe workplace, work efficiency, and a healthy family life.

The goal of the Campaign is to create the very best working conditions. Independent activities are at the heart of the Campaign, and they are meant to be interesting and fun. Recently the main theme has been on tobacco cessation, and the results have been significant. Employees are encouraged to drink responsibly and eat healthily.

Samsung's approach to health is based on the premise that the Company, employee families and individual families all share the same concerns. People and facilities are in place at each site to measure and analyze the work environment regularly and to ensure that working conditions remain pleasant.

Example 1 Indoor Air Quality Index

The Semiconductor Business has developed an "Indoor Air Quality Indexed Management System" to prevent occupational health problems associated with sick building syndrome. The climate control system and work environment have been upgraded, lowering the chance of work-related illness, enhancing work efficiency and raising employee job satisfaction.

	Before upgrade	After upgrade
Office climate control system	Manually operated damper	Semi-automatic damper
	No humidifier	Humidifier installed
Work environment	Dry carpet cleaning	Wet carpet cleaning
	No humidifier	Humidifier for air purification

Example 2 Well Being Room with Acupressure Facility

Women employees working in the semiconductor fabrication factory can take breaks inside the new Wellbeing Room to relax and ease their physical or psychological stress. The oxygen concentration inside the facility is 21.6% (equal to that of mountain air), and physical therapy machines are available to dissipate musculo-skeletal fatigue. The interior decor is soothing and in line with the "wellbeing" concept. Acupressure is also available to relieve the exhaustion from standing up for long periods of time.

Acupressure and Wellbeing Room

Example 3 Wellness Clinic

Samsung Electronics maintains on-site infirmaries and wellness clinics that allow employees to manage their own health and improve their work performance. A new Health Management Center was opened at the Tangjeong LCD Factory in 2004. The Center includes Western-style medical facility, an Oriental-style treatment facility, a pharmacy, and a 396m^2 wellness clinic. All services are provided free of charge and are available around the clock, helping to improve to employees' quality of life.

Wellness Clinic

Advance Safety Assessment

Samsung Electronics tackles S&H problems at the source by conducting thorough safety inspections of all facilities and worksites, including the materials used in their construction. All facilities must receive safety assessment certifications before startup.

❶ Pre-operative Safety Certification for Machinery

All machinery brought onto worksites is subjected to safety evaluations from the time of ordering, through warehousing and installation. Feedback is obtained from these inspections to eliminate safety problems prior to use.

❷ Advance Safety Assessment for Dangerous Work

All potentially dangerous jobs are evaluated for safety prior to startup, during operation and after shutdown. Thorough inspections are conducted on procedures for handling firearms, operating heavy equipment, working with electrical systems, working at height, doing jobs that pose oxygen deficit risks, and handling gas or chemicals. These inspections are required before any job can begin, helping to prevent accidents by addressing safety issues at the source.

The Greening of Communities

Samsung Electronics' Green Management covers all work processes such as product development, manufacturing, and sales in step with the Greening of Management, Product, Process and Workplace programs. At the same time, the Company is committed to the Greening of the Local Community.

Joint Air Quality Studies with Academia

Urban development near the Onyang Factory has increased the concentration of local residents and the number of high-rise buildings. The facility now is working with a research team from the School of Environmental Engineering at Hoseo University, a local school, to conduct various simulations for each season to determine how the environment is affected by the changing landscape. Topographical and meteorological data are collected, and pollution, noise and odor levels are analyzed within a 2km radius of the factory. Modeling of the distance that noise can carry in the air has led to improvements in the steam heating system, which generates brief noises at night. The Company will continue these modeling activities in the future to make further improvements.

Eco-friendly, Permeating Pavement on Parking Lot

The Tangjeong Factory paved its parking lot with small- sized high pressured block (ILP), instead of asphalt, between April and June 2004. By doing so, water is allowed to circulate naturally, reducing soil pollution and radiant heat. Grass patches make up 20% of the parking lot as well, increasing the amount of natural green. The pavement work cost about US$220,000, 26% less than the expenditure for using asphalt. It is durable and can be removed for use elsewhere when underground facilities are uncovered.

Environment Sharing Program

Handover of Safety and Protective Gear

The Giheung Factory commemorated World Environment Day Day by presenting six kinds of safety and protective gear to a total of twelve waste treatment and recycling contractors as well as to small and mid-sized companies that are permanently located on the factory site. This ESH sharing policy helps to prevent accidents and promotes cooperation between the large corporations and its smaller corporate partners as part of the "co-prosperity" ideal. Samsung Electronics plans to further awareness of its subcontractors by providing ESH inspections and training, helping to rationalize their operations.

Free Medical Services

The Health Management Center at the Giheung Factory provided free medical (Western and Oriental) and dental checkups to more than 70 senior citizens living alone and without family support in the nearby communities of Yong-in and Hwaseong. Providing the services were over 40 medical professionals from the factory, Company headquarters and Samsung Medical Center in northern Seoul. The patients with minor aliments were treated on the spot and were provided with any medicine they needed as part of a "One-stop Service" that was well received by the local community.

Cleanups of Local Streams and Mountains

Mt. Kwanggo Cleanup

More than 300 Samsung Electronics employees from the Suwon Factory were mobilized for a cleanup of nearby Mt. Kwanggo as part of the annual Samsung Volunteer Service Festival. The volunteers picked up litter, removed dangerous objects, straightened up steps on the hiking trails, pulled weeds, and cleaned up around the edges of ponds. Specialists joined the project to oversee the work to make the trails safer and to restore the protective facilities around freshwater springs.

Local citizens who hike on the mountain regularly applauded this very meaningful project, which brought together many different people from the local community to perform community service. It promoted employee solidarity and improved Samsung's corporate image with the general public. Similar projects are planned for the future as well.

Environment Lovers Clean Up Streams

The Suwon Factory launched the "Environment Lovers' Service Corps," consisting of 220 employees from Samsung Electronics and volunteers from subcontractors, to carry out large-scale projects in support of a better environment. The launching ceremony was held at the headwaters of a local stream, and the first project was part of a drive by the City of Suwon to restore the water quality in the region's creeks and rivers. They released mudfish into the water and removed sources of contamination along the stream.

In addition to the environmental cleanups, the "Environment Lovers' Service Corps" puts out public service messages to promote environmental awareness. The members have selected eight local springs that are used by over 2,000 people each day, and on every Wednesday they visit these sites to remove all potential sources of water contamination within 200 meters of the springs and to make sure the spring box is kept clean. They also test the water for safety and post the test results to inform citizens whether the water is fit to drink.

Cleanup of Pungsae Creek and Mt. Gwangdeok

Over 220 women recruits hired to work for the LCD Business Division at the Cheonan Factory took part in a cleanup drive of nearby Pungsae Creek and Mt. Gwangdeok. The Company has now made these environmental cleanup drives a part of the basic training program for new employees.

The exercise reminds all employees of the importance of local mountains and streams. The Tangjeong Factory cooperates with the local government in a responsibility sharing program, and plant employees are helping to restore Myeong-am Creek.

"Sister School" Program

Each business division within Samsung Electronics establishes "sisterhood" ties with a local school to help children realize the importance of environmental and safety issues. The Company sponsors a wide range of ESH-related programs such as essay, slogan and poster contests; recycling expositions; scholarships for model students; quiz programs; ecosystem field trips and classroom courses. Local residents are also welcome to take part in activities that promote awareness of fire prevention, traffic safety and environmental protection.

Watching Migratory Birds and Protecting their Sanctuaries

Samsung Electronics has joined with "environmental sister schools", the Ministry of Environment, City of Gumi and environmental NGOs to protect the tidal waters of the Nakdong River, where migratory birds stop to rest and forage. The program includes cleaning up the area and setting out feed for the birds. The elementary schoolchildren in the program receive classes on the environment and migratory bird resting areas by experts in the field.

Samsung Electronics collects the plastic sheet and agrochemical containers from paddies and dry fields near the tidal waters. The Company also spreads corn and wheat around near the birds' roosting areas during the winter. Other environmental protection activities are also planned for the future.

Traffic Safety School

The Giheung Factory organized an experiential traffic safety class for 480 children from Donghak and Gihueng Elementary Schools, which have "environmental sisterhood" ties with the factory. The instruction was provided at the Traffic Museum in the Samsung Everland theme park. The children were presented with daily life scenarios (e.g. at crosswalks, on roller-blades) in which traffic accidents are likely to occur. Then they were given easy-to-understand instructions for avoiding such accidents. The children gained the ability to anticipate a potentially dangerous situation, and they were reminded of the need to obey traffic rules. By the end of the course, the children were better able to keep themselves safe.

Nature Field Trips

Samsung Electronics organized a field trip for 585 fourth and fifth graders at "sister schools" to view the fauna and flora up close in a Gyeonggi Province forest preserve. They took part in a "nature game" to learn about the role played by a forest in nature. They also came to realize how the forest benefits people and why forests must be preserved.

In another program, 508 third graders from "sister schools" spent time at wetlands and mudflats to view marine life and learn how these ecosystems clean up pollution. They came away from the experience with a greater understanding of the need to preserve these areas.

Reforestation in China

Samsung Electronics sponsored the planning event for the second year of the Korean-Chinese "Friendship Forest" project. The project involves planting trees to help prevent desertification and to diminish the problem of dust storms in northern China. It is also an opportunity for cultural exchanges among Korean and Chinese university students.

This time, 120 Korean students and 100 Chinese students were selected to take part in the project. They went to work in three locations (Nanzhou, Xian and Beijing) between March 18 and 26.

Samsung's involvement in the project conveys the image of an environmentally responsible company, and the cultural exchanges help to endear the Chinese public to the Samsung brand. The project seeks to "nurture both trees and people," and the Korean student participants are selected for their leadership capabilities, experience in community service, and general knowledge of China. This is an opportunity for them to experience reforestation, environmental issues and cultural exchanges.

Environmental Protection Activities on World Environment Day

World Environment Day is June 5, and Samsung Electronics marked the occasion by involving each business division and over 400 subcontracted suppliers in various environmental protection activities. More than 7,000 employees volunteered from Samsung alone to take part in various projects that are in support of the environment.

Over 200 people were mobilized at the Suwon Factory to clean up local streams and a reservoir. NOGs also took part by probing the steams and displaying photographs with environmental themes.

Meanwhile, the Giheung and Hwaseong Factories organized field trips to help clean up mudflats with elementary students from local "sister schools". Other activities that kicked off on that same day included the launch of the Green Procurement System at subcontractors.

The Gumi Factory sponsored an essay and poster contest on an environmental theme for students of local elementary schools. Over 100 students were invited to tour the factory and prizes were awarded to the contest winners. An art exhibition was also opened at the Gumi Culture & Arts Center, helping to spread the word to young people about the importance of environmental protection.

Social Contributions

Samsung Electronics does its part to create a society in which all members can live well. The Company engages in diverse activities aimed at improving the quality of life, contributing to local communities, and promoting international exchanges. An office has been established that specializes in social contribution programs, and all employees are encouraged to volunteer for community service. As such, Samsung has emerged as a model corporate citizen that grows with the community in which it works.

The Samsung Electronics Philosophy

The basic corporate philosophy regarding social contribution can be summed up as a "win-win" spirit in which the Company helps to advance society on the basis of ethics and care for others. The ultimate objective is to create a society in which everyone lives well. The Company improves the quality of life and contributes to local communities, thereby promoting exchanges among the people of the world. All employees consider this "Samsung Spirit," which aims to better society the world over, as an important corporate value. It is the principle behind the social contributions and the basic posture of the Samsung workforce.

Social Contribution Record

Social contribution programs were once mainly the concern of public service foundations. However, Samsung Electronics began to consider such activities as core elements of successful business from 1993, and managerial policy began to stress "giving back part of profits to society." Each business unit and its employees followed this new policy, and participation soon spread to all organizational levels.

In 1995, the Company selected three main areas of involvement: helping disabled persons, protecting the environment and promoting computer use. Social service programs have been carried out since, and the activities have diversified to include supporting orphaned teenagers with siblings, culture and arts programs, and is academic and educational programs. Thus, Samsung Electronics fulfilling its obligations as a corporate citizen.

In 1995, the Samsung Electronics Social Contribution Corps was launched, and an organization was created to encourage employees to be involved in community service. Today, there is a Social Contribution Secretariat at the Head Office and at five domestic factory sites (Suwon, Giheung, Onyang, Gumi and Cheonan) to manage and support the various programs.

Recently, Samsung Electronics and the Korean Intellectual Property Office have been cosponsoring the National Students Creativity Olympiad, part of an ambitious effort to promote inventions by young people. The Company has also joined with the Korean Federation of Science Education Societies to sponsor the annual Science Research Olympics to nurture students' abilities to pursue scientific inquiry. Finally, a program has been launched that encourages customers, who are among the Company's most important stakeholders, to volunteer for community service.

Our Pledge to Make Social Contributions

We resolve to contribute to humankind by fulfilling our role as a corporate citizen who regards ethics and care for others to be crucial corporate values.

We join forces with people who want to make a difference, and together we are working to enrich society and enhance the quality of life for all.

We strive to interact with the rest of the world, playing a leading role in environmental preservation and making the planet a better place to live.

Our employees and their families offer their hard work and talents in the service of local communities, sharing the pleasure of working together with other members of the community for a worthy cause.

Community Service Types and Areas

The social contribution programs organized by Samsung Electronics are classified into public works, donations and community service. Here, "public works" refers to activities in support of a specific theme. The donations can be either funds or materials for non-profit organizations and public service institutions. Samsung Electronics has an organization in place that supports employees who donate their own time and talents to help alleviate problems in the local community.

The Company is directing its contributions at six different areas: social welfare, culture and the arts, academics and education, environmental protection, sports promotion, and international exchanges. Employees are free to take part in any of these areas.

Major Social Contribution Activities

Social Welfare

Computer Classes for the Blind

Computer classes for the visually impaired were begun in 1997 to help them find employment and become productive members of society. The classes are held at the Samsung Guide Dog School. The classroom has computers with voice-activated software, scanners and Braille printers, and is available free of charge to blind persons who want to learn how to use computers as they receive training to work with a guide dog. The classes were also put online (anycom.samsunglove.co.kr) for visually impaired persons who are unable to commute to the guide dog school.

"Stepping Stone" Scholarships

Samsung Electronics has been providing scholarships through the Korea National Council on Social Welfare to university students with physical disabilities since 1998. In 2004, the scholarship presentation ceremony was part of a summer camp attended by disabled students, officials from the scholarship committee and volunteer workers. The students were also given counseling on their studies as well as on their work prospects. Samsung Electronics employees voluntarily donate money to the "Stepping Stone" Scholarship Program, and the funds are provided to selected students either for a single year or for the duration of their time at university.

Animal Therapy for Retarded Children

The Samsung Electronics Equestrian Team initiated a rehabilitation program for physically and mentally retarded children in 2001. To date, 68 children have taken part in this opportunity to ride horses, which helps to invigorate both their minds and bodies. Animal therapy has been proven effective in Europe and North America, and Samsung Electronics has brought such a program to Korea. A team of professionals from the Samsung Medical Center also offers assistance.

The Samsung Electronics Equestrian Team uses its facilities and personnel to provide the therapy program free of charge. The Rainbow Club was formed by a group of volunteers to work with such children. Children who show significant results after three months in the program are given additional time, and a total of 1,714 volunteers have taken part in 1,438 therapy sessions during the past year. The Samsung Electronics Equestrian Team has publishes four studies on its horse riding therapy program, the only one of its kind in Korea to be certified.

Electronics Plant for the Handicapped

In 1994, Samsung Electronics invested over US$23 million to build Mugunghwa Electronics on a 5,875m^2 site on the premises of the Suwon Factory. This was the first production facility in the country to employ the handicapped, and 80% of the workers at this facility have either Category 1 or Category 2 disabilities. The operation was remained profitable and was upgraded to subsidiary status in 2002. In 2004, a decade after its establishment, Mugunghwa Electronics' monthly sales reached US$1 million.

Mugunghwa Electronics started out as a model case study when it was launched on Disabled Persons Day in 1994. The operation produces hand-carried vacuum cleaners, mobile phone rechargers, parts for wide-screen TVs, and main boards for DVD players.

The vacuum cleaners are exported to the US, Europe and China. Mugunghwa Electronics has maintained "sisterhood" ties with Honda Taiyang, established for handicapped people by Honda in 1996. The two companies exchange 3-4 workers for two-week intervals to promote cooperation and to benchmark one another.

Volunteer Community Servic

Taking the Blind to the Movies

The Samsung Electronics Social Contribution Corps at the Suwon Factory began working with a local organization for the "Watching Movies with Heart" project starting from April 2004. Each month employee volunteers escort blind persons to a local movie theater and explain what is happening on screen. The program, which helps the blind to enjoy new experiences, has been highly praised.

Winter *Kimchi* for Charity

At the end of each year, employees working at the Samsung Electronics Suwon, Giheung, Gumi, Cheonan and Onyang Factories pitch in to prepare winter *kimchi* for elderly persons living alone, orphaned teens with siblings, and organizations that care for the disabled. Over 1,400 employees and their family members helped to make 40,000 kilos of winter *kimchi* during November and December 2004. At the Suwon Factory, non-Korean employees as well as blind persons from the local community were also among the volunteers.

Expat Employees Join in the Sharing

More than 20 enthusiastic and caring employees came from Russia, India, China and Vietnam and elsewhere to work in Korea volunteered to escort disabled persons on a field trip to an aquarium. Assistant Manager Kumarbrata Daz, an Indian who works in the Computer Division, said, "This experience provided a real treasure that will stay with me always the happy expressions on the faces of these persons with special needs. Such programs help me to understand both Samsung and Korea better, and I'm ready to take part at the next opportunity, too."

Volunteer Service Fair

The 1st annual Samsung Electronics Volunteer Service Fair was held in the gymnasium at the Suwon Factory in October 2004. There were exhibits of community service activities by 7,068 volunteers belonging to 195 service teams at Suwon over the past decade. New team members were signed up, and various programs were run including field trips for disabled persons and the blind, and a blood drive. Booths at the fair displayed photographs of specialized community service teams (hand acupuncture providers, assistants for the blind, employee wives who volunteer, etc.).

Culture and the Arts

Children's Song Festival

Samsung Electronics celebrates Family Month (May) each year by sponsoring the Green Star Children's Song Festival, an event first held in 1984. In addition, the Company supports a Children's Song Camp, Yanbian Children's Song Concours and other events that promote songs that express children's feelings and emotions, helping to keep the tradition alive.

The 2004 Green Star Children's Song Festival opened at the KBS studio in Seoul's Yeoeuido District and celebrated 80 years of children's songs in Korea. The contestants were twelve teams (six performing solos and six doing part songs) who won in regional competitions. Families are invited to the event as a way to spend quality time together.

Presidential Prize at Mecenant Awards

In November 2004, Samsung Electronics received the Presidential Prize at the 2004 Mecenant Awards. ("Mecenant" is French for "sponsorship," and the awards honor Korean companies and cultural foundations that sponsor cultural events.) The Company was recognized for going beyond simple donations of money, organizing creative social contribution programs that had wide reaching effects.

For example, Samsung Electronics provided the necessary funds to install the curtain on the main stage of the Sejong Cultural Center during its preparations for a March 2004 reopening. The Company also donated the video equipment for the performance hall.

Samsung Electronics supports writers by establishing the needed infrastructure, provides opportunities for the blind and physically disabled to enjoy art and culture events, and shows children ways to advance their nation's culture.

Education and Sports

2004 National Students Creativity Olympiad

Samsung Electronics began hosting the Samsung Creativity Olympiad in 1997 and has teamed up with the Korean Intellectual Property Office (KIPO) to cosponsor the National Students Creativity Olympiad since 2002. The teams of students (5-7 members) are assigned a long-term challenge prior to the competition and an on-site challenge at the competition. Overcoming the challenges requires the participants to apply creative abilities that span such areas as science, mathematics, music, art and engineering. This unique program for measuring creativity and imagination is open to young people nationwide.

In 2004, over 1,600 elementary, middle and high school students who passed the

preliminary rounds gathered at the Seoul Trade Exhibition Center on January 16 and 17. Spectators were also allowed to participate at some 20 activity booths (air rockets, etc.) designed to help people discover their own creativity. Both Olympiad participants and spectators were invited to take part in special events such as "Digital Phone Zone," "Board Games," "Caricatures" and "Robot Football."

The National Students Creativity Olympiad is an opportunity for children to cultivate their inventiveness systematically, as opposed to just cramming for tests. The contest helps to stimulate the imaginations, adventuresome spirit and teamwork skills, helping to develop young people into tomorrow's leaders.

Junior Engineering Class

In 2004, the Gumi and Gwangju Factories offered engineering classes for elementary school students, and the classes were a hit with parents and students alike. The program helps children to recognize the importance of scientists and engineers, promotes their understanding of advanced technology and stimulates their interest in science. Over 200 fourth and fifth graders from the "sister school" in Gumi and more than 300 sixth graders from the "sister school" in Gwangju took part.

The program challenges the children to complete ten fun tasks (making colorful capsules, simple electric guitars, bouncing rubber balls, transparent speakers, hovercraft, etc.), stimulating their interest in science. In 2004, Samsung Electronics hired twenty-five lecturers from the National Academy of Engineering of Korea. They applied the experience that they acquired in the workplace to their classes, making the instruction all the more useful.

International Exchanges

Samsung Dubai Marathon

Samsung Electronics was the sole sponsor of the Samsung Dubai Marathon, held in the United Arab Emirates, for the fourth time in 2004. The Company launched a sports marketing campaign in conjunction with the only marathon held in this Middle Eastern commercial center. In addition to the 42km marathon for professional runners were the 10km and 3km charity runs for the general public. Over 10,000 people turned out for the 2004 staging of the event.

The Company donated Dhs5.00 (US$1.36) to the Red Crescent Society for each person who completed the 3km charity run. As such, Samsung's policy of sharing has been extended to the Middle East and Africa.

Meanwhile, Samsung Electronics engaged in sports marketing programs during the 2003 FIFA Youth World Championship and All African Games, and was the official mobile phone sponsor for the Dubai Desert Classic 2004 golf tournament. Activities such as these continue to promote goodwill toward the Company, boosting the Samsung brand image in the region.

Charity Drives with N. American Retailers

Samsung Electronics and Best Buy agreed to donate part of the proceeds from Samsung brand TVs, monitors and mobile phones to the Magic Johnson Foundation. The promotion, called One on One with Magic Johnson, raised US$140,000 from Samsung product sales at over 500 Best Buy outlets between February and May 2004. The Foundation has numerous programs for improving the quality of life for people residing in urban communities.

During the promotion, the names of Samsung product buyers were entered into a contest to win the famous NBA star for a day-long basketball clinic. Barbara Zasloff, the contest winner, asked to have Magic Johnson to come to the California school where her son is enrolled.

To date, Samsung Electronics and Best Buy have raised US$1 million for the Magic Foundation. Samsung continues to promote its brand image and elevate its status as a local corporation by sponsoring various programs associated with popular sports and sports figures in North America, in cooperation with major retailers like Best Buy and Circuit City.

Four Seasons of Hope

In May 2002, Samsung Electronics partnered with Arnold Palmer (golf), Boomer Esiason (American football), Joe Torre (baseball) and Magic Johnson (basketball) through the Four Seasons of Hope program. To date, it has raised over US$4 million for the respective charities of these sports legends, and the program's effects continue to grow. Four national retailers have also joined the program--Best Buy for basketball, Sears for American football, CompUSA for golf and Radio Shack for baseball. Various sales promotions are tied to the Four Seasons of Hope, and donations are made each time specified products are purchased.

On June 7, 2004, the Four Seasons of Hope's annual fundraiser was held at Cipriani's, a famous restaurant in Manhattan, New York City. The event was attended by over 500 distinguished guests, including such celebrities from the sports, entertainment and political worlds as New York City Mayor Michael Bloomberg, Former New York City Mayor Rudy Giuliani, former NBA star Magic Johnson, New York Yankees Manger Joe Torre, former NFL quarterback Boomer Esiason and music superstar Jon Bon Jovi.

In his statement, Mayor Bloomberg declared June 7th as "Four Seasons of Hope Day" and pledged his continued support for the program. Samsung Electronics is proud of this combined effort by the business and sports communities to help give needy families and children greater hope for the future. Company officials expect even better results to come.

Running for Peace in the Middle East

The 2004 Samsung Running Festival was launched under the "Run Together" banner. The event promotes peace in a troubled region by bringing together people from different backgrounds to run for a common cause. Around 20,000 people took part in the December 17th event, which started off from the Dubai World Trade Centre grounds. There were two categories, a 10km distance race and 3km charity run.

Various events coincided with the runs, to include a "festival plaza," trophy presentation and donation bestowal ceremony. In addition, Samsung Electronics, the United Arab Emirates National Olympic Committee and United Arab Emirates Red Crescent Society collectively promoted the Youth Grand Prize.

Activities such as these help to make young people (potential future customers) aware of Samsung's spirit of sharing. Besides sports, Samsung Electronics established an IT Center in Iraq, donated earthquake relief funds for Iran and Algeria, and has assisted impoverished communities in the region.

Schools of Hope in China

Samsung Electronics concluded an agreement with the Chinese authorities in Beijing to support elementary schools in remote rural areas of China as part of the Hope Project run by China Youth Development Foundation. The signing ceremony was attended by over 200 persons, including Samsung and Chinese government officials, China Youth Development Foundation members, school principles, students and journalists. Samsung agreed to contribute US$1,112,500 over three years, and the funds are used to help train teachers and establish libraries in 15 different elementary schools each year.

The 45 institutions affected will be named "Samsung AnyCall Hope Elementary Schools," and the first to receive this support is located near Tianjin. The funds earmarked for Year 1 (2005) of the program will be distributed equally among schools in Hebei, Liaoning, Jilin and Heilongjiang Provinces. The program will be expanded to Zhejiang, Jiangxi, Guangdong, Hubei and Hunan Provinces during Year 2 (2006).

The Hope Project is an ambitious program to establish schools in poor rural areas, giving children here access to education and helping to eradicate poverty. Involvement in this program significantly bolsters Samsung's social contribution efforts in China.

Samsung DigitAll Hope in SE Asia and Australia

As part of the corporate policy of sharing, the Samsung DigitAll Hope initiative focuses on providing technology to enrich people's lives in Australia, Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam. The program donated US$600,000 to youth organizations in these countries to narrow the "digital divide" between those with access to information technology and those left out of the loop.

Previously, the Company has run campaigns targeting Southeast Asian youth, the group most likely to use information products. Now, however, the Company is expanding its support to programs assisting the elderly and the disabled in Singapore and Thailand so that they too can lead better lives.

Samsung subsidiaries in these seven target countries have submitted over 200 proposals to the Head Office for the Samsung DigitAll Hope program. The company selects those projects that are considered the most appropriate for spreading the use of digital technology in each country.

Sharing at the Olympics

Samsung Electronics was the Worldwide Olympic Partner in the Wireless Equipment category at the 2004 Athens Olympics. During the Games, the Company teamed up with the humanitarian NGO Right To Play (RTP) for a week-long charity auction benefiting sport programs for underprivileged children in the Athens area. The event was held at the Samsung pavilion (Olympic Rendezvous @ Samsung) in the Athens Olympic Sports Complex. Among the Olympic memorabilia auctioned off were US basketball star Amare Stoudemire's shoes, US swimmer Jenny Thompson's swimsuit and UK track star Darren Cambell's shoes.

Support for Landmine Removal

The Samsung Electronics subsidiary in Japan has supported the Japan Alliance for Humanitarian De-mining Support (JAHDS), a non-profit organization, since 2002. On Culture Day, Samsung Japan and JAHDS joined with the Japanese Ministries of Education and Foreign Affairs to host a large-scale community service program at UN University in Tokyo.

The day's events included a conference addressed by Former Japanese Ambassador to the US Shunji Yanai. There was also the official announcement of the names of 18 university students selected in an online contest to witness mine-clearing operations in Thailand in September 2004. Over 400 Japanese students and other concerned citizens attended the conference. Another event that day was a charity bazaar to sell diverse items donated by local celebrities and companies supporting JAHDS. Employees from Samsung Japan helped out at the bazaar.

Samsung Japan employees and their family members also volunteered to do a charity auction connected with the Olympic torch relay in Japan in June. The proceeds from both the auction and the bazaar went toward the de-mining cause.

Environmental and Safety Award

Presidential Commendation for Environmental Protection

Samsung Electronics made environment friendliness a fundamental part of its management policy in 1995, and the Suwon Factory has remained committed to clean production, eco-friendly product development, end-of-life product recycling, local stream restoration, and other community service activities during the past decade. In March 2004, the Company also supported the complex UNEP Global Environmental Ministers Forum. In recognition of these efforts, the Ministry of Environment bestowed a Presidential Commendation for Environmental Protection on the Samsung Electronics Suwon Factory at an awards ceremony in October 2004.

Prize for Environment Friendliness

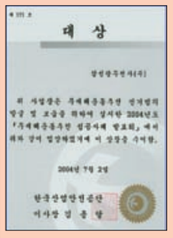
The annual conference for all domestic companies designated "environment friendly" by the Korean government opened on Jeju Island in October 2004. Best practice case studies were presented and discussed, and the Samsung Electronics Cheonan Factory received the Honorary Environment Minister's Award for its exceptional contribution to the development of the "environment friendly company" program. The factory continues to expand its EHS program and improve its environmental record voluntarily as a preventative management approach.

Gyeonggi Environment Green Prize

Gyeonggi Province held an event in February 2004 to commend companies that are performing best in terms of environmental protection. The Samsung Electronics Suwon Factory won the Environment Green Prize in the Water Quality category in recognition of a management committed to the environment and the voluntary establishment of an environmental management program. The facility continues to find ways to improve industrial wastewater treatment on-site and helps to clean up nearby areas and restore local streams.

Industrial Safety & Health Prize

The Korea Occupational Safety and Health Agency (KOSHA) and Ministry of Labor cosponsored the Occupational Safety & Health Convention, held at Seoul's Convention and Exhibition Center (COEX) in July 2004. Here, the Samsung Electronics Gwangju Factory was highlighted as a "best practice" for its accident-free operation and was awarded the First Prize. The Gwangju Factory outscored many other contending worksites in order to win the honor.



Outstanding Environmental Report

In November 2004, the Korea Green Foundation awarded Samsung Electronics for issuing an environmental management report that is highly reliable and easy to understand. The prize is awarded after careful and systematic assessment of company reports and attracts much attention from a public that wants to see that companies disclose their environmental efforts clearly.

(As of the end of 2004)

Company Name Samsung Electronics Co., Ltd.
Head office Yeongtong-gu, Maetan 3-dong, No. 416, Suwon, Gyeonggi Province, Korea
Establishment January 13, 1969
CEO Vice Chairman Yun Jong-yong
Annual Sales US$57.6 billion (2004)
Employees 123,000 (70,000 domestic, 43,000 overseas, 10,000 at subsidiaries)
Business areas production and sales of electronic and electronic products such as digital media, home appliance, semiconductors, and LCDs; provision of services related to these products
Operations 8 domestic factories and research facilities, 27 overseas production subsidiaries, 37 overseas sales subsidiaries, 2 overseas logistic subsidiaries, 11 overseas research centers, 19 other overseas location,