



# SII Group Green Plan Social and Environmental Report 2007

Striving for Coexistence with Society  
and Harmony with the Earth



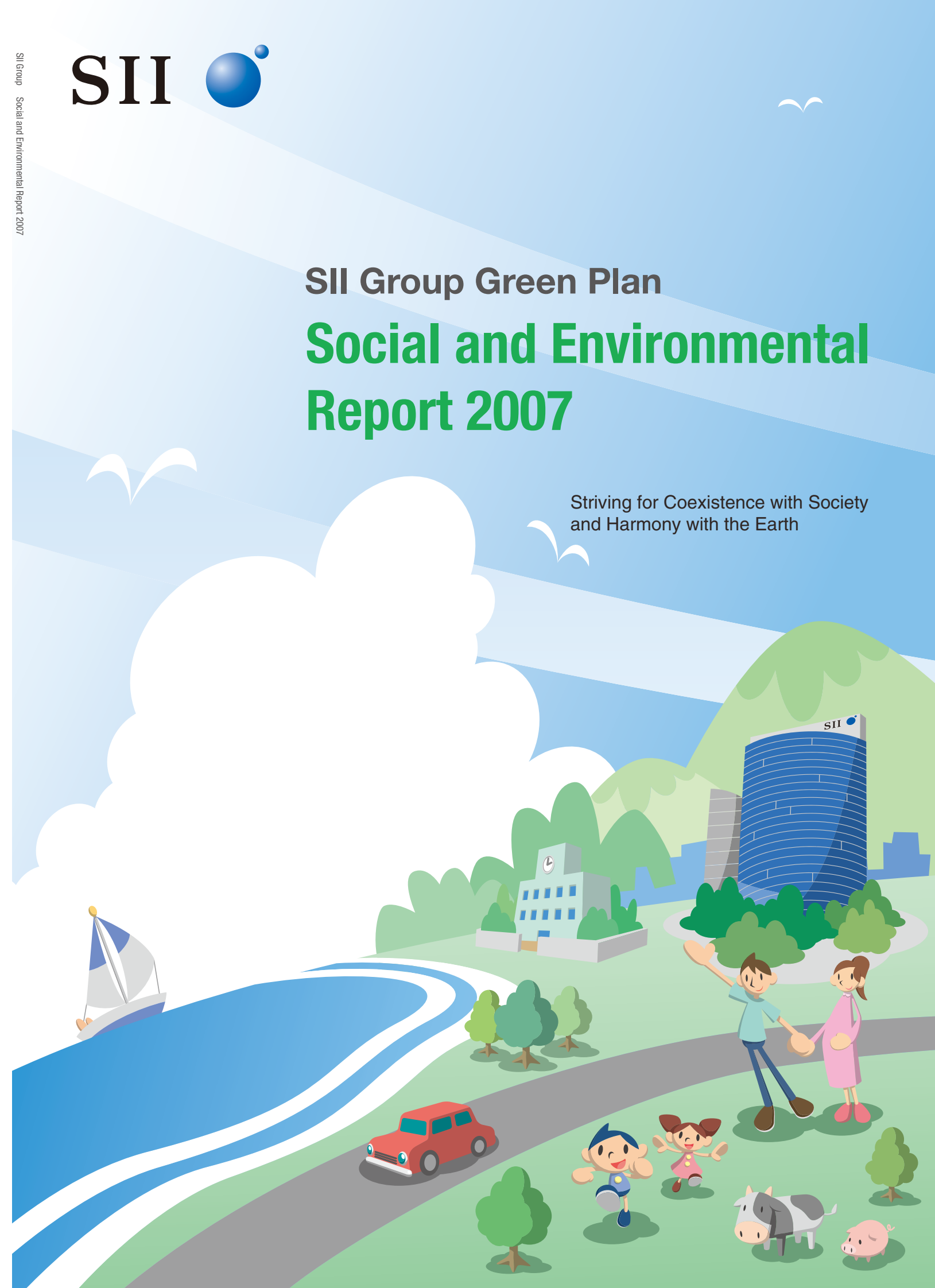
**Seiko Instruments Inc.**

Corporate Environmental Administration Department

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# SII Group Overview

SII Group products are used in a wide range of applications throughout society, including consumer products, ordering devices used in restaurants and taxis, and electronic equipment in offices, laboratories and factories. Our parts are key components for many products. This section introduces the SII Group and how they add value to society.

## Large Format Printers/Plotters

Our printer lineup responds to customer needs for high speed, high quality images in the large format sign graphics and the architectural, machine, and civil engineering design markets.



## Communication Products

To meet our customers networking requirements, we provide broad band communication products and services including network integration and management products.



## Order Entry System

Our ordering system is widely used in restaurants, bars and golf courses.



## Thermal Printers (Mechanisms, Assemblies and Peripherals)

Our compact, light, high-speed thermal printers are widely used in POS, medical measurement, and logistics applications.



## Mechanical Watches

Our luxury mechanical wristwatches are known for their impressive classical style and design.



## Analog Quartz Watch Movements

The heart of analog quartz watches, and one of our bestselling components globally.



## Hazardous Substance Detectors

Our X-ray fluorescent analyzers are widely used to detect regulated substances like lead.



## Internal Grinders

Our fully-automated small footprint CNC internal grinders are used by customers to produce super-small bearings and high precision automotive parts.



## LCDs, CMOS ICs, Microbatteries, and Quartz Crystal Devices

Our products are widely used as key components in mobile phones, communication devices and many applications.



## Data Communication Cards

Our data communication cards support mobile computing with a wide range of interfaces and formats.



## Hard Disk Drive Components

Based on our precision processing technologies, we supply key mechanical components for hard disk drives.



## Electronic Dictionaries

We provide a wide range of electronic dictionaries that include a wide range of reference works to meet the needs of users from students to business people, and to senior citizens.



## Measurement and Analysis Instruments

Our atomic-level scanning probe microscopes, high-sensitivity thermal analysis systems, and other products are used by nano-technology research institutes and companies.



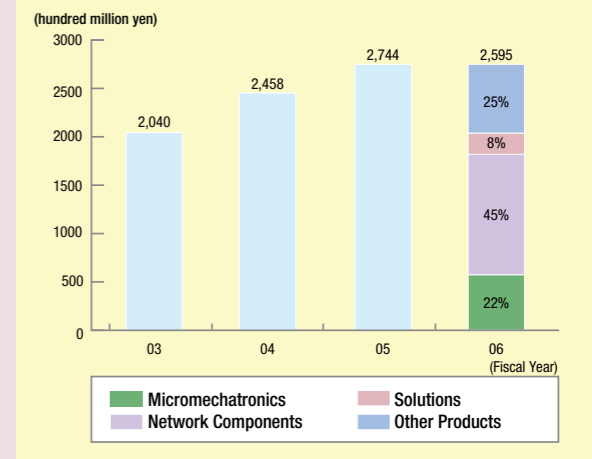
## Radiation Spectroscopy Instruments

Our precision measuring instruments are used by advanced institutes and labs for academic research and safety management.



## Corporate Data (April 1, 2007)

Corporate name:	Seiko Instruments Inc.
Established:	September 7, 1937
Paid-in capital:	7,250 million yen
Fiscal year end:	End of February
Products:	
[Micromechanics]	Watches, watch movements, precision components, HDD components, machine tools
[Network Components]	CMOS ICs, LCD modules, microbatteries, quartz crystals
[Solutions]	Order entry systems, data communication cards, wireless payment system, electronic dictionaries
[Other Products]	Compact thermal printers, large-format printers/plotters, inkjet printer heads, measurement and analysis instruments, communication devices
Annual sales :	
(FY2006)	153,600 million yen (nonconsolidated) 259,500 million yen (consolidated)
Number of Employees:	
(February 28, 2007)	2,708 (nonconsolidated) 13,956 (consolidated)
Consolidated sales	



\* FY2003 refers to 11 months from April to February because SII has implemented an annual accounting systems ending in February.

## "CREPiCO" Wireless Payment System

This system enables credit card use in applications, like paying taxi fares and door-to-door sales.





Masafumi Shimbo, President

Creating Time —  
Optimizing Time —  
Enriching Time

## Targeting Logical and Customer-Focused Management

In the second half of 2006, our management structure changed significantly. For this change, we reviewed our Core Value and Corporate Identity, and reconfirmed that they continue to represent our basic business approach - placing the highest priority on "integrity" in all of our business activities, cultivating the "trust" of our customers and society through our pursuit of the highest quality and precision, with a sense of "appreciation" for all of our stakeholders. With these Core Values as our foundation, we established our new management policy "Create the NEXT SII" with "Implement Logical and Customer Focused Management" to provide our customers with even better products and services.

At the same time, during fiscal 2007 to achieve our Corporate Policy, we will develop and implement enhanced "corporate social responsibility initiatives to increase the level of trust in our management".

## Addressing Social Issues

Today's society faces a large number of critical issues including human rights, fair labor practices, and poverty. As companies cross their national borders to expand business activities worldwide, their impact on society grows ever larger. Since companies conduct their economic activities within society and receive benefits from society, recognizing social issues and contributing to their solution must be accepted as one of our important responsibilities. SII will do our best to fulfill these responsibilities to society.

## Focusing on Global Environmental Issues

A sustainable society cannot be achieved without finding solutions to environmental issues, such as global warming and the depletion of natural resources, that have to be addressed and resolved on a global basis. Companies must act responsibly to address and find solutions to such global environmental issues.

SII has been continuously addressing the reduction of environmental impact in our business activities. However, in fiscal 2006, we could not achieve our goals in energy conservation and waste reduction due to an increase in production. We recognize that we need to return to the starting point and reconsider how to achieve economic growth while protecting the environment. In addition, the first commitment period for carbon-dioxide reductions specified in the Kyoto Protocol is getting closer. There is no longer any time to waste in addressing the global warming issue. In all of our business management activities, we need to promote the "Plan, Do, Check, Act" (PDCA) cycle supporting our environmental initiatives and focusing the efforts of each employee, each of who SII members and at the same time, citizens of the world.

## Striving to Achieve a Sustainable Society with our "Craftsmanship, Miniaturization and Efficiency" Technology

Taking advantage of our high-precision, compact, and energy-saving technologies, developed through decades of watch manufacturing, and captured in our core competencies of "Craftsmanship, Miniaturization and Efficiency", SII proactively promotes product and business development that contributes to protection of the global environment.

Supporting this commitment in October 2006, the SII Group introduced the SII High-Grade Green Products certification system to certify SII Green Products that have significantly high levels of environmental performance. Several of our products have been certified as SII High-Grade Green Products including low-voltage charge-pump ICs, which enable the use of low-level energy sources found in daily life such as body heat and sunlight, and button-type silver-oxide batteries that contain no mercury.

Taking advantage of our unique strengths, we are committed to contributing to global environment protection through our products and services.

## Developing Employees Craftsmanship Skills

Founded and nurtured in Japan's watchmaking industry, the highest level craftsmanship skills and spirit are in SII's DNA. In addition to manufacturing skills, our "craftsmanship" also reflects pride in our products—the insight and ingenuity to provide our customers with the highest value with an unflagging pursuit of quality and refinement.

The most important factor to preserve and hand down SII's craftsmanship skills and spirit is human resources development. Self-motivated, creative employees have the drive and ability to create unique methods, discover promising new raw materials, and improve existing things and systems. We want to find and fully develop our employees potential talents, and organize them, benefiting from their

diversity, to create a professional organization which can create new products and value.

In order to achieve this goal, we established "Open and Frank Communication" as a key theme of our Corporate Policy and encourage our employees to proactively discuss and exchange opinions. Open discussion is one of the employee development basics that broadens perspectives and views, while inspiring innovative ideas and values. This promotes the handing-down and evolution of SII's craftsmanship spirit.

Based on SII's core values of integrity, trust, and appreciation, all of our employees will apply the spirit and skills of craftsmanship to create a sustainable society where everyone can live in comfort and abundance.

## We welcome your comments and suggestions

We hope that you will find this year's report to be of interest. SII is dedicated to the continuous improvement of our environmental activity and social responsibility. As a company, and as individuals, we will work harder than ever to earn society's trust. We definitely appreciate your continuing cooperation and support, and welcome any comments and suggestions that you may have.

Masafumi Shimbo, President  
Seiko Instruments Inc.

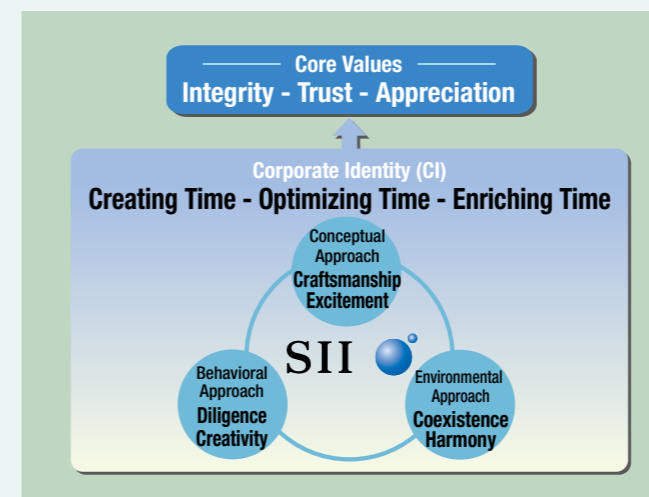
## SII Core Values and Corporate Identity

### CV Integrity - Trust - Appreciation

We approach all our business activities with integrity, fostering the trust of our customers and society, with a sense of appreciation towards all stakeholders.

### CI Creating Time - Optimizing Time - Enriching Time

By continuing our pursuit of production efficiency, we help people create time; by developing electronic devices and network devices, we help people optimize their time; and by creating new values, we help people enrich their time.



### Conceptual Approach Craftsmanship - Excitement

By creating new values through a craftsmanship comprising inimitably meticulous skills and techniques, we cherish the sense of excitement gained from delivering these values to our customers.

### Behavioral Approach Diligence - Creativity

To reach lofty ideals and goals, we must strive with diligence for the creation of new values that are innovative enough to be ahead of the times.

### Environmental Approach Coexistence - Harmony

As a good corporate citizen, we must seek a constructive coexistence within the international and local communities that are in harmony with the global environment.

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### About This Report

- This report is published to provide all stakeholders with easily understandable information about the SII Group's environmental and social activities.
- In preparing this report, we have utilized various guidelines including the Environmental Reporting Guidelines 2003 issued by the Japanese Ministry of the Environment.

### Scope of This Report


- This report focuses on efforts and achievements of ten of our Japan sites and seven overseas sites.
  - \* The ten Japan sites include business units, affiliated companies and sales offices of Seiko Instruments Inc.
  - \* For overseas sites, this report covers production sites which have obtained ISO 14001 certification.

### Period Covered by This Report

- This report covers activities and results from March 2006 through February 2007, and also includes information about prior and ongoing initiatives.
  - \* The operation of Miyakubo Unit was transferred to other sites in the period.

### Contact Us

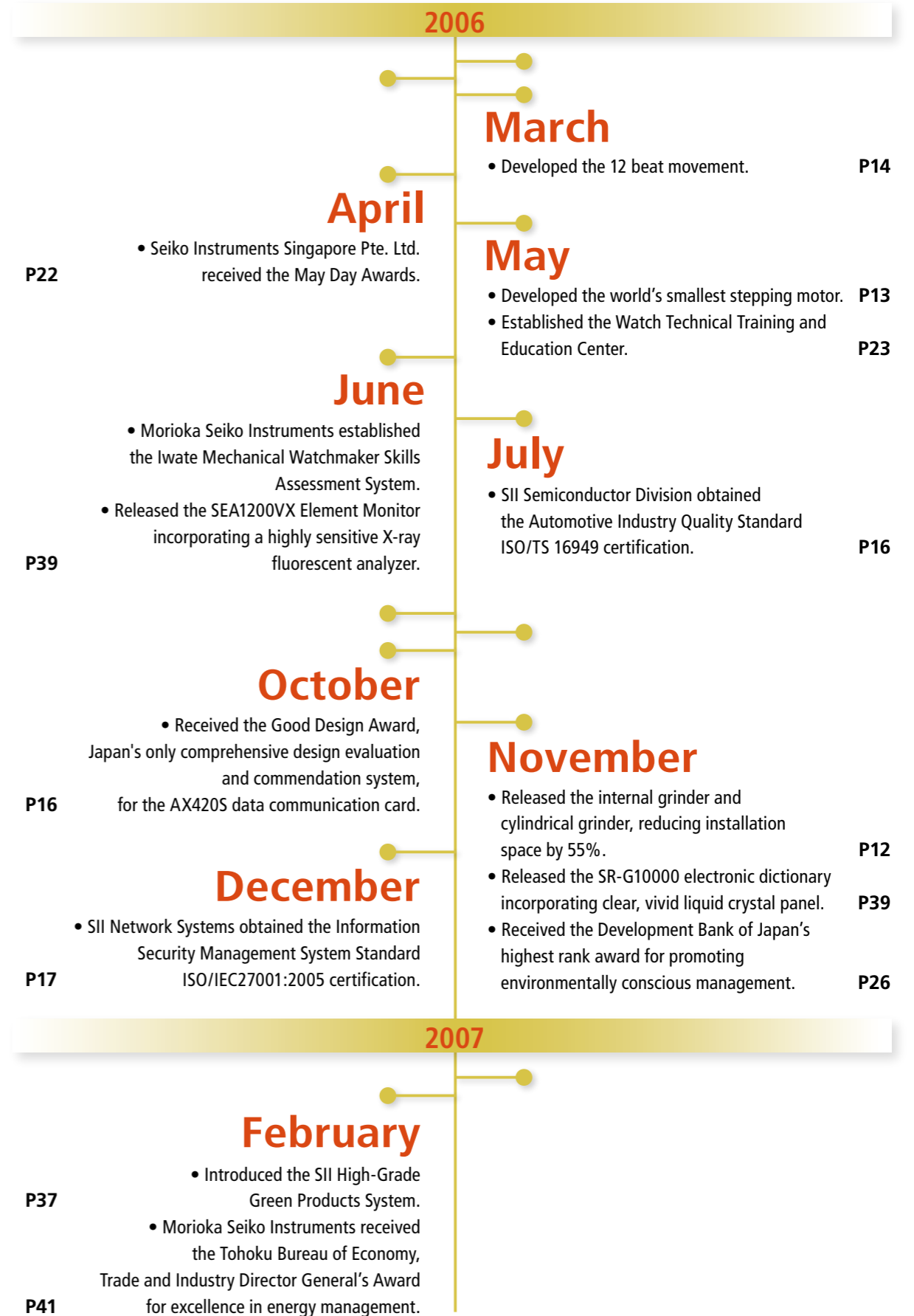
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Additional data and the latest information that are not covered in this report are indicated as  and available on the SII website.

<http://www.sii.co.jp/eco/eg/>

# TOPIC

March 2006 — February 2007



# SII Group's Management

## Corporate Governance

In order to meet the expectations of our stakeholders, the SII Group believes that monitoring and enhancing management is important, while strengthening competitiveness to improve profitability.

### Basic Corporate Governance Policies

We focus on transparency and fairness in our management as an important business priority. In order to achieve this, as a part of our corporate governance basic policies, the SII Group strives to improve our corporate value by improving the company organization structure and systems, implementing necessary policy measures and securing the understanding of our stakeholders.

### Corporate Governance System

#### Corporate Organization

Our board members operations are monitored and supervised by the board of directors, auditors and board of auditors.

The SII board of directors, which consists of four internal board members and two outside members, supervises the company management and makes important business decisions for the SII Group, incorporating advice by outside board members and auditors.

The board of auditors, consisting of an internal auditor and three outside auditors, conducts regular audits. Based on the audit results, the auditors exchange opinions and information to improve audit efficiency. They attend every board meeting. The Executive Overseers of Audits and Corporate Policy audit board members management operations by regularly attending Management Strategy Meetings and other important meetings, meeting with each board member and division head, reviewing critical approval documentation, and conducting field audits of each business unit and affiliated company.

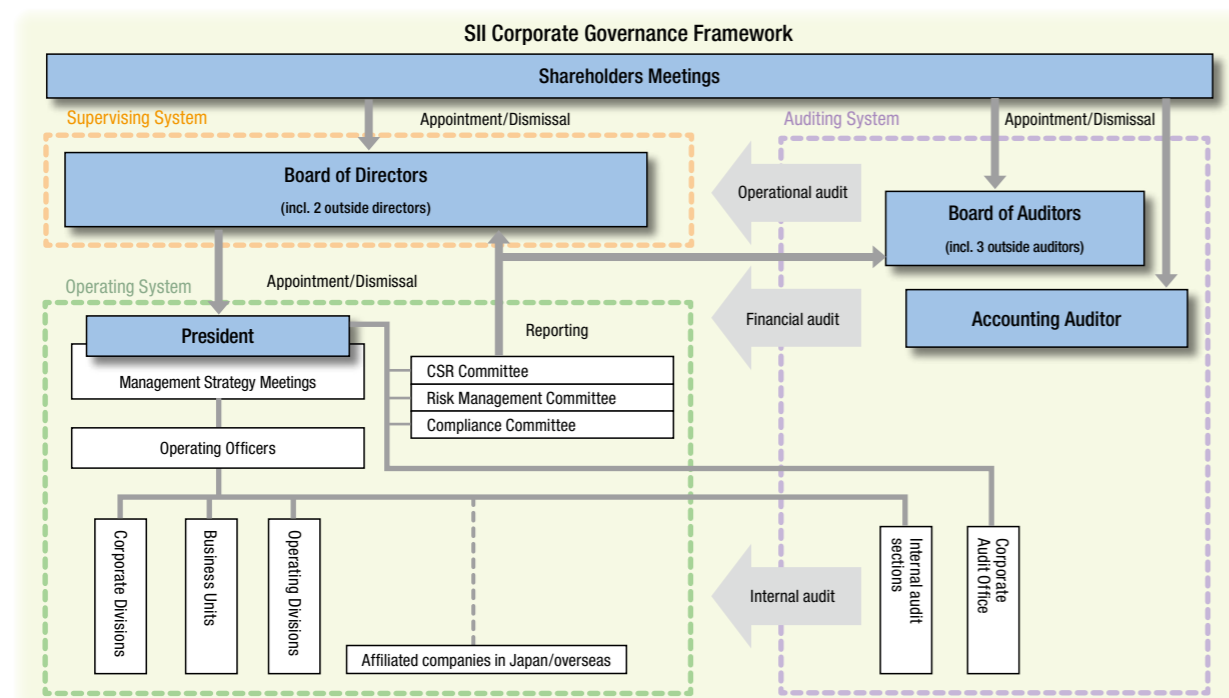
In addition, KPMG AZSA & Co. formally conducts financial audits of our company.

The SII Corporate Audit Office, which reports directly to the President, conducts internal audits of the SII Group operating divisions and affiliated companies based on the approved audit plan. In addition, each representative section, such as quality control, import/export control, and environment, conducts internal audits respectively.

#### Internal Control System Enhancement

We continuously strive to enhance our internal control system in order to ensure thorough compliance and reliable financial reporting, while assessing risks and achieving efficient and productive operations.

As of May 2006, the revised corporate law obligated large companies to approve their internal control system improvement at board meetings. The SII board meeting at that time approved it and established the basic SII policies. In order to implement internal control properly, we will also review the established systems based on these basic policies.



## SII Group's Corporate Social Responsibility (CSR)

The SII Group's Corporate Social Responsibility (CSR) is at the very root of our core values, "Integrity, Trust and Appreciation". These values represent our basic stance on our relationships in society and our stakeholders.

### Core Values and Corporate Social Responsibility

As good corporate citizens, we place the highest priority on "integrity" in all of our business activities, cultivate the "trust" of our stakeholders and society, and value a sense of "appreciation" for all of our stakeholders. These core values represent SII's corporate philosophy and the fundamental perspective we have of SII's CSR. By fulfilling our CSR, we continuously strive to become a company that society and our stakeholders need and trust, even as the times around us change.

### SII's Sense of Corporate Social Responsibility

CSR is commonly described as the economic, social and environmental responsibility of a company in the course of business development.

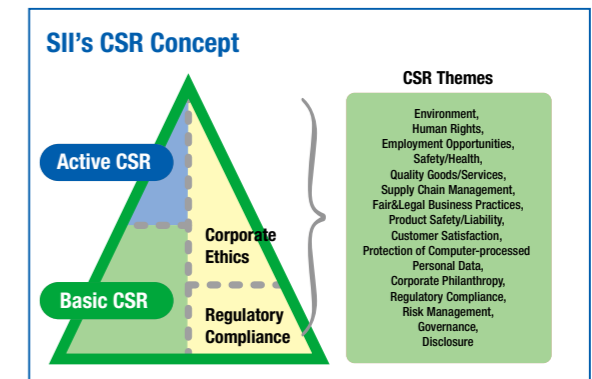
We believe that the CSR challenge for a company is to value its harmony with society, while aspiring for sustainable business development. Companies basically need to create an economic profit for society, while complying with the law and practicing ethical conduct. Then, the trust and economic profit created should be returned to and shared with society, our shareholders, customers, business partners and employees. To be more specific, we believe that CSR includes providing reliable products and quality service to earn a fair economic profit, and then enhancing the relationships of mutual trust with our customers and business partners, promoting appropriate employment with awareness of human rights, improving compliance activities, reducing environmental impact and enhancing contributions to society.

We are striving to practice the highest CSR as a good corporate citizen, and a member of society.

### Basic CSR and Active CSR

We look at CSR from two viewpoints: Basic CSR and Active CSR. Basic CSR includes the fundamental responsibility of a company to manage the business in an orderly manner and earn trust through compliance and ethical corporate conduct. In addition to compliance or any other obligations, Active CSR is the proactive creation of meaningful value for stakeholders, and the enhancing of satisfaction for each and every stakeholder.

We have endeavored to ensure corporate fairness and trustworthiness by establishing the Compliance Committee and the Risk Management Committee. In addition to the Basic CSR, we hope to improve SII's brand image and corporate value by expanding our Active CSR activities.

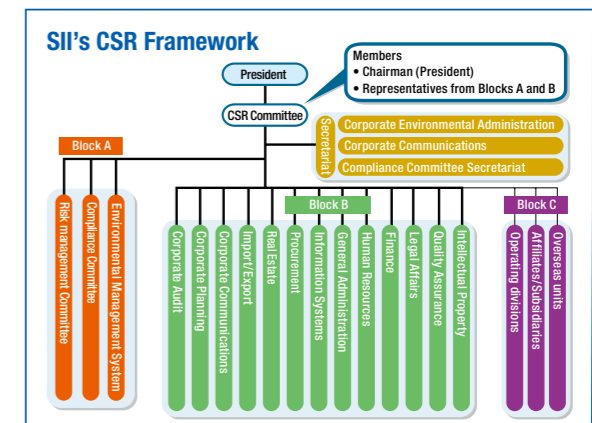


### CSR Committee Activities

In order to promote company-wide CSR activities, we established the CSR Committee in January 2005. With the SII President serving as the committee chairman, the CSR Committee consists of representatives from all the head office operational divisions. The Committee is authorized to implement CSR measures across the whole company.

The Committee takes the initiative for comprehensive and efficient promotion of CSR with the support of the Compliance Committee, the Risk Management Committee and the environmental management system.

In 2006, the Committee expanded the internal control system, established behavioral guidelines, added specific social items to existing procurement standards and implemented self-evaluation based on the Electronic Industry Code of Conduct. To address these themes, the responsible divisions prepare target values and implementation plans. The CSR Committee ensures their implementation by monitoring progress and status.



## SII Group Charter of Corporate Behavior

In October 2005, we established the SII Group Charter of Corporate Behavior. By defining social responsibilities in the course of business activities, the Charter promotes enhancing employee awareness and strengthening our stakeholders confidence.

This Charter consists of "Core Values", "Offering to Stakehold-

ers and Society" and "Commitments to Stakeholders and Society" based on SII Core Values and Corporate Identity, representing our commitment to incorporating a strong sense of social responsibility into our management.

### SII Group Charter of Corporate Behavior

The SII group is committed to conducting its affairs ethically and lawfully. This Charter of Corporate Behavior establishes policies and procedures that are intended to secure our position as an entity concerned not merely with pursuing profits but also striving to be a needed and trusted part of society in perpetuity. The SII group is committed to providing value to all stakeholders, as well as society at large, desiring to fulfill its commitments and contribute to the creation of a more sustainable society.

#### <Core Values> Integrity - Trust - Appreciation

We approach all our business activities with integrity, fostering the trust of our customers and society, with a sense of appreciation towards all stakeholders.

#### <Offering to Stakeholders and Society>

Based on our mission and corporate identity "Creating Time - Optimizing Time - Enriching Time," we are committed to creating new value and producing safe, socially useful and high quality products and services through our conceptual approach "Craftsmanship and Excitement" and behavioral approach "Diligence and Creativity," while seeking a constructive relationship with society and nature in accordance with our environmental approach of "Coexistence and Harmony."

#### <Commitments to Stakeholders and Society>

##### Approaching corporate activities with integrity

- In conducting our corporate activities with integrity, we comply with all applicable laws and regulations and record/report information accurately and honestly.
- We maintain a sound relationship with governmental and administrative authorities and take a stringent, resolute posture against antisocial forces that pose a threat to our social order or security.

##### Respecting human rights

- We respect the human rights of all employees and keep working conditions comfortable and safe. We facilitate and support the advancement and growth of every employee and accord all employees the respect they deserve as individuals.
- We respect the human rights and individuality of all stakeholders in our business activities.

##### Creating harmony with the environment

- In recognition of the fact that environmental issues impact everyone in common, we will focus strongly on resolving such issues independently, so as not to place a burden on the public.

##### Establishing a constructive coexistence with society

- We communicate with society and promote disclosure of company information to become a more open enterprise.
- As a good corporate citizen, we extensively engage in philanthropic activities.
- Through our business activities on the world stage, we advance corporate management that contributes to the further development of each country pursuant to this Charter.

## Compliance

**We strive to achieve thorough compliance based on our belief that practicing ethical and fair business with integrity, in accordance with laws, regulations and rules, is fundamental to becoming a trustworthy company that can contribute to society.**

### SII Compliance System

The SII Compliance Committee, which was established in 2001, officially reviews cases of compliance problems and awareness. Based on the importance of compliance in conducting our corporate activi-

ties, the SII President serves as the Chairman of the committee.

Based on the internal control basic policies approved by the SII board meeting in May 2006, we will further enhance and improve our compliance framework and the Compliance Committee.

## SII Code of Conduct / Behavioral Guidelines

The SII Code of Conduct was initially established in 2001 as a common standard for the SII Group, and was fully revised in 2006.

The SII Code of Conduct defines the basic requirements that all SII Group directors and employees need to follow in accordance with the SII Group Charter of Corporate Behavior, and to fulfill our commitments to society and stakeholders.

In addition to the SII Code of Conduct, the Behavioral Guideline for Japan sites was established in July 2007, and defines specific and detailed standards of behavior for thorough compliance and ethical behavior.



### Compliance Consultation Services

If our employees discover any legal or rule violation within the company or unethical behavior by their colleagues, they can notify our compliance consultation service at anytime. Beginning in May 2006, a helpline staffed by outside lawyers was also established to help detect legal violations for prompt corrective action. During fiscal 2006, six cases were processed by the consultation service, and no case was reported to the helpline.

## Risk Management

**In order to minimize the risk to our stakeholders, we are continuously striving to monitor and reduce corporate risks.**

### Risk Management System

At the May 2006 board meeting, SII's internal control system basic policy was approved. The policy establishes management rules and guidelines for responding to potential loss, including a systematic risk management system with internal guidelines to comprehensively recognize and evaluate any management or business risk that could affect business performance.

The Risk Management Committee was established to enhance risk management awareness and improve the risk management system. In addition, we have been further enhancing the risk management system in accordance with the internal control system basic policies. SII has continuously conducted analyses, evaluations and studies covering a wide range of risk for the SII Group business strategies, product liability, quality problems, crimes targeting companies, information systems, compliance, finance, environment and natural disasters.

We will further enhance our risk management framework to improve risk prevention and prompt action in response to any corporate risk event.

We will expand the helpline to accept information from our business partners in the case any violation of laws or unethical behavior by our employees.

### Compliance Education

We believe that continuous and comprehensive education is important to achieve thorough compliance.

In fiscal 2006, the revised SII Code of Conduct and internal control basic policies were reviewed in detail by the SII Group executives and employees using online education system and their understanding was confirmed.

In addition, current legal topics are regularly provided to the employees via the intranet to promote their awareness and avoid any violation of laws.



Online education

### "10-Minute Rule & 2-Hour Rule"

In case of an emergency, the "10-Minute Rule & 2-Hour Rule" promotes rapid communication between employees and top-level management.

This rule requires that any event with potential corporate risk must be notified to the President within ten minutes if it occurs in the head office, or within two hours if it occurs outside the head office.

This rule doesn't specify any communication procedure or pre-screenings in the division, since we believe that prompt communication to the top management will minimize the risk. The President has agreed not to apply any blame for any report that is later found to have been in vain. This rule promotes efficient risk management and also creates an open corporate culture with prompt action.

High-lights

## "SYO"ism Skills and Techniques

SII's "Craftsmanship" concepts to create new value based on our time-honored, advanced skills and techniques. These include miniaturization technologies to reduce product size, precision processing technologies, rigorously designed energy efficient products, and their fabrication technology.

Based on these competencies embodied in our "SYO"ism technology concept, SII is committed to creating new value that will contribute to society.

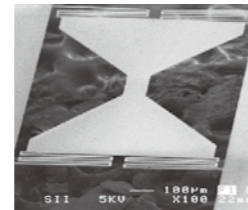
### Device Development using MEMS Technology

MEMS (Micro Electro Mechanical Systems) technology is a high precision, three dimensional processing technology based on semiconductor manufacturing technology. MEMS technology can be applicable to materialize a wide range of high performance micro-miniature devices, such as sensors and actuators.

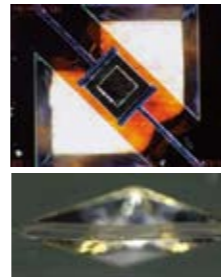
For example, a temperature sensor fabricated with MEMS technology on a 1 μm thick membrane can be used as a high sensitive X-ray micro calorimeter. The X-ray micro calorimeter with thin membrane structure has higher energy resolution by order of magnitude than the conventional semiconductor X-ray sensors.

A miniaturized silicon based actuator (500 μm x 500 μm) fabricated with MEMS technology is much smaller in size than conventional models. The displacement of the MEMS actuator can be electrostatically controlled in micro-meter order.

With the high precision, high performance properties of MEMS technology, we develop key devices and high precise mechanical parts for measurement instruments while promoting the natural resources and power saving.

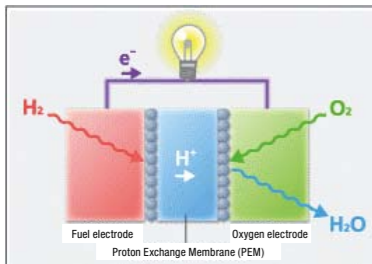


Micro actuator



High sensitive X-ray micro calorimeter  
Top: Top view,  
Bottom: Perspective view

### Micro Fuel Cells



Fuel cell generating principle



Passive-type 50W system

Fuel cells have been attracting a lot of attention, because they generate electrical power cleanly and efficiently based electrochemical reactions between hydrogen and oxygen.

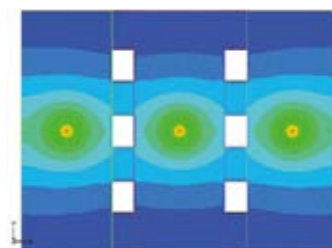
In the past, designing a passive fuel cell capable of producing more than 10W was considered to be extremely difficult. To address that challenge, SII is developing passive fuel cells that use sodium borohydride (SBH) to generate power at room temperature. To accomplish this, the catalytic solution has to be supplied consistently, and the

resulting hydrogen must be uniformly supplied to the electrode.

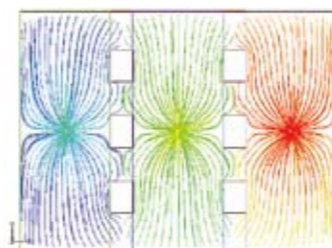
Using fluid analysis, SII has successfully optimized the hydrogen flow to within 1-2%. Combining this with other innovations, we were able to achieve 50W output power, the best in the world for passive fuel cells. Fuel cells are expected to serve as battery alternatives for portable equipment like laptop computers, allowing them to expand non-AC connected use from the current three hours to all day.

Passive fuel cells, without any moving parts, or pumps, are perfect for low noise applications as well.

We will continuously improve energy density while developing even smaller, lighter fuel cells.



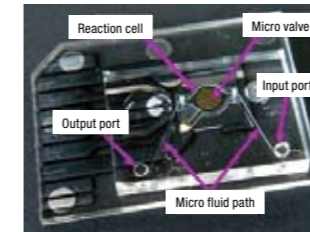
Hydrogen pressure distribution



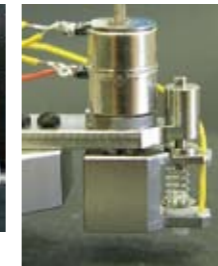
Hydrogen flow

### Micro Flow Cell QCM

Quartz crystals shift their resonance frequency when they are exposed to external substances, even in extremely small amounts. The SII micro flow cell QCM (Quartz Crystal Microbalance) takes advantage of this property to efficiently and economically measure chemical samples. It is designed and fabricated using SII's quartz crystal and MEMS technology. The QCM contains a micro crystal sensor that makes measurements in



Micro Flow Cell QCM Chip



Micro valve

the sample flow path. Since it can make measurements with high precision based on sample volumes of less than 1 μL, the QCM is extremely efficient, reduces waste, and is environmentally friendly. This type of device is expected to see wide "nano-world" applications in chemical analysis, chemical synthesis and biology.

By combining the micro valves and micro pumps with the micro flow cell QCM, we continuously strive to develop compact, energy-saving and environmentally-friendly measurement instruments.

### SS1-05 Miniature Grinder Development

In recent years, driven by demands in the manufacturing industry in Japan, reduced size of machining cells, ranging from less than a half meter down to palm size, have been developed for a wide range of applications.

Optimizing the design of machine tools to produce components that are small naturally results in reducing their size. Based on this concept, our SSI-05IG internal grinder and SS1-05CG cylindrical grinder were developed. Their sizes of the base machine are 600mm wide, 1030mm depth and 1500mm high. Also, their small footprints enable the efficient use of the plant space.

If machine tools were just scaled down proportionately, their static rigidity would be sacrificed. To solve this problem, we employed our proprietary V-shaped hydrostatic guide design for the table guide. This new guide face features a larger attachment area compared to the conventional square type hydrostatic guide design, increasing the holding rigidity.

In addition, each unit installed on the table is positioned and aligned to keep its height low while increasing its rigidity. This design results in a high natural frequency with dynamic rigidity and high resonant point as well as reduced vibration, which produces equivalent or better precision compared to conventional machine tools.

Additional merit of compact design is reduced automatic loading times. This significant miniaturization reduces environmental impact over the entire life cycle, including the energy required to process raw materials, equipment transportation, and operating energy consumption.

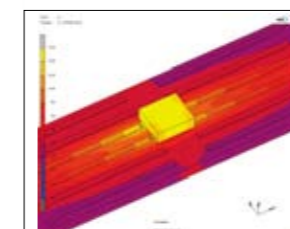


SS1-05 Miniature Grinder

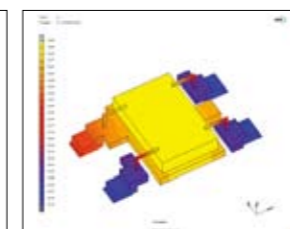
### CAE Analysis

#### 1. Micro IC Packaging Thermal Conductivity Analysis

Modern electronic devices require smaller and smaller components. For key components, like voltage regulators with high power output, developing efficient heat dissipation while shrinking their size is critical. Using advanced CAE simulation techniques, SII explored numerous possible approaches. As a result, we were able to develop a micro IC packaging design that features four times more efficient heat dissipation compared to conventional designs. This approach also reduces development time by more than three months.



Thermal conductivity analysis

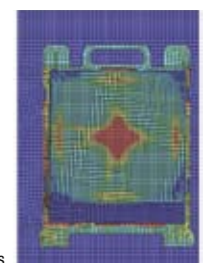


#### 2. LCD Panel Drop Impact Analysis and Evaluation

Driven by market demands for smaller, slimmer mobile phones, LCD panels have become increasingly thinner, which also makes them more susceptible to breaking when the phone is dropped. To address this challenge and improve impact resistance, we employ CAE analysis techniques as well as high speed cameras recording drop tests. This assists our customers in their quest to develop ever smaller and lighter mobile phones and portable devices.



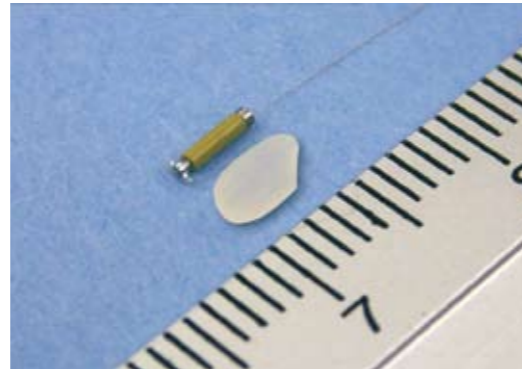
LCD panel breakage



Impact analysis

**World's Smallest Micromotor, 0.95mm in Diameter, Successfully Developed**

SII and the Furukawa Laboratory, Tokyo University of Agriculture and Technology (TUAT) jointly developed the world's smallest\* micromotor, 0.95 mm in diameter and 3.6 mm in length. The development was based on an invention by Tadashi Moriya, Honorary Professor at Tokyo Metropolitan University and Yuji Furukawa, Dean of the Graduate School of Technology Management, TUAT.



Using conventional techniques, reducing the size of a micromotor has been extremely difficult. Electromagnetic motors have practical limitations to reducing the coil and magnet size, and ultrasonic motors require advanced design of the piezoelectric device and preload mechanism.

The new motor employs an external ultrasonic oscillator. Using a 50 μm diameter metal wire as a waveguide, ultrasonic waves are propagated from the wire tip to a coiled stator to rotate a cylindrical rotor attached to the stator (output speed: 2000 to 4000 rpm). The metal waveguide wire is made of SPRON, featured in high elasticity, intensity, corrosion- and heat resistance, which was originally developed by SII and Institute for Materials Research, Tohoku University, for use in the mechanical wristwatch springs and is currently used for a wide range of applications.

Another advantage is that the motor can be operated while submerged in liquid, because it rotates based on the application of ultrasonic oscillations directly from the external oscillator to the motor body instead of using electrical signals.

Using an external oscillator and requiring fewer parts, we achieved simpler motor structure with significantly reduced size.

\* As of March 15, 2007, researched by SII

**The Super Small Stepping Motor (SSM) Series**

SII and overseas optical instrument manufacturer successfully developed SSM 'state of the art' super small stepping motor series. The world's smallest\* SSM series stepping motors combine extremely small size with high torque performance.

As consumer demand for compact portable devices including digital cameras and cell phones equipped with camera functions has boomed, the need for smaller and smaller stepping motors has increased dramatically. At the same time, device manufacturers continue to require extremely high performance including parameters like step angle resolution and motor torque. Achieving dramatically reduced motor size while increasing the motor's performance has been a significant challenge both for device manufacturers and their suppliers.



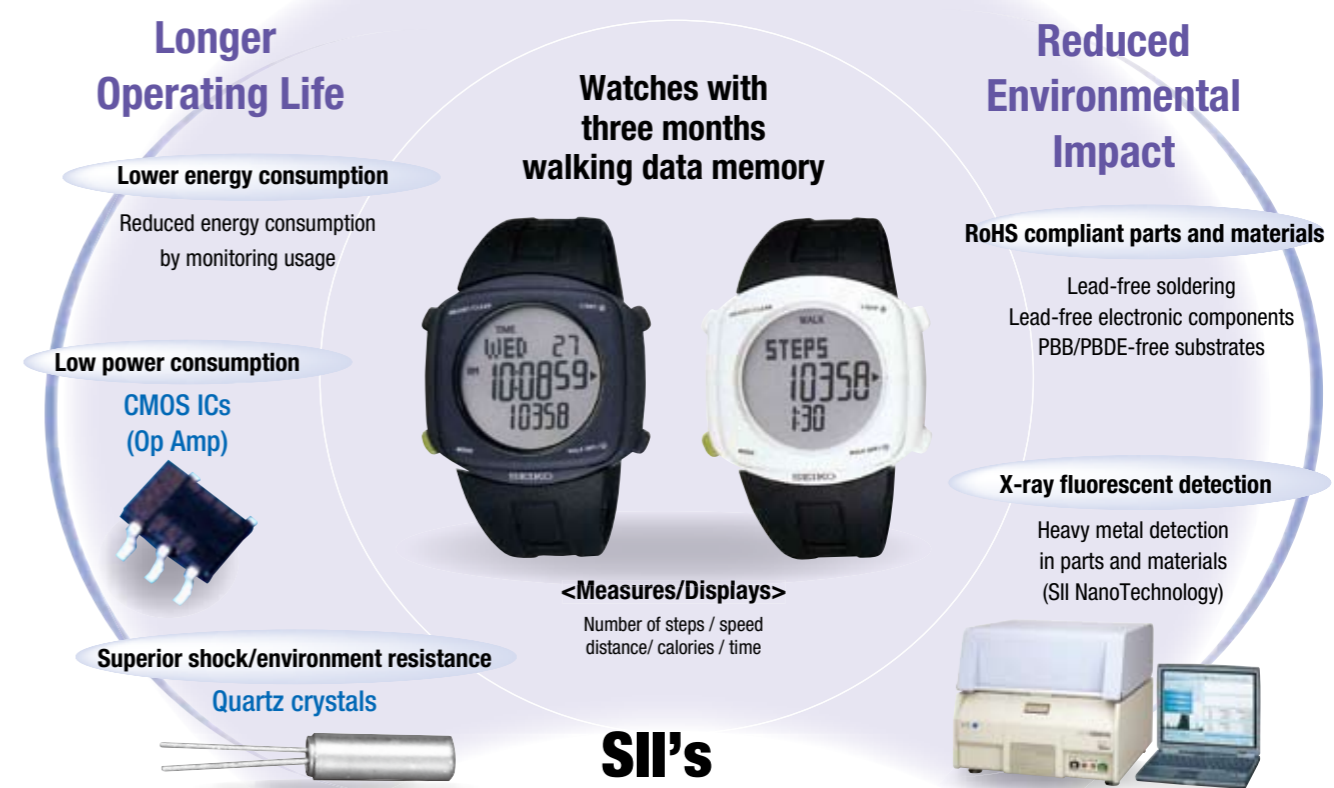
SII successfully achieved this challenge through the use of an optimized magnetic circuit design, an advanced mechanical design utilizing precision parts, and by adapting special proprietary techniques in the terminal design to avoid reducing the coil volume.

With these design and techniques, "SSM-4029" with motor volume of 0.036 cm<sup>3</sup> (4.0 mm in diameter, 2.9 mm in length) and "SSM-4049" with even shorter unit was developed. The extremely small size enables the SSM series motors to assist device designers and manufacturers in their goal to shrink the size of mobile phones, digital cameras, and other similar portable consumer devices.

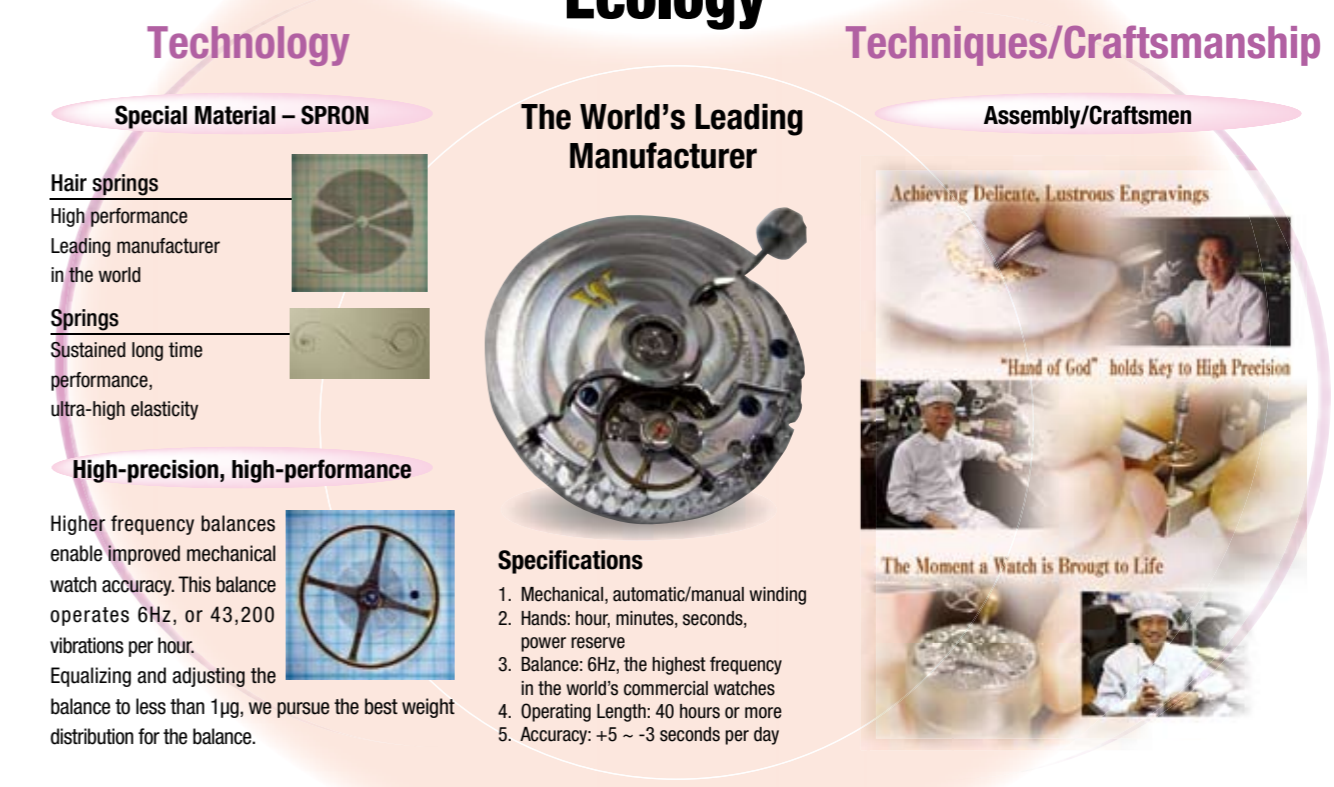
\*As of May 1, 2006, researched by SII

**Health, Environmental Technology and Wristwatches Coexistence**

Wristwatches with pedometers that can display walking speed, distance and calories



**SII's Watch Skills/Techniques/ Ecology**



Creating products with the highest craftsmanship techniques and spirit handed down for the generations

Achieved 6Hz, or 43,200 vibration / hour



# Being a Good Corporate Citizen

The SII Group conducts a wide range of activities to provide true benefits to society and to continue developing as a good corporate citizen. In this section, we focus on our approaches to sociability and related challenges.

## ✧ Striving for products and services that customers can trust

The SII Group provides customers in Japan and overseas with a wide range of products, including consumer products such as watches and electronic dictionaries, electronic components, analysis and measurement instruments and IT terminals. We are committed to developing products and services that will assist our customers to create new values.

### SII's Pursuit of Quality for Customer Satisfaction

#### SII Quality Policy

**"Improve the Quality, Cost, Delivery and Safety of our Products and Services to create increased value for customers"**

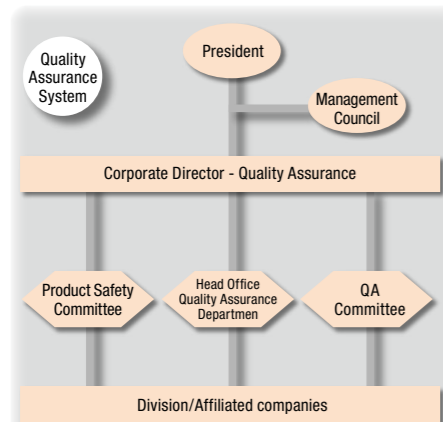
Based on the SII Quality Policy, all of the SII Group's operating divisions are striving to improve the quality our products and services while meeting the high requirements of cost, delivery and product safety.

All of our operating divisions have obtained the ISO9001 international quality management system certification. Continual improvement, which represents the main concept of the quality management system, is incorporated into our quality policy.

#### Quality Assurance System

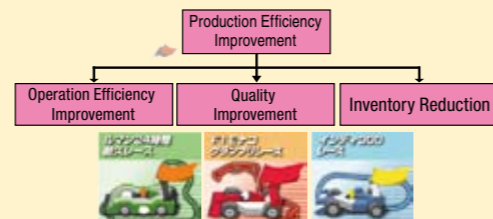
By appointing a quality assurance representative in each operating division, we have established a group-wide network of the representatives to share quality assurance information toward the prevention of quality-related issues.

Incorporating customer opinions, we are committed to the continuous provision of quality products and services.



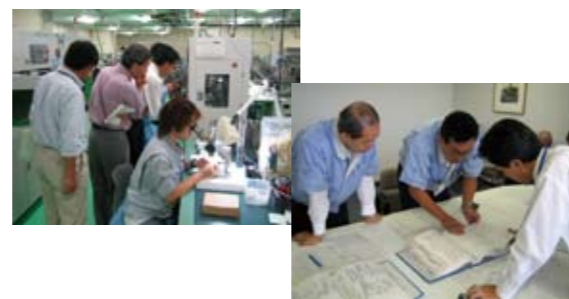
### "SII Grand Prix"

In 2006, the SII Group held an SII Grand Prix to motivate our employees to improve product quality and production efficiency. The competition involved teams from each operating division competing in three races centered around operation efficiency improvement, quality improvement and inventory reduction.



### Operation Process Review

We regularly review all of our operating divisions operation processes in Japan and overseas. The review includes: if products are manufactured according to the standards; employee developments are organized and implemented; quality is systematically improved; workplace organization, cleaning, training and safety are well implemented. This review assists us to produce and provide reliable products to our customers.



Reviewing operation processes

### Product Safety

Our basic product safety concept is "to improve customers' confidence by always providing safe products and services" in accordance with the SII Group Product Liability/Product Safety Policy. In order to provide safe products, we regularly review our products/services and technologies to verify their safety and compliance with Japanese and overseas regulations.

In addition, we have also established the Product Safety Network under the Quality Assurance Committee to promote a wide range of product safety activities.

For product safety crisis management, the SII Product Safety Committee, consisting of the head office quality assurance department and representatives from operating divisions and legal department, reports directly to top management. The committee also promotes the sharing of information throughout the entire company to solve problems and improve operations.

### SII's Customer Service Center

We established the SII Customer Service Center to answer customer inquiries. In order to ensure customer satisfaction, the service center is committed to providing prompt, accurate and sincere responses.

In March 2006, the Customer Service Center hired and trained additional employees for SII electronic dictionary inquiries, and established the watch products inquiry lines. With these efforts, the service center strives to provide more prompt and more dedicated responses to our customers.

Our customers' opinions, requests and complaints are communicated to the relevant operating divisions, and are used effectively for quality of product and service improvement.

In addition, we focus on improving the quality of our after-sales service through repair service questionnaires filled out by customers.

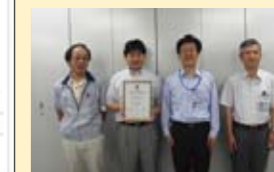
### Semiconductor Division Obtained ISO/TS16949 Certification

In July 2006, SII's Semiconductor Division received the international quality management system for the automobile industry certification in accordance with ISO/TS16949. This quality management system unique to the automobile industry in Europe and the U.S. A. is recognized as an important standard in parts supply to automobile manufacturers in Japan and overseas. In addition to quality, this standard requires continuous efforts to improve the quality of operation by focusing on PDCA cycle.

Capturing the top share in the Japanese market, SII's EEPROM for automobiles is adopted by many vehicles in Japan and overseas major companies. By continuously striving to improve the quality of our products and operation, we will gain confidence from automobile industry with extremely strict quality standards, and enhance our sales.



Certificate



Semiconductor Division employees with the certificate

### Working with Our Suppliers

For SII's business activities to be successful, our suppliers' cooperation is essential.

In order to build better business partnerships, we regularly hold supplier meetings. The 2006 meeting was held in November, and 101 of the SII-certified supplier companies participated. At the meeting, we presented SII Group business status, our procurement policies, and the importance of CSR activities that will improve our mutual confidence and corporate images. Then, the need for their proactive cooperation with our business initiatives was reviewed with the suppliers. Our aim is to ensure the continued growth of both our suppliers and the SII Group.



Reception after the meeting

### AX420S Data Communication Card received the Good Design Award

In October 2006, SII's AX420S data communication card received the Good Design Award from the Japan Industrial Design Promotion Organization (JIDPO). The Good Design Award is Japan's only comprehensive design evaluation and commendation system. AX420S is a data communication CF card having Willcom's W-OAM function, which provides robust and high speed data communication up to 204kbps data rate. In addition to the high level of performance, JIDPO also highly evaluated the value-added features of the one-touch slide-up antenna and the sophisticated texture and colors of the design.

The AX420S has extensive functionality, including high-level security and a global roaming service supported by many users. 2006 was a year in which our design was evaluated highly, and we will continue providing distinguished products with advanced functions and design.



AX420S

### Information Security

Corporate responsibility for information security is becoming increasingly important, and business information as well as the systems that manage it are considered to be valuable assets of the SII Group.

In order to prevent information system issues that could affect our business operations, we continuously enhance our system security including its management and technology. To protect data and ensure stable system operation, we have established a system security framework encompassing the SII Information System Security Policy, security goals and basic principles. Based on this policy, security rules and guidelines, including the Intranet Regulations and Security Control Procedures, have also been established to ensure systematic and efficient security of information.

In 2006, we integrated and shared corporate information assets throughout SII Group and enhanced corporate information leak prevention.

### Confidential / Personal Information Protection

We believe that the appropriate protection of confidential and personal information is one of our social responsibilities. In addition to establishing internal regulations and manuals, our privacy policy has been published on our website.

As a part of preventing the leakage of confidential and personal information, guidelines have been established including data storage handling in the case of PC repair and disposal, and taking information outside the office with PC or other electronic data storage devices.

In order to prevent the loss or leakage of confidential / personal information, each employee needs to be aware of its importance and act properly. We continuously provide education via the intranet to enhance employees awareness and to prevent careless loss or leakage of information.

### Universal Design Initiatives

SII's sense of craftsmanship originated with and was refined through decades of precision wristwatch manufacturing. While developing compact products with multiple functions to optimize wearability and interfaces, SII strives to incorporate user preferences into our products. This customer-focused approach is captured in the wide range of SII products by our Universal Design Concept, which was first established two years ago. Based on the concept "Integrity", with emphasis on "User-friendliness", "Diversity" and "Beauty", the SII Universal Design Concept is practised in each operating division.

#### SII Universal Design concept



In 2006, the SII Universal Design Guideline and the assessment program was established, and the operating divisions were surveyed. The operating divisions understand the Universal Design Concept, and recognize the need to incorporate product quality and safety standards as well as the universal design concept.

Based on "human centered design" focus, we will expand our universal design activities company wide through voluntary participation by the operating divisions.

## Intellectual Property Initiatives

The SII Group pursues the state-of-the-art technology through a wide range of research and development initiatives, and integrates the results for the best synergy. In order to promote these developments and obtain and utilize them as assets, intellectual property-related activities are essential.

### Enhancing our Intellectual Property

We continuously enhance our intellectual property framework based on a mid- to long-term policy "to develop a business culture that respects intellectual property." We conduct thorough patent searches before commercializing any new products in order to prevent violation of other companies' rights. We are also enhancing our patent research. For new application and the acquisition of existing patent rights, we cooperate with the development and strategy divisions to strengthen investigation and acquisition of core technologies, while acquiring patent rights using a patent map.

In order to maximize the benefit from our patents, we regularly examine existing patents to choose the best possible way, including licensing to third parties if they are non-critical patents.

### Intellectual Property Management System

With the support of the intellectual property, research and development, and production technology development sections, we strive to improve SII's intellectual property activities. These include patents, utility model rights, design rights and trademark rights, in line with our business strategies. In addition, intellectual property related activities, including support of joint research, development and license contract negotiations, patent infringement litigation and copyrights, are also promoted. Contract-related activities are addressed together with the SII legal department.

The intellectual property staff work in both the headquarters and operating divisions to support activities in Japan and overseas. Within the operating divisions, they promote liaison with headquarters, and within the technology divisions they serve as coordinators.

### Globalization of intellectual property activities

As the SII Group's business is developed worldwide, intellectual property activities also expanded on a global scale. In addition to Japan, patent applications for newly invented technologies have been made in the U.S.A., Europe and other Asian countries.

To protect and enhance our intellectual property and to address counterfeit and pirated products, we regularly share information and cooperate with overseas law firms. As of February 2007, the SII Group held 1,600 patents in Japan and 2,600 overseas.

### A-Class Invention Certificate System

We place the utmost importance on obtaining key patents for products and business, targeting 5% or more of the national patent application total in Japan. A-class invention certificate meetings are held four times a year, and internal reviewers as well as outside legal/patent specialists review inventions to be certified and brush up to enhance patent applications.

In addition to application compensation, a special incentive is provided if a new development is certified as an A-class invention.

### Invention Incentive System

To encourage inventions and improve SII's technological competitiveness, we have established invention management rules and standards, and have operated an invention incentive system since 1965. In April 2005, this system was revised in line with the amended Japanese Patent Law Article 35. This attractive system provides individual inventors with the motivation to obtain upper-level patents.

In 2006, many new ideas were certified as valuable inventions, and external and internal utilization incentives were offered.

### Employee Education and Training

We provide intellectual property education at introductory, primary, intermediate and advanced levels to develop employee knowledge and awareness as well as to improve motivation in the area of intellectual property.

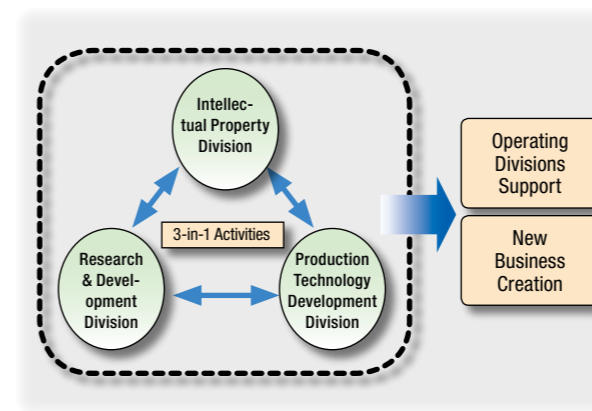
In 2006, a total of 310 employees attended eight courses including Intellectual Property Introduction, Patent Application, and Intellectual Property Risk Management.

### SII Network Systems Obtained the ISO/IEC27001:2005 Information Security Management System Standard Certification.

In December 2006, SII Network Systems Inc. (SIINS) obtained ISO/IEC27001:2005 certification in accordance with the international standard on information security operation and management through its integrated businesses in the areas of planning, development, manufacturing, sales and services.

Since the release of the SIINS communication server in 1987, the company has been providing products and services for secure, stable and reliable communication networks. In recent years, personal and customer information protection has become increasingly important. SIINS focuses on enhancing information security operation and management as a top priority.

We will continuously strive to provide reliable information security system maintenance, operation and improvement that our customers can trust.



## ☆ Social Contribution Activities

As a good corporate citizen, the SII Group strives to contribute to the community and society, taking advantage of our core business and original strength.


### Pop Song Translation Competition

SII held the Third Pop Song Translation Competition where junior high and high school students translated overseas pop songs with their unique perspectives. The competition is designed to provide students with the opportunity to further utilize their electronic dictionaries for fun in addition to study purposes. SII hopes that students will be encouraged to acquire new language and communication skills needed for the next generation society by "thinking", "creating" and "expressing" freely rather than relying on 'prepared answers'.

The third competition received 24,000 entries and many junior high and high school students enjoyed translation. Also, many schools utilized this opportunity as their English class material.

We hope to contribute to the society through our electronic dictionaries.

\*The Forth Pop Song Translation Competition is held in 2007.

 The Pop Song Translation Competition website  
<http://sii-dictionary.jp>



Award Ceremony

### Foundation Advanced Technology Institute (ATI)

Based on the philosophy of contribution to the technology and science through unique research programs and developing researchers, the Foundation Advanced Technology Institute (ATI) was established in 1993 with a grant from SII. Since its foundation, SII has been continuously contributed to the development of science and technology in Japan by fully supporting the institute.



洋楽翻訳選手権



The ATI's mission is to contribute to the progress and welfare of human society by pooling the ideas of top-ranking scientists from different professions through their interdisciplinary participation and by developing a new generation of researchers. The institute covers nanoscience and nanotechnology researches in particular (Photo 1).

The ATI's main programs are as follows:

- "Research Committees" provide a unique opportunity for researchers from different areas of expertise to share their research presentations and to discuss and find new views, themes and methods of research across conventional frameworks. Currently, five committees with 20 researchers each are undertaking three-year research projects. These committees also cooperate with international conferences held in Japan. (Photo 2)
- "Research Grant" supports promising young researchers under the age of 35. The selection committee strictly reviews and adopts candidates and research themes in an open audition held once a year. In 2006, 20 researchers received a total of 25 million yen. Since its foundation, the ATI has supported over 200 researchers, some of whom now play a central role in Japan's academic society.
- "Public Lectures-ATI Forums" are used to introduce the latest scientific trends twice a year. Two leading researchers lecture on a wide range of subjects from natural science, healthcare, IT and cultural science.

 ATI Website: <http://www.ati.or.jp/>

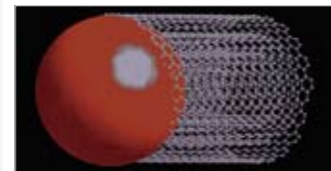


Photo 1: Iron-catalyzed carbon nanotube growth model (provided by Shinshu University)



Photo 2: ICMFS (International Colloquium on Magnetic Films and Surfaces) participants in August 2006, supported by ATI.

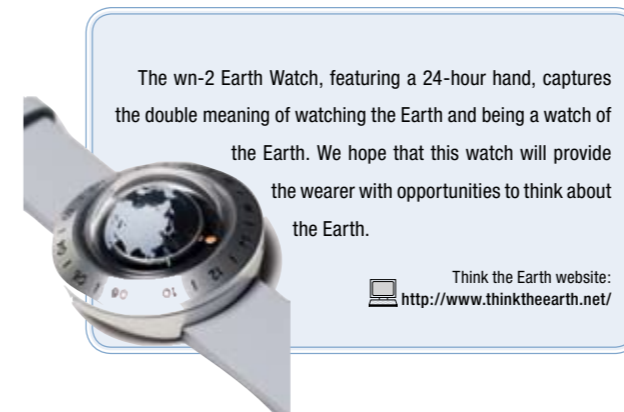
### Think the Earth

#### Participation in the Think the Earth Project

"Think the Earth" is a nonprofit project that creates opportunities for people to think about and relate to the Earth in their daily lives. Based on its concept of "ecology and economy in coexistence", the project offers ways to contribute to society through business, encouraging companies and individuals worldwide to participate and creating opportunities for each of us to think about the Earth. Think the Earth also makes maximum use of the Internet, which has a global perspective while also connecting people at a local level.

The project receives a portion of the revenues generated by sales of related products and services, and uses these funds to support its own operations and to contribute to NGOs and NPOs.

SII has participated in the project since its establishment, and developed the project's kickoff product, the wn-1 Earth watch (northern-hemisphere version). A southern-hemisphere version, the ws-1, has also been produced, and in autumn 2007, the wn-2 is scheduled to be released. The wn-2 northern-hemisphere watch has a dome finished with mirror and the face with continents in white. We hope that these Earth Watches will trigger people to think about the Earth.



The wn-2 Earth Watch, featuring a 24-hour hand, captures the double meaning of watching the Earth and being a watch of the Earth. We hope that this watch will provide the wearer with opportunities to think about the Earth.

Think the Earth website:  
<http://www.thinkearth.net/>

### Technology Promotion in Singapore

SII's Representative Office in Singapore was established in May 2006, and signed joint research contracts with the four national institutes of the Agency for Science, Technology and Research. The following three joint research projects were started:

- Next-generation storage devices (with the Data Storage Institute)
- Product design and failure analysis with CAE (with the Institute of High Performance Computing)
- New production processes (with the Singapore Institute of Manufacturing Technology)

Preparations are underway for joint research using next-generation technologies with the Institute of Microelectronics.

The office has also established a partnership with a university in Singapore. In July 2006, SII's Design Division, Chiba University and Singapore's Nanyang Technological University jointly participated in the first Joint Design Workshop. The workshop was very meaningful, and involved discussion of the workshop theme "Dream of Wearable Tool in 2020" and an exchange of innovative ideas in a cross-cultural environment.

With global industry-academic-government cooperation, SII explores the creation of new business and products by efficiently and promptly planning, promoting and developing technology development themes for the next generation.

Through joint research, we will continue to create intellectual property, develop human resources for global R&D and enhance technology development through the employment of local researchers.



Joint Design Workshop

### Christmas Illumination — SII Makuhari Head Office Building

In December 2006, SII displayed a special Christmas illumination using the windows of our Makuhari head office building. SII's Christmas illumination is a huge art of 80m high with total area of 8,300 m<sup>2</sup>, and is created with room lighting by opening and closing 1,200 window blinds.

The illumination design "The Bell" was selected through an employee contest. People could see the illumination even from a distance and driving cars since the head office building is located right beside one of the major expressways in the region.

In addition to sharing the festive holiday illumination with local residents, SII also contributed an amount equivalent to the illumination cost to the Chiba Environmental Foundation.



SII Christmas Illumination "The Bell"

### Kid's Homepage "Let's Learn about Time"

June 10 is "Time Day" in Japan, and on this day in 2000, the three Seiko Group companies\* launched "Let's Learn about Time", a website for children and adults together to enjoy, learning about time and watches. It contains fun and easy-to-understand segments such as Time & People, Time & Life and Mystery Quiz, and is regularly updated every month.

We will continuously conveying children, who will lead this 21st century, about the great meaning and value of our limited "time".



"Let's Learn about Time" website

\*The Seiko Group Companies: Seiko Holdings Corporation  
Seiko Epson Corporation  
Seiko Instruments Inc.

🖥️ "Let's Learn about Time" website: <http://www.kodomo-seiko.com/>

### Participating in the World Business Council for Sustainable Development

The Seiko Group is a member of the World Business Council for Sustainable Development (WBCSD). WBCSD is a global association of over 190 companies, promoting business development, environmental protection and social fairness for sustainable development. The council takes industry initiative on sustainable development issues and improvement of corporate social responsibilities.



🖥️ WBCSD website: <http://www.wbcd.org/>

### Plant Tours and Field-Studies

We provide plant tours, field-study and internship programs for students.

#### Job & Dream Best Match Program SII's Hosting of 15 Elementary Students

In June 2006, 15 sixth-grade students from Chiba Takasu III Elementary School joined the Job & Dream Best-Match Program at SII's Headquarters in the Makuhari area of Chiba Prefecture. In Japan, the number of casual employees and NEETS (Not in Education, Employment or Training) has been increasing, which has become a social problem. This program provides elementary students with an opportunity to develop their work ethic through workplace experience at companies and in local government.



Students and SII employee

SII was one of the host companies in the Makuhari new urban center, and hosted 15 students. After learning about SII in the showroom, students experienced operations in the design, internal security, reception, mail center and general administration divisions. Through hands-on experience such as watch-face design in the design division, mail classification in the mail center and access control in the disaster control center, students were able to experience the workplace atmosphere and the sense of achievement.

This program was started in 2005 by the Education Bureau of Chiba Prefecture, and SII participates in hosting students every year.

#### Semiconductor Production Work-Study Program for Junior-High and High-School Students

In August 2006, Chiba Prefecture sponsored an initiative named "Career Education- Advanced Technology Experience Program". Companies and institutes with leading-edge technologies provided work-study programs, and five junior-high and high-school students visited SII's semiconductor production department in Takatsuka.

The students gained two days of meaningful experience, learning about the semiconductor production processes from our field manager and touring the clean room.



Students at the work-study program

Other SII sites also provide internship opportunities and factory tours to high school students. We will continuously provide opportunities to develop human resources for the manufacturing industry of the future.

### Community Cleanup

The SII Group regularly holds local cleanups at each site. In April 2007, we incorporated a cleanup activity into our new-employee training program as the first social contribution experience for SII employees.

We regularly contribute to the community and to society in the form of fund-raising, blood donations, guiding school children across neighborhood pedestrian crossings, and opening parking lots for community events.



Employees at the community cleanup

## Supportive SII Employee Development

The SII Group focuses on creating an efficient workplace, while respecting employee diversity and individual characteristics. Our wage system is based on a fair evaluation of performance and results, and is designed to promote the employees competence and career development.

### SII Group HR System

In April 2003, we shifted from a traditional HR system, based on age and length of service, to a performance evaluation system, which is based on the employees competence and performance. The new HR system was extended to our affiliated companies overseas at the end of fiscal 2003, and appropriate HR systems have been under development for local employees in accordance with their local culture and laws. All group companies will complete the new system introduction by July 2007. The new HR system is based on the same basic concept in Japan and abroad, and is designed to increase the local employees commitment and motivation to work in the SII Group.

For understanding of the HR system and proper evaluation, evaluator training is provided for all the management-level employees in Japan and abroad. In addition, we proactively promote employee development through objectives setting skill programs to enhance individual competency levels, and coaching programs for the development of junior employees.

### Career Development Support

We promote development of independent and responsible employees who can manage their own career and improve themselves by setting their own goals. In order to foster employees self-career development, we provide two systems:

#### 1. Independent career design support

This program assists employees in developing themselves independently with their own responsibility by granting training and recreation leaves to employees every five years from the age of 28 to 48.

#### 2. In-house career development support

To support employee career development within company and broaden career options, the "Free-Agent (FA)" "in-house recruitment" and "open study abroad" programs were established.

We continuously support our employees who try to improve their own value through proactive career development.

### Child and Family Nursing Care Support

In line with our commitment to developing the company and society, in Japan, SII has established a child and family nursing care system for employees. When the Japan's Family and Medical Law

was revised, the system was enhanced. Under the system, employees are allowed to take childcare leave until the child's second birthday, and short-hours work until the child's fourth birthday, as well as shifting work hours during child's preschool-age. As of March 2007, 22 employees are on childcare leave and 28 employees are on the short-hours work.

For nursing care, since fiscal 2005, employees are entitled to take up to one year leave per family member requiring full-time care.

We will continue to improve these programs to support our employees in balancing their careers and family lives.

### Seiko Instruments Singapore Received a "May Day Golden Award"

In 2006, Seiko Instruments Singapore Pte. Ltd. (SIS) received the May Day Golden Award from Singapore's National Trade Union Congress (NTUC).

The May Day Awards are presented to union members and companies who made significant contributions to the labor movement through strong labor-management relationships. In 2006, only two companies were selected to receive the award from among numerous companies in Singapore.

In addition to good, long-term labor-management relationships, NTUC evaluated very highly SIS' fair labor strategies, including the performance evaluation system, employee development, and employee welfare.

Over 2500 key representatives from the government, labor unions and workers attended the award ceremony where SIS was presented with the award plaque by the NTUC Chief Secretary.



May Day Awards Ceremony

## Senior Employment

In order to preserve and hand down the valuable skills and techniques that our employees developed in SII, we rehire them on contract-basis after their mandatory retirement at the age of 60. Expanding the scope of this reemployment policy in April 2006, we actively promote senior employment to hand down knowledge, skills and know-how. In fiscal 2006, about 20% of retired employees were rehired on a contract basis. In addition, Seshika Inc. was established to provide work opportunities to senior workers over 60 and to support operations within the SII Group.

With job-placement support and career and pension consulting, we provide a work environment where senior employees can utilize their skills and know-how.

## Professional Resources Management System

In 1995, we first established the specialist employees certification system, which was expanded to "Professional Resources Management System" in 2005. With this recent system, we certify as "professional" employees who possess advanced expertise that will contribute to SII's continuous development, and ensure that their skills and techniques will be passed down to junior employees. The system includes Specialists, who are experts in fields like intellectual property, law, development and design; and Meisters, who specialize in manufacturing operations such as processing and assembly. Senior-level professionals are recognized with special titles along with gold and silver awards.

As of March 2007, SII has 38 certified Specialists and 22 certified Meisters that are actively developing their successors.

### Establishing the Watch Technical Training and Education Center

In April 2006, the SII Watch Technical Training and Education Center was established to improve the capabilities of employees involved in SII's mechanical watch business.

While mechanical wristwatches enjoyed prosperity in the 1960s, market demand shifted to quartz watches in the 1970s. As a result, the SII Japan employees involved in mechanical wristwatches decreased. Much later, the popularity of mechanical wristwatches once again increased, and SII revived domestic mechanical wristwatches production in the latter half of the 1990s. In September 2004, the Shizukuishi Watch Studio, complete with integrated mechanical wristwatches production line, was established in Morioka Seiko Instruments. In addition to watch production, the watch studio preserves and hands down the parts production and assembly skills and techniques. The Watch Technical Training and Education Center was established to provide systematic training to develop the capabilities of our engineers and technicians. At the training center, employees with high mechanical watch expertise teach SII Group and its partner company employees who are responsible for mechanical

watch development, design and adjustment. We promote handing-down and the evolution of the SII mechanical watches by providing systematic education, covering mechanical and other wristwatch knowledge, theory, skills and techniques. We are committed to developing engineers and technicians who will improve watch quality including luxury mechanical watches.



Training lecture

## Creating Safe and Efficient Workplace

The SII Group continuously strives to create a safe and efficient workplace by preventing industrial accidents and enhancing the health of our employees health.

### Workplace Environment, Health and Safety Improvements

To avoid accidents and injury and to create a safe and efficient workplace, we have established working regulations, health and

safety regulations and accident-prevention manuals, and have also organized a group-wide health and safety management system.

In fiscal 2006, each unit reviewed its own safety management system, including the appointment of a safety management repre-

sentative in accordance with the Occupational Health and Safety Law, the Fire Defense Law and other laws.

Reviewing the conventional segmented management systems in light of each law, the SII Group discussed the organization of unit-level and group-wide safety management systems. In fiscal 2007, these systems will be closely organized to cover buildings, production facilities, chemicals, fire and disaster prevention, and workplace health and safety.

### Disaster Countermeasures

In 2006, all units prepared homeward support packages and blankets for all employees as well as food and toilets in case of natural disasters. Annual plans against disasters have been established, and discuss the emergency preparations needed and a cooperative framework with the community.

### Fire Prevention Reviews

To prevent damage to or suspension of business in case of natural disaster, we conduct business operations, paying close attention to fire control and prevention. Since 2003, each unit conducts an annual review focusing on fire prevention. The review covers a wide range of areas including fire control/prevention facilities, the installation status of evacuation indicators, production equipment placement, equipment wiring, electric power distribution facilities, pipe laying and waste storage.

In addition to the self-review of sites, inter-unit reviews are also conducted once every three years. Opinions from other sites often provide a more objective viewpoint and innovative ideas for improvement. In fiscal 2006, inter-unit reviews were conducted at 12 Japan sites and 14 overseas sites.



Inter-unit review at an overseas site

### Employee Health Management

We provide a wide range of health checks and health-enhancement programs for employees. In addition to the concept of "early detection, rapid cure", we recognize the need for the proactive enhancement of our employees health.

Our health enhancement programs, which include lifestyle-related disease prevention seminars, walking campaign promotions, and conducting physical fitness measurements, are regularly held in

cooperation with the SII labor union and health insurance society.

In 2006, line-care mental health seminars were held for management-level employees. Self-care seminars for staff-level employees will also be held to improve their level of mental health awareness.

In order to prevent health problems caused by overwork, labor hours are closely monitored. Employees who work a lot of overtime are obliged to consult with our industrial physician. In addition, our industrial physician visits overseas units every two years to consult with employees stationed abroad.

We will provide a full support to our employees to enhance their health and awareness.

### Certification as a First-Aid Promotion Partner by the City of Chiba Fire Department

In December 2006, SII headquarters and the Makuhari Unit were certified as a first-aid promotion partner by the City of Chiba Fire Department. The department introduced this system in November 2006 and certifies companies and institutes with active improvement of the first-aid environment for medical crises and injuries as a first-aid promotion partner.

SII Makuhari Unit was evaluated highly for its Automated External Defibrillator (AED) and wheelchairs placement as well as the employment of a first-aider, and became the first company within the Mihama Fire Department jurisdiction. An AED is a medical device that delivers an electric shock to the heart in case of a cardiac episode to restore the heartbeat.

As a first-aid promotion partner, we will encourage our employees to attend lifesaving seminars held by the City of Chiba Fire Department to prepare for the emergencies of employees, customers and the community.

### AED and Wheelchair Placement

The SII Group had placed AEDs and wheelchairs at all SII Japan sites and affiliated companies by the end of fiscal 2006. The Tochigi Unit held a lifesaving seminar when AEDs were introduced.



Lifesaving seminar

# SII Group Environmental Initiatives

In order to contribute to the creation of sustainable society, the SII Group is striving to reduce environmental impact through our business activities, products and services. This section focuses on our environmental initiatives.

## SII Group Environmental Management

The SII Group practices environmental management based on the "three greens" concept: Green Process, Green Products and Green Life.

### SII Group Environmental Policy

#### ■ Environmental Concept

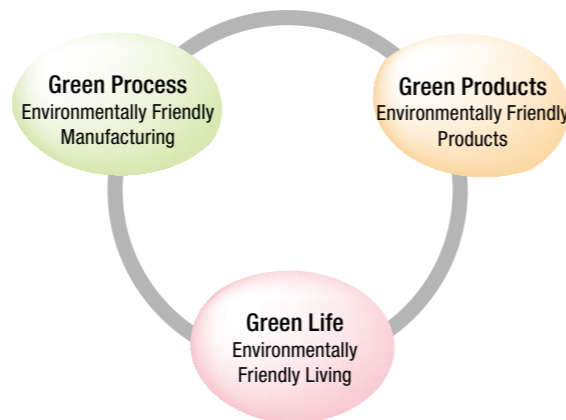
As a good corporate citizen, the SII Group will continue to harmonize its corporate activities with the global environment, protect and improve the environment, and contribute to the establishment of a sustainable society that can coexist with all nature.

#### ■ Environmental Activity Guidelines

We will

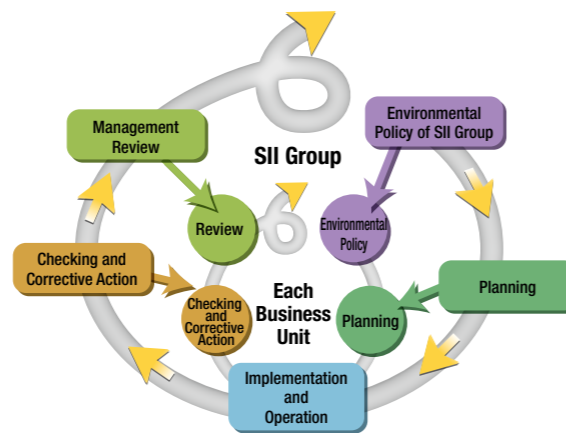
- Continually strive to implement and enhance our environmental management system.
- Observe all of laws, rules, regulations and agreements relevant to the environment, and prevent environmental pollution.
- Provide products and services that enable state of the art environmental protection research, monitoring and compliance.
- Continually reduce the environmental impact through the following actions:
  - Provide products and services that, throughout their lifecycles, minimize their impact on the environment.
  - Save energy and contribute to the reduction of global warming.
  - Conserve resources and practice the 3 R's: Reduce, Reuse and Recycle.
  - Reduce environmental risks from chemical substances and promote the elimination of harmful substances use.
- Promote SII GREEN PURCHASING and purchase eco-friendly products, parts, materials and services.
- Enforce internal audits to improve corporate environmental management system.
- Contribute to society through our unique environment preservation activities.
- Provide seminars and training to all employees to elevate their environmental consciousness, and encourage them to protect the environment in their personal life.
- Proactively and openly disclose information about the implementation state of our environmental management system.

### SII Green Plan Concept



### Environmental Management System

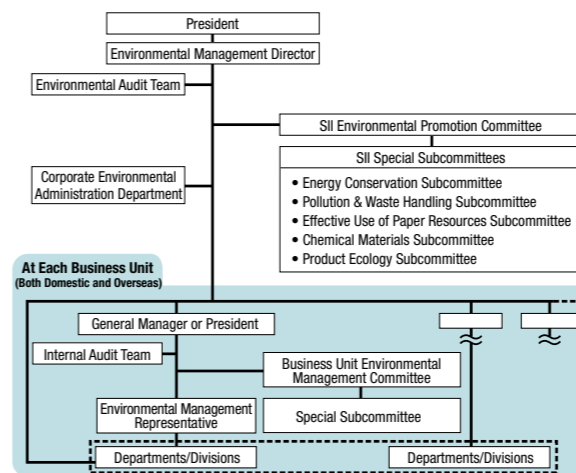
We established the group-wide and site-based environmental management systems and practice a "Plan-Do-Check-Act" (PDCA) cycle to reduce environmental impact. Based on the SII Group Environmental Policy, interim and annual environmental goals are established and practiced at each site's environmental management system. These activities are regularly reported to the headquarters, which promotes the group-wide environmental management system.



### Environmental Management Framework

Our environmental management system operates both at the Group level and within each of our business units. Ultimate responsibility rests with our Environmental Management Director, who reports to the President of Seiko Instruments Inc. The SII Environmental Promotion Committee implements top-level decision-making. General environmental issues, such as energy conservation, are promoted by each site and operating division under the coordination of the SII Corporate Environmental Administration Department.

In order to promote Group-wide environmental management, the environmental policy and targets are shared at the SII Global Environmental Promotion Committee, which is held annually with overseas units.



### Obtaining ISO 14001 Certification

Our major sites in Japan and overseas have obtained ISO 14001 certification and shifted to ISO 14001:2004 certification. In addition to paper, waste and electricity, we have also been focusing on environmental aspects that could give favorable influence on environment.

#### ISO 14001 Certification List

Certified Units and Subsidiaries	Location	Date of Certification
Japan		
1 Takatsuka Unit	Matsudo-shi, Chiba	11/96
2 SII Microtechno Inc.	Daisen-shi, Akita	4/97
3 Morioka Seiko Instruments Inc.	Iwate-gun, Iwate	4/97
4 Tochigi Unit	Tochigi-shi, Tochigi	2/98
5 SII NanoTechnology Inc./Oyama Unit	Sunto-gun, Shizuoka	8/98
6 SII Micro Parts Ltd.	Sendai-shi, Miyagi	2/99
7 Ohno Unit	Ichikawa-shi, Chiba	3/99
8 Sukagawa Precision Co., Ltd.	Sukagawa-shi, Fukushima	9/01
9 Makuhari Head Office	Chiba-shi, Chiba	10/01
10 Western Japan Business Base	Osaka, Nagoya, Fukuoka, Hiroshima, Toyama	9/02
Overseas		
1 Seiko Instruments Singapore Pte. Ltd.	Singapore	5/97
2 Dalian Seiko Instruments Inc.	Dalian, China	6/01
3 Seiko Instruments (Thailand) Ltd.	Thailand	3/02
4 Instruments Technology (Johor) Sdn. Bhd	Malaysia	10/02
5 Guangzhou Seiko Instruments Ltd.	Guangzhou, China	7/03
6 Guangzhou SII Watch Co., Ltd.	Guangzhou, China	3/05
7 Seiko Instruments (H.K.) Ltd.	Hong Kong	3/05

### Environmental Audit

We believe that an environmental audit is important to continuously improve the system and its performance as well as maintaining environmental management systems. To achieve this, our major business units conduct internal audit once or more per year, involving environmental auditors from headquarters and other units. This improves audit efficiency with synergetic and interactive effects, and contributes for thorough, group-wide implementation of the policy and targets.

In fiscal 2006, the internal audit identified 302 issues in Japan sites and 140 in overseas sites. The largest number of issues identified was 66, which referred to operation and management.

In order to improve the internal audit reliability, we need to develop internal auditors. While holding internal auditors training regularly, we established "SII Environmental Auditor Certification System" to encourage auditors improve their competency levels. SII certified auditors and official accredited auditors both participate in internal audits, improving the audit quality and providing on-the-job training for the internal auditors working with them.

In addition, issues identified and pointed out by the outside certification agencies have been communicated and shared within the SII Group for improvement.

	Number of People	
SII Certified Environmental Auditors	24	
Completed Environmental Auditor Training	507	
Official Environmental Auditors (CEAR* Accredited environmental auditors)	Lead auditors	6
	Auditors	2
	Provisional auditors	5

\*Center of Environmental Auditors Registration

Received the Development Bank of Japan's Highest Rank Award for Promoting Environmentally Conscious Management

In November 2006, SII was rated at the highest level for promoting environmentally conscious management by the Development Bank of Japan (DBJ). This award is a part of DBJ's loan program and provides for three interest rate levels according to the company's environmental management rating.

SII was evaluated highly for its group-wide, well-balanced environmental management system. This included the development of SII Green Products specification that conform to ISO Environmental Labeling Type II and the SII High Grade Green Products with advanced environmental performance, as well as implementation of the Life Cycle Assessment to its major products.



In November 2006 the company received a Development Bank of Japan loan based on its being rated at the highest grade in DBJ's four-grade environmental rating schedule: "companies with particularly impressive environmental programs."

## Environmental Education

Continuous improvement of the environmental activities depends on each employee's proactive and meaningful participation. The SII Group provides a wide range of education to improve our employees awareness, knowledge, and skills necessary to support and promote these activities.

### Company-Wide Education

SII headquarters conduct a wide range of environment programs in three categories: general education, special education and training for internal qualification. We review the programs every year to establish annual environmental education plan, and announce each site. In fiscal 2006, 127 employees attended the courses held by the headquarters, bringing the total number of employees who have passed through these courses to 2134. In addition to programs held by the headquarters, each site also conducts unique environmental programs to enhance awareness.

Newly establishing the internal environmental auditor skill-up course in 2007, we will strive to improve auditors skills.

### Education Held at SII Headquarters

General Education	
Course	Participants
Global environmental issues and SII's approaches	New employees
Environmental protection course for mid-level employees	Mid-level staff
Environmental protection course for managers	Managers
Environmental protection course for sales persons	Salespersons
Special Education	
Course	Participants
Waste management	<ul style="list-style-type: none"> <li>Employees who handle chemicals and wastes</li> <li>Operators of environment-related equipment</li> </ul>
Chemical Control	<ul style="list-style-type: none"> <li>Manufacturing and production engineers</li> </ul>
Energy saving	Product development personnel
Eco-friendly Product	Product development personnel
Training for Internal Qualification	
Course	Participants
Internal environmental auditor training	Candidates from each business unit
Internal environmental auditor brush up seminar	Internal auditors

### Practical Education with Experience

We strive to design practical programs by combining experience with lectures: Environmental Internal Auditor Training Course includes audit role playing; Eco-friendly Product Course provides LCA practice with model products; and Chemicals Control Course provides site tour where chemicals are actually used, and workplace environment measurements experience.

Our programs are continually improved by incorporating the results of questionnaire survey by participants after the programs.

### Environmental Education Using Intranet

The Eco-Town bulletin board on the SII intranet provides useful environmental information. In addition to environmental laws and statutes, the Eco-Town also provides a wide range of familiar topics, including "Cool Biz" and "Eco-Quiz" which promotes employees learning.

### Training for Emergencies

Each unit has established its emergency procedures, including actions and communications. Holding training periodically based on the procedures, employees can review if the procedures are effective, and can practice emergency countermeasures to prevent expansion of environmental contamination. Furthermore, we also conduct joint training in cooperation with outside contractors who work on SII premises, such as tanker operators who fill our tanks.

### SII Group's Environmental Education and Promotion

- Makuhari Unit held the Environmental Promotion Committee Meeting, sharing each division's case studies.
- Seiko Instruments (H.K.) Ltd. held the internal audit brush up training.
- Seiko Instruments Singapore Pte. Ltd. organized the landfill site tour.
- To enhance awareness, Guangzhou Seiko Instruments Ltd. created the wall posters and newspaper on the Earth Day, April 22, and the Global Environment Day, June 5.



Case study presentation



Training lecture



Landfill site tour



Wall posters and newspaper

## Green Purchasing

To create environmentally-friendly products, we need to pay close attention to the eco-friendliness of the materials and components that we use. From production inputs to office supplies, the SII Group proactively promotes green purchasing.

### SII Group's Green Purchasing Concept

Since 1999, our development, design, quality, and procurement departments have together worked closely to promote green purchasing. To make purchase decisions, we focus on products with less environmental impact from environmentally-conscious suppliers, while considering quality and prices. This approach has been shared in the SII Group, including our overseas units.

### Green Purchasing of Production Materials

When we purchase production materials, we focus on "Quality + Price + Delivery + Environment" based on the SII Group Green Purchasing Standards.

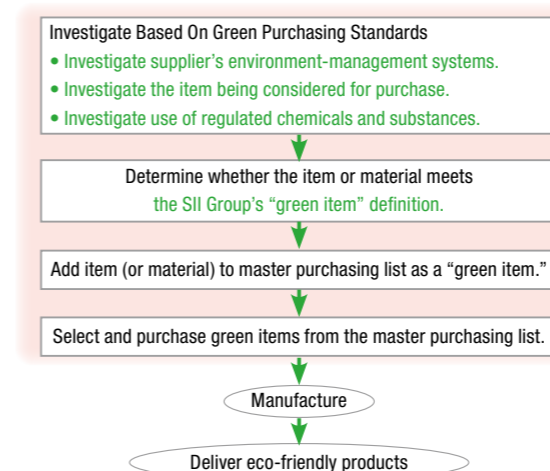
The Green Purchasing Standards are applied to all the items that we purchase, including raw material, parts such as electronic and finished parts, packaging material, and production equipments. The standards have been revised several times, and the recent standards were issued in 2006 in line with the Joint Industry Guideline (JIG)\*. JIG is the survey standards of chemical substances used in products, established by electric and electronic equipment manufacturers.

\*Joint Industry Guideline for Material Composition Declaration for Electronic Products  
 SII Group Green Purchasing Standards

### Definition of the SII Green Items

We certify a production material or component, which satisfies all of the following criteria, as an SII Green Item.

- The supplier's environmental management system satisfies SII's Green Purchasing Standards.
- The item does not contain any banned substances.
- The production process of the item does not involve any banned substances.



### Green Purchasing Approach

We purchase office supplies using Benrinet, the paperless, online procurement system by Net Kokuyo Co., Ltd. In addition to office supplies and office automation equipments and supplies, a scope of this system was expanded to consumables used at plants in fiscal 2006. In order to promote green purchasing, we proactively registered Eco-mark products and other eco-friendly products that conform with the Green Purchasing Promotion Law.

We will accelerate to create a paperless environment and a system to promote purchase eco-friendly products.

The online procurement system by Net Kokuyo Co., Ltd.

### Supplier Certification System

We implement a Supplier Certification System that places great emphasis on the environmental control systems of our suppliers. The system utilizes our group-wide Supplier Certification Standards, and it requires that all suppliers must maintain environmental protection systems that meet or exceed specified levels. In fiscal 2006, the supplier certification standards were revised to improve CSR activities, adding survey items on the SII Code of Conduct.

### Green Purchasing Audits

In order to enhance compliance and to confirm the level of green purchasing activities, the SII headquarters conducts purchasing audits, including green purchasing reviews, in the procurement-related sections within the SII Group. In fiscal 2006, the audit was held at 23 sections, and reviewed their purchasing status, identified issues and provided advice. In February 2007, follow-up audits were conducted to assess improvement status.

### Green Purchasing Education

As part of the buyer education, we hold the green purchasing training for our development/design/production managers and employees who are involved in purchasing. In fiscal 2006, 150 employees attend the training and enhance their understanding.

## Environmental Results and Future Plans

### FY2006 Overview

Our Japan and overseas sites couldn't achieve many of their set targets in fiscal 2006. A number of measures were taken and improved the reduction activities, though, they couldn't compensate the increase in emissions driven by production increase.

Environmental Performance Indicators		Rating  Achieved  Not Achieved				
	Action Item	FY2006 Target	FY2006 Result	Rating	Page	
Product Related	Eco-Friendly Products Creation	Improve the sales ratio of SII Green Products.	90%	88.3% (90.2% in May 2007)		P37-
	Total Elimination of Chemical Substances	Eliminate cadmium, hexavalent chromium, mercury and lead (RoHS substances) from products. <sup>1</sup>	Complete elimination	95.5% <sup>1</sup>		P40-
		Eliminate polyvinyl chloride <sup>2</sup> from products	Complete elimination	90.1%		
Japan Sites	Action against Global Warming	Reduce CO <sub>2</sub> emissions.	69,803 tons -CO <sub>2</sub>	73,530 tons -CO <sub>2</sub> +1.5% from FY2005		P41-
	Waste Reduction/Recycling	Reduce total waste generation	2,832 tons	3,000 tons +2% from FY2005		P43
	Chemical Substances Reduction/Control	Reduce emissions of reportable (PRTR) chemical substances. <sup>3</sup>	Keep monitoring	25 tons	-	P44
	Water Use Reduction	Reduce the use of water.	974,000 m <sup>3</sup> -1% from FY2005	972,000 m <sup>3</sup> -1% from FY2005		P43
Overseas Sites	Action against Global Warming	Reduce CO <sub>2</sub> emissions.	42,054 tons -CO <sub>2</sub> -1% from FY2005	43,174 tons -CO <sub>2</sub> +1.6% from FY2005		P41-
	Waste Reduction/Recycling	Reduce total waste generation.	3,620 tons -3% from FY2005	3,728 tons -0.1% from FY2005		P43
	Paper Use Reduction	Reduce office paper use.	43.1 tons -3% from FY2005	41.7 tons -6% from FY2005		—
	Water Use Reduction	Reduce the use of water.	637,000 m <sup>3</sup> -1% from FY2005	668,000 m <sup>3</sup> +4% from FY2005		P43

### Mid-term Plan

Based on the FY2006 overview, we will proactively discuss and implement reduction activities, involving capital investment, to achieve our goals. By expanding the SII High Grade Green Product System, as well as the SII Green Product System, we are committed to reducing further environmental impact of our products.

Environmental Performance Indicators		Mid-term Target	FY2007 Target
Product Related	Eco-Friendly Products Creation	Increase sales ratio of SII Green Products to 96% or more by the end of fiscal 2006.	92%
	Total Elimination of Chemical Substances	Eliminate use of cadmium, hexavalent chromium, mercury and lead from non-EU and non-RoHS products by the end of fiscal 2006. <sup>1</sup>	Complete elimination
		Eliminate polyvinyl chloride from products by the end of fiscal 2006. <sup>2</sup>	Complete elimination
Japan Sites	Action against Global Warming	Reduce CO <sub>2</sub> emissions to 69,803 tons or less.	Improve efficiency: 1%/year 69,803 tons-CO <sub>2</sub> or less
	Waste Reduction/Recycling	By the end of FY2010, reduce total waste generation by 50% from FY2000. 4,322 tons → 2,161 tons	2,747 tons
	Chemical Substances Reduction/Control	Reduce emissions of reportable substances. <sup>3</sup>	To be set by the end of FY2007
	Water Use Reduction	Reduce water use by 1% every year.	963,000 m <sup>3</sup> -1% from FY2006
Overseas Sites	Action against Global Warming	Reduce CO <sub>2</sub> emissions by 1% every year.	42,743 tons -CO <sub>2</sub> -1% from FY2006
	Waste Reduction/Recycling	Reduce waste generation by 3% every year.	3,616 tons -3% from FY2006
	Paper Use Reduction	Reduce office paper use by 3% every year.	40.4 tons -3% from FY2006
	Water Use Reduction	Reduce water use by 1% every year.	661,000 m <sup>3</sup> -1% from FY2006

Environmental Management Indicators		Action Item
Environmental Management System		Improve the online site reports.
		Enhance operation-based themes.
Community and Social Contribution		Promote environmental activities for community and society that employees can participate in.

<sup>1</sup> Completed elimination by the end of May 2006 for EU products.

<sup>2</sup> Except those used within the safety standards or difficult to be substituted.

<sup>3</sup> Includes reportable PRTR substances, SII's voluntary controlled substances including HFCs, PFCs and SF<sub>6</sub>, and volatile organic compounds (VOC). VOC has been included from the FY2006 results.

## Environmental Accounting

### Results

In fiscal 1999, the SII Group introduced an environmental accounting system which assesses the cost and effect of environmental activities. We established the SII Environmental Accounting Guidelines based on the guidelines of the Ministry of the Environment in order to conduct this system.

The fiscal 2006 results show that total investment was 573 million yen (404 million yen increase from 2005), mainly due to the introduction of eco-friendly products manufacturing facilities. The total expenses was 1,737 million yen (225 million yen increase from 2005), which was due to the increase in upstream and downstream costs and pollution prevention.

Costs of Environmental Protection		Scope: 10 Japan sites ; from March 1, 2006 to February 28, 2007 (million yen)						
Category	Content	Investment <sup>1</sup>		Change	Expense <sup>2</sup>		Change	
		FY2006	FY2005	('06-'05)	FY2006	FY2005	('06-'05)	
(1) Business Area Costs								
Break-down	1. Anti-Pollution	Water, atmosphere, noise, vibration	111.0	74.2	36.8	570.3	426.1	144.2
	2. Global Protection	Measures related to global warming, ozone-layer depletion.	37.5	39.2	-1.7	125.4	109.6	15.8
	3. Resource Efficiency	Resource saving, reduction and recycling of waste, procurement management.	0.0	20.2	-20.2	318.5	341.6	-23.1
(2) Upstream and Downstream Costs		Development of eco-friendly products, recycling of products and packaging.	424.0	0.0	424.0	225.8	130.2	95.6
(3) Administrative Activities Costs		Environment training, information releases, running of Environment Management System.	0.0	0.0	0.0	375.4	316.6	58.8
(4) R&D Cost		Environmental research and development	0.0	34.7	-34.7	119.8	185.4	-65.6
(5) Social Activities Costs		Support for environmental protection groups, communities.	0.0	0.0	0.0	1.8	3.0	-1.2
(6) Reclamation Costs		Reclamation of contaminated soil.	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total</b>			<b>572.5</b>	<b>168.3</b>	<b>404.2</b>	<b>1,737.0</b>	<b>1,512.5</b>	<b>224.5</b>

<sup>1</sup> Single year investment of FY2006. In case where we judge that total outlay covers purposes in addition to environmental protection, we have counted only the portion deemed to apply to environmental protection.

<sup>2</sup> Includes depreciation expense for FY2005 or before. (Equipment investment and facility investment are depreciated over 5 and 10 years, respectively, in equal yearly increments.) In case where we judge that total outlay covers purposes in addition to environmental protection, we have counted only the portion deemed to apply to environmental protection.

Environmental Protection Results	
Environmental Impact	Quantity Reduced from FY2005 (FY2005-FY2006)
CO <sub>2</sub>	-1,105 tons-CO <sub>2</sub>
Water	12,000m <sup>3</sup>
Paper Resources	7 tons
Industrial Waste	-118 tons
General Waste	55 tons

New Material Purchasing Reduction<sup>3</sup> 767.9 tons

<sup>3</sup> The total amount of recycled and reused waste oil and waste plastics has been calculated as New Purchases Reductions.

<sup>4</sup> Reduced cost by new material purchasing reduction is calculated by converting amount of the new purchases reduction.

Economies Achieved from Environmental Protection Activities		(million yen)
Content of Actual Savings	Cost Actually Saved (from FY2005)	
Expense reduction attributable to energy conservation	-133.8	
Reduced cost by water use savings	16.3	
Reduced cost by paper use savings	0.9	
Income from sale of salable materials	-18.3	
Savings from reduction in purchasing of inputs, etc.	49.2	
Reduced cost by new material purchasing reduction <sup>4</sup>	490.2	
<b>Total</b>	<b>404.5</b>	

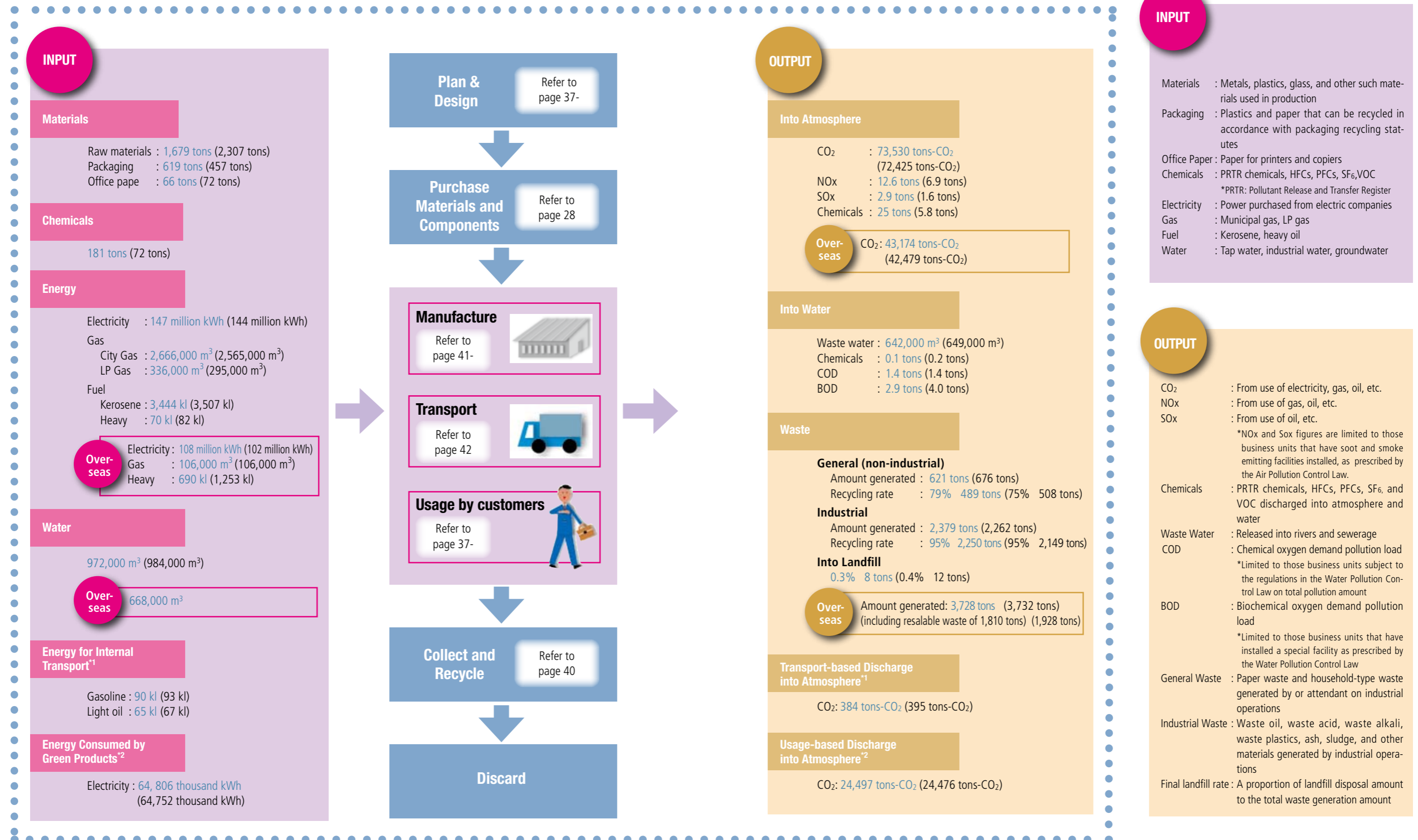
Estimated Savings from Risk Reduction	Savings Estimated
Avoidance of shutdown due to air/water pollution	310.0
Avoidance of illegal dumping penalties	60.1
<b>Total</b>	<b>370.1</b>
<b>Total Savings</b>	<b>774.6</b>



# Business Activities and Environmental Impact

The SII Group believes that understanding the environmental impact throughout the product life cycle is necessary to properly conduct environmental activities. In fiscal 2006, we started to monitor and control volatile organic compounds (VOC). In order to take appropriate actions to reduce environmental impact, we will continue to expand the scope of coverage to monitor environmental effect of our business activities.

Scope of coverage: SII Japan sites (some items include overseas sites)  
Parentheses: FY2005 results




<sup>1</sup> Transportation among SII Group companies in Japan <sup>2</sup> Estimated annual use of SII Green Products certified in fiscal 2006

# Business Units and Environmental Impact <Japan>


The SII Group monitors environmental activities of the ten Japan sites.

## Tohoku Region


### ■ SII Micro Parts Ltd. (SMP) ISO 14001 Certification: February 1999

Location: Sendai-shi, Miyagi Business lines: Manufacturing of coin batteries capacitors, electronic parts, and precision equipment materials 	<b>IN</b> Energy • Electricity 13,817 thousand kWh • LP Gas 307,000 m <sup>3</sup>	<b>OUT</b> Carbon dioxide: 7,082 tons-CO <sub>2</sub> Wastes • Total 166 tons • Recycled 149 tons (including resalable wastes)
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### ■ Morioka Seiko Instruments Inc. (MSI) ISO 14001 Certification: April 1997

Location: Iwate-gun, Iwate Business lines: Integrated watch production, manufacturing technology development, and watch part manufacturing. Shizuikuishi Watch Studio. 	<b>IN</b> Energy • Electricity 20,727 thousand kWh • Heavy oil 24 kl • Kerosene 1,227 kl • LP Gas 21,000 m <sup>3</sup>	<b>OUT</b> Carbon dioxide: 11,195 tons-CO <sub>2</sub> Wastes • Total 594 tons • Recycled 558 tons (including resalable wastes)
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### ■ SII Microtechno Inc. (SMT) ISO 14001 Certification: April 1997

Location: Daisen-shi, Akita Business lines: Cellular phone LCD/LCM manufacturing and IC packaging 	<b>IN</b> Energy • Electricity 22,207 thousand kWh • Kerosene 1,780 kl • LP Gas 2,000 m <sup>3</sup>	<b>OUT</b> Carbon dioxide: 12,979 tons-CO <sub>2</sub> Wastes • Total 553 tons • Recycled 483 tons (including resalable wastes)
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- Head Office
- Business Unit
- Affiliates
- Branch
- Office

## Kansai Region

### ■ Osaka Branch\* ISO 14001 Certification: September 2002


Location: Toyonaka-shi, Osaka Business lines: Sales of electronic components, analytical and measuring instruments, information devices and related products; technical support; after-sales service 	<b>IN</b> Energy • Electricity 342 thousand kWh • District heating and cooling 1,166 GJ	<b>OUT</b> Carbon dioxide: 167 tons-CO <sub>2</sub>
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\*Includes Nagoya Branch, Toyama Office, Hiroshima Office and Fukuoka Office.

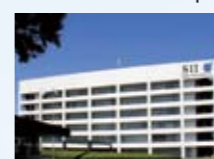
 Information our Sites

## Kanto Region


### ■ Makuhari Unit (SII Head Office) \*Includes the Sendai, Omiya, Mito, Tachikawa and Yokohama office. ISO 14001 Certification: October 2001

Location: Chiba-shi, Chiba Business lines: SII Group headquarters; development and sales of watches, electronic dictionaries, and IT devices; sales of electronic components. 	<b>IN</b> Energy • Electricity 9,017 thousand kWh • City Gas 29,000 m <sup>3</sup> • District heating and cooling 17,007 GJ	<b>OUT</b> Carbon dioxide: 4,037 tons-CO <sub>2</sub> Wastes • Total 176 tons • Recycled 144 tons (including resalable wastes)
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### ■ Takatsuka Unit \*Includes the Mito office and the Tsukuba office. ISO 14001 Certification: November 1996

Location: Matsudo-shi, Chiba Business lines: Development and manufacturing of semiconductors and electronic components; development of microtechnologies and electronic devices; development, design and production technology of micromechanics 	<b>IN</b> Energy • Electricity 56,076 thousand kWh • Heavy oil 39 kl • City Gas 2,459,000 m <sup>3</sup>	<b>OUT</b> Carbon dioxide: 27,149 tons-CO <sub>2</sub> Wastes • Total 834 tons • Recycled 730 tons (including resalable wastes)
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### ■ Ohno Unit ISO 14001 Certification: March 1999


Location: Ichikawa-shi, Chiba Business lines: Manufacturing and sales of cutting tools, jigs, precision parts, and small auto parts; 	<b>IN</b> Energy • Electricity 6,803 thousand kWh • City Gas 173,000 m <sup>3</sup>	<b>OUT</b> Carbon dioxide: 2,992 tons-CO <sub>2</sub> Wastes • Total 322 tons • Recycled 322 tons (including resalable wastes)
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### ■ Miyakubo Unit ISO 14001 Certification: March 1997


Location: Ichikawa-shi, Chiba Business lines: Manufacturing of motors, flexible PC boards, and inkjet print heads 	<b>IN</b> Energy • Electricity 3,255 thousand kWh • City Gas 5,000 m <sup>3</sup>	<b>OUT</b> Carbon dioxide: 1,253 tons-CO <sub>2</sub> Wastes • Total 113 tons • Recycled 113 tons (including resalable wastes)
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Data by the end of November 2006, since the operation was transferred to other sites.

### ■ SII NanoTechnology Inc. (Oyama Unit) ISO 14001 Certification: August 1998

Location: Sunto-gun, Shizuoka Business lines: Development and manufacturing of analysis and measurement equipment, and acoustic devices 	<b>IN</b> Energy • Electricity 4,806 thousand kWh • Heavy oil 7 kl • Kerosene 434 kl • LP Gas 4,000 m <sup>3</sup>	<b>OUT</b> Carbon dioxide: 2,971 tons-CO <sub>2</sub> Wastes • Total 87 tons • Recycled 84 tons (including resalable wastes)
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### ■ Tochigi Unit ISO 14001 Certification: February 1998

Location: Tochigi-shi, Tochigi Business lines: Manufacturing of quartz crystals 	<b>IN</b> Energy • Electricity 10,092 thousand kWh • Kerosene 4 kl • LP Gas 2,000 m <sup>3</sup>	<b>OUT</b> Carbon dioxide: 3,872 tons-CO <sub>2</sub> Wastes • Total 156 tons • Recycled 156 tons (including resalable wastes)
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## Kansai Region


## Kanto Region

# Business Units and Environmental Impact <Overseas>


The SII Group monitors environmental activities of the seven overseas sites.

## China Region


### ■ Dalian Seiko Instruments Inc. (DSI) ISO 14001 Certification: June 2001

Location: Dalian Business lines: Manufacturing and sales of watch parts, small precision parts 	<b>IN</b> Energy • Electricity 11,839 thousand kWh • Gas 105,000 m <sup>3</sup> • Vapor 3,000 tons	<b>OUT</b> Carbon dioxide: 4,785 tons-CO <sub>2</sub> Wastes • Total 297 tons • Resalable 164 tons
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### ■ Guangzhou Seiko Instruments Ltd. (GSI) ISO 14001 Certification: July 2003

Location: Guangzhou Business lines: LCD panel and display module manufacturing and sales 	<b>IN</b> Energy • Electricity 12,746 thousand kWh • Heavy oil 584 kl	<b>OUT</b> Carbon dioxide: 6,436 tons-CO <sub>2</sub> Wastes • Total 1,034 tons
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### ■ Guangzhou SII Watch Co., Ltd. (GSW) ISO 14001 Certification: March 2005

Location: Guangzhou Business lines: Watch part manufacturing, assembly, and sales 	<b>IN</b> Energy • Electricity 4,729 thousand kWh • Heavy oil 106 kl • Gas 0.9 tons (500 m <sup>3</sup> )	<b>OUT</b> Carbon dioxide: 2,093 tons-CO <sub>2</sub> Wastes • Total 114 tons • Resalable 1 tons
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### ■ Seiko Instruments (H.K.) Ltd. (SIH) ISO 14001 Certification: March 2005

Location: Hong Kong Business lines: Watch and audio equipment manufacturing, and electronic component manufacturing and sales 	<b>IN</b> Energy • Electricity 764 thousand kWh	<b>OUT</b> Carbon dioxide: 291 tons-CO <sub>2</sub> Wastes • Total 6 tons
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## Southeast Region


### ■ Seiko Instruments Singapore Pte. Ltd. (SIS) ISO 14001 Certification: May 1997

Location: Singapore Business lines: Manufacturing of watch movement parts and thermal printers, and sales of electronic component, measurement and analysis instruments 	<b>IN</b> Energy • Electricity 19,585 thousand kWh	<b>OUT</b> Carbon dioxide: 7,469 tons-CO <sub>2</sub> Wastes • Total 240 tons • Resalable 138 tons
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### ■ Seiko Instruments (Thailand) Ltd. (SIT) ISO 14001 Certification: March 2002

Location: Thailand Business lines: Hard disk component manufacturing 	<b>IN</b> Energy • Electricity 48,042 thousand kWh	<b>OUT</b> Carbon dioxide: 18,320 tons-CO <sub>2</sub> Wastes • Total 1,893 tons • Resalable 1,425 tons
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### ■ Instruments Technology (Johor) Sdn. Bhd (INTECH) ISO 14001 Certification: October 2002

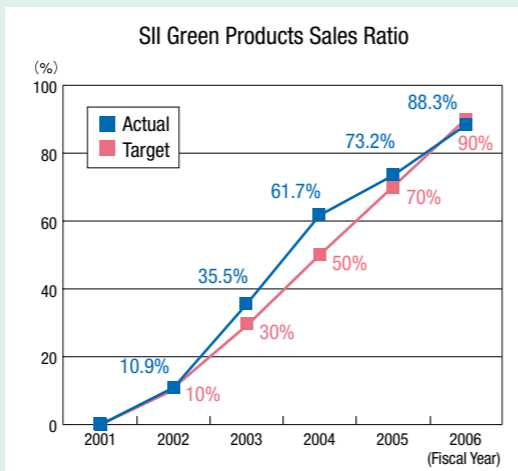
Location: Malaysia Business lines: Watch movement assembly and manufacturing 	<b>IN</b> Energy • Electricity 9,914 thousand kWh	<b>OUT</b> Carbon dioxide: 3,781 tons-CO <sub>2</sub> Wastes • Total 143 tons • Resalable 82 tons
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# Environmentally-Friendly Products

As a manufacturer, the SII Group believes that our responsibility is to create and supply environmentally friendly products. We focus on eco-friendliness through products life cycle from planning and design to product use and disposal.

## FY2006 Overview

- The SII Green Products sales ratio was 88.3%, which failed to achieve the target of 90%. As of the end of May 2007, we achieved the target with the sales ratio of 90.2%.
- The SII High Grade Green Product System was introduced.
- We achieved 95.5% of the RoHS regulated substances elimination activity, and 90.1% of polyvinyl chloride. The use of the RoHS regulated substances was totally eliminated from EU products by the end of May 2006.



## SII Green Product Label

To raise public awareness of our eco-friendly products, in December 2001, we introduced the SII Green Product Label System which is equivalent to the ISO 14021 Type II environmental label. Products are assessed according to the SII Green Product Standards on a scale of one to five, and certified as SII Green Products with an average score of 3.5 or above.

The standards have been revised and improved, and "the implementation of green purchasing" was added as one of the criteria in September 2006.



## SII High Grade Green Product Label

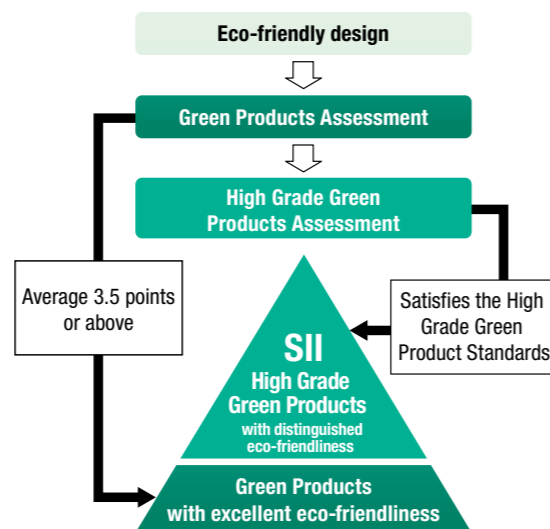
In February 2007, the SII High Grade Green Product System was introduced as an upper grade certification of the SII Green Product. "HIGH GRADE" under the green product logo indicates that the product has high environmental performance.

The SR626SW mercury-free silver oxide battery and SS1-051G compact internal grinder became the first SII High Grade Green Products.



## Green Product Certification Process

The SII Green Products and High Grade Green Products are certified according to the following procedures. The Green Products are fairly and objectively qualified since their reviews involve engineers and designers from all divisions. In addition, these reviews enhance communication and shared understanding of eco design among divisions.



## SII High Grade Green Product Standards

SII products that satisfy the basic requirements, additional mandatory requirement, and one or more of the selective requirements are certified as SII High Grade Green Products.

No	Parameter
1	Power consumption during use
2	Power consumption during standby
3	Weight of product
4	Use of reused parts and recycled materials
5	Recyclability of used products
6	Longer-lasting products
7	Reduction of the use of containing avoidance substances* in goods
8	Reduction of the use of containing abolition substances* in goods
9	Prohibition of the use of containing prohibition substances* in goods
10	Smaller and more lightweight packaging
11	Reduction of the use of foam materials in packaging
12	Avoidance of the use of polyvinyl chloride and heavy metals in packaging
13	Energy conservation in the manufacturing process
14	Resource conservation in the manufacturing process
15	Reduction of the use of use avoidance substances* in the manufacturing process
16	Prohibition of the use of use prohibition substances* in the manufacturing process
17	Green purchasing
18	Easy disassembly
19	Easy sorting of materials
20	Information disclosure in use/instruction manuals, and other related documents.

\* Based on SII Group standards.

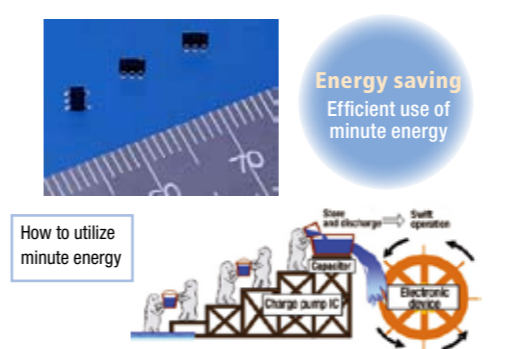
Basic	Satisfies the SII Green Product Standards. Average assessment of 3.5 points or above.	
Additional	Mandatory	Implemented the Life Cycle Assessment (LCA)*.
	Selective	1) Top rank in one or more of the SII Green Product Standards criteria
		2) Unique environmental friendliness feature
3) Extremely high level of environmental friendliness score		

Life Cycle Assessment (LCA) is the quantitative assessment of the environmental impact of a given product or service throughout its lifespan from raw material production, manufacture, distribution, use and disposal.

## Certified High-Grade Green Products

### Low operating voltage charge pump IC S-882Z series

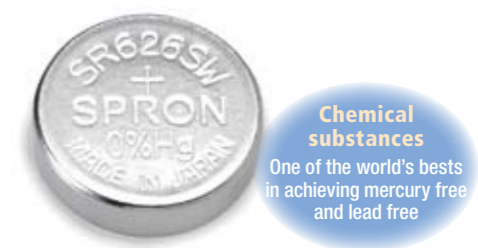
Enabling the utilization of low voltage energy as a power source for electronic devices



- Eco-Friendly Features**  
To operate electronic devices, charge pump circuitries boost the input voltage to supply certain amount of power. However, minute energy used to be difficult to utilize since just boosting its low voltage didn't supply necessary power to operate devices. Addressing this challenge, SII developed the S-882Z series which enable the utilization of minute energy. This series of products boost the input voltage, store power in an external capacitor, and accumulate minute energy to supply to electronic devices for operation.

### Silver oxide battery SPRON SR626SW

Achieving mercury-free and lead-free in button-type silver oxide batteries



- Eco-Friendly Features**  
Taking advantage of our precision processing technology, we successfully developed mercury free button-type silver oxide batteries. With a precision surface processing technology on anode charge collector, the battery achieves superior performance than conventional batteries without using mercury which was used as an anti-corrosion agent for zinc. We also succeeded in improving anti fluid leak characteristics by 50% compared to conventional batteries. Not using mercury or lead degrades the discharge characteristics especially at low temperatures. In order to compensate for the degradation, a high performance electrolytic solution was developed and adopted to expand the operating temperature range from -10°C ~ 60°C to -20°C ~ 60°C.

## Certified Green Products

### SR-G10000 Electronic Dictionary

While employing the clear, vivid liquid crystal panel<sup>\*1</sup>, the English language contents have been further enhanced for professionals, such as the Kenkyusha New English-Japanese Dictionary for the first time<sup>\*2</sup> in the industry.

#### ● Eco-Friendly Features

This model is featured in dramatically improved display function: adoption of a VGA enables the display of four times<sup>\*3</sup> more information compared to our conventional QVGA, and the reflective TFT achieves 2.4 times<sup>\*3</sup> higher contrast and wider viewing angles by three-fold<sup>\*3</sup> to 120 degrees in both right to left and up and down directions than our conventional models. Also, this model is designed to use less resources with its top-level light weight<sup>\*2</sup> in its class and eliminating the need for batteries replacement by adopting rechargeable lithium ion batteries as the power source.

The packaging materials don't include styrofoam, PVC, or heavy metals. Our modular assembly / disassembly structure saves energy on the production line and improves separate disposals. In addition, products with 5 grams or heavier plastic have material indication, which improves separate disposal of the used products.

<sup>\*1</sup> The TFT monochrome liquid crystal high precision VGA display with resolution of 640 x 480 dots, which is used in SII electronic dictionaries.  
<sup>\*2</sup> Among the IC electronic dictionaries marketed in Japan as of November 14, 2006. (According to our survey)  
<sup>\*3</sup> Compared to our conventional products



### SEA1200VX X-ray Fluorescent Analyzer

This spectrometer is featured in our proprietary X-ray fluorescent detector, Vortex, achieving high sensitivity, high resolution, and high counting rate for a large amount of X-ray. Vortex is a silicon multi-cathode X-ray fluorescent spectroscopic detector with a high counting rate and a high resolution, and requires no liquid nitrogen. The use of Vortex dramatically improved sensitivity and reduced measurement time, enabling a measurement results calculation time in less than one tenth of our conventional spectrometers.

#### ● Eco-Friendly Features

This model incorporates the recent X-ray fluorescent detector "Vortex", which reduces 4% of power consumption compared to our conventional models.

In addition, the Vortex detects 50 times stronger X-rays. Combining with the precision controlled measurement, which measures in optimum time while controlling the measurement density precision or variation, it reduces a measurement time and the significant amount of power consumption.

This improves the efficiency of measuring and analyzing reportable chemical substances in products to comply with RoHS directives and other regulatory, contributing greatly to the environmental protection.



### Complete elimination of hazardous chemicals from products

EU's RoHS Directive<sup>\*1</sup> came into effect in July 2006, and other countries, including Japan, China, Korea, State of California (USA) and Australia, have issued or are preparing to issue similar directives.

As well as RoHS-regulated substances, including lead, cadmium, hexavalent chromium and mercury, SII voluntarily added polyvinyl chloride (PVC) for total elimination by February 2006. These substances were fully eliminated from products for EU, though overall elimination was 95.5% and PVC elimination was 90.1%. We will continuously promote this activity, while keeping an optimum balance of the quality, cost, delivery, safety and environment (QCDS).

#### ○ EU RoHS Compliance

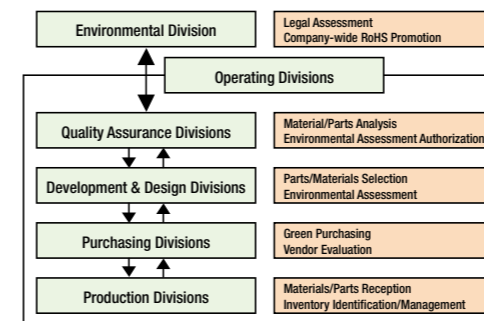
Our large-format printers and network devices are composed of several tens of thousands parts. We replaced parts and materials, and revised substrate designs of the printers and devices for the EU market, and successfully complied with RoHS Directives completely by the end of May 2006. We also reviewed our electronic components to meet customers requirements, such as inclusion thresholds, that are even more strict than the directive's specifications.

#### ○ China RoHS<sup>\*2</sup> Compliance

For components, we have informed our customers about reportable substances used in our products. For complete products, we indicate the reportable substances on products, packaging and user's guides.

#### ○ RoHS Compliance Initiative

In order to promote the elimination, we enhanced the framework to confirm that the product doesn't contain any reportable substance. For consumer products, including watches and electronic dictionaries, the X-ray fluorescent measurements have been introduced to the production sites to prevent incorporation of reportable substances.



We will continuously promote the thorough understanding of local RoHS directives, particularly in EU RoHS exemptions revisions and pre-certification system for certain products specified in China RoHS, for prompt responses and actions.

<sup>\*1</sup> RoHS Directive (Restriction of the use of certain Hazardous Substances) EU Directives that came into effect in February 2003. This directive prohibits to put electrical and electronic equipment on the EU market that contains one or more of the following six substances as of July 2006: cadmium, hexavalent chromium, mercury, lead, PBBs (polybrominated biphenyls) and PBDEs (polybrominated diphenyl ethers).  
<sup>\*2</sup> China RoHS Management Methods for Controlling Pollution by Electronic Information Products regulation

### Collection and Recycling

For effective use of resources, we promote the collection and recycle of used products and consumables.

#### ○ Collection of Ink Cartridges

Used ink cartridges and bottles are sent to our collection center, where they are separated according to their constituent materials and then recycled. Plastics are crushed and recycled to produce plastic products or components. Metals are reused as raw materials. This procedure enables approximately 90% of all cartridges collected to be recycled.

#### ○ Collection of Data Communication Devices

We participate in the mobile recycling network that has been jointly established by the Telecommunications Carriers Association and the Communications and Information Network Association of Japan.



モバイル・リサイクル・ネットワーク  
携帯電話・PHSのリサイクルにご協力を。

Indicating the mobile recycle network on our product packaging, we promote consumers cooperation.



▲ Indication on the product packaging

#### ○ Recycling of Rechargeable Batteries

Participating in Japan Portable Rechargeable Battery Recycling Center (JBRC), we collect and recycle small rechargeable batteries.

#### ○ Collection of Packaging

We consign the Japan Containers and Packaging Recycling Association to collect and recycle packaging.

### Ongoing Actions

- Promote green products to achieve the FY2007 green products sales ratio of 92%.
- Expand the high grade green products creation.
- Enhance the LCA implementation.
- Promote the compliance to local RoHS regulatory, volume production review/guarantee, and voluntary elimination of chemical substances that are not regulated by RoHS.

### LCA Initiatives

We initially introduced LCA initiatives in 2001 and established the SII LCA Guidelines in March 2002. While improving the guidelines, we continuously promote the LCA.

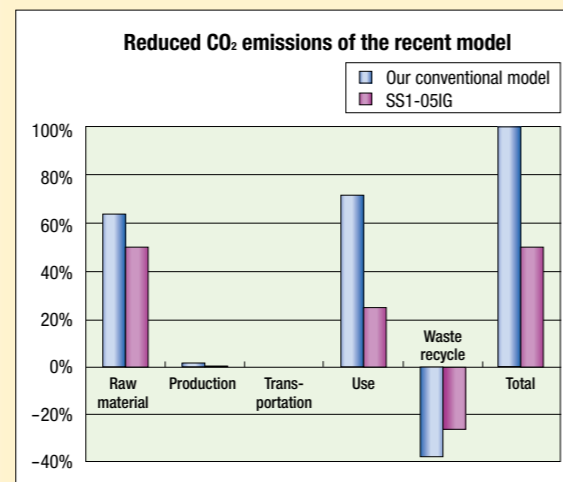
In 2006, the implementation of LCA was added to the SII High Grade Green Product System as one of the criteria. This contributed to promote the implementation and disclosure of the LCA results.

### LCA Case Study

The LCA result of our internal grinder showed that it gives extremely high environmental impact at stages of raw materials, parts and in use. Based on this result, we designed the successor model, SS1-05IG, for better energy and resource savings: reducing the size and the use of raw materials, and eliminating some of the units to reduce power consumption during use.

With the recent design, we achieved a 24% reduction in raw materials, a 65% reduction in power consumption during use and a 51% reduction in CO<sub>2</sub> emission in total.

### LCA Results - Internal Grinder



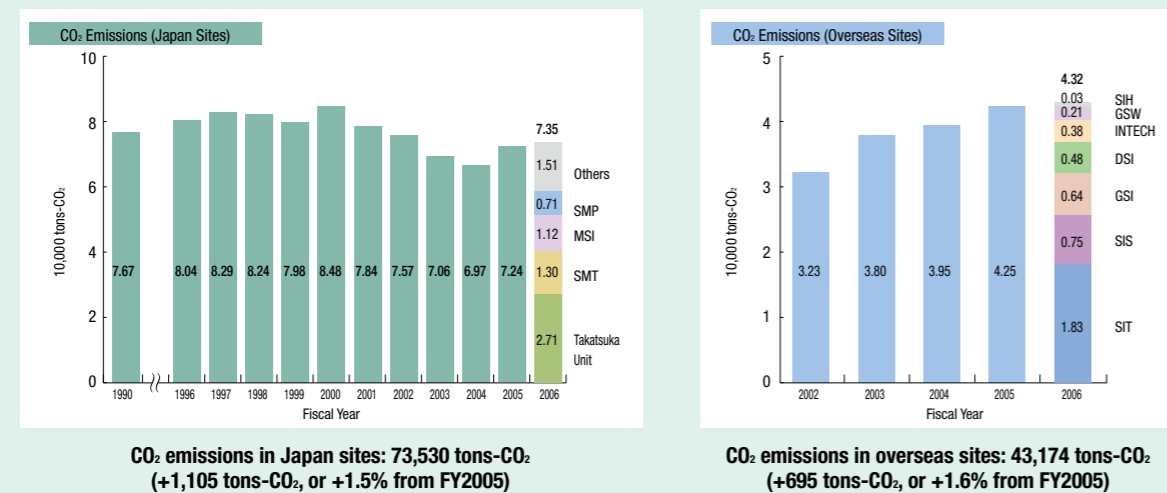
# Environmentally-Friendly Manufacturing

In the course of manufacturing our products, the SII Group consumes some of the world's limited natural resources, which may cause an impact on the environment. We are committed to a number of initiatives to reduce our environmental impact with a focus on global warming issues, 3R activities and chemical materials controls.

## Addressing Global Warming

The SII Group addresses global warming throughout the course of our business activities, including energy savings in the production process and in offices, as well as the provision of energy-saving products.

### FY2006 Overview



Refer to page 33, 35, 36 for official company names.

### Our concepts and the current status

More than 99% of the greenhouse gasses that the SII Group produces are CO<sub>2</sub> from energy generation. Increased CO<sub>2</sub> emissions in fiscal 2006 are attributed to the increased production of electronic devices in Japan and increased production of parts for hard disks and watches overseas. Emissions from fiscal 2000 to fiscal 2004 constantly decreased. After the lowest amount of emissions in fiscal 2004, emissions have been increasing due to a significant increase in production volume. We have been taking a wide range of actions to reduce energy consumption, including investment in facilities, improvement in operation management and production efficiency, though, these measures did not fully cover the increase in production volume to reduce greenhouse gas emissions.

In addition to existing activities, we have started substantial initiatives for fiscal 2007. These initiatives include identifying and discussing energy saving activities associated with major emission factors that involve large scale investments, while enhancing the awareness of our employees, such as the participation in Team Minus 6%.

### Energy Conservation Technology Networking

In November 2006, we held the SII Energy Saving Technology Networking. In this event, to promote the SII energy saving initiatives, representatives from our Japan sites that consume a large amount of energy shared information: introducing their sites activities and ongoing projects, and visiting facilities for case studies. We will further promote and share information and technology in our group companies.

### Morioka Seiko Instruments Awarded as an Excellent Energy Conservation Factory

In fiscal 2006, Morioka Seiko Instruments (MSI) received the Tohoku Regional Bureau of Economy, Trade and Industry's "Excellent Energy Conservation Factory, Director General Prize" for its continuous energy saving initiatives.



Certificate and plaque

### SII Sites Case Study

● SII Takatsuka Unit promoted the reduction of air conditioners used in the clean rooms.

Reducing the number of air conditioners could cause an unacceptable variation in temperatures and humidity in the clean rooms, and an increase in the number of particles due to a lower particle collection rate. After conducting a thorough investigation and confirming that there is no impact to the quality of products, we stopped operating one of the six air conditioners. This successfully reduced 270,000 kWh of power consumption annually.

● SII Microtechno (SMT) is a Type 1 Designated Energy Management Factory specified by the Japan's law on rationalization of energy consumption (Energy Conservation Law). In December 2006, SMT had a local inspection of the efficient energy consumption status and achieved the established standards.

SMT also received the Tohoku Electric Safety Committee Chairman's Award from the Tohoku Electric Safety Committee for its electric safety over many years.

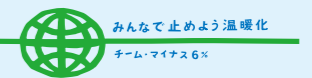
● Morioka Seiko Instruments (MSI) conducted the following activities:

- Through a 10% reduction in the impeller diameter of the cooling water pump for the absorption water heater/chiller to reduce the pump's output pressure, MSI reduced power consumption by 33%. This method is also applied to other absorption water heater/chiller pumps and freezer pumps.

- MSI reduced the power consumption of air blowers of its air conditioners after confirming that a 20% reduction of air volume does not cause a significant effect on operation. By increasing the pulley diameter and reducing the speed of air blowers rotation, power consumption was reduced by 44%.

- Guangzhou Seiko Instruments Ltd. (GSI) reviewed the lighting system in its plants, and improved lighting switches to enable some lights to be turned off section by section. This reduced fluorescent-lights power consumption by 46% while maintaining the lights required for production.

To address global warming, we proactively participate in a wide range of promotions held by Japan's Ministry of the Environment.



(1) Participation in "Team Minus 6%" — the national project which promotes the Kyoto Protocol target achievement

(2) "Light-Down Campaign" event

During June 16th -18th, 2006, we turned off the rooftop — and street-billboard lights of the Makuhari head office building.

(3) "Cool Biz" promotion (June — September)

While setting air conditioning systems to 28 degrees C for energy conservation during summer, we encourage our employees to dress according to the "Cool Biz" style so that they can stay comfortable and work efficiently.



◀ SII "Cool Biz" poster

## Our initiatives in logistics

We constantly strive to reduce the environmental impact by improving the efficiency of our logistics system.

### Our concept and the current status

To reduce environmental impact, we continuously improve our logistics, including packaging, cargo handling, transportation and storage, packaging and buffer materials and trays used for parts transportation are recycled as much as possible for the efficient use of resources. Trays used for parts transportation have also been developed lighter weight. The packaging materials with reduced size

and weight are part of the SII Green Product criteria.

On the transportation front, we promote the use of shared flights rather than chartered flights.

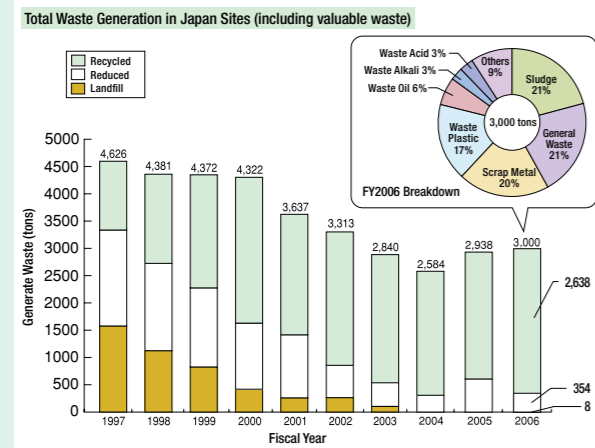
We are not a designated freight carrier under the Energy Saving Law, however, we will continuously monitor our transportation data and strive to reduce CO<sub>2</sub> emissions further.

## 3R Activities — Reduce, Reuse and Recycle

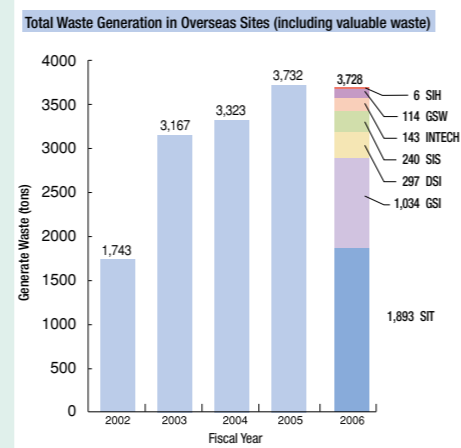
As a manufacturer, promoting the efficient use of limited resources is an important mission. The SII Group strives to improve the efficient use of resources at all of the processes.

### FY2006 Overview

#### Waste Reduction



Waste generated in Japan sites: 3,000 tons (+62 tons, or +2% from FY2005)



Waste generated in overseas sites: 3,728 tons (-4 tons, or -0.1% from FY2005)

#### Water Use Reduction

Japan sites: the amount of water used was 972,000 m<sup>3</sup>, which achieved the target. (-12,000 m<sup>3</sup>, or -1% from FY2005).  
Overseas sites: established the target to promote the reduction of water use for the first time in fiscal 2006. The amount of water used was 668,000 m<sup>3</sup>, which didn't meet the target. We will continuously strive to reduce the use of water.

Refer to page 35 and 36 for official company names.

### Our concept and the current status

In fiscal 2006, in our Japan sites, the total amount of our waste generation increased mainly due to the increased production of electronic devices. In our overseas sites, while increasing the amount due to the increased production of electronic devices and watch-related products, the overall amount of emissions remained at the same level as the previous fiscal year with our reduction activities. For waste materials recycling in our Japan sites, we promote the

“zero emission initiative”, and review the current recycling methods to shift to more effective methods. All of our production facilities in Japan finished the reviews for one third of waste material. All of our overseas production facilities are promoting the improvement of the recycling rate for more efficient use of resources. In particular, we have made significant progress in recycling machining oil, solvent cleaner and molding plastic.

### SII Sites Case Study

● Instruments Technology (Johor) Sdn. Bhd. in Malaysia promotes the recycling of waste contaminated rags.

The cotton rags are used to clean excess oil, solvents and printing ink at the production shops and maintenance area. Contaminated rags are categorized as scheduled waste in Malaysian regulation, and 981kg of contaminated rags were disposed in fiscal 2005.

In order to reduce the disposal, the company recycled rags used for oil and solvent cleaning. These rags are sent to the licensed scheduled wastes contractor to be washed, and returned to the production shop for reuse.

As a result, the disposal of rags, used for the printing, was reduced to 596kg (40% reduction) in fiscal 2006. The disposal cost has been reduced since the recycling cost is much more cost effective.

● In November 2006, Seiko Instruments (Thailand) Ltd. (SIT) continuously promotes the reuse of cutting oil to reduce the use of new oil. In fiscal 2006, the company started to recycle the cutting oil used in the turning process. Used oil is processed by the centrifugal machine to separate the chip scrap, and filtered. The filtered oil is analyzed and tested to ensure the quality. SIT has constantly been reusing the cutting oil since the company started the reusing.

## Chemical Substances Control

The SII Group believes that safe and appropriate handling of chemical substances is part of an important risk management. We also strive to achieve total elimination of hazardous substances from our products.

### FY2006 Overview

We voluntarily added volatile organic compound (VOC) as chemical substances to be controlled. Total amount of emissions, including reportable PRTR substances, substances that SII voluntarily specifies (HFCs, PFCs and SF<sub>6</sub>) and VOC, was 25 tons.

### Our concept and the current status

To reduce the environmental impact of chemical substances used in our manufacturing processes, we continuously control the use of reportable PRTR substances, 21 substances that SII voluntarily specifies, and 100 VOC substances.

In some of the soil in premises of our facility in Chiba, organic solvents and heavy metal in excess of environmental standards were found. SII has been voluntarily taking appropriate soil purification

action, including excavation and removal of the soil.

As well as green purchasing, we proactively address the reduction and total elimination of specified chemical substances contained in our products. By adding chemical substances standards used in our products and their production processes as the SII Green Products criteria, the elimination/reduction of specified chemical substances is designed to be systematically promoted.

### SII Sites Case Study

● Dalian Seiko Instruments Inc. (DSI) passed the “clean production of coating” assessment held by the Dalian Coating Process Association, which was commissioned by the Dalian Environmental Protection Administration. Based on the policy of saving energy and resources, reducing pollutants, and improving efficiency, the city of Dalian promotes green production, including the improvement of production processes, the efficient use of resources through energy saving and 3R activities, and minimizing the generation and emission of pollutants.

The Administration assigned DSI to reduce nickel and eliminate cyanogen in the coating process. To address this challenge, DSI established a team and set targets of 9% nickel reduction and the total elimination of cyanogen compound. The team reported eight improvement plans, analyzing input/output balance based on the amount of material used and the number of parts completed, as well as the causes of waste generation in the coating process.

As a result, DSI achieved a 24% reduction in nickel usage and about 70% in the overall usage of cyanogen. While accelerating ef-

forts for total elimination, some processes remain under testing since the elimination of cyanogen involves multiple washing processes.

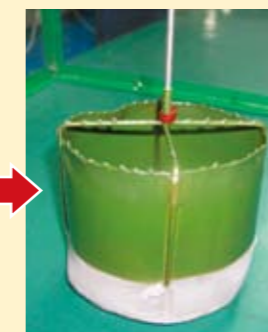
These results were reviewed at the Administration, and DSI was evaluated highly. At a general assembly held in Dalian city, DSI presented its case study as a representative of 23 companies for their first participation.

● Seiko Instruments Singapore Pte.Ltd. (SIS) completely eliminated the trichloroethylene used as a solvent in the washing process. SIS phased out the use of trichloroethylene by customizing the washing facility and switching to hydrocarbon/alcohol-based solvents, and then wholly eliminated its use in December 2006.

● Guangzhou Seiko Instruments Ltd. (GSI) placed a guard on their solvent tank inlet to prevent leakage that could cause soil contamination. As a result, even in the event of solvent leakage, the solvent will not pass the guard.



Stainless basket for coating



Nickel-resistant plastic basket



Solvent tank

## PRTR Results

FY2006 results on PRTR efforts are as follows. The volume of relevant hazardous chemical substances handled by SII increased 15 tons from FY2005 due to production increase. There was no use of dichloropentafluoropropane (HCFC-225), "molybdenum and its compounds" during this fiscal year.

### FY2006 PRTR Results at Japan sites

(Unit: kg)

Substances	Amount Handled	Amount released				Amount transferred		7. Amount recycled	8. Amount consumed	9. Amount removed and treated
		1. Release to atmosphere	2. Release to public water systems	3. Release to soil	4. On-site landfill	5. Transfer to sewage	6. Transfer as waste			
2-aminoethanol	6,257	1,251	0	0	0	0	4,693	0	0	313
Antimony and its compounds	1,105	0	0	0	0	0	0	884	221	0
Ethylbenzene	714	207	0	0	0	0	507	0	0	0
Xylene	18,059	1,759	0	0	0	0	16,108	47	144	1
Chrome/trivalent chrome compounds	8	0	0	0	0	0	2	0	6	0
2-ethoxyethyl acetate	7,664	383	0	0	0	0	77	0	0	7,204
Inorganic cyano compounds (excluding complex salts and cyanates)	640	7	0	0	0	0	294	0	0	339
Dichloropentafluoropropane (HCFC-225)	0	0	0	0	0	0	0	0	0	0
Mercury and its compounds	281	0	0	0	0	0	21	0	260	0
1,3,5-trimethylbenzene	621	19	0	0	0	0	590	0	0	12
Toluene	4,417	1,789	0	0	0	0	2,628	0	0	0
Lead and its compounds	277	0	0	0	0	0	0	208	69	0
Nickel compounds	2,672	0	17	0	0	0	1,516	334	805	0
Phenol	1,342	201	0	0	0	0	1,074	0	0	67
Hydrogen fluoride and its water-soluble salts	37,146	812	51	0	0	0	10,564	0	0	25,719
Boron and its compounds	81	0	59	0	0	0	13	3	0	6
Poly (oxyethylene) nonylphenyl ether	74	0	0	0	0	0	0	37	0	37
Manganese and its compounds	4,656	0	0	0	0	0	2,498	0	2,158	0
Molybdenum and its compounds	0	0	0	0	0	0	0	0	0	0
Total	86,014	6,428	127	0	0	0	40,585	1,513	3,663	33,698

\*PRTR (Pollutant Release and Transfer Register): This system is designed to assess, gather and disclose data on volume of chemical materials handled, amounts released into the environment, and volume transferred in waste materials to points outside of plant locations. Companies collect data on the relevant substances and report them to the appropriate government agency once a year.

## Environmental Protection at Our Production Site

In order to protect environment of our production sites, the SII Group constantly enhances the facility preparedness for emergencies.

### Soil Pollution Measurement

At the Miyakubo facility, an overall soil pollution investigation of the premises for its closure detected organic solvents (trichloroethylene and cis-1, 2-dichloroethylene) and heavy metal (hexavalent chromium compound) in some of the soil in excess of environmental standards. Subsequent in-depth investigations proved that there was no outflow of these pollutants from the site.

Reporting the investigation results to the authority and holding an explanation meeting with the local residents, SII voluntarily takes

appropriate soil purification action.

### Accidents and Complaints

- Seiko Instruments Singapore Pte. Ltd. detected low-concentration trichloroethylene in excess of environmental standards in plant effluent. The use of this substance was switched to another.
- SII Tochigi Unit received complaints from its neighbors about organic solvent odors. The unit's exhaust system was subsequently improved.

### SII Sites Case Study

The electricity shortage is becoming increasingly serious in China's Guangzhou area, where Guangzhou SII Watch Co., Ltd. (GSW) is located. This situation tends to affect the overload operation of generators. In order to control emissions from generators and comply with the emission

standards, GSW introduced a water shower treatment system into the generators smoke ventilation tower. GSW also shifts holidays and operating days in summer when the power supply is scheduled for suspension by the authority.

## Timelines: Company History and Environmental Activities

Company History		Environmental Activities	
1881	Kintaro Hattori established K. Hattori & Co., Ltd. (currently Seiko Holdings Corporation).		
1937	Daini Seikosha Co., Ltd. (currently Seiko Instruments Inc.) was established as the watch manufacturer for the SEIKO Group.		
1964	The SEIKO Group served as Official Timer for the Tokyo Olympics.		
1967	SEIKO products captured the highest awards in the Observatoire Cantonal de Neuchâtel competition held in Switzerland.		
1969	The SEIKO Group introduced the world's first analog quartz watch.		
1970	Released the world's first quartz watch using a CMOS IC. Launched its product diversification strategy.		
1983	Company name was officially changed to Seiko Instruments & Electronics Ltd.		
1988	Completed the world's first automated assembly system for multipurpose, small-lot production of commercial watch parts.	December	Established "Fluorocarbon Countermeasures Promotion Committee."
1990	New corporate brand name "SII ●" adopted as official brand of the SII Group.		
1992	Released the world's first full-text electronic dictionary. The SEIKO Group served as Official Timer for the Barcelona Olympics.	August December	Abolished the use of CFCs. Established Environmental Administration Office (currently Corporate Environmental Administration Department.)
1993	SII Head Office was relocated to Makuhari.	April August November	Established the environmental protection plan "Green Plan". Introduced the "Clean Arrow" used-paper collection truck. Eliminated the use of trichloroethane.
1994	The SEIKO Group served as Official Timer for the Lillehammer Olympics.	April	Began monthly management of energy, paper use, and waste.
1995		August	Executive council kicked off on Environmental Management System based on ISO14001.
1996		August November	Started publication of our annual environmental report. Takatsuka Unit became the first SII Group business unit which obtained ISO14001.
1997	Company name was officially changed to Seiko Instruments Inc.	December	Began our "Idling Stop" promotion.
1998	The SEIKO Group served as Official Timer for the Nagano Olympics.	February	Published the SII Chemical Management Guide.
1999	Launched "CREPICO", Japan's first wireless card payment system.	March  October	Completed acquisition of ISO 14001 certification for all of our major business units in Japan. Major business units in Japan abolished the use of chlorine solvents, including trichloroethylene and methylene chloride. Issued the SII Group Green Purchasing Standards.
2000		February November	Introduced environmental accounting. Ohno Unit became the first SII Group business unit which achieved Zero Emissions.
2001		October  December	Makuhari Head Office became the first SII Group non-production site which obtained ISO14001. Introduced SII Green Products labeling system.
2003	Developed the world's first wristwatch PHS phone.	October	Major sales offices in Japan, including western Japan office, obtained ISO14001.
2004	Seiko Instruments Inc. officially changed its company Japanese name. Held the first Pop Song Translation Competition for Junior High and Senior High School Students. Opened Shizukuishi Watch Studio, Japan's only integrated production system for mechanical wristwatches.	March August October	Major Japan sites achieved Zero Emissions. Started to report social activities on our environmental report. Lead solder was completely abolished.
2005	Developed mercury-free and lead-free silver oxide batteries.	July	Our environmental report changed its title to SII Social and Environmental Report.
2006	Developed the 12 beat movement, providing the world's highest accuracy for mechanical watches.	November	Received the Development Bank of Japan's Highest Rank Award for Promoting Environmentally Conscious Management
2007	Developed the world's smallest micromotor, 0.95 mm in diameter.	February	Introduced the SII High Grade Green Products labeling system.

### Environmental Awards

- Oct. 1996 6 Chiba Keiyo business units received Recycling Promotion Committee's Chairman's Award for paper recycling activities.
- Jun. 1998 SII Microtechno Inc. received Akita Prefecture's "Best Environment Activities" award.
- Jun. 1998 Morioka Seiko Instruments Inc. received Iwate Prefecture's award for "Excellence in Environmental Protection."
- May 2000 Makuhari head office received the Chairman's Award from the Chiba City Building Conference.
- Feb. 2005 Tochigi Unit received the Chairman's Prize for Excellence from the Kanto Region Electric Power Rationalization Committee. Morioka Seiko Instruments Inc. received the Chairman's Award from the Tohoku Seven-Prefecture Electric Power Promotion Committee.
- Feb. 2006 Tochigi Unit received the Kanto Bureau of Economy, Trade and Industry's Excellent Energy Conservation Factory, Director General Prize.
- Feb. 2007 Morioka Seiko Instruments Inc. received the Tohoku Regional Bureau of Economy, Trade and Industry's Excellent Energy Conservation Factory, Director General Prize.