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# Social and Environmental Report 2013



Seiko Instruments Group

## SII Group Overview

SII Group products are used in a wide range of applications throughout society, including consumer products, devices used for orders at restaurants and payment for taxis, and electronic equipment in offices, laboratories and factories. Our parts are key components for many products. This section introduces main SII Group products.

#### Watches and Movements



Mechanical Watches Our traditional luxury mechanical watches are known for their outstanding classical style and design.



Watch Movements Quartz movements are one of our bestselling components globally. and our mechanical mov embody true value loved by every

#### **Precision Components and Machine Tools**



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



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

#### **Electronic Components**

DIANETs Our DIANETs offer high quality and contribute to the downsizing of various types of equipment and to reducing energy consumption.

#### **Communication Products and Solutions**





Microbatteries

the memory and clock

of security to customers.

As backup power supplies for

our products provide a sense

functions of mobile devices.



#### **Communication Products** We offer broadband communication products and services for a wide variety of uses including network integration and management products.

- About This Report This report was published to provide all stakeholders with the SII Group's CSR activities and is regarded as a tool to promote improvements in our CSR activities by collecting their opinions.
- Additional data and the latest information not covered in this report are available on the SII website and indicated as 🔤. http://www.sii.co.jp/eco/eg/

#### **Referenced Guidelines**

**Corporate Data** 

13%

Consolidated

sales ratio

of March 31, 2

62%

Watches

Electronic Components

System Solutions

: Seiko Instruments Inc. (SII)

137,800 million yen (consolidated)

: September 7, 1937

: 9,756 million yen

Annual sales (FY 2012) : 96,800 million yen (nonconsolidated)

8.518 (consolidated)

: End of March

Number of employees : 2,006 (nonconsolidated)

Corporate name

Established

Paid-in capital

Fiscal year end

• This report was prepared in reference to guidelines including the Environmental Reporting Guidelines 2012 issued by the Japanese Ministry of the Environment; the Sustainability Reporting Guidelines version 3.1 issued by the Global Reporting Initiative; and ISO 26000 (Guidance on Social Responsibility).

#### Period Covered by This Report

### Contact us

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CMOS ICs Our small, low-r r consumption high reliability CMOS ICs are used in products for daily use including personal mobile devices, home appliances and automotive electronic components

Wireless Payment Terminals

Our "CREPiCO" systems enable wireless credit card payments, and

have been widely used by taxi

companies and other scenes of

collecting fees, fares and charges

and Environmental Report





Quartz Crystals

technology, our extremely small

and highly accurate products

paraphic

Based on n

Based on our wireless extensively used in restaurants technology, our products contribute to the evolution of a ubiauitous network society

#### **Printers**



bars and golf courses.

Large Format Printers Our high level technology achieves efficiency and reliability required for business-oriented printers.





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

#### **Consumer Products**



Electronic Dictionaries We provide a wide range of dictionaries to meet the needs of users from business people, medical specialists, translators, and to students



PHS phones Our PHS Phones feature convenient functions and superior design for more comfortable communication



**Tuners and Metronomes** We provide not only tuners for tuning musical instruments, but also mechanical and electronic metronomes





Consolidated employee ratio

March 31, 201

Japan

Overseas

SEIKO HOLDINGS GROUP



Radiation Spectroscopy Instruments communication and small terminal Our precision measuring instruments are used by



management.

Inkjet Printheads To satisfy a wide variety of printing requirements, we provide products with the best printing stability and diverse ink availability.

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SEIKO NEXTAGE CO., LTD.



SEIKO PRECISION INC.

SEIKO NPC CORPORATION

#### Scope of This Report

• This report covers business units, sales offices and affiliated companies of Seiko Instruments Inc. \* The report focuses on the efforts and achievements made by seven

sites in Japan and seven overseas sites, which obtained ISO 14001 certification.

\* The collection of environmental data at Seiko Instruments (Thailand) Ltd. has been suspended temporarily.

\* We pulled out of the display business

\* In January 2013, all shares of SII NanoTechnology Inc., whose business was the manufacture and sale of measurement and analysis

instruments, were transferred. \* In April 2013, the development and manufacturing functions for the guartz crystal business (former Tochigi Unit) were spun-off into a separate company called "SII Crystal Technology Inc." that is wholly owned by SII.

• This report mainly covers activities and results in FY 2012 (from April 2012 through March 2013), and it also includes information about prior and ongoing initiatives.

### Message from the President

### Contributing to society through the creation of new value

### Creating Time, Optimizing Time, Enriching Time

With our corporate motto of "Creating Time, Optimizing Time, Enriching Time" set as our ideal, SII has delved into the pursuit of "time" as a watch maker. Our core values for realizing this ideal are "Integrity, Trust, and Appreciation," which means that we approach all of our business activities with "integrity" and foster the "trust" of our customers and society with a sense of "appreciation" towards all of our stakeholders. All the SII employees persevere in their efforts by taking these core values as their basic approach.

#### To continue on as a company

The range and depth of companies' social responsibilities are increasing.

There are a mounting number of issues here on earth. Even today, 20 years since the Earth Summit was held in 1992, environmental, poverty, and human-rights problems are still in serious condition. Without a resolution to these, there is scant possibility for the prosperity of society and sustainable development of companies in the future. Being fully aware of the current situation, SII makes efforts and plays a role in building a sustainable society as one of the components therein.

### Contributing to society by providing the value expected of us

With our roots in technologies for watch development and manufacturing, SII has expanded and diversified our technologies based on a technological philosophy of "SYO"ism, which is based on advanced skills and techniques, miniaturization technologies, environmentally friendly products, and the technologies for fabricating them. These technologies are SII's assets built up over many years. From here on out, while utilizing our property we will strive to integrate these technologies into a system and create new value.

I believe that markets inform us of specific visions for new value, and therefore we must place emphasis on marketing. It is not possible to find the values expected by society and customers, and which are required for the future, unless we communicate with markets. Changes will be necessary for an appropriate system to create those values. With our marketing approach, we will truly harness our technologies of "SYO"ism, provide the



expected and required values, and make a contribution to society and our customers.

### Striving for Harmony with the Environment

Twenty years have passed since the establishment of our "SII Green Plan Concept" based on the "Three Green" concept: Green Process, Green Products, and Green Life. Meanwhile, environmental issues have become increasingly important business challenges for companies, and there are more issues to be tackled. SII revised the SII Group Environmental Policy in January 2013, renewing our determination to continue to face up to environmental issues in earnest.

The conservation of biodiversity is an issue that is comparable to global warming. Recognizing that the SII Group's business activities benefit from ecosystem services and make an impact on biodiversity, we have launched initiatives to assess the relationships between land use and biodiversity at our units as well as the impact products can have on biodiversity. In addition, as an expansion of our "SII Green Product System,"

its scope has been extended from hardware to software and services. We will continue to aspire to give shape to the "SII Green Plan Concept."

### With our people

The driving force for SII to cope with the rapidly changing world and to create and provide new values is each staff member's power and potential. Without their consistent efforts, the company could not be managed properly. I want them to have dreams, set goals, and persevere to achieve their goals regardless of the changing circumstances. To realize this, it is a great responsibility for senior management to take the lead in quickly gaining insights into our changing society and markets in the future and laying out the direction in which we will set out. I am sincerely committed to working toward this goal with our people in order for SII to create new value and continue to be a company that contributes to society.

We definitely appreciate your continued cooperation and support, and welcome any comments or suggestions you may have.

July 2013

Hitoshi Murakami President

Seiko Instruments Inc.

#### Core Values and Corporate Identity

#### Core Values Integrity - Trust - Appreciation Corporate Identity Creating Time - Optimizing Time - Enriching Time

#### The SII Group Charter of Corporate Behavior (Established in October 2005, Revised in April 2011)

The SII group is committed to pursuing its affairs ethically and lawfully. This Charter of Corporate Behavior establishes policies and procedures intended to secure our position as an entity that honors its responsibilities to contribute to the economic development of society and seeks to serve as a needed and trusted part of society at all times. The SII group companies and their employees are committed to providing value to all group stakeholders, as well as to society at large, fulfilling their social responsibilities based on a strong ethical sense and contributing to the creation of a more sustainable society.

#### <Article 1.> Providing value

 We are committed to enhancing our technologies, creating new value, and producing safe, socially useful, and high-quality products and services that strengthen satisfaction and trust among our customers.

#### Article 2.> Approaching corporate activities with fairness and integrity

- In addition to compliance with all applicable laws and regulations, we accurately manage all types of information, including personal and customer data, and pursue our corporate activities with ethics, fairness and integrity.
- We maintain a sound relationship with governmental and administrative authorities and take a rigorous, resolute position against antisocial forces that pose a threat to social order or security.

#### <Article 3.> Human rights and human resource development

- We respect the diversity and the human rights of all our employees and seek to achieve safe, comfortable working conditions. We facilitate and support the advancement and growth of each employee and endeavor to ensure all employees the fair evaluation and treatment.
- We respect the human rights and individuality of all stakeholders in our business activities.
   We strive to develop a creative professional human
- We strive to develop a creative, professional human resources characterized by a strong ethical sense.

#### Article 4.> Creating harmony with the environment

- Recognizing that environmental issues affect all of us, we focus intently on resolving such issues and initiate proactive measures to avoid burdening the public.
- Article 5.> Establishing a constructive coexistence with society
- We communicate openly with society and promote the appropriate disclosure of company information to become a more open enterprise.
- As good corporate citizens, we engage in extensive philanthropic activities.
- Through our business activities on the global stage, we advance corporate management that takes into account the interests of our stakeholders and contributes to the development of each country pursuant to this Charter.

#### Article 6.> The commitment of senior management

- After realizing the spirit of this Charter and taking the lead in an exemplary manner for the implementation of the Charter, senior management has established a mechanism throughout the corporation to ensure thorough implementation of the Charter within the SII group companies. Senior management encourages our business counterparts to follow this example.
- In the event of violations of the Charter, senior management must assume responsibility for resolving the issues in question and make full and prompt public disclosure. On identifying the responsibility for the violation, senior management must impose strict disciplinary action on those responsible, including members of senior management itself.

## CSR Targets and Results

The FY 2012 policy was to "promote CSR activities appropriate for a global company."

						© ÷ Overac	chievea	0.
			FY 2012 Target and Plan			Major items implemented in FY 2012	Evaluation	n
Providing value	Customer satisfaction Ref	fer to page 8P	Continue the efforts for customer satisfaction improve	rement	•	Continued efforts for customer satisfaction improvement	0	• (
	Quality improvement Product safety	fer to page 7P	<ul> <li>Unify 10 divisions for the second and third terms as part of the integrated ISO 9001 certification</li> <li>Check the product safety and technology law compliance, as well as 100% improvement of reported issues</li> <li>Implement the product safety education (twice/year) and hold seminars on each country's technology laws</li> <li>Conduct the operation process checks for manufacturing divisions</li> </ul>		d issues ogy laws og	Obtained the integrated ISO 9001 certification in 10 divisions in the second and third terms (Completed the integration of total 18 divisio     Conducted checks for 36 new models of 13 divisions focusing on the performance status of illegal tes     Implemented educational seminars including 2 introductory courses, 1 on safety applications for fuses, and 3 on risk assessme     Implemented the checks at 6 divisions at 9 units focusing on failure cost reduction activities and th     performance status of internal quality audits.	sts O ent. O	• C • H • C d
value	Universal Design	fer to page 8P	<ul> <li>Specify detail evaluation items for 1 Graphical User Ir</li> <li>Examine 1 evaluation system for Green Design</li> </ul>	nterface (GUI) case		Practiced GUI in 3 products including operation screens of electronic dictionari Conducted the Green Design awareness survey and examined its evaluation syster		• / Ci
	Purchasing Activities	fer to page 7P	<ul> <li>Carry out the buyer education using the renewed textbook. On completion of efficiency improvement, increase frequency of conducting the purchasing audit and the audits for supplier certification, and improve the ratio of successful suppliers.</li> </ul>			Carried out the buyer education using the renewed textbook (104 employees participated as planned), conducted the purchasing audit for all purchasing divisions at sites in Japan, increased the ratio of certified suppliers (Japan: 95%, overseas: 70%)	g ()	• C c
Approaching corporate with fairness and int	Compliance	fer to page 9P	<ul> <li>At overseas sites, thoroughly communicate the SII Code of Conduct, prepare and thoroughly communicate the Action Guidelines, and establish and thoroughly communicate the Compliance Consultation Services</li> <li>Continue to implement the regular on-line compliance quizzes (everyday and annually)</li> <li>Conduct the periodic compliance awareness survey</li> </ul>		vices	<ul> <li>At overseas sites, thoroughly communicated the SII Code of Conduct, and established and thoroughly communicated the Compliance Consultation Services</li> <li>Continued the implementation of the regular on-line compliance quizzes (everyday and annually</li> <li>Conducted the educational activities to senior management on compliance awareness for 4 time</li> <li>Conducted the regular compliance awareness survey (annually)</li> </ul>		<ul> <li>P</li> <li>C</li> <li>C</li> <li>C</li> </ul>
te activities integrity	Risk management Ref	fer to page 10P	<ul> <li>Continue to implement the RM activities at the head</li> <li>Promote the emergency response system and review</li> </ul>			<ul> <li>Implemented the countermeasures against the total 36 risks at the head office</li> <li>Devised emergency contact lists and put them into practice at overseas sites</li> </ul>		• 0
Human rig	Human rights	fer to page 11P	<ul> <li>Prepare the declaration of human rights at 10 sites, the Code of C</li> <li>Build a new HR system and introduce it from the beg</li> </ul>		•	Completed the documentation of "the spirit of respecting human digrity" of the declaration of human rights at 7 sites Completed the translation of the Code of Conduct at all sites except Thailand Commenced the preparation of the Action Guidelines at all sites except Thailand	0	
nts and huma	Safety and health	fer to page 12P	<ul> <li>Hold lifesaving seminars at 6 sites in Japan</li> <li>Conduct the SII Group comprehensive safety inspection (volu</li> <li>Implementation rate for the specific health checkups: 95%;</li> </ul>		ng sites	<ul> <li>Held the lifesaving seminars at 6 sites in Japan (159 participants)</li> <li>Conducted the SII Group comprehensive safety inspection (voluntary) at all sites in Japan and overseas manufacturing site</li> <li>Implementation rate for the specific health checkups: 77.5%; Implementation rate for the specific health guidance: 25.5% *1</li> </ul>	s O	<ul> <li>H</li> <li>C</li> <li>C</li> <li>Ir</li> </ul>
an Est It construe	Contribution to local regions Refu	fer to page 14P	Continue to contribute to local regions at each site		•	Performed the local cleanup activities at each site	0	• (
blishing a ve coexistence	HR development assistance Ref	er to page 14P	Continue to provide field-study and internship programs at each site		•	Provided the field-study and internship programs at each site	0	• (
8	Eco-friendly products	Refer to page 17P	Increase the sales ratio of SII Green Products	<ul><li>(General products) 96%</li><li>(Large products) 55%</li></ul>		99.1% 70.4%	0	● Ir ● Ir F
			Increase the number of SII High Grade Green Products	s • 4 or more products	•	4 products	$\circ$	• 0
	Hazardous chemical	Pofor to page 200	Ensure products free of cadmium, hexavalent chromium, mercury and lead	d • Maintain the ratio of 95% or more*2	٠	97.7%	O	• N
Ore	substances		Ensure products free of polyvinyl chloride	• Maintain the ratio of 95% or more*3	٠	95.5%	O	• 1
eating harmo	Action against global	Refer to page 19P	Reduce energy-related CO <sub>2</sub> emissions	<ul> <li>Improve by 1% or more per unit of produ sites in Japan Total amount: 67,349 tons-CO<sub>2</sub></li> </ul>	uction at	Total amount: 60,063 tons-CO <sub>2</sub> - 7.2% from FY 2011	O	• II T F
ny with th	warming			Reduce by 1% from FY 2011 at each over	seas site	Reference value> Total amount: 22,269 tons-CO <sub>2</sub> - 27.4% from FY 2011	-	● F
Creating harmony with the environment			Improve the recycling ratio of wastes	• 90% or more at sites in Japan	•	94%	O	• A
		Refer to page 19P		• + 3 points from FY 2011 at each overse	eas site	Reference value> 58%	-	• Ir
	Resource recycling Refe		Reduce water use	<ul> <li>1% from FY 2011 at sites in Japan: 814,0</li> </ul>	000 m <sup>3 *4</sup>	643,000 m <sup>3</sup> - 22% from FY 2011	O	• F
				• 1% from FY 2011 at overseas sites	•	Reference value> 357,000 m <sup>3</sup> - 42% from FY 2011	-	● F
			Reduce office paper use	• - 3% from FY 2011 at overseas sites	•	Reference value> 15.1 tons - 19% from FY 2011	-	• F
	Chemical substance control Refe	er to page 20P	Reduce the amount of emissions of chemical substances *5	Maintain the ratio of FY 2011 at sites in Japan: 3	1.4 tons *4	28.9 tons - 4% from FY 2011	O	• N
	Biodiversity conservation Refe	er to page 20P	<ul> <li>Assess the relationship between biodiversity and bus</li> </ul>	siness activities (current status of land use)	•	Morioka Seiko Instruments Inc. assessed the current status of land use	0	• A:

\*1 The results will be available one year later due to data compilation. \*2 Completed elimination by the end of May 2006 for products to be sold in the EU. \*3 Except those used within the safety standards or difficult to be substitute. \*4 There had been an error found in the amount collected in FY 2011, therefore it was corrected this year. \*5 PRTR hazardous chemical substances are HFCs, PFCs, SFe and VOC. PRTR, Pollutant Release and Transfer Register, is a system to collect and announce information on use and environmental releases of specific chemicals.

: Achieved or almost achieved $ riangle$ : 70% or less achieved	— <sup>:</sup> N/A
FY 2013 Target and Plan	
Continue the efforts for customer satisfaction improvement	
Conduct the checks in 12 divisions focusing on the performance status of illegal tests Hold the seminars on product safety and each country's technology laws for 4 times Conduct the operation process checks for 19 divisions focusing on efficiency improvement development, engineering and production engineering	of contractions of the second
Analyze the Green Design awareness survey, visit sites for introducing case studies and streamline the evaluation items	value
Continue to conduct the buyer education, purchasing audit and supplier certification systems, as well as maintain/improve the level of management	
Prepare and thoroughly communicate the Action Guidelines at overseas site Continue to implement the regular on-line compliance quizzes (everyday and annual Continue to conduct the educational activities to senior management on compliance awarene Continue to conduct the regular compliance awareness survey (annual	ith fairne
Continue to implement and promote the group-wide risk management activiti	integrity
Complete the documentation of "the spirit of respecting human dignity" of the declaration of human rights at all s Complete the translation of the Code of Conduct at our site in Thailau Complete the preparation of the Action Guidelines at 13 sites	
Hold the lifesaving seminars at 6 sites in Japan Conduct the SII Group comprehensive safety inspection (voluntary) at all sites in Japan and overseas manufacturing Check on-site after conducting the inspection Improve the implementation rate for the specific health checkups to 79	hur
Continue the contribution to local regions at each site	Establish constructive o with so
Continue the provision of field-study and internship programs at each site	ing a oexistence ciety
Increase the sales ratio of SII Green Products (general products) to 98% or mor Increase the sales ratio of SII Green Products (large products) to 55% FY 2014: 60% FY 2015: 65%	e
Create 4 or more SII High Grade Green Products	
Maintain the ratio of products free of cadmium, hexavalent chromium, mercury and lead at 95% or more	*2
Maintain the ratio of products free of polyvinyl chloride at 95% or more*	<sup>3</sup> O
Improve the energy-related CO <sub>2</sub> emissions by 1% or more per unit of production at sites in Japan Total amount: 66,122 tons-CO <sub>2</sub> Reduce by 25% from FY 1990 by the end of FY 2020	Creating harmony with the environm
Reduce the energy-related CO <sub>2</sub> emissions by 1% from FY 2012 at each overseas si	ny with th
Achieve 90% or more for the recycling ratio of wastes at sites in Japa	n enviro
Improve the recycling ratio of wastes by 3 points from FY 2012 at overseas sites	<b>—</b>
Reduce the water use by 1% from FY 2012 at sites in Japan: 637,000 m	3
Reduce the water use by 1% from FY 2012 at overseas sites	
Reduce the office paper use by 3% from FY 2012 at overseas sites	
Maintain the same amount of FY 2012 total emissions of chemical substances *	5
Assess the relationship between biodiversity and business activities (current status of land use	3)

## **Providing value**



#### **Our Concepts**

"Improve the Quality, Cost, Delivery and Safety of our Products and Services to create increased value for customers." This is the SII Group Basic Quality Policy, which incorporates our strong commitment to achieve customer satisfaction with our product quality as well as meeting high standard of cost, delivery and product safety.

#### Integrated ISO 9001 Certification

SII has obtained ISO 9001 certification, the International Standard for quality management systems.

Aiming for further enhancement of our across-the-board quality assurance system, we have launched an initiative to obtain the integrated certification on a company-wide basis in addition to the conventional certification acquired by each division and affiliate company. Total 18 divisions have completed the integration.

#### Ensuring Product Quality in the Development Phase

For the most part, quality problems and variances occur due to causes in the development and engineering stages. As a part of quality improvement activity, SII ensures product quality in these stages to raise the products' entire quality level.

To achieve this goal, SII has taken a variety of initiatives to enhance engineers' views and ways of thinking, using quality engineering, statistical approach, 3D CAD, CAE and instrumental analysis. We also strive to minimize quality variances derived from concurrent optimization of engineering and machining parameters in collaboration with related divisions including Quality Assurance, Research and Development, Production Engineering and Analytical Estimate Divisions.

#### Quality Assurance

The SII basic product safety concept is "to improve customers' trust by providing safe products and services." Based on this concept, we continue to provide the Products Safety Education to raise product safety awareness and cultivate engineers with safety knowledge.

We also established the Product Safety Network and a working group for studying product safety technology. For all the SII products, it conducts regular inspections of compliance with laws and regulations concerning product and technical safety, and verifies product safety and appropriateness according to each country's laws and regulations.

In case of accidents due to SII products, we report to senior management within ten minutes, as well as attempt to promptly solve and prevent the problems. After these actions, we share the information throughout the entire Group and conduct horizontal activities



#### **Global Operation Process Review**

The Head Office Quality Assurance Division conducts the "Operating Process Review" of all the operating divisions in Japan and overseas. The review includes checking the certainty, the level of employee awareness and the progress of improvement of all operation processes from development through manufacturing. Any cases that can serve as useful references will be horizontally deployed across the board.

#### Disclosure of Product Safety and Quality Information

In response to the enforcement of Consumer Product Safety Act, SII established an icon "Important Announcement" on our website. We strive to minimize our customers' disadvantages by promptly and precisely providing SII products' safety and quality information.

### Value Created Together with Our Suppliers

#### Concept of CSR in Supply Chain

Cooperation from our suppliers is essential for SII to fulfill our social responsibilities. The SII Group Purchasing Policy stipulates "Enhancing our partnerships with suppliers," and we seek to improve the level of CSR together with our suppliers based on fair and honest transactions.

#### Supplier Certification System

Based on our Supplier Certification System that we established in FY 2004, we have certified approximately 1,500 suppliers in Japan as of the end of FY 2012. In FY 2012, we completed the certification for more than 70% of our suppliers with which our overseas sites deal directly. We continue to carry on with the procedures to achieve 100% certification.

#### Compliance with the "Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors (Subcontract Act)"

The Subcontract Act has a major significance in purchasing activities in Japan. SII established the Subcontract Act Section in the Head Office to reinforce compliance with the Subcontract Act by cooperating with the SII Group's purchasing staff through activities including appropriate guidance to routine work and education.

#### Purchasing Risk Management

In our role as a manufacturer that provides products, it is important for us to minimize the risk of a disruption in our supply of parts. Our Purchasing Division not only searches for alternative suppliers or parts, but also considers their manufacturing bases so that we can promptly handle emergency situations in case of disasters like earthquakes.

#### Conflict Minerals Policy

SII recognizes conflict minerals as being a critical international issue that supports the financing of organizations engaged in human rights violations and/or injustices committed in the Democratic Republic of Congo and adjoining countries. As we believed that it was important to take the appropriate actions, the "SII Group Conflict Minerals Policy" was established in March 2012. We ask our suppliers for their cooperation in prohibiting the use of any conflict minerals. Web SII Group Conflict Minerals Policy

### **Creating New Value**

#### **Intellectual Property Initiatives**

Regarding intellectual property as essential resource in business activities, we proactively engage in obtaining and utilizing our development results as intellectual assets. Based on the mid- to long-term policy "Develop a Business Culture that Respects Intellectual Property," we enhance our intellectual property framework, working with Intellectual Property, R&D and other divisions.

In FY 2012, the patents owned by SII were reviewed in an effort to seek a more effective way to utilize our patents. As a result, the number of SII's patents has slightly decreased as of April 2013 to about 2,300 patents in Japan and about 3,100 patents overseas. However, our applications for patents and acquisition of rights are so active that the number of examinations for granting patents in FY 2012 has increased.

#### Universal Design Initiatives

The SII Universal Design Concept is practiced throughout the Group based upon the concept of "Integrity." Our developers and designers work together to create products that provide values including reliability and comfortableness, in addition to pursuing user-friendliness and beauty.

#### SII's unique "SMART UX"

DAYFILER is a new electronic dictionary that has achieved not only high functionality but also a comfortable feel and sense of enjoyment called SMART UX (smart user experience). A static full-color touch panel was incorporated in an electronic dictionary for the first time, enabling comfortable and smooth touch panel operation like on a smartphone. It also has a high level of visibility because it adopts scalable fonts

that are best suited for scaling. The design is simple for portability, while various improvements have been devised such as improved robustness.

DAYFILER DF-X10000



#### SII Customer Service Center

SII Customer Service Center is committed to providing prompt, accurate and sincere responses to customer inquiries. Our customers' opinions, requests and complaints are communicated to the relevant divisions, and are used effectively for product and service quality improvement.

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



## Approaching corporate activities with fairness and integrity

### CSR

#### **CSR** Committee

SII has established a CSR Committee comprised of the President, who serves as the Chairman, and the managers at our head office, who serve as members of the standing committee. It discusses and decides important issues and matters that are derived from the promotion of CSR activities, including compliance and risk management, and reports their performance to senior management on a regular basis.

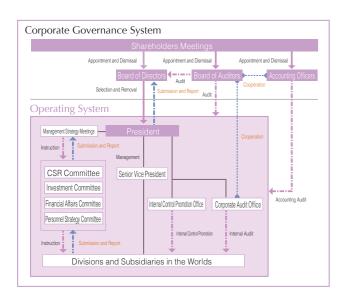
## **Corporate** Governance

#### **Basic Corporate Governance Policies**

To live up to the trust of our stakeholders, it is important for us to build and soundly manage a structure that copes with changes in the global environment promptly, and which consists of an efficient system that strengthens our corporate competitiveness as well as a rational and transparent system for performing business operations. We focus on transparency and fairness in our management as an important business priority and strive to enrich our corporate governance to improve our corporate value.

#### Corporate Governance System

Our Board of Directors consists of 15 board members, holds meetings on a monthly basis (14 meetings were held in FY 2012), supervises company management, and makes important business decisions for the SII Group. Outside auditors ask questions and provide advice where appropriate from an independent, external standpoint with the aim of ensuring validity and appropriateness. The average attendance rate of the outside auditors to the Board of Directors meetings in FY 2012 was 100%.



The Board of Auditors consists of two internal and two external auditors. Each member follows the audit policy and plan determined by the Board of Auditors, gains insight through attending management meetings and meetings with each division, and exchanges opinions. Through these activities they monitor the directors' operations. The Board of Auditors meetings are held almost every month (9 meetings were held in FY 2012) and the average attendance rate by the outside auditors to the Board of Auditors meetings in FY 2012 was 100%.

KPMG AZSA LLC was appointed as our accounting auditor. The Board of Auditors and the audit corporation conduct audits by understanding the audit plan and sharing information at regular meetings.

The executive director system was introduced to our management structure in order to separate business execution and supervision.

#### Internal Control System

At SII, the status of operating the internal control system is reported to the SII Board of Directors for supervision once in a half year. This is based on the "Basic Internal Control System Policy" resolved by the Board of Directors.

In 2008, the "Internal Control Promotion Office" was established as an across-the-board promotion organization for the internal control system. Together with the conventional "Corporate Audit Office," they are playing the central role in consolidating the internal control system.

For our internal control system with regard to financial reporting in compliance with the Financial Instruments and Exchange Act, our senior management evaluates the SII Group's internal control system and we report the results to a publicly listed parent company, Seiko Holdings Corporation (SHD), as one of their subsidiary companies. This is to evaluate and report the internal control system relating to SHD's financial reporting.

### Compliance

#### SII Compliance System

As our CSR committee carries the function of compliance, it has been working on raising compliance awareness and responding to each compliance problem.

Based on the Internal Control Basic Policy, we continue to reinforce and improve the compliance framework of subsidiary companies in the world. At the overseas subsidiary companies, their appointed compliance coordinators are promoting activities to enhance the compliance framework.

#### SII Code of Conduct and Action Guidelines

To act in accordance with the SII Group Charter of Corporate Behavior, SII established the "SII Code of Conduct," defining the basic requirements that all the SII Group directors and employees need to comply with. We continue to conduct the SII Code of Conduct thoroughly at all sites in the world.

The "Action Guidelines" was also established for sites in Japan to

provide a specific and detailed code of behavior. Currently we are preparing the Action Guidelines for overseas subsidiaries.

#### Web SII Code of Conduct

#### **Compliance Consultation Services**

The SII Helpline has been set up for consultation with an outside attorney upon discovery of a violation of compliance.

The service has been expanded to include not only SII but also our clients to receive any information regarding our employees' compliance violations. We also provide an internal consultation service, and the detail of the report is informed to the senior management and auditors on a regular basis.

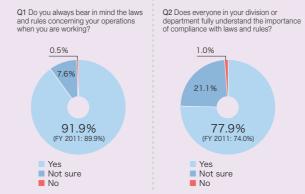
During FY 2012, there were 5 cases reported to the Helpline, and 9 cases were processed by the consultation service.

#### **Compliance Education**

In order to fully enforce the compliance with each senior management and employee, the SII Group executives and employees participated in an online quiz education program again in FY 2012.

We also continued to provide the senior management with an awareness-raising compliance education on a regular basis.

SII continually conducts compliance awareness surveys to check how much the SII Group employees' compliance awareness has been raised and entrenched.





#### Group-Wide Risk Management Efforts

At SII, the CSR Committee takes the central role in promoting the across-the-board risk management. The Committee evaluates risks and sorts them by their severity and frequency, and facilitates developing a system that mitigates risk impacts needed to be addressed intensively.

The Committee also identifies and shares a wide range of risks

through decisions made on risk management activities, and verifies actions taken against key risks on a quarterly basis. Based on the "Basic Principles of Risk Management" and through reports at management meetings and regular reviews carried out by the senior management, we assure the implementation of PDCA (Plan-Do-Check-Act) for risk management in full coordination with management.

#### **Risk Management in Continuing Business**

At SII production facilities, we manage risks to prevent production interruption, aiming to continuously offer products even in an emergency situation. The examples of our wide-ranging risk management are operational improvements at the local-working level and radical improvement which requires equipment investment.

Upon occurrence of a large-scale disaster, it could be difficult for employees to go home at least temporarily due to closedown of transportation. Therefore, we have prepared water, food, bedding and other emergency supplies.

### Information Security

#### Our Concepts

A company assumes a grave responsibility to protect and prevent leaks of confidential information, including the personal data of customers and stakeholders. In addition, information security is of great significance in internal control. As SII regards all information managed by the information system as a significant asset of the Group, we are continuously enhancing our system security. We manage information security systematically and efficiently by forming a framework and rules based on SII's basic rules of information security: "Information System Security Policy" and "Information System Security Management Regulation," while thoroughly providing various educational courses as well as instructing divisions and affiliate subsidiaries.

#### Web Privacy Policy

#### Availability Improvement

We have been strengthening data protection and the ability to operate our systems stably by not only consolidating server storage that is comprised of information systems and making them redundant through virtualization technology, but also reinforcing the construction of a disaster recovery site for critical systems.

As measures against the problem of the communication failures caused by the Great East Japan Earthquake, we have made drastic improvements to our Internet communication environment. Providing redundant lines were completed for our major sites in Japan, and our communication infrastructure including e-mail system was also shifted over to cloud computing to realize a highly available system environment



## Human rights and human resource development

### Support for Employee Development

#### Respect for Human Rights

The SII Group Charter of Corporate Behavior states that we respect the human rights and individuality of all people in the course of the implementation of our business activities, as well as the diversity of all our employees. We have been trying to ensure that the Charter is thoroughly implemented within SII Group companies.

In regard to the "Human rights" described in the SII Group Charter of Corporate Behavior, our overseas affiliated companies are promoting documentation for this that reflects the cultures and customs of each country. Upon completion of the work, educational activities on this topic, including bulletin board postings, will be carried out at each unit to raise awareness. Thorough instructions will be provided to employees so that they will communicate with stakeholders in compliance with the spirit incorporated into this message of "Human rights."

#### Unification of SII Group HR System

Under the concept that employees are all equal and they should be evaluated and treated fairly, SII has been promoting the establishment of a new HR system based on the consistent SII Group values and evaluation criteria found throughout Japan and our overseas sites. The new HR system is being prepared through communication between HR departments at the head office and affiliated companies worldwide. In addition to compliance with each country's laws, the regional cultures and customs are also taken into consideration.

#### Human Resource Development

SII's ideal employee is a creative, professional individual characterized by a strong ethical sense. Our Human Resource Division aids human resource development by offering training for each level, professional education by job category in areas such as quality assurance, environmental administration and intellectual property, and OJT. The "mentor system" is also provided to new employees. This system appoints a senior employee as a mentor and a counselor who is able to be consulted with to each new employee in order to provide continuous mentorship and support.

In addition, we focus on developing independent and self-responsible human resources who can establish their own

careers and missions. An "in-house recruitment system," a "free-agency system" and an "open study abroad system" were established to respect each employee's goals and to support expansion of the range of career choices available to them.



Mentor & Mentee Paring

#### Work/Life Balance

In Japan, SII has established and been continually enhancing a variety of childcare and nursing care systems which support every employee in balancing their careers and family lives so that they can fully exercise their abilities. Our elderly nursing care leave system allows employees to take leaves 3 years for 1 person out of subject family members.

From October 2010, an hourly leave system has been introduced, enabling more flexible working styles. We will continue to make efforts in improving working conditions and environment.

#### Status of Utilization of the Systems (Japan)

System FY	2010	2011	2012
Childcare leave	20	29	26
Short-hour work for childcare	36	36	32
Elderly nursing care leave	2	1	0
Short-hour work for elderly nursing care	1	2	0

#### Professional Resources Management System

SII has introduced the "Professional Resources Management System" to pass down skills and techniques, and also to train junior employees. With this system, we certify professional employees who possess advanced expertise. The system includes Specialists, who are experts in fields like R&D, engineering and production engineering; and Meisters, who specialize in manufacturing operations such as processing and assembly. There are three levels respectively. As of March 2013, SII has certified 29 Specialists and 10 Meisters, and they are playing active roles in their fields and also focusing on training their successors.

In FY 2013 a Meister system will be introduced for the employees who possess core skills at overseas manufacturing sites. A Specialist system will also be established subsequently for the employees who have core skills.

#### Skills Competition

As work at Dalian Seiko Instruments Inc. requires proficient skills such as metal parts processing, important themes for the workers include acquiring proficiency, passing down skills, and

cross-training. An annual skills competition is held at each workshop to try to continually improve the level of their skills. In FY 2012, a total of 331 workers participated in the competitions for 26 skills.



### Creating a Safe and Efficient Workplace

#### Concept of Occupational Safety and Health

We believe that the basis of a healthy company is formed by maintaining a safe and healthy work environment as well as all the employees' physical and mental well-being. Based on the "SII Group Occupational Safety and Health Policy" established in 2008, the SII Group employees conduct business with enhanced safety awareness at every site.

SII Group Occupational Safety and Health Policy

#### SII Group Occupational Safety/Health Management

In addition to each business unit's safety management system, the SII Group established a group-wide safety management organization. The "SII Group Safety Management Committee," consisting of members from each unit, was held to report activities and to share safety management-related information including law revisions and internal rule review.

From here on out, we will make efforts in further improving the level of safety management within SII Group with a view to sharing information with overseas sites.

#### Safety Inspections and Survey

To maintain and improve occupational safety and health, SII conducts not only annual workplace safety inspections at every site, but also comprehensive safety inspections for all SII Group sites, including our overseas manufacturing sites.

The comprehensive safety inspections comprise of four perspectives: fire prevention, a risk assessment in working areas, safety of premises and equipment, and the security systems at each site. The inspection results are reported at the SII Group Safety Management Committee and deployed horizontally to improve workplace safety.

#### Lifesaving Practice

As AED (automated external defibrillator) was introduced, each SII site in Japan holds lifesaving seminars on a regular basis. The total number of participants at all SII sites in Japan achieved 1,168 (159 in FY 2012) and they acquired lifesaving skills. The seminars will continue so that as many SII employees as possible can learn and acquire the lifesaving skills.

#### Supporting Physical and Mental Well-being

As health is the first wealth, SII strives to maintain our employees' physical and mental well-being and promote health enhancement programs in cooperation with health insurance associations and the labor union.

In April 2008, specific medical checkups and health guidance systems were launched. Specific health guidance was held again in FY 2012 for employees aged 40 or over with a focus on metabolic syndrome. Based on the results of regular health checks, an industrial physician and nurses provide health guidance to improve lifestyles starting from those things found in one's everyday lifestyle, which has gradually yielded successful results.

In addition, cancer prevention screenings intended for finding prostate cancer for men and cervical cancer for women are carried out in the aim of early detection and treatment. These screenings are also available for dependent family members aged 40 or over.

#### Health Enhancement with Family

Our regularly held health enhancement programs includes seminars on preventing shoulder stiffness and lower back pain and a walking with family campaign. In FY 2012, a total of 620 people participated in 23 walking campaigns within the SII Group. More employees are looking forward to the campaigns every time.

#### Health Counseling

SII has provided a 24-hour consultation service for health counseling by cooperating with an external specialist agency.

#### Receiving an Award for Excellence

SII Crystal Technology Inc. (SCT) received an award for excellence from the Labor Department in Tochigi Prefecture for their high level of occupational safety and health activities.

SCT has not had any accidents accompanied by lost work time (four or more days) over the course of about 55 years since the commencement of its operation, and has put a lot of effort into promoting risk assessments and mental health. This award is a result of the high regard in which this commitment has been held, which includes receiving a "Progress Award" given by the Association for Promotion of Total Health Promotion Plan in the past.



## Establishing a constructive coexistence with society



Social Contributions through Academic Promotion



Advanced Technology Institute (ATI), LLC is a foundation that is fully supported by SII. ATI's mission is to contribute to the promotion of learning, which is fundamental to the progress of human society, by creating new research concepts in nanoscience and performing research studies to promote the integration of different research areas. Their activities include promoting research committees on everything from nanometrology technologies to biology, as well as research assistance for young researchers and a public lecture called the ATI Forum.

Since FY 2012, ATI has been seeking to conduct projects for more unique scholarly activities as a public interest incorporated foundation under a new corporate system.



#### ATI Research Grant for Young Researchers

The ATI research grant is a project around the keyword of nanoscience that publicly solicits contributions for young researchers who have the potential to spawn embryonic, creative, and new research fields in the natural sciences.

This project has subsidized about 260 research themes since its launch in 1993. About 100 researches have applied for grants, and 12 themes ranging from nanometrological technology to bioscience were selected by a selection committee. The ATI research grant is expected to make a contribution to advances in research.

#### ■ Joint Research Committee: Integration of Different Research Areas

With the aim of creating new scientific concepts through the integration of different research areas, five research committees owned by ATI hold a joint research committee. In FY 2012, the future prospects for spintronics, which is making significant progress, and one of its applications, namely bioresearch (bio-spintronics), were examined based on the theme of the "integration of spin and life."





#### Technical Advancements in Singapore

As our overseas research and development base, the SII Singapore Office\* has promoted joint development in cooperation with national research institutes under the Agency for Science, Technology and Research of Singapore and universities in the country.

The office has launched a joint project with the National University of Singapore with the aim of improving productivity by innovating conventional production processes, enhancing high added value, and drastically reducing the amount of materials. Young researchers employed in the local area are advancing the development of new technologies, and this development also serves as guidance on research that is provided to the local students.

In collaboration with the Singapore Institute of Manufacturing Technology, the development of precision parts processing technologies is also being promoted to improve accuracy and minimize material waste. This aims to create eco-friendly processing technologies at low cost and with a high degree of resource efficiency.

\* Currently it is the Research & Development Division of Seiko Instruments Singapore Pte. Ltd.



Development of new technologies by local researchers

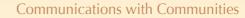
#### Social Contribution through Watches -Mechanical Watch Seminar-

Morioka Seiko Instruments Inc. sponsors a seminar that provides the public with an opportunity to participate in a hands-on mechanical watch assembly workshop. This seminar was launched in 2007 with hopes of increasing interests in watches and inspiring more mechanical watch enthusiasts. A total of 139 people have joined the seminar up to now.

The seminar consists of two courses: a hands-on course for beginners and a more advanced course, using watches as educational materials in which SII-made mechanical movements are incorporated. The sixth seminar was held in FY 2012 and the 16 participants experienced and enjoyed disassembling and assembling mechanical watches.



Aechanical Watch Semina



• Morioka Seiko Instruments Inc. has held the "Environmental Report Meeting with Local Communities" since 2008. In FY 2012, 21 local residents of the Shizukuishi area participated in the meeting. After the explanation and report of the company profile and our environmental activities, the participants visited the manufacturing premises and outdoor facilities. The following feedback meeting provided us with compliments.







#### Local Cleanup Activities

participating in the activity.

Every SII unit participates in cleanup activities in their local areas. In conjunction with Environmental Month 2012, Seiko Instruments Singapore Pte. Ltd. has organized a "Keep the Park Clean Activity" at the Woodlands Water Front Park, with 23 employees



• Seiko Instruments (H.K.) Ltd. has been making a strong effort when it comes to beach cleaning activities. In FY 2012, they organized another "Clean the Beach" day with the targeted venues being Cafeteria New Beach and Cafeteria Old Beach. A total of 23 members including colleagues and their family participated and contributed to protecting the environment.





 Dalian Seiko Instruments Inc. (DSI) participated in the Environment Day event on the theme of "Ecolife for companies and citizens" hosted by Dalian City. DSI was chosen as one of 100 eco-friendly companies and made a declarative statement ensuring compliance with environmental laws, promoting environmental activities, and fulfilling their social responsibilities.



#### Internship Program

Each SII unit continues to provide factory tours as well as work-study and internship programs for local pupils and students. Seiko Instruments Singapore Pte Ltd. welcomed five students from the Singapore Japanese Secondary School and offered a work-study program at a reception desk and an assembly workshop for watch movements.



### SII Group Environmental Management

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

SILGROUP ENVIRONMENTAL POLICY

### Revised in January 2013

#### ENVIRONMENTAL CONCEPT

The SII Group will continue to harmonize its corporate activities with the global environment, designate the "Three Green" concept consisting of Green Process, Green Products and Green Life as our basic concept, promote and conduct environmental activities, and contribute to the establishment of a sustainable society that can coexist with nature.

#### ENVIRONMENTAL ACTIVITY GUIDELINES

We will strive to

- 1. Continue to improve our environmental management system and environmental performance, while performing advanced activities that respond to the requirements of society to enhance stakeholder value.
- 2. Not only observe all laws, rules, regulations and agreements related to the environment, but also mitigate environmental risks and prevent environmental pollution.
- 3. Carry out our tasks with a focus on the following activities based on "SYO"ism\*1:
- Providing products and services that minimize their impact on the environment throughout their lifecycles and can contribute to environmental conservation
- (2) Proactively promoting eco-friendly, efficient manufacturing (3) Fully enforcing energy conservation measures in the entire business activities and addressing global warming.



- earth, and encouraging their responsible use. (5) Reducing risks arising from chemical substances and promoting the
- elimination of harmful substances.
- 4. Promote SII Green Purchasing and ensure proper and strict management of chemical substances contained in products.
- 5. Be aware of our impact on biodiversity and all the benefits we receive from it, and make efforts toward biodiversity conservation.
- 6. Raise environmental awareness of all employees and encourage them to protect the environment in their personal lives.
- 7. Make a social contribution to and achieve accountability for environmental protection, while facilitating communication with the society.
- 8. Ask our suppliers for their cooperation in following this policy.

\*1 "SYO"ism: SII technology philosophy

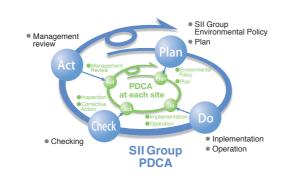
#### **Environmental Management System**

We established the environmental management systems in compliance with ISO 14001 at each site and throughout the Group. The Plan-Do-Check-Act cycle has been steadily implemented to improve our environmental performance.

Our mid-term and annual goals are established based on the "SII Group Environmental Policy," and pursued by the environmental management system at each site. The Corporate Environmental Administration Department at the head office operates the entire SII Group environmental management system and achievements of each site are reported on a regular basis. In January 2013, revisions were made to the SII Group Environmental Policy.

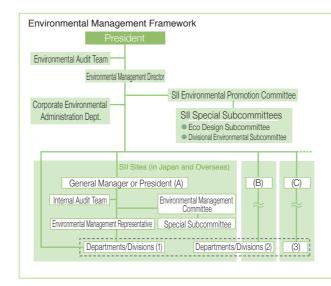
SII has obtained ISO 14001 certification at its major units in Japan and overseas. In FY 2012, we started constructing a framework for strengthening our environmental management systems as a group and integrated certification of the SII Group in Japan. In regard to our overseas units, Seiko Instruments Technology (Shanghai) Inc., whose business is electric component inspection and post-process component processing, has newly obtained said certification.

#### Web ISO 14001 Certified Sites



#### **Environmental Management Framework**

SII established the environmental management system consisting of the SII President as well as the Environmental Management Director serving as a chief executive. The Corporate Environmental Administration Department takes a leading part in operating the system in cooperation with each site and division. The SII Environmental Promotion Committee discusses the SII Group targets and exchanges information including activity report submitted by each site. We strive to promote the environmental activities steadily throughout the group.



#### **Environmental Education**

SII head office conducts a wide range of environmental programs in three categories: general education, special education and training for internal qualification. The programs are reviewed every year for improvements in pursuit of providing the best education.

In FY 2012, 160 employees attended the courses held by the head office, bringing the total number of participants to 3,034. In addition to the head office programs, each site also conducts unique environmental education programs and enlightening activities.

#### Preparation of Environmental Conservation Handbooks

Dalian Seiko Instruments Inc. (DSI) distributed "Environmental Conservation Handbooks" to their employees in October 2012. This handbook was prepared by DSI on their own to raise employees' environmental awareness. It is about 30 pages long and describes the current situation of environmental issues and efforts in which everyone can engage. This handbook is so effective because it links increased employees' awareness with actual behaviors.



#### **Green Purchasing**

In 1999, SII launched the Green Purchasing activities to evaluate product quality and price as well as to purchase products that have lower environmental impact. Using the "SII Group Green Purchasing Standards," SII investigates suppliers' environmental management systems and certifies products meeting all of the criteria as SII Green Production Material

In terms of office equipment and supplies, our electronic purchasing system allows purchasers to easily perform the Green Purchasing.

Web Green Purchasing

#### **Environmental Risk Management**

SII continues working to prevent and mitigate environmental risks, including deviations from local environmental laws and regulations, environmental pollution derived from the inappropriate control of waste and chemicals, and spills of hazardous substances due to aged equipment or disasters.

In regard to discharges into the aquatic environment and the atmosphere, each site sets their own voluntary standards that are stricter than the local laws and regulations.

For waste, we exercise appropriate management within our premises and check on waste disposal operations by visiting waste disposers and carrying out on-site audits on a regular basis.

In addition, each site has been consolidating emergency procedure manuals regarding actions and communication. Through periodic emergency response trainings based on the procedures, employees can review if the procedures are effective and then practice emergency countermeasures to prevent the spread of environmental contamination.



On-site audit at the waste dispos

#### Internal Environmental Audit

To continuously improve our environmental management system and its performance, an internal audit is carried out with objectivity and independence. Auditors are invited from other sites and head office to enhance the audit effectiveness and create a synergy effect through exchanging information among the sites.

The auditors' skills are essential for effective internal audits. While holding internal auditor trainings on a regular basis, we also set up the refresh course for internal auditors to raise their competency levels.

The internal environmental audits were carried out at our sites in Japan and overseas in FY 2012 as usual, and the most frequently identified categories were competence, training and awareness, environmental aspects, and operational control. They accounted for roughly half of the entire audit findings.

### Evolution of Green Products—Eco-friendly Products

The SII Group contributes to a sustainable society through the "SII Green Products" initiatives based on the SII "SYO" ism technology concept.

#### SII Green Products

#### Green Products plus

#### SII High Grade Green Products

Implementation of the Life Cycle Assessment (LCA)

1. Top rank in one or more of the SII Green Product Standards criteria • Top ranking features including "the smallest" in the world, Japan and the industry, etc. • Twice or more environmental efficiency compared to conventional products (functionality/environmental impact)

#### Selective 2. Unique eco-friendly features Items

 Achieved top-level environmental impact reduction through raw materials and processing methods Significantly reduced environmental impact utilizing our unique innovative technology • Making a "great" contribution to improving the environmental performance of our clients' products in which SII devices or components are incorporated. as well as to conserving the environment we all share

#### SII Green Products

Average assessment of 3.5 points or above

#### No Eco-friendliness

- 1 Power consumption during use
- Power consumption during standby
- 3 Product weight
- 4 Use of reused parts/recycled materials
- Recyclability of used products
- 6 Longer-lasting products
- Z Limitation of including substances subject
- to avoidance\* 8 Prohibition of including banned substances
- on condition'
- 9 Prohibition of including banned substances\*
- 10 Smaller, lighter weight packaging
- 11 Limitation of foam packaging materials
- Avoidance of using polyvinyl chloride 12
- /heavy metals in packaging
- 13 Energy conservation in mfg. process 14 Resource conservation in mfg. process 15 Limitation of using substances subject to avoidance in mfg. process\* 16 Prohibition of using banned substances in mfq. process' 17 Green purchasing 18 Easy disassembly 19 Easy sorting of materials for recycling 20 Information disclosure in user manuals
- and other related documents 21 Contribution to improving the environmental performance of our clients' products and to conserving the environment we all share

In FY 2012, the number of certified SII Green Products came to 88 products (1,266 products in total) and SII High Grade Green Products came to four products (54 products in total). The respective standards for these are reviewed and revised every two years to maintain their innovativeness while keeping an eye on the highest standards in the industry at all times.

SII Green Products

SII High Grade

**Green Products** 

### that Contribute to Environmental Conservation

#### Expansion of the Scope of Our Certification Systems

components, the scope of the SII Green Products certification

#### **Basic Concept for the Evaluations**

Due to the introduction of software and services, the evaluation method has been changed. These can be certified when a net reduction in the environmental impact (CO<sub>2</sub>) is expected as a result of calculating changes in the amount of CO<sub>2</sub> compared with before their introduction.

#### Items Used for Evaluating Changes in CO2

1) Usage and consumption of materials	Papers, CDs, consumables
2) Transportation of goods	Transportation by vehicles like trucks
3) Storage	Storage of drawings, documents, and equipment
4) Transportation of people	Transportation by cars, trains, and buses
5) Office space	Space for people and equipment
6) Power consumption of equipment	Power consumed by PCs, printers, and servers
7) Network use	Volume of data communication
8) Miscellaneous	Other items for which changes in the amount of CO2 are anticipated

### Zero power photo detect IC S-5470 series

The S-5470 series detects tiny electrical currents generated by photovoltaic devices, such as LEDs, and turns electronic devices on or off. It has an extremely low power consumption of 1nW (nanowatt) or less. The S-5470 series makes it possible to reduce the power consumption of electronic devices in standby mode to zero (nW class).



### **ENERUS (WX03S) PHS Phones**

These PHS phones feature functions perfect for people who have smartphones. Their features include high-capacity batteries that enable power supply to smartphones just by connecting with USB cables and a function that can link with smartphones via Bluetooth. With various functions contained in a PHS phone, they contribute to improving the conservation of resources and portability.

The SII "SYO" ism technology that backs SII products

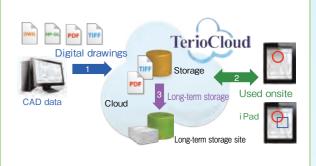
"SYO" ism is based on advanced skills and techniques, miniaturization technologies, environmentally friendly products, and their fabrication technology.



#### Cloud Service "TerioCloud"

Our first certified service is "TerioCloud," a cloud-based service that provides an environment for utilizing digital drawing and long-term storage. This service enables digital output of original drawings such as architectural drawings to a cloud server, and allows users to view and annotate the large format drawings on the iPad\* at a construction site. These data are securely stored in the cloud server for long periods, contributing to significant reductions in paper use.

\* iPad is a trademark of Apple Inc.





### Action against Global Warming Resource Recycling

#### Our Concepts and FY 2012 Overview

Global warming is still a major environmental issue and companies continue to have a major role to play.

SII works toward reducing greenhouse gas emissions throughout the full range of our business activities, including energy-saving activities in our offices and factories as well as the provision of energy-saving products and services.

Our FY 2012 CO2 emissions at our sites in Japan successfully achieved our target of 60,063 tons-CO2, which was 4,666 tons (7.2%) less than in FY 2011. The total amount of CO<sub>2</sub> emissions at our overseas sites was 22,269 tons-CO2 (reference value\*), which was 27.4% less than in FY 2011. This achievement was the result of our continued energy-saving activities as well as of pulling out and transferring some of our businesses.

In addition, due to the relocation of the factories for Guangzhou SII Watch Co., Ltd. and Guangzhou Seiko Instruments Ltd., the improved infrastructure at the new factories has led to better energy efficiency.

#### **Energy-saving activities**

Every SII unit makes efforts for ongoing energy-saving activities. Examples of our detailed efforts put into practice at the office include reducing the number of lights, replacing bulbs and fluorescent lights with LEDs, controlled air conditioners, limitations on the use of elevators, and the early introduction of a summer dress code called "Cool Biz."

At our manufacturing sites we have reviewed and improved the operation of machines, including improved efficiency of air conditioner and compressor operations, efficient operation of clean rooms, and changing the dew point for the compressor air. In terms of facilities, we upgraded our heat source equipment, such as highly efficient boilers.



LED illumination

#### Our Concepts and FY 2012 Overview

As resource depletion has a critical impact on corporate management, SII regards efforts for the responsible use of earth's resources as an extremely important form of corporate responsibility toward creating a sustainable recycling-oriented society.

The FY 2012 recycling ratio at our sites in Japan achieved the target of 90%, as our actual performance was 94%. Waste generation came to 2,391 tons, which was 444 tons less than in FY 2011. The recycling ratio at our overseas sites was 58% (reference value\*), which increased by three points compared to FY 2011.

#### Collection and Recycling

For effective use of resources, we promote the collection and recycling of used products and consumables, including ink cartridges and bottles. Recycling through industry groups has also been undertaken.

Collection, Proper Disposal and Recycling through Industry Groups

Products	Industry Groups	
Data communication cards PHS phones	The mobile recycling network	
Button batteries	Button Battery Recycling Promotion Center established in Battery Association of Japan	
Small rechargeable batteries	Japan Portable Rechargeable Battery Recycling Center (JBRC)	
Packaging	The Japan Containers and Packaging Recycling Association	

Case Study

#### Visualizing Electricity Use

Our sites in Japan are continually working on visualizing power consumption. The objective is to understand the current situation, share the information and utilize this to further energy-saving activities.

The electricity is measured by a wireless sensor network system for saving energy, which is one of SII's products



A sensor device of our wireless sensor network system

#### Effective Use of Resources

• At Seiko Instruments (Thailand) Ltd., scraps of aluminum and steel generated by manufacturing processes are compacted by a compaction machine to extract and reuse oil.

Instruments Technology (Johor) Sdn. Bhd appointed a new recycling vendor as new

types of recycling items were added. These mainly include packing material, papers, and metal materials.

• Guangzhou SII Watch Co., Ltd. discontinued the use of disposable chopsticks at its cafeteria on the occasion of the relocation of their factory.

> \* The collection of environmental data at Seiko Instruments (Thailand) I td. has been suspended temporarily due to the aftermath of the flooding.

A compaction machine



#### Our Concepts and FY 2012 Overview

The SII Group's business activities depend, to some extent, on ecosystem services. We consider biodiversity conservation to be not only a social contribution, but also a key issue of sustainable environmental management that needs to be addressed in our daily business activities. SII established a "Biodiversity Action Agenda" in April 2011 to specifically work on the conservation of biodiversity.

#### SII Group Biodiversity Action Agenda

In FY 2012 we engaged in educational activities for biodiversity conservation, while promoting a qualitative and quantitative understanding of the connection and relevance between our business operations and biodiversity.

#### Educational Activities on Biodiversity Conservation

At our sites in Japan we have conducted educational activities that include issuing newsletters on the theme of biodiversity conservation, inviting proposals for a slogan, and giving lectures at Environmental Management Committee meetings. Our Sendai Unit conducted a survey on biodiversity conservation and it turned out that the level of its awareness and understanding was still low. We will continue with our educational activities to raise awareness.

#### Assessment of Biodiversity Conservation

Through the utilization of the Life Cycle Impact Assessment Method based on the Endpoint Modeling Second Edition (LIME 2) that was developed by the National Institute of Advanced Industrial Science and Technology, we assessed the impact on biodiversity caused by products during their life cycles. The first assessment was conducted on internal grinders and the results showed that our new model had reduced its impact by 23% compared with the conventional model. We will analyze the results, discuss the measures to be taken, and continue to conduct assessments on other products.

#### Case Study

#### Assessment of Land Use

Morioka Seiko Instruments Inc. was first among the SII group to assess the current status of land use and conduct research on living organisms based on the JBIB guidelines for sustainable business sites developed by the Japan Business Initiative for Biodiversity. The assessment was accompanied by outside specialists who gave us advice from various perspectives and clarified the room for improvement and our future efforts. This assessment will be deployed to other SII sites.



19 SII Social and Environmental Report 😡

### Chemical Substances Control

#### Our Concepts and FY 2012 Overview

The SII Group believes that the safe and appropriate chemical substances control is corporate responsibility and important activity for risk management. In terms of chemical substances used in our manufacturing processes at sites in Japan, we control the use and emission of PRTR substances, SII voluntarily specified 22 substances, and 100 VOC (volatile organic compounds) substances.

The FY 2012 total waste generation of chemical substances subject to control in manufacturing process was 28.9 tons, which achieved the target, 31.4 tons (- 4% from FY 2011). In respect to the controlled chemical substances, we were able to maintain 95% or more of products free of cadmium, hexavalent chromium, mercury and lead, which achieved the target.

#### Strict Management of Hazardous Chemical Substances

SII has been working to prohibit or reduce the inclusion in our products of not only hazardous substances that have been banned by the laws in each country, but also those for which there are concerns regarding their hazardousness.

The four RoHS\*1 restricted substances: lead, cadmium, hexavalent chromium and mercury, as well as added polyvinyl chloride (PVC), which have concerns about its harmful effect that arise from inappropriate waste disposal, have been specified as chemical substances subject to reduction or elimination. All divisions engaged in products have established systems to promote activities to reduce their use and to prevent the inclusion in advance by performing periodic analysis and other measures.

In FY 2012, we worked to create declarations of conformity for the revised EU RoHS became effective in January 2013, prepare technical documents, and improve our company structure. We also promoted understanding and substitution of the components that would no longer be exempted from EU RoHS.

In regard to SVHC (Substances of Very High Concern) which is the requirement set under the REACH Regulation,\*2 we are obligated to provide the information to customers and report to the EU authorities depending on the status of their inclusion in our products. As dozens of new substances are added to SVHC every year, SII continues to check their inclusion in our products. Based on the results, we will fulfill our obligations while promoting activities to reduce the use of SVHC and to find substitutes

\*1 RoHS: The directive restricts the use of designated hazardous materials in the manufacture of various types of electronic and electrical equipment

\*2 REACH Regulation: The regulation describes about registration, evaluation, authorization and restriction of chemicals in the EU

### **B**usiness Activities and Environmental Impact

The SII Group believes that understanding environmental impact throughout the product life cycle is essential to properly conduct environmental activities. The overview of FY 2012 environmental impact and environmental performance is explained in the table below.

#### INPUT (Details)

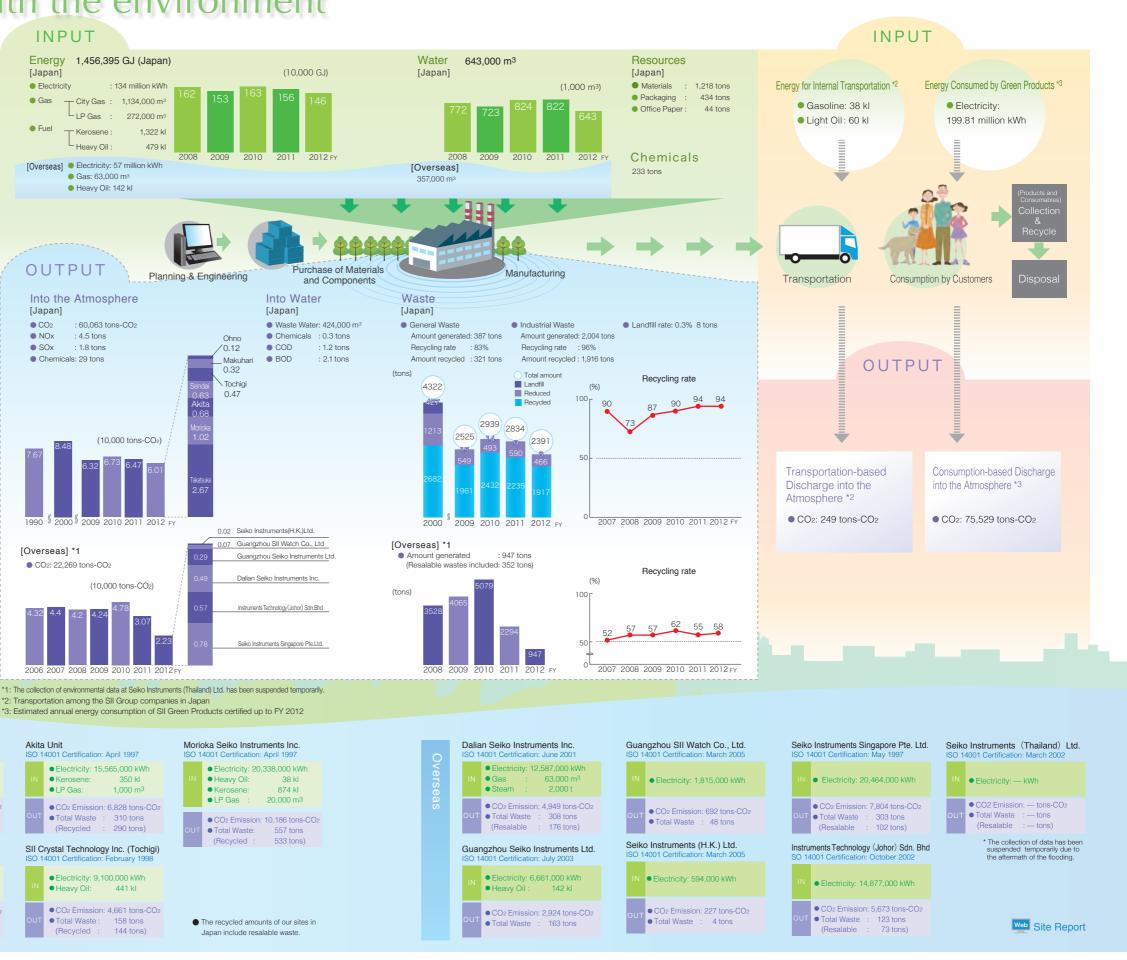
- Materials: Metals, plastics, glass and other materials used in production
- Packaging: Plastics and paper subject to recycling according to the Law for Promotion of Sorted Collection and Recycling of Containers and Packaging
- Office Paper: Paper for printers and copiers
- Chemicals: PRTR hazardous chemical substances, HFCs, PFCs, SF<sub>6</sub> and VOC
- Electricity: Power purchased from power companies
- Water: Tap water, industrial water and groundwater

#### **OUTPUT**(Details)

- NOx and SOx: Figures represent sites that have soot and smoke emitting facilities regulated by the Air Pollution Control Law
- Chemicals: PRTR hazardous chemical substances, HFCs, PFCs, SF<sub>6</sub>, and VOC discharged into the atmosphere and water
- Waste Water: Release into rivers and sewer systems

**Business Units and** 

- COD (Chemical Oxygen Demand): Limited to the sites subject to the regulations in the Water Pollution Control Law covering the total pollution amount
- BOD (Biochemical Oxygen Demand): Limited to the sites that have
- specified facilities as prescribed by the Water Pollution Control Law











#### Seiko Instruments Inc.

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