# Technology Support on the Leading Edge





CSR Report 2013



# **Editorial Note**

The Advantest Group has been issuing its Environmental Report since fiscal 2000, its Social and Environmental Report since fiscal 2006, and its CSR Report since fiscal 2007.

We have been releasing such reports in PDF format since fiscal 2011 in order to help curb use of paper resources. Moreover, we have been showcasing our activities through the company's online CSR Report since fiscal 2012, with respective sections arranged in accordance with the seven core subjects of social responsibility defined in the ISO 26000 guidelines.

#### Scope of Report and Period Covered

This report covers activities pursued by Advantest and its major affiliates in Japan and overseas throughout fiscal 2012 (April 1, 2012 to March 31, 2013).

\* Some activities before and after fiscal 2012 are also featured in the report with the aim of facilitating reader understanding.

#### **Guidelines** Referenced

- GRI, "Sustainability Reporting Guidelines (G3)"
- Ministry of the Environment, "Environmental Reporting Guidelines 2007"
- Ministry of the Environment, "Environmental Accounting Guidelines 2005"
- Japanese Standards Association, "ISO 26000: 2010, Guidance on Social Responsibility"

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#### **Message from CEO**

trust of society.

CSR Report 2013



Representative Director, President & CEO Haruo Matsuno

# Developing leading-edge measurement and testing technologies while helping to ensure public safety and security

A keen awareness of our obligation to help

ensure public safety and security underpins

our steadfast commitment to earning the

Since our founding in 1954, Advantest has been consistently researching and developing state of the art measurement and testing technologies, driven by our corporate message spurring us to provide *Technology Support on the Leading Edge*. We regard such technologies as 'mother technologies' that we harness to conceive ever better products. Moreover, our well-honed technologies back up highly-reliable manufacturing processes in a broad range of industries, thus helping to ensure a safer and more secure world overall. In this way we duly fulfill our corporate social responsibility (CSR) mandate in the course of ongoing operations and moves toward further expansion.

We are also taking steps to develop new technologies that will contribute to a better future for the world, while remaining ever aware of our obligation to help ensure the public's safety and security. Meanwhile, in conjunction with our stakeholders we are working steadfastly to maximize corporate value by achieving sustained growth.

#### Unwavering dedication to social responsibility amid a changing business environment

Global realignment in the semiconductor industry has recently been picking up steam. This is prompting manufacturers of semiconductor test equipment to create increasingly robust operating structures geared toward meeting global market needs quicker and with more precision, thereby affording such companies a stronger presence in the automatic test equipment realm.

Likewise, in 2011 Advantest opted to acquire the large semiconductor automatic test equipment manufacturer Verigy Ltd. based in the US, and completed full integration of the firm's operations in 2012. The move provided Advantest with a more significant presence in the semiconductor tester market, boosting our operations in the non-memory tester domain where Verigy possessed competitive strengths, in addition to our existing dominant position in the memory tester business.

In line with our ultimate aim of creating innovative products and operational processes, our integration of Verigy's operations overcame disparities between the approaches and attitudes of the two entities regarding product development and manufacturing, while also fusing the technologies, know-how and other strengths long cultivated by each firm. In bringing disparate operations together, we worked hard to encourage face-to-face communication among employees across regional and organizational boundaries, thereby introducing new approaches to various facets of our business such as research and development, manufacturing, service and maintenance, and even human resources management.

These efforts have enabled Advantest to capture greater market share than previously controlled by the two companies combined before integration, while launching Advantest firmly to the top spot worldwide in the semiconductor test systems market. Meanwhile, the process of coming together led to our employees building strong ties that extend beyond departmental and regional lines, resulting in an organizational environment sure to act as a significant asset as we pursue future growth.

#### Gearing up for further growth as we enter new fields of business

Our dominant position in the global semiconductor test system market brings with it even greater societal obligations. With that in mind, we launched our corporate-wide ACT2014 initiative in fiscal 2012, designed to leverage synergies of Advantest and the former Verigy to help us achieve further growth as the industry leader. Standing for Advantest Culture Transformation, the ACT2014 initiative was so named to reflect our strong desire to fuse the corporate cultures of Advantest and the former Verigy in taking the company forward.

The ACT2014 initiative sets targets for future growth that include a greater share of the tester and handler market, our core business arena. The initiative also calls for a four-fold increase over fiscal 2011 in sales generated by new businesses, particularly focusing on opportunities in medical care, the environment and energy — all business realms where we can help address societal needs. Meanwhile, the need for us to pick up the pace in pursuing new business opportunities led us to develop our in-house ADVenture initiative, launched in fiscal 2012, whereby we encourage employees worldwide to submit ideas related to potential new ventures. Those ideas are then discussed over the corporate intranet, with promising ideas subsequently turned into commercially viable enterprises.

We are committed to providing greater benefits to society going forward, while fearlessly entering new fields of business guided by our slogan, "Working Together, We Can Do Better."

#### Building a company that will remain integral to society a century from now

In addressing issues inherent in our Corporate Social Responsibility mandate we vow to remain constantly aware of our corporate obligation to help ensure public safety and security, while staying in tune with our responsibilities toward society as a leading company in our industry.

In addressing environmental concerns, we drafted the Advantest Group Environmental Action Plan on the basis of our environmental policy, which guides us in our efforts to implement environmentally-sound management practices across the entire Advantest Group. Under the Fifth Advantest Group Environmental Action Plan, concluding in fiscal 2012, we achieved clear-cut progress toward objectives in the respective action plan categories of: environmental management, environmentally-friendly products and environmentally-sound business practices. Furthermore, fiscal 2013 marks the launch of a now more globally-oriented Sixth Advantest Group Environmental Action Plan (fiscal 2013–2014), which accounts for the prospect of an increasing environmental impact from our overseas business locations.

Meanwhile, to more effectively pursue initiatives premised on our corporate social responsibility mandate, we have opted to embrace the ISO 26000 guidelines of the International Standards Organization, based on which we have launched initiatives to assess company activities. This process is enabling us to pinpoint our strengths, identify our weaknesses, and prompt a worldwide transformation of our operations, thereby hastening our growth as we establish our position as a truly global company, trusted throughout the global community.

Our aspirations in this regard prompt us to look far ahead at how we might best serve society in the future. Accordingly, we intend to pursue a position as a company that is both trusted and needed by society in the long term, toward which end we vow to shun complacency while consistently looking out into the future toward impending societal changes, and persistently stepping up to the challenge of creating innovative solutions tailored toward emerging industry demands.

Finally, I would like to express my sincere appreciation to all of our stakeholders for your ongoing confidence and support.

#### **Advantest's CSR**

#### CSR Report 2013

#### The ADVANTEST Way and the Code of Conduct

The ADVANTEST Way and the Code of Conduct provides a set of rules and standards of behavior that all executives and employees must observe when carrying out the Group's global corporate activities, At Advantest, we take a global perspective when implementing our company management and our social and environmental activities so that we may use our cutting-edge 'measurement and testing technologies' to fulfill the expectations that our customers and all of our stakeholders throughout the world hold for us.



The ADVANTEST Way and the Code of Conduct

#### CSR Organization and Policy

Based on the Advantest Group's corporate mission of delivering "Technology Support on the Leading Edge," our purpose as a Group is to use our 'measurement and testing technologies' to support the development of society and to help to ensure that people throughout the world can live safely and securely. We provide our customers in many countries with a range of products and services and we are contributing to society through our business activities in our core competence field of 'measurement and testing technologies.' In addition, we are using our business activities to meet the needs of our stakeholders and of society and to fulfill our social responsibilities as a group with a presence throughout the world.

#### Organization for Promoting CSR

We established the CSR & Environmental Affairs Promotion Center, which is headed by the President and CEO, in order to clarify the objectives and responsibilities of the executives within the Advantest Group. The Center is responsible for the overall promotion of our CSR initiatives and affairs. Beneath this organization we have positioned the CSR & Environmental Affairs Promotion Office, which is responsible for implementing our social contribution activities. In addition, all divisions and departments within the Company exchange CSR-related information and conduct CSR activities on a daily basis; this in turn supports our compliance with ISO26000 standards.

Moreover, we established the CSR Working Group to promote CSR initiatives horizontally across the entire Group, The Working Group is staffed by members of the various departments that are responsible for the Group's CSR and it is developing and coordinating activities on a global scale.

#### Advantest's Organization for Promoting CSR



#### **Medium-term Management Targets**



In conjunction with our third-quarter earnings announcement on January 28th, 2014, Advantest published a revised sales and earnings forecast for fiscal 2014. Further details <u>here</u> (pages 17 and 18)



antest Culture Transform

New AXX (x)dx=

#### Achieving the Medium-Term Goals

Advantest has embarked on ACT2014 medium-term goals ending in fiscal 2014. To achieve the goals, we are pursuing three themes.

Under "Core Competence Growth" theme, we delivered new solution for CMOS image sensor, car electronics devices, PMIC, and MCU. In addition, to accelerate the working synergies, we have completed reorganizing overseas offices with "one nation, one company" principal. Under "Tester Peripherals Growth" theme, we reinforce probecard marketing activity, and pursing the effort to improve the profitability.

Under "New Business Growth" theme, we enhance efforts with initiatives already in progress. This includes winning orders from major pharmaceutical manufacturers for our terahertz spectroscopic imaging systems and release new product for wafer CD-SEM market. We have also launched ADVenture Initiative(ADVANTEST Venture) whereby the company invites employees worldwide to submit fresh ideas for new business ventures and products.

In conjunction with the growth strategies detailed above, we have also launched Globish\* Initiative as a part of the ACT2014 program, to accelerate global communication, cooperation and corabolation.

Through these thems and initiatives, iwe will act to achieve the goals.

\* Globish: It is Plain English (easy to understand English) optimized as an international common language for people not having English as native language. The rules below are for communication in Globish.

#### Fiscal 2014 Targets





#### Three growth themes

(¥B)

300 ¥250B 250 4X ¥40B New Business Growth 200 Tester Peripherals Growth 7 150 ¥141B 2X ¥10B Core Competence Growth 100 ¥150B 1.5X ¥100B 50 Total tester & handler market share: Total tester & handler market share: 43% 50% 0 FY2011 FY2014

#### Feauture : Research and development

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#### Research & Development



# Leading the way forward bringing together cutting-edge technologies worldwide

Developing next-generation flash memory testers poised to become the industry's de facto standard

Outstanding core technologies amassed by both Advantest and the former Verigy Ltd. can now be fused in thedevelopment of competitive new technologies geared to global market needs. Advantest is fostering close collaboration between research and development teams based in Japan and the US, from which we expect a new style of research and development to emerge, thus bridging the gap between differing philosophies and approaches to production engineering.

With our April 2012 integration of Verigy Ltd., Advantest now has research and development operations in four regions worldwide — Japan, the USA, Europe and China. Going forward, we plan to combine the mainstay core technologies of Advantest with those of the former Verigy, while ensuring timely releases of competitive new products tailored to global market needs.



T5831ES

Our T5831 series of memory testers for next-generation NAND flash memory and multichip packages (MCPs) represents the first product to be developed under our new R&D platform.

This project for development of a new tester solution was launched in July 2011, immediately after the integration of Verigy Ltd. At that time, we were seeing growing flash memory demand, underpinned in part by an increasing proliferation of smartphones. Above and beyond our aim of coming up with a tester for next-generation, high-speed NAND flash memory devices and MCPs, we were also setting our sights on a new tester solution capable of high-throughput testing that would greatly enable our customers to boost productivity. Advantest's integration of Verigy Ltd. presented the perfect opportunity for us to bring the technological competencies and know-how of both enterprises together, and then launched a project to develop a next-generation tester solution that is now poised to become a de facto industry standard.

In the development phase, we crafted a framework that leverages the strengths of development teams in both Japan and the US. Toward that end, the two sides spent roughly three months sharing full details regarding respective technologies, know-how, areas of specialty and other facets of their operations, while at the same gaining a deeper understanding of one another. Given their wealth of experience in the realms of analog-related technology for measurement modules and CPU and CPU peripheral architecture technology, the R&D team in the U.S. took on the task of developing tester measurement modules. Meanwhile, the R&D team in Japan, which possesses unparalleled capabilities in the design of overall device features, operability and other such product attributes, set up a means for handling development efforts involving aspects of the new product deriving from existing models.



Differences between the two teams over production engineering philosophies and approaches, such as in terms of design rules and processes leading up to the mass production phase, made it necessary for project engineers to bridge such gaps as they proceeded with product development. As one specific example, after the U.S. side shifted from their former operating system software to the FutureSuite platform developed and used in Japan, members of the Japanese team aptly lent a hand to the U.S. R&D team in part by providing design assistance to the U.S. technology team that was handling product design and development. This close cooperation between engineers from Japan and the U.S. is to thank for the success of the Japan and U.S. tester development teams in making it possible for Advantest to ship the T5831ES



system designed for next-generation NAND flash memory R&D applications in April 2013, as initially planned. Since then, our teams have begun developing a tester designed for use in mass production.

As we move forward, Advantest is committed to ensuring that our corporate mission of providing "Technology Support on the Leading Edge" is pursued worldwide, and accordingly will work to bring about a new style of research and development — one in which we leverage the know-how built up through our current development projects toward bringing together the technological competencies, outstanding development methodologies and other such strengths found in our worldwide R&D bases.

# **Staff Voices**



Technology Development Group Takashi Kawasaki Message from Our People

# Developing better mutual understanding to facilitate more effective joint development efforts

For this project, the U.S. development team handled the design and development of measurement modules such as the pin electronics (PE) boards which govern the test functions of tester units, in accordance with development rules from the Japan side. Meanwhile, I and others on the Japan side contributed to the project by lending our support in areas across the realms of PE design, arranging for the release of graphs, prototyping, and evaluation. To ensure that development would proceed smoothly, we of course aided the U.S. team in understanding Japanese development rules, while seeking to bring about a relationship built on mutual trust. I really want to see us continue to encourage interaction and deepen understanding among our engineers around the world to ensure further efficient joint development initiatives.

#### **Message from Our People**

# Integrating the strengths of Advantest and Verigy into our new business platform

I have been acting as a program manager and mechanical design manager for this product. The success of our joint product development efforts hinged on our ability to create a new product development platform that would combine the strengths of Advantest and the former Verigy Ltd., in terms of development processes, design technology and other such areas. Whereas the project involved plenty of trial and error along the way, our efforts in working on the project overall led to us gaining a wealth of knowledge regarding Advantest's technology, and also helped us build strong bonds of trust. This will doubtless aid us down the road in efficiently achieving joint development outcomes with advanced memory tester products.



Americas Memory Test (AMT



#### **Feature : Production**

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#### Production



# Establishing an optimal production framework on a global scale

In-house production and EMS — Moving beyond differences in manufacturing approaches

We are leveraging economies of scale emerging from our integration of the former Verigy Ltd. to achieve an even greater industry presence.

Advantest is forging a new approach to production that draws on the combined advantages of inhouse manufacturing and EMS production, thus venturing beyond differences in production engineering philosophies and manufacturing approaches.

In recent years the semiconductor industry has been undergoing a transformation that involves increasingly globalized divisions of labor across national boundaries, accompanied by a rapid shift of semiconductor production to Taiwan, Korea, China and other Asian countries. Such changes compel a flexible approach, as the need to prevail amid fierce competition makes it crucial that companies create operating structures comprising optimally-located production facilities capable of swiftly delivering superior products in line with market demands.



Consequently, Advantest has been pursuing numerous strategies toward creating an optimal production framework along these lines on a global scale, capable of flexibly

developing and supplying products geared toward customer needs. Toward that end, we have been fully leveraging economies of scale brought about through our integration of Verigy's operations, while combining production at our own factories with capacity from electronics manufacturing services (EMS).

We are also placing particular emphasis on our new product introduction (NPI) initiatives which are designed to enable low-cost mass production at optimally-located factory sites. Such initiatives entail cutting production costs by enlisting teams of specialist employees from fields such as design, production technology, procurement and quality assurance in the initial phases of new product development, who then carefully select components and draft exacting production plans that ensure streamlined operations, while also ensuring that costs are kept well under control. Before introducing our NPI program, our production divisions in Japan, for instance, which were then mainly engaged in manufacturing at our own factories, would for the most part try to cut costs by giving careful consideration to assembly and wiring techniques and manufacturing processes, while using components selected in the design phase. Now, through NPI initiatives we strive to gain a greater competitive edge through cost cutting initiatives geared toward processes more in the upstream realm. The NPI scheme was fully adopted with the launch of the

first new product development project after the Verigy integration, through which Advantest Japan has been working with overseas divisions handling the project in pursuing sweeping innovation within operations from product development all the way to mass production processes.

#### **NPI** initiatives



We have also been working to make the most of economies of scale emerging from the Verigy integration by taking steps to fuse the respective organizational entities while melding differing approaches to work.

In the procurement realm, for instance, we are giving shape to a purchasing framework that enables us to source quality parts worldwide on favorable terms. This has entailed setting up individual purchasing teams on the basis of component categories, with such teams having been launched for procurement of commodity components, application-specific integrated circuits (ASICs), power supply-related parts and other such components. Through that initiative, our procurement workforce has been sharing intelligence within each of the purchasing teams, and also across the company's entire procurement structure throughout Japan and elsewhere in the world.



Meanwhile, we have also been working to streamline operations in the production management realm by integrating production planning across the entire Advantest Group, while also ensuring leaner meetings overall. Toward that end, we have been taking steps to merge meetings covering long-term demand forecasts and production planning thus far held on separate occasions by production divisions in Japan and those overseas.

We are well aware that the task of flexibly addressing challenges emerging amid a changing world and evolving markets in order to prevail while facing stark competition requires that we take on new ideas and perspectives on the road ahead, while persistently seeking out better approaches to business, rather than holding to those of the past. With Advantest now embarking on efforts to forge an optimal production framework on a global scale, we set our sights on pursuing all-out manufacturing innovation from this point forward.

### **Staff Voices**



Production Group

Message from Our People

# Reaping the advantages of globally-optimized production through an efficient transfer of manufacturing capacity

My first product development task after our integration of the former Verigy Ltd. entailed acting as a member of the NPI Team on the Japan side. I travelled to the U.S. on several occasions six months or so before the release of the new product, starting from the initial prototype creation and assessment stage. After that, I spent over four months there involved in undertakings such as working out schedules with development operations in the U.S. and production units in Japan, and gathering and relaying information to facilitate materials procurement. These efforts helped ensure that the product was shipped on time. Going forward, I intend to stand behind the company's efforts to make the most of its globally-optimized production structure by helping to establish a consistent structure throughout the world for enabling more efficient transfer of production capacity, whether involving our own plants or outsourcing to electronics manufacturing services.

#### **Message from Our People**

#### Forging win-win relationships with our suppliers

I work as a procurement manager responsible for sourcing FPGAs, standard semiconductors and memory modules used in V93000 series testers. Since our integration with the former Verigy Ltd. in April 2012, those of us involved in procurement for Advantest have been setting up optimal procurement schemes and policies designed to better streamline operations, while also pursuing economies of scale by making purchases in bulk on a Group-wide scale. Among our efforts to make this strategy work, we have been negotiating prices on the basis of Group-wide purchase volumes, coming together to form strategic supplier assessments, and further performing investigations regarding conflict minerals relevant to our supply chain, while at the same time we have been working to build win-win relationships with our suppliers.



Advantest (Singapore) Pte.Ltd.

**Catherine Chang** 

#### Feature : Maintenance services

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#### Maintenance Service



# Aspiring to become a global leader in maintenance services

Maintenance services that deliver high added value and underpin confidence in the Advantest brand

We are taking on the challenge of building an unprecedented maintenance services platform that delivers high added value on a consistent basis worldwide. In so doing, we intend to keep offering service features that people expect from Advantest brand products while helping our customers further boost productivity.

In the wake of our integration with the former Verigy Ltd., Advantest is setting out to build a service platform that delivers high added value, thereby introducing new service structures promising global consistency and contributing to higher levels of customer productivity.

We embarked on this endeavor in April 2012, with our launch of a global task force within the Field Service Group. Since that time, the task force has been working out cohesive rules and in-house procedures pertaining to our global maintenance services, while also setting up consistent worldwide price structures and maintenance policies. Going forward, the task force will set up an operational infrastructure for rendering these services, tailored to the needs and circumstances of markets in respective countries, yet performed on the basis of unified global standards.

Meanwhile, under our company-wide ACT2014 initiative we have set a goal of becoming the industry leader in the business of servicing semiconductor test systems, and are accordingly pursuing an aggressive services strategy that involves efforts spearheaded by our global task force to form close alliances with worldwide entities affiliated with such services.

We have beefed up the marketing capabilities of the Field Service Group, and painstakingly surveyed worldwide customer needs for maintenance services. Now, we are working toward drawing up and implementing maintenance services strategies that reflect such needs, optimally geared toward individual service segments in the memory field, the system on a chip (SoC) field, and the LCD, image sensor and other specialized applications field.

We are stepping out beyond the traditional mode of providing after-the-fact repair services in the realm of breakdown maintenance, and are instead actively developing total support services for test systems designed to help customers increase testing productivity. More specifically, we are now developing and offering diagnostic services along with new software packages and tools that enable customers to avert equipment failure. We have also improved our maintenance services for test handlers, other such peripheral devices, and other forms of equipment. These initiatives are enabling us to provide better customer support that helps our customers realize productivity gains.



#### **Global Operations**



We have upgraded our Business Continuity Plan, drafted to provide guidance for keeping our operations running should a disaster strike. If a violent earthquake were to occur, for instance, damage to the measuring terminals of measurement units could leave a factory without the capacity to take measurements, even if its semiconductor test systems were undamaged. With the aim of preventing such a scenario, Advantest worked with customer-based disaster-protection systems in developing technology that enables such measuring terminals to be removed from harm's way should an earthquake exceeding a certain intensity occur.



With that recently-developed technology installed in customer equipment now in operation, we plan to offer new services whereby we provide customer support to ensure ongoing operations by minimizing equipment downtimeresulting from seismic activity.

We have also developed a commercial venture involving services for system migration. In this area, we help customers who have been using legacy products make a smooth and speedy transition to the latest inspection systems by enabling them, when at all possible, to continue using software packages and other such tools with the new devices.

These sorts of innovative service solutions are enabling Advantest to expand its operations in the services realm, and to build relationships with its customers that deliver win-win outcomes on both sides.



#### **Customer support services**



## **Staff Voices**



Field Service Group

#### Message from Our People

# Globally consistent maintenance services offer greater peace of mind

We have been consolidating Advantest's information infrastructure across different countries in line with the company's transition to our new globally-unified operating framework. This will enable us to provide services that address customer needs for increased productivity, delivered on through a new operating environment designed for speedier access to service-related data from around the world. Meanwhile, we are aiming to deliver a lineup of Advantest Group products that ensure our customers even greater peace of mind.

#### Message from Our People

# Providing services that bring substantial added value tailored to customer needs

I act as a marketing manager in the Field Service Division. Following the Verigy integration, my team crafted a marketing strategy for field services ahead of the company's shift to its updated services framework. More specifically, we worked with our sales team and product development division in coming up with a services portfolio geared toward the needs of our customers, hammering out price schemes, and reviewing sales strategies. Through our new services framework we aim to deliver greater added value by expanding our services beyond maintenance support involving replacement equipment and spare parts to include other areas such as providing our customers with software tools that enable them to achieve productivity gains.



Advantest Europe GmbH Roland Friedrich

#### Feature : Human resources management

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Feature | From integration to full assimilation Working Together, We Can Do Better

#### Human Resources Management



# Toward a truly global human resources management platform

ARMS — a new system to unify worldwide personnel initiatives

# Advantest's integration of Verigy Ltd. has delivered a more global workforce and a greater diversity of approaches to work.

This has prompted us to embark on building a new human resources management framework unified across our global operations, designed to draw on workforce competencies to fuel growth of the company. This new framework establishes corporate practices that extend across organizational and regional boundaries, and creates a corporate environment that inspires all employees to make the most of their abilities.

Our integration of the former Verigy Ltd. has turned Advantest into a more global company, with over 90% of our sales revenue now generated outside of Japan and roughly 2,000 of our employees based overseas — or over 40% of our total workforce of slightly under 5,000 individuals. These changes in corporate structure necessitate that we adopt a uniform human resources framework across our global operations, such that it will enable us going forward to proceed smoothly with initiatives entailing collaboration, employee interaction, and job reassignments involving multiple business locations around the world. Toward that end, Advantest held a global human resources conference during which management considerated the most appropriate form for our new human resources program, with sessions held beginning in September 2011 before the Verigy integration. Consequently, management went about restructuring Advantest Group companies in respective countries, which involved transitioning in April 2012 to a new system under which a single Advantest company generally operates in any given nation, while also introducing the Advantest Resource Management System (ARMS) which establishes cohesive personnel practices worldwide.



**Global Human Resource System** 



Under our updated human resources management protocol we have established a new, global employee grading system comprising 10 job levels, while doing away with the former employee grading systems that had been set up individually by operating companies in respective countries. Under the new system, job levels one through six are assigned to general employees, while levels seven through ten are for management. It also provides for a dual management track, with one management category comprising those who engage in tasks such as budget control, employee evaluation and labor management, and the other category comprising those who focus on coordination and execution of business operations. Under the updated employee grading system, the dual management track places line managers who oversee subordinates in the former category and managers such as those with a specialty in the latter, thereby enabling the company to fine-tune benefit packages to fit a diverse range of management talent.

We have also moved to apply consistent rules worldwide to our base salary and bonus structures. For instance, the new system shifts to a mode of calculating bonuses on the basis of consolidated earnings, whereas previously such compensation was largely a reflection of results of individual Group companies in their respective countries. We also introduced a new personnel evaluation program in fiscal 2012. Under the new program, employees are ensured equitable assessment results and benefit packages, given that they are now subject to a single performance evaluation yardstick worldwide.



#### Global Job Level and Title

Job Level	Job Title			Descriptions		
1	Entry			Performs routine tasks of a repetitive nature in a		
2	Career			Duties and responsibilities focused on structured and		
3	Associate			Requires specific knowledge of a business function or		
4	Developing		3	Handles moderately complex assignments and works		
5	Senior			Provides specialist or technical recommendations to		
6	Funert			Requires ability to make tactical judgments that are		
7	(Sr.)Manager	-	(Sr.)Consulting Manager	Operational team leader or professional/technical advisor		
∞ Manager	Director	Manager	Consulting Director	Sets goals and targets for a department or management team		
ble Ma	Sr. Director	onal N	Principal	Sets annual plans in accordance with the global or regional strategy		
9 10	VP (or SVP)	Functional	Fellow	Accountable for developing and establishing long-term plans in line with the Advantest Group strategy		

Meanwhile, the new human resources framework offers labor management flexibility in setting up working hours, telecommuting arrangements and other job specifics, so that managers can more aptly address such matters directly in accordance with the laws and regulations of their respective nations and in line with local employment practices.

Gearing up for launch of the new human resources framework in April 2014, we are also putting together a human resources database that contains basic personnel data along with specific employee details such as career experience and skill sets, which we intend to draw on going forward in making effective decisions when forming project teams, reassigning personnel and other initiatives pursued across our global operations.

Moreover, we are setting up human resource development schemes with a worldwide reach, promoting employee diversity through active efforts to hire and promote employees with differing backgrounds, and taking decisive steps toward forging an employee recruitment strategy that accords with the business strategies of our operations in diverse countries.

In the spirit of establishing ourselves as a truly global company going forward, Advantest will continue to work hard to create a professional business environment where every member of a diverse Advantest Group workforce can make the most of his or her individual capabilities.

### **Staff Voices**



Corporate Administration

Yuji Hashimoto

**Message from Our People** 

#### Working with group companies outside Japan to improve our human resources systems and ensure proper follow-up

As part of the Global Human Resources (GHR) Team launched ahead of the business integration of Verigy Ltd., my work included Advantest Resource Management System (ARMS) planning as well as monitoring operational aspects of the system. Our ability to introduce the new personnel system in a short timeframe of roughly nine months chiefly stems from our success, through the GHR Team, in encouraging effective dialogue among our human resources staff around the world, rather than a Japan-led discussion. The system has only been in place for a relatively short time and employees in various countries have pointed out issues with ARMS and suggested improvements. Accordingly, going forward we intend to incorporate a diverse range of employee views in updating the system as we make improvements by coordinating our efforts with operations worldwide. We will follow up on changes with a focus on operational efficacy.

#### **Message from Our People**

#### Our adoption of the Advantest Resource Management System (ARMS) has strengthened global ties and streamlined operations

I took part in developing the Advantest Resource Management System (ARMS) as part of the Global Human Resources (GHR) Team in charge of personnel management in Europe. ARMS acts as a common framework for human resources management across the company's worldwide business locations to better facilitate global business collaboration and employee interaction. I truly believe that it will help bring group companies closer together as we move ahead. Moreover, with a proper framework for human resources management now in place, our human resources divisions in individual countries will now be able to focus more on location-specific tasks involving staffing and remuneration, and human resource database management, while another advantage of the new system is that it enables us to make day-to-day tasks increasingly efficient. We are still working to improve the system further by sharing examples of successful initiatives and expertise amongst the company's human resources divisions across the globe.



Advantest Europe GmbH Sabine Schlager

#### **Corporate Governance**

#### CSR Report 2013

#### Our approach to corporate governance

We aim to increase operational transparency, achieve sustainable growth, and increase our corporate value in line with the basic principles of management set out in The ADVANTEST Way and Code of Conduct, a set of rules and standards of behavior that all executives and employees must observe. We clearly separate decision making and supervising functions from executive functions, enhancing management efficiency and transparency.

#### Management structure

The global business environment is changing more rapidly than ever before. To continuously increase our corporate value and competitiveness in today's world, we emphasize speedy decision-making and execution. We also place an emphasis on sound, highly transparent business operations in compliance with laws and regulations. In order to meet these challenges, we draw clear lines of authority within our organization and set responsibilities in accordance with each management function, assigning each role to the best person for the job.

Advantest utilizes the Audit & Supervisory Board Member system built around the Board of Directors and the Audit & Supervisory Board. Since 2003, we have also introduced an executive officer system in order to improve our response times and enhance corporate governance.



#### Corporate governance structure

#### Board of Directors

The Board of Directors makes decisions on management policy, strategy, and other critical matters for the Group, and also monitors and supervises the company's executive officers to ensure business is conducted swiftly and efficiently. Effective June 2006, we shortened the term of office of directors from two years to one in an effort toward better clarifying their management responsibilities while building a management structure capable of rapidly addressing prevailing issues in our business environment. The Board of Directors currently consists of nine directors\*, of whom six are internal directors and three are external directors.

In 2005, we also established the Nomination and Compensation Committee to discuss matters concerning the nomination and compensation of officers in consultation with the Board of Directors, and propose the results to the Board of Directors.

\* As of June 26, 2013

#### Executive Officer System

Advantest has introduced an Executive Officer system that keeps decision-making functions separate from executive functions in order to boost management efficiency.

Executive Officers are selected by the Board of Directors as senior management dedicated to the execution of operations. They have the responsibility of swiftly and efficiently implementing management policies and strategies determined by the Board of Directors. The term of each Executive Officer is limited to one year to achieve more explicit accountability.

There are a total of 22 Executive Officers\*, some of whom are based in Japan while others are assigned to locations in North America, Europe, and Asia to enhance integration of the company's global operations.

\* As of June 26, 2013

#### Executive compensation

The Nomination and Compensation Committee discusses executive compensation in consultation with the Board of Directors and proposes the results to the Board of Directors. Director compensation is determined by the Board of Directors based on such proposals, while compensation of the Audit & Supervisory Board Members is determined with the cooperation of its Board Members after such proposals have been presented to the Audit & Supervisory Board by the Board of Directors.

Executive compensation at Advantest for fiscal 2012 was as follows.

Classification	Number of employees	Compensation amount
Directors	10	478 million yen
Corporate Auditors	4	64 million yen
Total	14	542 million yen

#### 1. Notes

- 2. The amounts of compensation set forth above include compensation paid in relation to stock option rights and fixed compensation paid to one director who retired from his position and two directors appointed as of the closing of the 71st ordinary general meeting of shareholders, which was held on June 26, 2013.
- 3. The amount of compensation set forth above includes the aggregate amount of compensation for four outside directors and two outside audit & supervisory board members in the amount of ¥48 million.

#### Internal controls

We created an internal controls system compliant with the US Sarbanes Oxley (SOX) Act, enacted in July 2002. The system has since been upgraded to meet the compliance requirements of Japan's Companies Act, which came into effect in May 2006, as well as the Financial Instruments and Exchange Act (April 2008). In June 2011, our Internal Controls Committee assessed the efficacy of our fiscal 2010 internal controls, and met again in February 2012 to confirm the progress of assessment in fiscal 2011.

As part of an internal system of control, we carefully identify and classify risk factors in our key business processes that may be latent in our management environment, business activities, and company properties. We analyze the seriousness and probability of these risks, and formulate policies and procedures to properly manage them.

Furthermore, in the interests of consolidated group management where focus is placed more on consolidated financial performance than on separate aspects of financial performance, we ensure that the same high quality internal control systems are maintained and operated throughout Advantest Corporation and its affiliates. The internal control systems employed within Advantest's worldwide affiliate companies are operated regionally in accordance with the group wide, uniform policy formulated by the Internal Control Committee. Important matters concerning internal controls that occur within the Group are reported to the Board of Directors by the Internal Control Committee.

#### Audit system

The Audit & Supervisory Board Members audit the Directors, Executive Officers and other executive bodies of the company in accordance with the audit policy and audit plan created by the Audit & Supervisory Board. They carry out their duties by attending the meetings of the Board of Directors and other important meetings, and conducting detailed reviews of Advantest's operations and assets. The Audit & Supervisory Board has four Audit & Supervisory Board Members, two of them full-time. Two are internal auditors and two external\*. We have also established an Auditing Group as an internal audit organization. The Auditing Group monitors the status of Advantest's internal controls on a daily basis, and identifies problems and recommends improvements wherever needed.

\* As of June 26, 2013

#### Internal auditing

Advantest's Auditing Group annually conducts an internal audit of risk and operational control of each Group company to ensure compliance with relevant laws and regulations.

As a listed company on the New York Stock Exchange, Advantest is required to comply with the US Sarbanes Oxley (SOX) Act. We therefore utilize the COSO framework\* and the control self-assessment (CSA)\*\* technique to ensure that the operational processes of each division exceed the standards required. In recognition of the indispensability of these efforts in boosting the transparency of our business activities and building a positive corporate culture, we work hard to address each and every problem discovered during an internal audit.

\* COSO framework:

A framework for internal control proposed by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in 1992. In order to ensure—largely for the benefit of shareholders — that internal control is performed systematically over the activities of the manager and all other personnel, internal control is defined as having three objectives: (1) effectiveness and efficiency of operations, (2) reliability of financial reporting, (3) compliance with applicable laws and regulations, and consisting of five components: (1) control environment, (2) risk assessment, (3) control activities, (4) information and communication, (5) monitoring. These components are considered to be the standard elements by which to measure the effectiveness of internal control.

\*\* Control self-assessment (CSA):

An internal control method that allows executives and managers directly involved in businesses of the entity to assess the effectiveness of the entity's control processes and risk management. With this technique, it is expected that risks can be identified, and control activities can be assessed and improved effectively and efficiently.

#### **Risk Management**

#### CSR Report 2013

#### Risk management basic policy and structure

The Advantest Group will conduct measures to minimize damage should any of the following events occur:

- 1. If damage is caused to buildings or facilities, or if networks and systems stop functioning making it difficult to continue our business operations, or if there is the possibility of this type of situation occurring due to a disaster or accident;
- 2. If there is the danger of one of our executives or employees being killed or injured or their life or physical health is put at risk due to a disaster or accident;
- 3. If there is an occurrence of scandal or incident that has the potential to become a social concern; or,
- 4. If any event other than those described above were to occur that could cause a significant impact on the business of the Group or its affiliates due to a disaster or accident.

#### Organizational structure for promoting risk management

The Risk Management Group (Group Manager: President) was established in December 2001. If any of the events described above should occur, the Risk Management Group quickly convenes to unify information, conduct an initial evaluation, make adjustments between divisions, and establish recovery plans. This Group continues operations until recovery work is fully completed.

#### Business Continuity Plan

Advantest Corporation established the following basic policy during fiscal 2007 in preparation for large-scale natural disasters. We have devised our business continuity plan based on this policy.

#### Business Continuity Plan (BCP) — basic policies

- . We will place top priority on ensuring human safety should a major disaster strike.
- We will fulfill our responsibility to our stakeholders by ensuring that any impairment to our operations has a minimal adverse impact on our suppliers and other stakeholders.
- We will regularly engage in disaster preparedness initiatives in coordination with local communities, and work with them in recovery efforts should a disaster strike in the vicinity of our business locations.

In the aftermath of the Great East Japan Earthquake of March 2011, we reassessed our disaster preparedness and response systems, and then in fiscal 2012 accordingly set out to rework our BCP, which was drafted back in fiscal 2007. We began by pinpointing conceivable threats of disaster in order to better forge scenario-specific response measures. Consequently, the plan now envisages a high likelihood of a major earthquake within the next 30 years, while also assuming an earthquake directly beneath Tokyo metropolitan area, which would deal the greatest blow to the company. Meanwhile, we also updated the BCP to include a potential extreme weather event in the coming years, involving heavy rains and flooding amid overflow of the Tonegawa river, which runs through Gunma and Saitama prefectures nearby four of our facilities — Gunma R&D Center, Saitama R&D Center, Gunma Factory and Gunma Factory 2. Next, in revamping the BCP we added three pillars stipulating concrete measures that accord with the plan's basic policies.

1.Ensuring human safety	In addition to performing ongoing disaster preparedness drills and trial runs of company procedures to confirm post-disaster employee safety, our efforts to ensure human safety will also include bringing about improvement to our risk management and business continuity practices, updating criteria specifying when to invoke our employee safety confirmation system, and developing manuals that detail emergency procedures in respective business locations.
2.Fulfilling responsibility for supply	We will keep our supply system operating, even after earthquakes, at our Gunma Factory and Gunma Factory 2 production facilities, and will devise a supply framework that enables production at alternative sites during floods.
	Moreover, we will create an environment that enables employees to continue performing key tasks from their homes and other alternative locations for a certain time were they to face difficulties reaching respective workplaces should a disaster damage the company's facilities or public infrastructure.



3.Contributing to our communities and society

In the event of a flood in the Meiwa-machi area, we will contribute to the community by providing residents a safe haven in the Gunma R&D Center, which has been officially designated as a flood evacuation shelter by the local government.

Going forward, we will offer employee education and training so that the BCP guidelines become more firmly entrenched, while concurrently taking action to build a Business Continuity Management System (BCMS) designed to facilitate regular BCP review and improvement.

#### Initiatives Related to the Protection and Respect of Human Rights

#### CSR Report 2013

#### Basic Concept of Personnel Management

Our employees are important assets, whom we accordingly treat fairly and with respect. We also support our employees' diverse lifestyles and individual development and are committed to growing together with them. Meanwhile, guided by our Basic Concept of Personnel Management established in September 2000, we pursue a wide range of human resource initiatives to protect these valuable assets and increase their value, including proactive support for human resource development with consideration for fairness and soundness.

#### Advantest's human resources basic philosophy

At Advantest, we consider our employees to be indispensable business assets. We have established the following philosophy that underpins our personnel-related policies, and we are constantly working towards the achievement of this philosophy.

- 1. Focusing on results We promote a human resources system that highly regards and fairly handles employees that exhibit a can-do spirit with which they overcome challenges and achieve outstanding results.
- 2. Taking into consideration fairness and soundness We take constant care to ensure that all of our policies and systems are extremely objective, fair, and sound so that we can achieve the biggest and best results with our employees as a result.
- 3. **Pro-actively supporting human resources development** We actively support personnel that face self-development through persistent hard work in order to acquire advanced specialist knowledge and a broader education.

#### Reporting and consultation framework for human rights issues

We have set up a system to address human rights issues and concerns not readily resolvable in the workplace, designed so that those facing such issues draw on the support of our Corporate Ethics Committee and Corporate Ethics Helpline, and are able to report such matters to our Corporate Ethics Office and seek their advice. The helpline can also be accessed from outside of Japan.

We strive to create a stress-free work environment where all employees respect one another's human rights.

#### Human rights education

#### Creating workplaces that respect human rights

The ADVANTEST Way and The Code of Conduct pledge that we will respect human rights without discriminating on the basis of age, gender, nationality, religion or other factors.

In addition, since April 2006 we have included training on human rights themes such as sexual and power harassment prevention in new employee training and new manager training.

In fiscal 2008, The Code of Conduct was revised to The ADVANTEST Way and The Code of Conduct to reflect these themes. As of fiscal 2012, training has been provided on these themes to approximately 210 new employees and approximately 100 new managers. We plan to continue providing education on these themes in the future.

#### Harassment prevention

To prevent sexual harassment and power harassment, in July 1999, we created a manual and placed it on the intranet for easy reference.

The key points are as follows.

- 1. Definition of sexual and power harassment
- 2. Sexual and power harassment in the workplace
- 3. Impact of sexual and power harassment
- 4. Sexual and power harassment prevention measures

We are working to devise methods for self-check that can be conducted in response to the issues above.

#### Employment of people with disabilities

Advantest Green Corporation (AGC) was established in September 2004 as a special subsidiary of Advantest for the purpose of promoting the employment of people with disabilities. Since then, AGC has been striving to offer job opportunities for and continuous employment of people with disabilities under the slogan, "Support employee independence and achieve social growth in partnership with the local community." These employees primarily engage in activities that provide a comfortable workplace environment for customers, such as landscaping, cleaning, reception duties, selling bread, deliveries, and the management of dormitories. Advantest also actively takes part in various activities in partnership with local communities and relevant organizations to create workplaces where all employees, regardless of their disability status, can work comfortably.

In line with our aim of attracting more employees with disabilities, we took steps throughout fiscal 2012 to make the workplace environment more conducive to their needs such as by standardizing work procedures, introducing equipment replenishment systems, and other such initiatives to streamline tasks. Meanwhile in this regard, we have also been reviewing the prospect of developing new job categories, bringing vocational trainees on board, holding on-site workshops, and otherwise pursuing initiatives linked to sourcing new recruits.

#### Advantest Group employment rate of people with disabilities (Japan)



 We maintain a 2.0% or higher rate of employment of people with disabilities at the Advantest Group (Japan), and improve working environments by upgrading manuals and introducing equipment replenishment methods so that employees with disabilities can work more efficiently.



A working employee

 We remain involved in social contribution activities such as workplace internships and company visits, geared toward needs of local communities.

During fiscal 2012, we hired one new employee with disability, and are continuing to pursue recruitment efforts targeting this segment of the workforce. Moreover, we actively connected with our local communities, honoring many requests for our support in the form of workplace internships, company visits, visiting lecturers and other such activities. Specific activities we participated in are as follows.

#### Activities geared toward local communities

- · Provided vocational opportunities to 26 trainees from local special needs schools
- Organized ten company tours for outside organizations
- Dispatched visiting lecturers on 15 occasions
- · Conducted cleanup activities around our business sites on six occasions
- Took part in an event organized by local special needs school

#### **Recognition from outside organizations**

- Made presentation on case study on our employee development efforts and adoption of Social Skills Training (SST), at the 20th Research Meeting on Vocational Rehabilitation
- Two employees received Exemplary Disabled Worker Awards from the Saitama Employment Development Association



Visiting lecturer with disability addresses an audience



Recipients of Exemplary Disabled Worker Awards

#### Relationship with labor unions

Labor unions currently representing our employees include company union JEIU in which over 97% of our labor union membership is enrolled, as well as industrial union JMIU. Advantest conducts labor negotiations in good faith with each of these labor unions.

#### Considering human rights throughout the supply chain

In order to fulfill our social responsibility and that of our suppliers throughout the supply chain, the Advantest Procurement Policy is disclosed on our website and suppliers are requested to comply with the relevant laws, regulations, and social codes to ensure that human rights are considered across supply channels. In addition, we conduct questionnaires with our major suppliers each year so that we can better understand current realities. For fiscal 2012, a questionnaire was conducted in March 2013, with responses from suppliers indicating that human rights and labor issues were included in company policies and codes of conduct as a form of corporate social responsibility. We plan to conduct a similar questionnaire in fiscal 2013 to confirm the response of suppliers to the Advantest Procurement Policy.

The "Advantest Supply-Chain CSR Development Guidebook" prohibits the act of providing inappropriate benefits, and furthermore in that regard all of Advantest's business partners have concluded a "Memorandum of Understanding on Rejection of Antisocial Forces."

We have scheduled annual reviews into the use and non-use of conflict minerals in accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act established in the U.S., and intend to disclose findings of such review in May of the following year.

Advantest Procurement Policy

#### **Maintaining and Creating Employment**

#### CSR Report 2013

#### Status of employment

The Advantest Group has pledged in its basic policy to respect the human rights of every employee and eliminate all forms of direct and indirect discrimination on the grounds of race, creed, gender, nationality, religion, disability, and any other grounds determined to be the basis of discriminatory practice. Moreover, we engage in fair and equal recruitment and employee compensation practices, while pursuing recruitment, career development and promotion opportunities that enable individuals to work globally.

The chart below shows the number of Advantest employees over three years, and indicates a particularly large increase in the number of foreign employees by Verigy integration in July 2011.



#### Status of employment

#### **Fair Evaluation and Treatment**

#### CSR Report 2013

#### Fair evaluation and treatment

Based on Advantest's basic human resources philosophy, our basic policy focuses on results and takes into consideration fairness and soundness. In fiscal 2012, we introduced our ARMS performance appraisal system, which acts as a unified platform for assessment of Advantest employees and those of our overseas affiliates.

Our specific stance regarding employee appraisal is as follows:

#### "ARMS" (Advantest Resource Management System) Performance Appraisal

- We opted to implement a standardized program for employee evaluations worldwide, after having set up a uniform qualification system.
- We perform comprehensive employee assessments of both their performance and conduct on an annual basis, incorporating reference evaluation techniques and other such means to ensure appraisal fairness globally.

# 

#### Human Resources Development

#### CSR Report 2013

#### Our approach to employee development

To enhance corporate value, we need to ensure that employees clearly understand their role and take the effort to develop their capabilities. We expect our employees to show initiative toward refining their skills, and at the same time encourage them to effectively leverage their respective strengths in the global business arena as part of our team.

Moreover, exceptional management ability to harness combined group capabilities plays a crucial role in our turning innovative ideas into products and delivering them to the market.

Our human resources development efforts are based on the three policies outlined in the illustration below in line with the Advantest Human Resource Development Policy established in April 2003.

Focusing on the three policies of developing an adventurous spirit among our workers, providing our workers with a cosmopolitan outlook, and improving the quality of management, we conduct human resources development to produce a professional workforce capable of navigating the global business environment. Through this policy, Advantest actively supports employees who work consistently to refine their skills, acquire greater expertise, and broaden their knowledge.

#### Development of globally competitive professionals



#### Status and implementation of education and training system

The Advantest Group makes training programs available to all employees, covering everything from the basics of specific jobs to the latest technological trends. We persistently look for ways to further improve these programs to ensure that they are better geared toward shifts in the business environment.

Furthermore, during fiscal 2011 we identified the qualities required of employees to meet the needs of our business strategy in response to the rapidly changing business environment and our own globalization, and have created a training system that will help develop such qualities. To make this training even more effective, we have forged and implemented plans for new programs, including the expansion of our global training program.

Our existing training system is designed for the personnel of Advantest Corporation and its affiliates in Japan. However, the need to redesign such systems from a more global perspective in line with the company's integration of Verigy Ltd. has caused us to examine the training regimes adopted by each of our overseas affiliates and discuss new ideas with relevant personnel. With regard to the newly added training programs, we have decided to use both external and internal instructors depending on the particular course, and to conduct effective sessions taught by specialists in the respective fields.

We continued to run the training programs added in fiscal 2011 again in fiscal 2012, due to the favorable responses from those taking part. Meanwhile, we plan to make the training system itself more globally oriented by drawing on the views of both Japanese and overseas affiliates.

Program	Objective	For	No. of times implemented	No. of trainees
Subordinate Development Training	Enhance management skills	Managers	1	26
Career Development Program	Enhance management skills	General employees	1	18
Problem-Solving Training	Enhance marketing skills	Engineers	1	25
TM Method, Problem-Solving Training (Introductory)*	Enhance marketing skills	General employees	3	64
Technology & Marketing Training	Enhance marketing skills	Engineers	1	15
Global Mindset Training	Enhance communication skills	Managers	4	61
Cross-Cultural Understanding Training*	Enhance communication skills	General employees	2	47
Approaches to Learning English*	Enhance language skills	All employees	5	409
Idea Hacks!* Creative Thinking Workshop	Develop ability to generate ideas	General employees	2	38
Technology Seminar	Acquire knowledge about the latest technologies	Engineers	104	2,235

\* Programs introduced in fiscal 2012

#### Development of engineers

We place particular emphasis on developing engineers with the aim of ensuring that our products continue to underpin leadingedge technologies.

We have created a training program accessible to every employee of the Group and covering a wide range of subjects, from basic knowledge to the latest technologies.

In fiscal 2012, about 100 training sessions were provided, with approximately 2,200 engineers participating. The program now includes seminars hosted by Advantest's senior engineers. Meanwhile, one of the seminars features a lecture on design quality by an employee in charge of design, thereby shedding light on the basic technologies required to maintain and improve product quality based on the speaker's first-hand experiences. The program acts as a means of imparting not only technical knowledge but also Advantest's DNA to successive generations.

#### New employee education and training

Advantest's training program for new employees starts with a month-long, combined-group segment covering the basics of working life. After that, the new recruits are put into one of two occupation-specific training regimes, depending on whether they have been hired for engineering or administrative job assignments.

The new crop of engineers started off learning design basics, followed by conduct device measurement training using actual testers, hands-on hardware training that involves designing simplified testers and hardware development, software training during which they learn about programming, and training in production methods constituting the foundations of manufacturing industries. Through this process they learn the skills that are required of Advantest engineers. Meanwhile, the new administrative employees received on-the-job training in the sales, manufacturing and administrative divisions to learn about the Group's business and how the divisions are interrelated. In addition, in fiscal 2012, the new administrative members were sent to Singapore and Shanghai for overseas training where they were able to engage in language study and could gain a better understanding of different cultures through interaction with local individuals.

By having new employees experience various areas of company operations in this way, we are able to ensure that they will clearly understand their own roles, and value teamwork with other divisions. Our training period for new recruits acts as a key formative phase in their professional development as Advantest employees.



#### New employee training



#### Leveraging diversity in human resources management

Advantest values the diversity of its workforce and strives to create a workplace environment where every employee can achieve their full potential.

Advantest respects the personal values of individuals and promotes a corporate climate in which all employees can be fully engaged regardless of their gender, age, or nationality. Recognizing, however, that women remain underrepresented in our workforce (accounting for 13.6% of all employees and 1.7% of all managers), we identified a need to increase the recruitment of women in fiscal 2011.

The overwhelming percentage of new graduates employed by Advantest has traditionally been male engineering majors, while our earlier attempts to attract women have largely fallen short. In fiscal 2012, therefore, we participated in a job fair for women and planned and held a site tour to raise awareness of the advantages of working at Advantest among prospective female recruits, specifically engineering students. At the job fair for women, we met with a large number of students and explained Advantest's workplace environment, possible career paths, and various programs, highlighting the areas in which female employees currently excel.

As a result of these efforts, the percentage of women who joined the company as new recruits in April 2013 was 29.8%. We will continue our efforts to increase this figure.



#### No. of new graduates employed (Advantest Corporation)

#### No. of male and female employees (Advantest Corporation)



(As of March 31, 2013)

#### Employment and use of global human resources

In recent years, the Advantest Group has sought to recruit a more culturally-aware workforce with outstanding communication skills and the ability to perform well in the global arena as our business becomes more internationally oriented. Meanwhile, an increasingly borderless business environment necessitates that we step up our efforts to achieve more globally-focused human resources development and organizations through active exchanges with personnel from overseas affiliates.

Amid these circumstances, we are working hard to recruit students in other countries and foreign students studying in Japan to better secure a workforce that enables us to remain competitive in the global arena. In addition, we are planning worker exchanges between Advantest Corporation and its overseas affiliates to allow employees on both sides to work in different cultural environments and share knowledge and expertise with local staff members in the course of daily operations and training. Through this exchange program, participating employees are expected to improve their job skills, versatility and adaptability to a range of business environments.

In 2012, Advantest participated in job fairs for students in other countries and foreign students held all over Japan and in Boston to boost recruitment of international employees. We also timed induction activities for each overseas student to coincide with their graduation and start date, taking a more flexible approach than in the past to help ease them into their new environment.

The human resources exchanges with overseas affiliates are implemented frequently at each division regardless of type of job. Under this program, which is specifically designed to promote interaction among personnel in Japan and abroad, employees participate in the exchange either on a short-term or long-term basis.

These activities enabled us to recruit students in overseas countries and foreign students studying in Japan. We now plan to extend the global reach of our recruitment activities going forward through further participation in similar job fairs, both overseas and in Japan. Although new employee training is generally geared toward new graduates who join the company in April, we are modifying this to allow all new graduates to take part in the training irrespective of when they start work.

We presently count among our workforce employees from ten countries, while seven of the 22 executive officers at Advantest Corporation are non-Japanese. We will continue to provide equal opportunities to all promising individuals regardless of nationality while underscoring the need to develop a global perspective and global organizations through borderless promotion and personnel exchange.

#### Active use of older employees

Since April 2006, when the age at which national pensions are awarded was raised, it has been mandatory to take steps toward employing older workers up to the age of 65. Accompanying this change, Advantest has revised its re-employment system for older individuals and is responding flexibly to such people desiring employment. Our re-employment activities entail deciding on employment packages and job postings most suitable for actively taking advantage of the skills and know-how possessed by older adults.

#### Users of the re-employment system (Advantest Corporation)



#### Supporting a Better Work-Life Balance

#### CSR Report 2013

#### Ensuring a good work-life balance

The Advantest Group supports the achievement of a good work-life balance by its employees based on Japan's Next Generation Education and Support Promotion Act. We believe that the work-life balance concept will help make the company a comfortable place to work for all employees and ultimately contribute to increasing our corporate value. Therefore, we are working to reduce overtime hours and create a work environment that facilitates the achievement of a good work-life balance in order to allow our employees to actively pursue their own outside interests and become well-rounded individuals.

The most important issue regarding work-life balance was the reduction of overtime hours. To address this issue, we set the goals specified below and then focused on increasing operational efficiency, encouraging a change in employee mindsets, and making the most of the available work arrangements such as flextime and shift work. Our goals are:

- 1. Zero employees whose monthly overtime hours are 80 hours or more
- 2. Average monthly overtime hours of 36 or less

We also focused on providing more flexibility in start and finish times and introduced half-day leave slots to make it easier for employees with working spouses to adjust their work schedules so that they can better share household chores and responsibilities.

In fiscal 2012, the company reduced the maximum working hours under Japan's "Article 36 Agreement," pledged to do everything possible to reduce overtime hours for all employees, and reminded supervisors of their responsibility to ensure that employees do not work excessive hours. As in the previous fiscal year, we continue to make announcements via the public address system urging employees to leave the office on time on Wednesday, and we have been notifying the immediate supervisors of employees found to be working excessive overtime (15 or more hours of overtime already clocked up by the 15th of the month, or 70 or more hours by the 20th and 25th of the month, or three days of holiday worked already by the 20th and 25th). We also made the following arrangements to enhance our employees' work-life balance.

- 1. Employees with a working spouse may now be eligible for the shorter-hours system for childcare/home healthcare duties.
- 2. Employees with childcare/home health care provider responsibilities now have more flexibility regarding start and finish times as an additional measure to the existing flextime system.
- 3. Each employee may now receive five days of annual leave more than the number required by law to care for sick or injured children or other family members, and employees may also take half-day leave.
- 4. Conditions on the taking of cumulative paid leave have been relaxed (procedures have been simplified and employees are allowed to take their leave on a half-day basis).
- 5. Flextime arrangements now allow for shorter core times.
- 6. The discretionary work system has been applied to some employment grades.

Although we were able to achieve our goal of fewer than 36 average monthly overtime hours as a result of these initiatives, we were not able to achieve our goal of zero employees working 80 or more monthly overtime hours. The reason was that we had to deal with unexpected problems and meet short lead times. Countermeasures to prevent recurrence were discussed at leader meetings.

We plan to work towards achieving the same goal in fiscal 2013.

We have completed some improvements with regard to the work-life balance issue, and will ensure that all employees are well aware of the new systems and work to improve them while monitoring how they are utilized.



No. of employees to whom special childcare working hours or childcare/home health care flexible start time arrangements applied



No. of employees to whom childcare/home health care flexible start time arrangements applied \*Applied to no employees

\* No longer applies following core time reduction

#### No. of employees who took leave to care for sick or injured children or other family members



#### No. of employees who took cumulative paid leave



#### Supporting a better work-life balance

The Advantest Group supports the achievement of a good work-life balance by its employees based on Japan's Next Generation Education and Support Promotion Act. Advantest carries out various measures aimed at helping our employees to balance work with child-rearing while achieving their full individual potential.

Expectant mothers are eligible for paid leave to see their doctor or paid time off in case of a difficult pregnancy (both programs introduced in April 2007,) while employees with young children are entitled to childcare leave of up to two years (introduced in April 2001). Shortened working hours are also available for employees with children up to the third grade.



Work-Life Balance Support Guide

In 2007, we placed the Work-Life Balance Support Guide on the intranet to gain broader recognition of the various programs Advantest provides and encourage take-up. The guide also offers information on related services provided by local governments. The number of employees on maternity leave as of the end of fiscal 2011 was 25.
# Reducing overtime hours

In November 2006 Advantest established the Working Hours Improvement Committee composed of company employees and labor union members for the purpose of reducing overtime hours. In addition, subcommittees set up in each division have studied the causes of overtime work and continued to conduct measures aimed at reducing overtime hours. As a result of these activities, the number of overtime hours per employee did not exceed 30 hours for fiscal 2012.

#### Reduction of overtime hours per employee (Advantest Corporation)



CSR Report 2013

# **Occupational Health and Safety**

# Advantest Group Health and Safety Policy

Advantest Group recognizes that Health and Safety (H&S) is one of the important aspects of our business operation. This policy is set forth to ensure every Advantest employee's Health and Safety.

- 1. Health and Safety First We will make H&S as the first priority for employees in all Advantest operation groups.
- 2. Compliance with Laws and Regulations Aim to achieve compliance with legal requirements through good occupational health and safety performance.
- 3. Regular Review of Health and Safety Compliance To support this policy we will provide employees with an annual activity plan which will address every business location's H&S regulations through management support.
- 4. Education and Training Ensure that employees receive appropriate training, and are competent to carry out their designated responsibilities.
- 5. **Disclosure of Health and Safety** To raise awareness, we will announce our H&S information to all employees publicly.

## Promoting occupational health and safety activities

evaluation of implementation results, and improvements to problem areas.

At the Advantest Group, we prepare annual occupational health and safety plans stemming from our basic policy, while systematic health and safety activities are conducted mainly by the Safety and Health Committee established at each business site of Advantest Corporation and its affiliates in Japan. In addition, the Safety and Health Committee informs business sites of problem areas and pursues improvements as it works to establish consistent occupational health and safety activities.

In fiscal 2012, we drafted the Advantest Group Labor Safety and Health Basic Policy with the aim of forming consensus in that regard within the Group. Meanwhile, the Safety and Health Committees of respective business sites embarked on an ongoing safety oversight course of action, in line with company policy, entailing preparation of annual safety plans, implementation of those plans,



Safety and health education on handling high voltage equipment

In fiscal 2013, we continue on from the previous fiscal year preparing our annual plan which is grounded in the company's basic policy, and have been overseeing its effective implementation.

Moreover, we have been providing training covering basic safety concerns to every one of our employees in an attempt to instill a better awareness of such issues, improving information channels among our operating bases outside of Japan, and building mechanisms that enable us to get a firmer grasp of conditions at all of our business locations while also improving communications involving those sites.

# Mental Health

At Advantest we believe that lively workplaces are created by vigorous employees. Accordingly, our Health Promotion Office spearheads efforts to provide support to help ensure better employee physical and mental health so that we can provide a safe and comfortable work environment for them.

In fiscal 2010 and 2011, we offered mental healthcare training along with follow-up sessions for managers designed to help them create workplaces where issues are detected promptly and acted on swiftly. This training has brought about steady improvements in the way management has come to deal with mental wellbeing issues.

In fiscal 2012, we encouraged prevention-oriented wellness strategies involving self-awareness and personal health maintenance, and introduced testing to diagnose stress levels with the aim of improving the workplace environment.

This stress diagnosis testing, which targeted all Advantest Group employees and was accessible through the corporate intranet, drew an 84.4% response rate. After the testing, we offered six self-care training sessions to all employees engaged in high-stress work environments, of which 261 took part, and provided training for management bringing in 29 participants. In addition, we conducted training on improving physical and mental health targeting all employees at regional business sites that have no full-time staff members, out of which 221 employees took part.

Now, given potential benefits of continued testing due to the nature of day-to-day swings in stress levels, we have decided to lend further support throughout fiscal 2013 toward improving employee mental health and wellbeing, such that will encompass approaches for helping individuals suffering from high levels of stress.

# Health care

We had our own proprietary criteria for health examination drawn up in fiscal 2012, upon review beginning in fiscal 2011 delving into steps taken following employee medical exams.

Looking at health examination results, we discovered that our workforce had abnormally-high rates of blood lipids overall. Consequently, in addition to our ordinary health care support we set out to help our employees lower their blood lipid levels under a three-year plan providing for measures to address lipid abnormalities apparent from hyper-LDL cholesterolemia. In the course of receiving health management support following their health examinations in fiscal 2012, we conducted a questionnaire for the employees known to have abnormal LDL cholesterol levels in fiscal 2011. Then based on those results, the employees were grouped into three categories according to whether they had lower, unchanged or otherwise higher LDL cholesterol measurements Once analysis of health examination results is complete, we intend to draw on those findings in considering means of providing healthcare guidance to those employees in fiscal 2013, on the basis of a review into how levels of employee awareness regarding the health examination outcomes relate in terms of impetus for behavior modification.

# Compliance

## CSR Report 2013

# Compliance policy

### **Overview of policy**

Companies aiming for sustainable growth need employees who fulfill their social responsibilities and who carry a strong sense of ethics. They also need to earn the trust of stakeholders. Based on this belief, Advantest has established The ADVANTEST Way — the fundamental handbook which lays out our management direction and policy, and which comprises our Corporate Mission ("Technology Support on the Leading Edge"), Corporate Mantra ("Quest for the Essence") and CSR Policy — as well as The Advantest Code of Conduct, which provides specific guidelines for employees to enhance their ethical awareness.

The ADVANTEST Way & Code of Conduct

## Compliance system

If there is any violation of — or any act that employees think unacceptable under — The ADVANTEST Way & Code of Conduct, employees are advised to first report this to their supervisors and, if necessary, to the managers of any other departments involved. However, with the understanding that in some cases employees may feel uncomfortable reporting to their supervisors, in 2006 Advantest opened a Corporate Ethics Helpline, which employees can use to discuss or report any compliance issues. Since the Corporate Ethics Helpline was set up seven years ago, it has received various reports, and, while respecting the privacy of reporting employees, has notified the Corporate Ethics Committee, which works with senior management and outside lawyers to address such problems. We will continue to deal earnestly with every employee report to ensure sound Group operations. Moreover, our global team of auditors posted in locations worldwide conduct periodic compliance audits to ensure that we, as a member of the international community, abide by different laws and regulations of respective nations and conduct business properly.

#### Contact point for reports



#### **Compliance promotion system**



# Compliance training

We have distributed The Advantest Way & Code of Conduct booklet to all Group company employees, and have also elicited their agreement to abide the principles set forth in that document. Still, the increasingly global nature of our development and manufacturing operations, particularly in the wake of our full integration of Verigy Ltd. in April 2012 and the launch of overseas manufacturing centers, has prompted an ever greater need for us to remind employees group-wide of the importance of compliance based on their understanding of varying laws and regulations of respective nations, while at the same time making certain that the company abides by laws and regulations worldwide.

Against that backdrop, Advantest provided employees of Verigy Ltd., ahead of the integration, with The Advantest Way & Code of Conduct booklet in February 2012, while also giving them instruction in that regard and eliciting agreement of all employees to abide by principles set forth in the document. Additionally, we have been taking steps since fiscal 2012 to build on our efforts to heighten awareness of laws and regulations in respective countries, through collaborative initiatives between the legal division and our global team of auditors posted in various regions. In line with that, we began offering periodic e-learning sessions covering The Advantest Way & Code of Conduct to all Group employees, who in turn pledge to abide by the principles set forth in that document.

# **Fair Trade**

#### CSR Report 2013

#### Policy on procurement (The Advantest Procurement Policy and CSR Procurement Policy)

The Advantest Group's CSR Policy pledges respect for our suppliers, places value on open communication with our suppliers, and maintains fair business relationships in accordance with relevant laws and regulations. We are also committed to sharing values and building collaborative relationships with our suppliers, toward our goal of achieving mutual growth.

Advantest Procurement Policy

## Framework and system for managing fair trade (CSR procurement)

To promote and maintain fair trade practices, the Advantest Group has established the Procurement Administrative Department independent of the Purchasing Division. The department conducts a questionnaire-based survey once a year with suppliers and also conducts an evaluation of supplier QCD (quality, cost, and delivery) on a quarterly basis. We provide feedback to suppliers on the results, a process which helps us to grow together with our suppliers.

An audit is conducted by our corporate auditors on transactions with suppliers twice a year to confirm that there are no issues or deviations from standard commercial practices. In addition, an internal control audit by an external body is conducted once a year. This audit confirmed that there were no issues during fiscal 2012.

Furthermore, we manage total order balances through checks at the end of each month to ensure there are no omissions in acceptance inspections. For items for which there is a long delay from the order date to the acceptance inspection, the reason and planned acceptance inspection are clarified and a report is made to the corporate auditor.

## Training on conducting fair trade

In fiscal 2012, Advantest conducted seminars on the Subcontractors Act for purchasing staff members and others. We plan to provide ongoing training on fair trade practices going forward.



Seminar on the Subcontractors Act

#### Building a win-win relationship with suppliers

At Advantest, we hold a New Year's party, meeting and reception for suppliers once a year to help create positive relationships and provide opportunities for them to exchange opinions with Advantest executives.

We also hold seminars for suppliers every year. During fiscal 2012, we held seminars six times on topics including market trends, quality management, and leader training, contributing to mutual improvement in service levels. We plan to hold five seminars on similar topics during fiscal 2013 as well.



New Year's party

# **Information Security**

## CSR Report 2013

### Information security management policy

Advantest is fully aware that information we receive from suppliers and that pertaining to our technical and sales operations are considered important assets, and to effectively manage this information we pursue information security practices that include developing regulations, constructing control systems and providing employee training.

## Policies and rules relating to information security

Following our merger with Verigy Ltd. in April 2012, we conducted a review of basic policies, rules and systems relevant to information security. Following the most recent review, we reorganized and integrated existing company regulations, while also establishing four policies — our Privacy Policy, Confidential Information Management Policy, Education & Incident Management Policy, and IT Security Policy — intended to function as sets of rules embodying our Information Security Basic Policy.



## Information security management system

Advantest regards implementation of information security controls as a key management issue, and has accordingly assigned the Senior Executive Officer to act as Information Security Officer responsible for such systems on a global basis.

Moreover, we have set up a system that enables our offices in respective countries to autonomously address information security issues. Under that system, Regional Information Security Officers posted in respective countries bring a variety of viewpoints to the table in the course of deliberating on potential information security measures to be applied on a group-wide basis, and also when considering which policies and rules should be adopted, or otherwise revised or abolished.

Specifically, the head of each Group company's administration division has been assigned to the position of Regional Information Security Officer, responsible for security management in their respective regions. Meanwhile, members from related divisions in respective countries have been tasked with implementing information security measures.



# Information security training

Premised on our belief that the people are the key component of information security, we provide training to ensure that employees are familiar with the company's information security policy and associated rules. Accordingly, our global policy on information security, established in response to the 2012 integration of Verigy Ltd., has been made part of training content, which covers:

- safeguarding personal information in accordance with company policy,
- appropriately identify ing confidential information and indicating as such,
- using the right IT tools designed to ensure that information security mishaps are prevented, and
- accurately reporting all information security incidents.

Going forward, we intend continue developing more practical content and offering more pragmatic training through learning activities that entail repeated exposure to information security rules and content covering key topics in that regard.

## Initiatives for strengthening information security

In fiscal 2011, we adopted a system whereby internal audit divisions perform information security audits, which enables us to conduct more objective rules-based checks and provide feedback to divisions that have been audited.

In updating our rules governing access to computer equipment, we dropped requirement stipulating that employees must use encrypted PCs only, and now allow them to use thin client computer platforms through which they can perform work in secure environments without the prospect of leaving traces of data behind after use. Also, we made sure that our uniform Group-wide guidelines for business-related use of smartphones enable our employees to draw on such devices effectively in a business context, and in a manner that facilitates better customer service.

At some point we are going to gauge the effectiveness of our information security measures and will consider objective criteria based on which we can evaluate our information security system and pinpoint its strengths and weaknesses.

## Confidential information protection

Our Information Security Basic Policy defines confidential information as that which has been disclosed by clients under contract along with that which is important to the company, and moreover the policy stipulates that such information be handled in accordance with relevant regulations.

Accordingly, we are committed to ensuring that confidential information is not divulged outside the company by ensuring that it is protected through use of adequate controls governing its storage, disclosure and handling otherwise.

# Personal information protection

We consider the privacy of personal information entrusted to us to be very important, and accordingly take steps to ensure that it is properly protected and managed.

#### Advantest Privacy Policy

Our commitment to safeguarding personal information entails posting personal information managers in divisions handling such duties, and furthermore ensuring that those managers properly carry out their duties in regard to overseeing such information. Furthermore, we perform regular audits of personal information control and use practices in respective divisions, and make improvements whenever deficiencies are discovered.

In Group companies outside of Japan, Regional Information Security Officers work to protect and manage personal information in accordance with the laws, regulations, and demands of each respective country or region.

# **Intellectual Property Protection**

#### CSR Report 2013

#### Intellectual property management system

Advantest's overarching policy is to observe all laws and regulations relating to intellectual property rights and to respect the intellectual property rights of third parties. We have developed the system displayed below to ensure that intellectual property is properly managed.

Moreover, in line with our integration of Verigy Ltd., we reviewed our intellectual property rights regulations intended for Japan and subsequently prepared a new IP Management Policy geared for worldwide application. We will begin adopting the new policy on a Group-wide basis in April 2013.

At the same time, we established a system to enable researchers and developers worldwide to file joint applications, and also set up a system to ensure equitable compensation for patents globally.

Going forward, we intend to draft a patent application policy for the whole Group, and will also build a unified portfolio of patents and work toward improving it.



#### Intellectual property management system

#### Employee training related to intellectual property

To highten awareness of each and every one of our employees towards intellectual property, Advantest is moving to base training content around continuous service milestones, while ensuring that it more closely pertains to the work of respective individuals.

During fiscal 2012, we provided training to approximately 40 new employees on the topic of fundamental intellectual property literacy.

In fiscal 2013, we are going to provide training to personnel engaged in operations requiring knowledge of intellectual property rights in the form of e-learning solutions geared toward enabling them to gain requisite knowledge and awareness in that realm. We will also hold regular IP Promotion Working Group meetings and continue with initiatives that help instill a greater depth of knowledge about intellectual property issues.

#### Litigation and disputes relating to intellectual property

Not applicable as of March 31, 2013.

# Improving Customer Satisfaction

## CSR Report 2013

#### Overarching policy for improving customer satisfaction

Customer satisfaction is the most fundamental of principles underpinning Advantest's business. Our product quality policy — "Offer the timely, high-quality products our customers expect, by designing for quality and by optimizing the production and engineering process globally" — characterizes our portfolio of products that offer not only superior performance, but also superior environmental friendliness and safety. We are committed to keeping our customers satisfied at every stage, from design and manufacturing to sales and service, via painstaking quality assurance and top-notch service and support on a global scale.

## Sales and marketing practices that support customer satisfaction gains

#### **Fiscal 2012 initiatives**

Increasingly global semiconductor operations of entities ranging from design firms to final product manufacturers necessitate that test equipment manufacturers gain timely knowledge of individual customer needs and global industry trends, and subsequently apply such updated intelligence to making swift business decisions.

In fiscal 2012, we have been pursuing ventures under our new operating framework whereby, upon full integration of Verigy Ltd. into the Group in April, we generally operate a single Group company in each respective country. Meanwhile, we have been successively restructuring operations of business locations within and outside Japan. In addition to operations of Japan and Singapore, we finished integrating our US operations in September, China in October, Taiwan in November, and Korea in April 2013. Furthermore, under the new framework we have been increasing the pace of our efforts to combine sales and marketing activities.

Integrating business locations and operations in this way is enabling us to more effectively share intelligence and thereby better draw on our strengths in terms of an operating framework that allows us to leverage synergies brought about by such integration. Going forward, we are continuing our efforts to accelerate decision making processes, while creating products and solutions that truly satisfy our customers.

#### Customer satisfaction improvement activities in sales and marketing

In recent years, Japanese semiconductor manufacturers have been rapidly shifting from vertically-integrated strategies to fabless and fab-lite business models where they no longer have their own equipment. Accordingly, Advantest is venturing beyond the business of offering test solutions to pursue consulting activities whereby we extend to our customers know-how we have gained through an extensive install base in the outsourced semiconductor assembly and test (OSAT) industry overseas, while serving them with our wealth of business experience with the OSAT business.

As part of these efforts, we launched the Supply Chain Management (SCM) Forum in fiscal 2012, where we host seminars showcasing SCM methods and introduce the latest trends in testing technology.

The 2nd SCM Forum held in June 2013 featured even livelier business-related discussion than in the previous year. Contributing to this success, each of the companies in the OSAT field prepared and set up individual workshops and other such sessions for participants, based on feedback received from participating companies prior to the event.

In fiscal 2013 and beyond, we intend to put together more sessions geared toward customer needs, and will continue engaging in activities designed to heighten customer satisfaction.

# Promoting customer support

The Advantest Group has established its basic policy for customer support with the aim of globally-oriented restructuring the Group's service businesses .

# Policies, targets, and plans for fiscal 2013

- We will propose total solutions in the form of support packages designed to deliver maximum efficiency to our customers in their device measurement operations.
- We will stand by our commitment to offer premium services and customer support, such that has been designed for efficiency as well as with the environment and safety in mind.
- We will extend our business globally, offering increasingly premium services and support always from the customer's perspective.
- We will offer our customers a high degree of added value and premium-quality professional services. We will strive to
  maintain our zero-accident record by thoroughly enforcing work safety in the realm of field services while establishing further
  work safety standards.

# Better customer support with a global focus

The Advantest Group is forging a global support framework encompassing operations from development to mass production in line with customer business models.

We are taking steps to improve our global support framework through globally-oriented initiatives to reframe robust collaborative alliances with our customers, thereby enabling us to more swiftly and effectively resolve potential production equipment issues and minimize customer downtime. Awareness that one of our greatest challenges entails helping our customers maintain stable production equipment operations has prompted us to revamp our support framework and accordingly pursue improvements under the new framework, as described below.



#### **Global Support Center system**

- We are building a global framework geared toward enabling us to better address requests and inquiries for support from our customers worldwide.
- We launched an engineer exchange program that enables our engineers to improve their professional abilities by gaining experience working with our overseas subsidiaries and customer support divisions. The two- to three-year program is designed to enable our engineers to improve engineering-specific foreign language proficiency, develop cross-cultural competencies, and sharp technical skills. Meanwhile, we have developed a global supply chain network covering customer operations ranging from their development bases to their mass production facilities. Moreover, we have also established related supply chain control mechanisms through which a centralized system analyzes details related to replacement equipment and parts at respective service centers to determine inventory needs at respective locations worldwide.
- We are delivering expert consulting services and solutions in regard to customer productivity improvements, in line with their demands. Also, we are offering device measurement training to our customers, and providing professional advice in that regard.



Contact Center



Exchange Engineer from overseas

# Recipient of 10 BEST customer satisfaction award for 25th consecutive year, on basis of VLSI Research survey

Advantest aims for a clear grasp of customer needs and strives to provide them with high performance, premium-quality total test solutions in a timely manner.

At Advantest, we gain a better understanding of our customers' needs through information we acquire from our daily business activities, and also through yearly participation in the customer satisfaction survey conducted by VLSI Research, a company well-renowned for semiconductor market research. Based on this year's survey, we received the 10 BEST award granted to the top-ten ranking companies, for the 25th year in a row.



VLSI Research : 10 BEST

Moreover, our Sales and Marketing Division, System Engineer Division and Field Service Division

jointly conduct an independent Advantest customer satisfaction survey once every two years. On the basis of such initiatives, we remain committed to delivering even better customer satisfaction going forward by listening to the voices of our many customers and providing them with solutions that best suit their needs.

## CSR Report 2013

### Quality management system

In keeping with our stringent company-wide mandate calling for continuous improvement in terms of customer satisfaction, we have designed our quality management system to comply with the international quality assurance standard ISO9001.

We have established an organizational framework, led by the Quality Assurance Manager under the supervision of executive management, which promotes a culture of quality management throughout the company. In addition, we continually maintain and improve quality systems through regular internal audits conducted on the basis of our independent internal audit framework.

# Availability

The Advantest Group is committed to helping its customers achieve higher levels of productivity by offering them products that promise high availability — meaning that they are unlikely to malfunction, but will recover immediately should failure occur. More specifically, availability refers to the ratio of time that a system is operational over a given time, and as such constitutes one of the benchmarks of product integrity. The Advantest Group delivers high availability by working hard to improve MTBF\* so that devices will operate without malfunction over longer duration of use, while also reducing MTTR\*\* so that devices will be more readily serviceable when malfunction does occur.

\* MTBF = mean time between failure

\*\* MTTR = mean time to repair

# Design review system aimed at improving quality

Persistently stringent customer demands for functionality, performance and quality call for Advantest products equipped with increasingly large-scale and progressively more complex circuitry. Meanwhile, we are also responding to demands for shorter development lead times, a challenge we feel is best addressed by instilling quality at the upstream design phase so that we can detect potential issues early on. Accordingly, we introduced a new design review system in fiscal 2008 as a framework for achieving these goals.

- Our design review system was amended to ensure that the project leader establishes a design review plan when product development begins, and so that reviews will be conducted regularly.
- We changed the system so that the relevant staff and the project leader, as well as the quality assurance division, carry out monitoring to prevent follow-up omissions, by enabling visual identification of issues raised.
- We also adopted the Design Review Meister System, which involves forming groups of in-house experts for each technical area to participate in the related design reviews. This system increases the rate of problem detection in design reviews, encourages the succession of technologies, and facilitates in-house education.

Many positive results have been achieved through these activities. For instance, the rate of defect detection during the design phase has recently improved, leading to a decrease in setbacks and fewer defects finding their way into later processes, thereby minimizing development delays. The new design review system has resulted in improvements in design quality and a reduction in development lead times. However, it has also revealed many cases in which problems that should have been detected by the designer ultimately found their way into the design review or later processes.

Advantest regularly collects analysis and feedback on issues that have gone undetected and accordingly makes improvements to the review framework. Moreover, going forward we will implement further improvements to the design process involving thorough checking prior to design reviews to achieve better design quality.

# SQE activities

We are committed to the notion that individual components underpin overall product quality, and therefore the quality of each and every component has to be exceptional. Premised on that assertion, the Advantest Group engages in SQE (Supplier Quality Engineering) initiatives beginning at the component adoption phase, drawing on the support of our supplier network. SQE initiatives are undertaken with the aim of enlisting a team of experts to bring about improvements to component quality. Accordingly, it is critical that we engage in practices to ensure component quality, particularly given that the number of parts used in our products is roughly equivalent to the 200 thousand to three million parts that make up an aircraft.

Our SQE initiatives involve the following three practices.

- Careful selection of components: When given the choice of multiple components with similar performance specifications, we select the best item through a process involving in-house quality analysis and evaluation.
- Quality improvement through PDCA: We apply PDCA-cycle practices from the component design phase to manufacturing to achieve improvements prior to high-volume production and thereafter.
- Ensure that tolerances are maintained in component design: We aim for component design benchmarks determined on the basis of tolerances rather than standard specifications.

# Initiatives aimed at improving software quality

Software for testers, handlers and other such devices shipped by the Advantest Group first goes through a process that involves quality verification by the Quality Assurance Division, performed after the development phase handled by the R&D Division.

In 2008, the Group adopted New Software Process Review initiatives ("nSPR initiatives") in cooperation with the R&D Division. Under these initiatives, the Quality Assurance Division participates in development planning and design reviews of certain products from the upstream processes of development, to confirm the deliverables (specifications) at each stage of development and provide prompt feedback on problems in order to improve the quality of development deliverables.

These initiatives improve quality levels of respective processes, and help enable the company to provide timely delivery of even better products.

# CSR Report 2013

# Promoting social contribution activities

# Stance towards social contribution activities

Advantest's Corporate Social Responsibility (CSR) Policy was stipulated as follows in April 2008: "Advantest respects each of its stakeholders and strives to maintain harmony with society in all its operations while contributing to the goal of a sustainable society." Based on this stance, Advantest conducts social contribution activities focused on the areas of preserving the global environment, developing the next generation, and contributing to local communities.

Advantest seeks to respond to the needs of its stakeholders and the community in order to contribute to the development of an affluent society through its social contribution activities to fulfill its corporate social responsibility as a global company.

# Framework to promote CSR

Advantest has a track record of promoting CSR and environmental initiatives in every country and region it operates in, especially Japan. However, it has been increasingly important to conduct more global CSR and environmental initiatives through its supply chain as a company that contributes to a broader range of society. We would like to use the recent merger as an opportunity to establish a new framework for promoting and implementing CSR and environmental initiatives on a global level.



# Social contribution activities conducted during fiscal 2012

## The environmental event in Taiwan bringing people into contact with nature

On October 6, 2012, Advantest Taiwan Inc. (ATI) held an environmental event for employees and their families involving hiking on the Qi-long Ancient Trail in Hsinchu County, Taiwan, where ATI is based. As participants hiked along the trail, they picked up trash and enjoyed taking in the natural surroundings. Meanwhile, a local guide accompanying the group introduced them to aspects of the local culture and taught them about the plants and animals in the region. The event proved to be a wonderful opportunity for all 22 participants to encounter the local flora and fauna first-hand, and to learn about the important role of nature.

More information

## The 6th forest conservation project held at the Yasuragi-no-Mori Forest in Kusatsu

Over two days from September 21–22, 2012, a team of 22 Advantest Group employees worked as volunteers in this conservation project sponsored by Japan's Forestry Agency, helping with thinning out the forest and tending to dead trees in the Yasuragi-no-Mori Forest in Kusatsu, located in Agatsuma County, Gunma Prefecture, Japan. The team of volunteers worked enthusiastically under the guidance of staff from the Agatsuma District Forest Office, completing the day's work by posting a plate with names of the participants and the trees engraved and set up a sign proclaiming the plot as the "Forest of Advantest".

More information

#### Beach clean-up effort and charity event in Singapore

On September 15, 2012, a team of approximately 90 Advantest (Singapore) Pte. Ltd. (ASP) employees and family members volunteered in a beach clean-up effort organized by the marine conservation organization Ocean Conservancy. The volunteers collected roughly 27 kilograms of trash from along a 500-meter stretch of coastline. They also went on to take part in the Walk-a-Jog charity event, raising 2,810 Singapore dollars (approximately 180 thousand Japanese yen) for children fighting cancer and their families.

More information





#### CSR Report 2013

# Basic Policy

Based on our basic attitude of "Caring for Our Planet," the Advantest Group promotes environmental initiatives by considering the environment in the course of its daily business activities, striving to reduce its environmental impact and offering environmentally friendly products. Through these efforts and as a corporate citizen we aim to give back benefits to industry and commerce, society, and the global environment.



# **Advantest Group Environmental Policy**

1. Promoting Environmental Management

By establishing our Environmental Management System, we promote global environmental conservation efforts that achieve a balance between business activities and environmental concerns. Individual Advantest employees strive to protect the environment while carrying out their daily work and their responsibilities.

2. Provision of Environmentally-Friendly Products

We strive to provide environmentally friendly products throughout their life cycle -- from procurement of material to waste disposal, through energy conservation, improved recyclability, and the elimination of hazardous substances.

- 3. Reduction of Customers' Environmental Burden Through our sales of products and services, we contribute to our customers' reduction of their environmental burden.
- 4. Better Workplace Procedures

We constantly strive to reevaluate and reform work procedures to help preserve the environment.

5. Conservation of Biodiversity

By being alert to the impact of our business activities on biodiversity, we strive for the conservation of biodiversity and the sustainable use of biological resources.

6. Complying with environmental laws and regulations and preventing pollution

Upholding all environmental laws and regulations and voluntary standards, we protect nature and shield our neighbors from environmental pollution and health hazards.

7. Disclosing information related to environment

Advantest's environmental policy is made freely available to all employees, stakeholders, and other concerned parties. We strive to disclose our environmental activities and openly communicate with society.

# The Advantest Group's Guidelines of Action for Biodiversity

To show our gratitude for the gift of nature that is endowed by biodiversity, and to recognize the significance of biodiversity in underpinning the prosperity and the wellness of our society, the Advantest Group will carry out initiatives in conserving biodiversity and in contributing to the sustainable use of biological resources.

1. Understanding Environmental Impact

We identify, evaluate and share the information on any aspects that may have a significant impact on biodiversity in the entire lifecycle of our business activities.

2. Understanding Biodiversity

We increase awareness and understanding of biodiversity among all employees so that they are able to engage in activities that give consideration to biodiversity in their business activities and daily lives.

3. Reduction of Environmental Impact

By seeking highly effective measures, and by carrying them out continuously, we reduce the impact of our business activities on biodiversity.

4. Cooperation with Stakeholders

We cooperate with a variety of stakeholders such as the government, educational organizations, NPOs, local residents and our business partners to promote activities related to the conservation of biodiversity.



### Framework to promote environmental management

The Advantest Group is building a framework to better promote our global environmental initiatives.



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# Acquisition of ISO14001 certification

The Advantest Group has acquired Integrated ISO14001 certification for its offices, as well as its research, development, and production facilities in Japan. In addition, at its overseas business locations, the Group is working to introduce ISO14001 based on particular circumstances of each country and is conducting initiatives to this end. Based on the unified ISO14001 standard, the Group is conducting a range of initiatives aimed at reducing energy use, reducing waste, and developing and providing environmentally friendly products in order to reduce the environmental impact of its business activities. The Group is achieving results in these efforts in each country it operates in.



# Internal environmental audit

The Advantest Group performs regular internal environmental audits scrutinizing the functioning of our environmental management systems at respective business sites, geared toward bettering the company's environmental performance on the basis of internal and external compliance requirements. The environmental audit performed in fiscal 2012 found no instances of non-compliance. We remain committed to bringing about even better environmental performance going forward, and are accordingly working to achieve continual improvement of our environmental management systems.

# Basic stance

To advance environment conservation initiatives, it is essential for each and every employee to always remain aware that environmental issues are actual, immediate problems and consider what they can and should do in their business and home life, and that this awareness translates to action. Based on this stance, the Advantest Group conducts environmental education aimed at fostering an awareness of the environment and more practical approaches to the environment.

#### List of environmental education programs

- Training for new employees
- Training for new managers
- Environmental internal auditor training
- Training on the safety of chemical substances
- ECOCH activities
- Solicitation of environmental value engineering(VE) proposals
- Holding of environmental events for employees and their family members (Ecological tours, environmental art and photo contests,etc..)
- Environmental lectures
- Local cleanups
- Forest conservation activities

#### Adoption of e-learning solutions

The Advantest Group has created an e-learning framework for providing general training to our employees on the ISO 14001 standard and chemical substances. Accessible anytime and anywhere, these solutions deliver a convenient environment through which those undergoing training are able to repeat lesson modules as needed in order to gain a better grasp of the material, which has thereby resulted in a higher rate of employee participation in training along with better levels of material comprehension.



Environment lecture

# **Environmental Action Plan**

CSR Report 2013

- Results of initiatives under the Fifth Advantest Group Environmental Action Plan (selected topics)
- Overview of the Sixth Advantest Group Environmental Action Plan (FY2013–2014)

## The Fifth Advantest Group Environmental Action Plan (FY2010-2012)

Based on the theme of preparing for a low-carbon society, the Environmental Action Plan was established in April 2010, aimed at conducting environmental initiatives that reduce customers' and society's environmental footprint, give back to society and improve profitability. In line with this Plan, the Group is working to reduce the environmental burden it causes by focusing on the three areas of environmental management, environmentally friendly products, and more efficient business activities.

#### Scope

- 1. Scope of initiatives: The Advantest Group's nine business locations in Japan and seven business locations overseas (including affiliates)
- 2. Time period: Fiscal 2010 to fiscal 2012 (three years)

#### Results of initiatives under the Fifth Advantest Group Environmental Action Plan (selected topics)

Our environmental management initiatives involved applying the ISO 14001 standard in Japan and overseas, and achieving ongoing improvement in corresponding activities. We are now seeking ISO 14001 re-certification given our integration of the former Verigy Ltd. involving our key locations overseas, and in line with relocation of some of our business operations. Also, in the realm of environmental contributions, we engaged in numerous activities including forest conservation initiatives and volunteer efforts. In the area of environmental training, we worked to raise environmental awareness among our employees, through initiatives that included holding photography and art contests featuring works solicited from employees and family members based in Japan and overseas, and hosting lectures on the environment.

Our initiatives in the domain of environmentally-friendly products consisted of increasing the number of products subject to product environmental assessment, while also successfully making green products available in 31 of our product lines over the three-year plan. Consequently, in fiscal 2012 we hit the 100% mark in terms of our ratio of green product sales in our ATE product line. Meanwhile, we achieved a green procurement rate for general components purchased of 97.8%. The Advantest Group remains committed to offering our customers products and services that help them reduce their environmental loads.

Environmental measures we employed in the course of conducting business included measures to address global warming and resource recycling initiatives.

In regard to measures being undertaken to address global warming, our business locations in Japan are pursuing more rational energy use in line with our mid-to-long term plan. More specifically, thus far they have been engaging in efforts to streamline manufacturing operations and upgrade outdated facilities, along with measures to save energy after the Great East Japan Earthquake. These initiatives have enabled us to cut our emissions over the last three years by approximately 3,900 tons of CO2, to 17,673 tons in fiscal 2012.

(Fiscal 2009: 21,551 tons of CO2 à fiscal 2012: 17,673 tons of CO2)

Meanwhile, although our business operations overseas have adopted energy-saving initiatives, those locations have shown higher CO2 emissions due to our integration of former Verigy Ltd.

In the realm of resource recycling, we have been promoting "three R" practices — reduce, reuse and recycle — thereby achieving our target of less than 350 tons of waste generated by our business locations in Japan. In fiscal 2012, our operations generated 269.8 tons of waste, for a cumulative reduction of approximately 38 tons over the three year period. Meanwhile we recycled 67.6% of the waste generated by our overseas locations.



# The Fifth Advantest Group Environmental Action Plan (FY2012)

			Results of in-house assessment in fiscal 2011 ◯= Progress ratio 100% △= Progress ratio 70% or more		
	∠= Progress ratio 70% or m ×= Progress ratio less than 70% or target date set b				
Category	Objective	In-house Assessment	Key Results		
Environmental management—Target: Prepare for a low-carbon future, and help society and build earnings through environmental management.					
Environmental management	environmental management system to all facilities worldwide and enhance environmental management. (Expand ISO14001 certification to non-production facilities in Japan and internationally, and ensure that all major locations will be ISO14001-certified.)	0	Japan: Ongong implementation of ISO 14001 standard Overseas: AAI & ASP recertification completed. ATI, ATC, ATK, AEG recertification pending.		
Environmental contributions	Continue to implement environmental contribution programs with the objectives of environmental contribution and ecosystem preservation.	0	<ul> <li>Conducted three forest conservation activities (71 employees participated) Conservation activities at Kusatsu Yasuragi-no-Mori (Kusatsu-cho, Gunma Prefecture; October); Pruning cypress trees at Mt. Kabasawa satoyama (Sendai, Miyagi Prefecture; November); Tree planting event at Tori-ga-Saezuru Midori-no-Kairo (Kitakyushu, Fukuoka Prefecture; March)</li> <li>Organized the 16th Science Craft Day workshop for schoolchildren, attracting 164 local elementary school children and their families</li> <li>Special science course provided at Karakuwa Elementary School in Kesennuma, Miyagi Prefecture (29 participants)</li> </ul>		
Environmental training	Plan and continuously offer in-depth environmental training programs (e.g. seminars, lectures) that enhance employees' environmental awareness.	0	<ul> <li>Introduced environmental training system (approx. 2,700 participants)</li> <li>Organized lectures on the environment at three offices (277 employees participated)</li> <li>Held environmental photo contest (123 employees and family members in Japan and abroad participated)</li> <li>Held environmental art contest (110 employees and family members in Japan and abroad participated)</li> <li>Organized ecological tours for employees and family members (Taiwan)</li> <li>Participated in beach cleanup (Singapore)</li> </ul>		
Information Disclosure	Proactively disclose environmental activities-related information and seek in-depth communication with stakeholders.	0	<ul> <li>Shared information (16 items) on the website.</li> <li>Published Corporate Report 2012 (website)</li> </ul>		
	friendly products—Target: Help custom p of products that conform to stringent		their environmental footprint by expanding al standards.		
Green products	Energy reduction				
	Reduce energy consumption of target products by 20% or more per unit function compared with comparable products.	0	<ul> <li>Reduced energy consumption of two types of memory test systems (T5511 &amp; T5811) by 70% or more per unit function compared with comparable products</li> <li>Reduced energy consumption of T2000 IMS 100MDM by 50% or more per unit function compared with comparable products</li> <li>Certified five automatic test equipment systems and four types of T2000 modules as green products. (31 systems approved as green products over three-year period)</li> </ul>		
	Using fewer resources and parts				
	Reduce number of parts used in target products by 20% or more in comparison with previous models.	_	Pending review of initiative content		
	Build target products 50% or more smaller than comparable models.	0	Completed evaluation of prototype board		



	Eliminate hazardous substances		
		0	Crean producement rate for general components of
	Purchase only parts free from 15 targeted hazardous substances.	0	Green procurement rate for general components of 97.8%
Green product sales	Market green products intensively to help customers reduce their environmental footprint.	0	<ul> <li>Achieved 100% target for proportion of green products among automatic test equipment sold</li> <li>Achieved target of 20% or more units sold with re- used device interfaces</li> </ul>
Product recycling	Promote product recycling by expanding the Advantest Recycling System.	×	Recycled 16 units (52 units over three year term)
<b>Business activitie</b>	es—Target: Improve efficiency for a sm	aller environn	nental footprint.
Global warming prevention	Reduce product CO <sub>2</sub> emissions per unit of manufacturing volume*1 by 85%*2 compared to fiscal 1990 *1 : Number of units produced, calculated by comparing product performance *2 : Because the original target for fiscal 2012 has already been achieved, the target was revised to a 85% reduction compared to fiscal 1990	0	<ul> <li>Reduced product CO<sub>2</sub> emissions per unit of manufacturing volume by 78% compared to fiscal 1990</li> <li>Achieved target for number of Group companies and 100 teams engaged in the ECOCH energy conservation program</li> </ul>
Manufacturing	Improve manufacturing efficiency for a smaller environmental footprint in the manufacturing process. (Improve board production efficiency, reduce lead times for tester production processes, and improve yield etc.)	0	<ul> <li>Maintained automatic mounting machinery energy consumption at under 12 kWh (with increased production of T6373)</li> <li>Reduced the number of days T5773 is powered on from 17 to seven</li> <li>Maintained energy-conservation initiatives of Sendai Factory Building A, and cut energy consumption by 11.6% compared to fiscal 2009</li> </ul>
	Support suppliers' environmental activities to reduce the environmental footprint of Advantest's entire supply chain.	0	Informed suppliers of the Advantest Group Environmental Policy and the Guidelines of Action for Biodiversity
	Promote reuse of packaging materials to reduce annual waste by at least 1,000 kg by 2012.	_	Activity pending review of operations
Resource recycling	Promote three-R practices (reduce, reuse, recycle) to reduce waste generated to under 350 tons	0	The volume of waste generated amounted to 269.8 tons (38 tons less than in fiscal 2010)
Environmental risk management	Reinforce monitoring to ensure strict observation of environmental laws and regulations and related facilities to prevent accidents.	0	Zero accidents, zero complaints.
Chemical substance managemen	Improve penetration and efficiency of chemical substance management. Construct a global management system.	0	<ul> <li>Conducted ongoing inventory checks of chemical substances level 3* and above</li> <li>*Defined as poisonous, deleterious and other highly toxic substances that need to be reported when missing</li> <li>Introduced system for general education on chemical substances, and conducted sessions</li> </ul>
Overseas affiliates (global warming prevention)	Enact measures to reduce energy consumption at Advantest's overseas business locations and lower electricity usage.	-	CO <sub>2</sub> emissions; 8,345 tons
Overseas affiliates (resource recycling)	Enact measures to reduce consumption of resources at Advantest's overseas business locations and minimize waste volumes.	-	<ul> <li>Volume of waste generated: 126.9 tons</li> <li>Recycling rate: 67.6%</li> </ul>

# Overview of the Sixth Advantest Group Environmental Action Plan (FY2013–2014)

Up until now, the business activities of Japan-based operations of the Advantest Group have accounted for a majority of the Group's environmental load. In recent years, however, the environmental impact of our overseas operations has swelled due to factors such as our integration of former Verigy Ltd. and expanding production abroad.

The Sixth Advantest Group Environmental Action Plan (FY2013–2014) carries forward the Fifth Advantest Group Environmental Action Plan's three key initiatives in the realms of environmental management, environmentally-friendly products, and efforts to reduce environmental loads generated by our business activities. Meanwhile, the new plan also calls for initiatives designed to help encourage a more recycling-oriented mindset and low-carbon economy. We are also expanding the scope of our initiatives, adding new objectives toward addressing the issue of climate change for the year 2020, and setting worldwide targets for the two-year duration of the plan.

- 1. Environmental management: Pursue environmental management initiatives that improve society while increasing the Group's capacity for earnings.
- 2. Environmentally-friendly products: Engage in core ventures and opportunities peripheral to the tester business that help our customers reduce their environmental loads.
- 3. Business activities: Promote responsible initiatives in the form of measures to help combat climate change, activities related to the conservation of biodiversity, and environmental management practices.

## Coverage of plan

- 1. Scope of initiatives: The Advantest Group's nine business locations in Japan and seven business locations overseas (including affiliates)
- 2. Time period: Fiscal 2013 to fiscal 2014 (two years)

# The Sixth Advantest Group Environmental Action Plan (FY2012)

Major-category	Objective	Sub-category (Objectives & measures for pursuing initiatives)	
Environmental manag	ement—Target: Prepare for a low-carbon future, a ement.	/	
Environmental management	environmental management system to all facilities worldwide and enhance environmental management.	Reacquire ISO 14001 certification by the end of fiscal 2013 at overseas bases that were relocated upon integration.	
Environmental contributions	Continue to implement environmental contribution programs with the objectives of environmental contribution and ecosystem preservation.		
	to environmentally-friendly products: Engage in c elp our customers reduce their environmental load		
Development of green	Energy reduction		
products	Reduce energy consumption of target products by 20% or more per individual DUT measurement relative to comparable products.		
	Using fewer resources and parts		
	Reduce energy consumption of target products by 50% or more per unit function compared with comparable products.		
	Make target products at least 30% smaller than comparable models.		
	Make target products at least 50% smaller than comparable models.		
	pusiness activities: Promote measures to help cor versity, and environmental management practices.		
Measures to combat climate change (business activities)	<ul> <li>Formulate quantitative benchmarks for 2020 for:</li> <li>Total volume of CO<sub>2</sub> emissions resulting from energy consumption at current business locations</li> </ul>		
	<ul> <li>Amounts of renewable energy consumed at business locations in Japan and elsewhere</li> </ul>		
	Reduce energy consumption by at least 66 kl per year crude oil equivalency in fiscal 2012 (96 tons of $CO_2$ ).		

(Manufacturing)	Improve manufacturing efficiency for a smaller environmental footprint in the manufacturing process. (Improve board production efficiency, reduce lead times for tester production processes, and improve yield etc.)	<ul> <li>Reduce by 25% number of man hours for mounting device set-up for new production boards (ASPEN1, etc.) and reduce by 30% the amount of energy required for production on a single-unit basis.</li> <li>By the end of fiscal 2014, achieve 40% less energy use during production relative to initial production machine system performance, by shortening adjustment lead times.</li> <li>Shorten production power-on hours of primary production equipment system by 30% compared to fiscal 2012 levels.</li> <li>Achieve energy-efficient operation of clean rooms (2% less energy compared to fiscal 2012).</li> <li>Reduce number of varieties of organic solvents in use (cut by 30% compared to fiscal 2012).</li> </ul>
	Reduce use of reinforced carton (corrugated board) for packaging by 4,000 kg compared to fiscal 2011 level	
Biodiversity	Promote awareness of initiatives for conservation of biodiversity and reduction of environmental loads across Advantest's entire supply chain by conducting surveys of environmental activities of our suppliers.	
Conflict materials	Conduct investigations regarding conflict materials to help ensure that items procured are free of such materials.	
Resource recycling	Recycle 85% or more of the waste generated at our overseas locations by the end of fiscal 2014. (Waste recycled at overseas locations: 75%; Maintain a rate of at least 99% at Japan-based operations)	
Environmental risk management	Reinforce monitoring to ensure strict observation of environmental laws and regulations and related facilities to prevent accidents.	
Chemical substance managemen	Improve penetration and efficiency of chemical substance management. Construct a global management system.	

# **Environmental Contribution Activities / Environmental Communication**

#### CSR Report 2013

#### Basic stance

The survival and growth of companies is supported by resources such as energy and water generated by our Earth. At the Advantest Group we believe that protecting and nurturing the global environment that we benefit greatly from is a very important issue for environmental management, and we conduct our environmental contribution activities based on this belief. A wide variety of living beings inhabit our earth and enrich the global environment. It is essential for companies to efficiently use the resources the Earth has blessed us with so that sustainable development is achieved, and it is necessary for companies to fulfill their corporate social responsibility by helping preserve the diversity of the Earth's living things. The Advantest Group has clearly defined a stance of treating biodiversity conservation activities as a business goal and is conducting initiatives to this end.

## List of environmental and social contribution activities

- Organizing a nature-watching event at the biotope
- Organizing local cleanups
- Organizing forest conservation activities

## Biodiversity conservation in the biotope

The Advantest Group created a biotope on the premises of the Gunma R&D Center in April 2001 to provide a living space for a variety of living beings in an effort to live in harmony with nature. This biotope that features ponds, streams, and wooded areas is an attempt to bring back to life the traditional rural landscape of the Kanto Plain, and has grown successfully over the years. A multitude of living beings inhabit this biotope, including threatened or near-threatened species that are on the Ministry of the Environment's Red List, such as the Tokyo-daruma-gaeru (Rana [Pelophylax] porosa porosa, Daruma bullfrog) and Chusagi (Areda intermedia, intermediate egret).

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Nature observation event



Daruma bullfrog

The biotope is also used as a venue for communication with the local community, and we have worked to ensure that the biotope provides a useful role for a larger variety of people by organizing nature observation events for local elementary school children and presenting research themes to the Faculty of Social Information Studies at Gunma University.

In addition, the activities conducted at the biotope have been registered with the Birdpia initiative organized by the Japanese Society for Preservation of Birds, and the Group is now conducting activities based on this initiative

- Biotope
- Birdpia

# Basic policy for disclosure of environmental information

The Group's business activities have affected the environment in various ways.

To achieve sincere and sustainable development, it is necessary for companies to candidly disclose this information to stakeholders so that their honest opinions and assessments can be properly reflected in environmental management. The Advantest Group discloses information related to its environmental footprint and environmental activities through methods including its CSR Report, its corporate website, and various events and exhibitions. In addition, the Group works to achieve interactive communication with its stakeholders by creating opportunities for dialog through activities such as requesting cooperation with surveys and organizing factory tours.

## List of environmental communication

- Releasing information on the corporate website
- Issuing a CSR Report
- Providing tours of our business locations
- Participating in external organizations
- Participating in exhibitions

# If you have any questions or comments related to Advantest's corporate social responsibility and environmental activities, please contact:

CSR & Environmental Affairs Promotion Center, CSR & Environmental Affairs Promotion Office

- Let us know what you think by email. environment-inquiry@jp.advantest.com
- Or by fax
- +81-276-84-1156

## CSR Report 2013

## Basic stance

Contributing to the sustainable development of society and conducting environmentally-friendly business operations are essential issues that need to be addressed in modern business management. The Advantest Group works to develop products from the perspective of environmental conservation while prioritizing high precision and high quality, and certifies products that are environmentally-friendly in terms of the three key aspects of energy saving and resource conservation, improving recyclability, and elimination of hazardous substances as green products.

There is demand in society for the supply of green products because they provide both a reduction in the environmental footprint as well as an improvement in economic value. The Group is developing green products in response to these demands and based on the belief that these products will be beneficial for its customers.

#### Development flow of green products

At the Advantest Group, all new products undergo a product environmental assessment.

During the environmental assessment, products are assessed from various aspects, including energy savings, the number of parts used, product size, recyclable design, and elimination of hazardous substances. Products that meet the Voluntary Standards for Green Products are certified as green products and are awarded with an Eco Label (type II).



#### Development flow of green products

#### Advantest Group Eco Label

The Advantest Group Eco Label features an original three-color design representing energy and resource conservation, recyclable design, and elimination of hazardous substances through green procurement.

# Energy and Resource **Conservation Voluntary Standards**

#### Voluntary Standards

Energy-saving design Reduced-material design Miniaturized design



**Recyclable Design** 

Design with renewable resin materials Design for ease of disassembly

Release of information on disposal

Voluntary Standards

# Elimination of Hazardous **Substances** (Green Procurement)

#### Voluntary Standards

Improved rates of green procurement Elimination of banned substances

# Energy and resource conservation

We aim to reduce the environmental footprint of our products through system designs that offer energy efficiency, feature ecologically-sound components and materials, and result in units that are smaller in size.

#### Recyclable desig

Our recyclable design initiatives involve releasing of information on parts that require care during disposal, while also seeking to use recyclable materials for resin parts designed in-house. Moreover, we make sure that products are easy to disassemble with standard tools in preparation for recycling, and we use batteries displaying a recycling symbol.

#### Elimination of hazardous substances (green procurement

To avoid using hazardous substances in products, we have established Group standards on banned substances based on the IEC 62474 standard, and conduct studies on the hazardous substances contained in the parts and materials used in our products.

# Green products certified during fiscal 2012

The following products are among those certified as green products that we supplied to customers during fiscal 2012.

- T5511
- T5811
- TAS7500
- CX1000D/P
- Five types of T2000 module products

## Introducing our Green Products

# T5811 Memory Test System

## Focus on Memory Core Test Dramatically Reduces COT

Dynamic random access memory (DRAM) represents the predominant type of commodity memory device found in client-servers and mobile devices, and is also used extensively in many electronics device fields. We envisage ongoing market expansion for DRAM modules, given solid bit growth in DDR3-SDRAM and DDR4-SDRAM, main memory of PC. Meanwhile, we also anticipate increasing demand for LPDDR2-SDRAM and LPDDR3-SDRAM modules amid growing low-power requirements for smartphones and tablet devices. Yet ongoing commoditization of DRAM modules has been driving



T5811

down prices and forcing DRAM-manufacturers to seek greater COT (cost of test) savings on their volume production lines. Accordingly, in regard to what is now the primary means of backend DRAM testing involving a 2-pass test, divided into at-speed testing and memory core testing, the market is calling for solutions that enable lower COT in the memory core testing phase where testing speeds need not be particularly high.

Designed with a focus on memory core testing, our T5811 memory test system greatly reduces COT\*1.

#### (\*1) COT = Cost of Test

#### Lighter, smaller and more energy-efficient than earlier models

In comparison to previous models, our T5811 memory test system contains 82% less component volume than earlier models, while also featuring a 92% smaller footprint and consuming 88% less power. To achieve this, we engaged in development efforts focused on delivering optimal features and performance in the area of memory core testing, and have also equipped the system with recently-developed Enhanced Test Module (ETM)\*2 technology.

(\*2) ETM = Enhanced Test Module

# **ETM Technology Significantly Reduces COT**

The T5811 is equipped with ETM technology, a proprietary BOST\*3 configuration, and is designed so that most test functions of the system are mounted into the motherboard at high density in close proximity to the DUTs\*4 with the aim of keeping down the costs of the whole systems, and thereby resulting in lighter, smaller and more energy-efficient systems.

Moreover, through a simple switch-out of the ETM, users are able to easily upgrade the tester unit as necessary to achieve added functionality and improved test speed, thereby enabling them to keep equipment investment costs in check through prolonged tester unit operability.

(\*3) BOST = Built-Out Self Test

(\*4) DUT = Device under Test

In this manner, the Advantest Group will continue to advance with manufacturing from the customers' perspective.

#### Aiming to develop environmentally-sound products

The T5811 marks the beginnings of our efforts to bring about low-COT solutions focused on memory core testing. Although such initiatives remain in the development stage, we are now more aware of how introducing low-COT systems can closely link with our objective of delivering environmentally-sound products. In other words, it is now evident that we need to come up with smaller and lighter systems that consume less energy. In developing the T5811 we have been faced with the task of coming up with a memory tester specifically geared toward testing of memory core in line with such customer demands, while also delivering a unit offering sophisticated tester functions while not sacrificing performance. Through such efforts, we have developed a unit that is



Common Technology Group Masaru Doi

significantly lighter, smaller and more energy efficient. Going forward, we will continue working to develop products that offer advantages to our customers as well as making social contribution through developing environmentally-sound, Green Products.









# Promoting Sales of Green Products

Many companies in recent years have been increasingly engaging in environmentally-responsible management practices. Likewise, the Advantest Group has adopted an environmental policy that inspires us to deliver green products while helping customers reduce their environmental footprints. Based on these aims, the Group is pursuing product development in accordance with Green Design Standards formed on the basis of product environmental assessments, while also providing products that have been certified in accordance with our proprietary green product standards.

### **Fiscal 2012 results**

In fiscal 2010, the Group set annual targets for its green product unit sales ratio. As of fiscal 2012, the final year of that initiative, we have fully achieved our target of 100% green product sales, meaning that we have successfully reached our goal of having sold no non-green certified items during that year.

In addition, product photographs posted on our website now feature Eco Labels to indicate that the respective products are green certified. This helps enhance our corporate image while enabling customers to more readily opt for green products. We have also begun to clearly showcase environmental footprint reduction data on product presentation materials.

Moreover, we continued to pursue initiatives centered on the theme of enabling our customers to reduce environmental loads. In that regard, we have been working to stimulate sales of our T2000 EPP (Enhanced Performance Package) testing system which offers significantly better performance in terms of power consumption for lower CO2 emissions, and have also been seeking to encourage reuse of High Fidelity Tester Access Fixtures (HIFIX) and use of returnable packaging materials.

In fiscal 2013, we are embarking on a new two-year plan, thereby setting fresh objectives aiming to help our customers further reduce environmental loads while working to execute the plan.



# Compliance with EU-RoHS Directive

# Advantest's Statement on the EU-RoHS Directive

In complying with environmental laws and regulations, the Advantest Group is working toward eliminating use of hazardous materials while also pursuing environmental conservation efforts that entail reducing consumption of energy and resources. More specifically, we have been working with our suppliers since September 2003 on initiatives to investigate and eliminate use of restricted hazardous materials.

We are in compliance with the European RoHS Directive\*.

Advantest's semiconductor testers and handlers are classified as Large-Scale Stationary Industrial Tools (LSSIT) and as such are exempt from the EU-RoHS directive. Nevertheless, on the basis of our commitment to environmental conservation we continue working toward further elimination of hazardous substances from these product lines.

\* Certain exemptions aside, the European Union Directive 2011/65/EU on the restriction of the use of certain hazardous substances (RoHS) in electrical and electronic equipment and respective revisions currently restrict the use of six substances in such products:

- Lead (Pb)
- Hexavalent chromium (Cr VI)
- Mercury (Hg)
- Polybrominated biphenyl (PBB)
- Cadmium (Cd)
- Polybrominated diphenyl ether (PBDE)

# **Initiatives with Business Partners**

## CSR Report 2013

#### Green procurement/Initiatives related to regulations for chemical substances contained in products

At the Advantest Group, our intention is to reduce environmental impact at all stages of production, including those caused by suppliers and assembly and processing companies, in our quest to develop green products. We engage in communication with our business partners, and formulated the Advantest Green Procurement Guidelines in fiscal 2002 to facilitate this process. We operate according to these guidelines in order to give consideration to the environmental aspects in addition to quality, cost, and delivery throughout the whole process of production, including the purchasing of the components and materials that are used for our products.

We have created a database from the environmental information we received from our suppliers, and are utilizing it to promote eco-friendly product manufacturing, along with the implementation of product environmental assessments.

Advantest Green Procurement Guidelines (PDF:169KB)

#### The Basic Principles of Green Procurement



#### **Component Registration in Green Procurement**

Regarding component registration, we are conducting environmental studies of the procured components, with the cooperation of our suppliers. We investigate the components to find out if they contain chemical substances that can burden the environment, and promote green procurement initiatives to reduce environmental impact.

#### **Banned and Restricted Substances**

The Advantest Group specifies and manages chemical substances that are prohibited from inclusion in our products or otherwise subject to restricted use. Banned and restricted substances are stipulated on the basis of the IEC 62474 standard.

#### Hazardous substance survey support for suppliers

Accompanying the revision in the RoHS Directive in July 2011 and the addition of electrical and electronic products-related regulations, the Advantest Group has revised its hazardous substance questionnaire. In order to help our suppliers submit accurate and quick responses to our hazardous substance questionnaire, we have held meetings to explain the details of the questionnaire, attracting 100 participants in total. Thanks to these efforts, as well as to suppliers' cooperation, we were able to reduce the time taken to complete a parts environmental assessment by more than 20%. In addition to favorable feedback from suppliers, such as "the meeting helped me to understand the hazardous substance questionnaire" and "the examples of how to fill in the questionnaire were easy to



Hazardous substance questionnaire meeting

understand", we also received some suggestion for improvements regarding the submission method. Based on this feedback, we will continue to reinforce systems for suppliers to encourage cooperation with such questionnaires.

# **Product Recycling**

#### CSR Report 2013

# Basic stance

It is the Advantest Group's basic policy to take active steps to ensure that the products it sells are reused and recycled after they are retired, and to buy back products that are not expected to be reused so that the resources are recycled.

## **Recycling policy**

- 1. Realize 100% collection of recyclables through manual disassembly.
- 2. Make clear to whom recycling is to be commissioned, and secure traceability.
- 3. Promote the conservation of the global environment in collaboration with customers.

## Fiscal 2012 results

During fiscal 2012, the Group recycled 16 retired products for a total of 39 tons of recycled resources, achieving 100% collection of recyclables. In addition, the Group has established recycling traceability for each system. This was made possible through the cooperation of customers, intermediaries, and waste disposal businesses across the country. We will further improve work efficiency, reduce the burden on customers, and encourage environmental preservation.

#### Product recycling flow





# **Global Warming Prevention**

#### CSR Report 2013

#### Basic Policy

The Advantest Group regards its efforts toward putting a stop to global warming as part of the corporate mission, and as such works vigorously to reduce greenhouse gas emissions by offering green products and introducing innovative business processes.

The Advantest Group is pursuing medium- to long-range energy conservation measures in alignment with the Japanese government's medium-term goal of reducing greenhouse gas emissions by 25% of 1990 levels by 2020. More urgently, the Group is forging a system to address Japan's revised Act on the Rational Use of Energy and related ordinances, and accordingly implement energy conservation measures.

# Fiscal 2012 results

The entire Group is embarking on efforts to achieve our goal of reducing CO<sub>2</sub> emissions per unit of production from our business sites in Japan by 85% compared to fiscal 1990, as set forth in the Fifth Advantest Group Environmental Action Plan. Specifically, the Group is working to conserve energy and cut costs by improving production efficiency and reducing waste. In addition, the Group is promoting proper operational control of air conditioning, upgrading outdated facilities into more energy-efficient models, and adopting more environmentally-friendly lighting and LEDs. In terms of our key initiatives during fiscal 2012, we successfully reduced lead times for some of our products and began making more efficient operational control of air conditioner units, thereby slashing power consumption by roughly 128 MWh annually at four of our business locations.

Going forward, we will continue pursuing initiatives to conserve energy and slash costs by reducing waste, and will redouble our efforts to cut CO<sub>2</sub> emissions.



#### CO<sub>2</sub> emissions per unit of production

# T5773 Memory Test System cuts energy consumption in manufacturing by reducing production lead times

In April 2012, the Advantest Group embarked on initiatives aimed at reducing its environmental footprint in production operations while strictly adhering to delivery deadlines and reducing inventory assets, premised on the slogan "Providing Advantest's customers with what they need, when they need it."

As a key measure in this regard we implemented initiatives aiming for a lower rate of defective circuit boards, entailing investigations of incidents involving faulty boards together with relevant divisions, based on the rationale that high defect rates would mean that we would need to check board operability. Accordingly, our efforts resulted in shorter lead times by boosting our throughput yield to over 90%, thereby enabling us to forego the board operability verification process.

Also, we took a close look at ways of making effective use of control equipment, which ultimately led to techniques that now enable us to check multiple product attributes. Consequently, our moves to combine these initiatives with optimized production processes has resulted in significantly shorter production lead times.

As a result of these efforts, we were able to reduce production lead times to seven days using our T5773 Memory Test System, from the 13 days previously required from production to finished product, which in turn has resulted in a production process requiring 36% fewer man hours.

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These initiatives also reduced average manufacturing power consumption by 32,220 kWh per month. During fiscal 2013, we will work to apply these successes to other models, in conjunction with our efforts to reduce environmental loads through ever shorter production lead times.



#### Reduction in energy consumed in manufacturing through shorter production lead times

#### Efforts to reduce man hours required for set-up in manufacturing of tester boards

Gunma Factory 2 assembles circuit boards used in the Testers. In fiscal 2012, we set out to cut energy consumed in automatic mounting processes by reducing the number of man hours required in Mounter, automatic mounting device for components setup, when changing products those are assembled before the operation starts.

One challenge we faced in reducing work period required for board assembly was that of automatic mounting processes resulted in the form of lower rates of equipment utilization stemming from the need for more frequent switching boards those are to be assembled.

In an effort to resolve this issue we looked into methods of reducing set-up times required for switching over the board type even for production involving small-lot sizes of many different items. And consequently arrived at the notion, producing more items following a single set-up procedure we could actually reduce the number of set-up operations and time required for production. Meanwhile, Advantest previously used three modular mounter units operating separately. Set components for each single type of products which was planed to be produced to each Mounter. Approximately 100 different components were used for a single product type, and the set of components were repeatedly removed and attached each time switching over the board type. Therefore, operations involving low-volume production would suggest the prospect of increased equipment downtime with hours required for components set-up exceeding those of Mounter operation.

To rectify this situation, we connected the three Mounter units that had previously operated independently, thereby resulting in triple the number of components that could be produced after a single set-up operation. This enabled production of three to five types of boards following a single set-up. Moreover, by making use of a simulation system to figure out optimal arrangements of components, we were able to avert the prospect of decreased rates of equipment utilization.

We simultaneously introduced a tape feeder to reduce work required in transferring components to the feeder, so that more feeders resulted in less time consumed with set-up and fewer the components loss in process.

These changes resulted in 36 fewer man hours per day consumed in performing set-up when switching over boards those are to be assembled, which translates to a 62% reduction in man hours. This means that modular mounter operation can be handled by fewer employees, five instead of eight, which in turn enables managers to keep the units operational for roughly twice as long by operating the units during other shifts to which the extra employees can be reassigned.

The changes also enabled us to reduce monthly energy consumption from 30,296 kWh to 28,108 kWh, a monthly decrease of 2, 188 kWh which is equivalent to a 9,923 kg decrease annually in CO<sub>2</sub> emissions.

#### Modular Mounter improvements



# Lower CO<sub>2</sub> emissions through air conditioning upgrades

At the Gunma R&D Center, we have upgraded our meeting room heating equipment by applying inverter technology to existing pumps while adding heat exchangers designed to draw on steam for heat generation. As a result, the entire facility's heating systems now operate more efficiently by steadily raising water temperatures and reducing power consumption. Furthermore, we uncovered inefficiencies in some freeze prevention control systems of outdoor air conditioning units, and consequently reduced cold water and hot water heat source loads by adjusting hot water valve openings down to 10%, from 50% previously.

These improvements overall have enabled us to slash the facility's annual power consumption by an equivalent of more than 50 kiloliters of oil, while cutting yearly CO<sub>2</sub> emissions by more than 135 tons.
### **Efficient Use of Resources**

#### CSR Report 2013

#### Basic policy

The Advantest Group pursues operations encompassing the "Three Rs" (reduce, reuse, and recycle) with the aim of realizing a recycling-oriented society.

In addition, the Group is building up its parts separation initiatives initially launched in fiscal 2009, pursuing efforts to recover valuable materials from waste in a manner that fully complies with all relevant laws and regulations, and conducting proper management and disposal of waste generated in the course of business operations.



#### Volume of waste generated/recycling rate

# Memorandum of Understanding (MOUs) entered into with waste disposal service providers stipulating exclusion of anti-social forces

Companies have been imposing written obligations stipulating that contractual relationships may be terminated if the counterparty is found to be involved in business dealings with an anti-social organization. This is premised on ordinances established by the Tokyo Metropolitan Government and other municipalities calling for the elimination of crime syndicates.

Moreover, the Japan Business Federation (Keidanren) in calling on companies to overhaul their corporate behavior is recommending that they conclude such written agreements as one means of ridding society of anti-social forces.

In accordance with ordinances calling for the exclusion of criminal elements and in line with recommendations of Keidanren in that regard, the Advantest Group's compliance initiatives entail concluding Memoranda of Understanding with all waste disposal service providers involved in our business dealings, stipulating that contractual relations may be terminated if it is discovered that a business partner acts as an anti-social organization.

### Reducing waste through better shipment packaging

The Advantest Group purchases some of the cable used in products from overseas sources. Due to quality assurance concerns, we used to take delivery of cable packaged in cartons (corrugated boxes) in 300 unit lots. However, ample amounts of cushioning material in those boxes meant that extra space remained for more items. Accordingly, we realized that if we could ship more cables in each box, we would reduce our consumption of





Packing material (before improvements) Packing material (after improvements)

packaging material, while at the same time we would be cutting shipping expenses and using less storage space. As such, to improve packaging practices we worked with our suppliers in conducting stack testing and drop testing of boxes containing more cables, and made sure that no implications would arise in terms of product durability and quality retention.

In November 2011, after having looked into the matter, we opted to increase the number of cables shipped in a single box, from 300 units to 500. We also reduced usage of cellophane tape(Scotch tape) for securing packing material, from eight taping points to two, thereby reducing man-hours required to unpack the shipments. As a result of these changes, we expect to use 8,374 fewer boxes per year and anticipate a reduction in labor devoted to unpacking shipments by 745 man-hours.

### Resource consumption reduced through packing material improvements

We also work with our suppliers of packaging materials used for shipping our products, from the design phase to high-volume production. In fiscal 2012, we revamped our techniques for absorbing the impact of shock endured by cargo on pallets used for overseas shipments, and thereby reduced space requirements by 12% without altering impact absorption performance or effective internal storage dimensions. This consequently reduced the volume of reinforced corrugated board we consumed by roughly 1.3 tons in fiscal 2012.

New pallet designs have enabled us to minimize product vibration occurring during shipping, while also allowing for minimal clearance between products and packing materials. With that, we reworked the reinforced corrugated fiberboard sleeves attached to the pallets to make shipments smaller and lower, and therefore more compact.

The smaller packaging size also enabled us to reduce shipping costs, particularly air freight charges, thereby contributing to even greater customer satisfaction.

### Results of reworking pallet design and materials

#### Ex. Medium-sized pallet



Pallet area that can be loaded with product: 3.04m<sup>3</sup> (W:1.39m L:2.19m) Total pallet area: 2.9m<sup>3</sup> (W:1.35m L:2.15m)

### Results of reworking sleeve height

Ex.) Sleeve for T6373 TH (Test Head)



### Effective use of water resources

The Group's production processes consist mainly of assembly, adjustment, and inspection operations, and do not require as much water as typical manufacturing processes. As such, the company's water consumption derives mainly from air conditioner operation, kitchen and washroom use, and as drinking water. Meanwhile, we continue to re-use discharged water for flushing toilets, and in fiscal 2012 persisted with efforts from the previous year to make effective use of our water resources over the summer months, during which Japan's electricity conservation measures were in effect, by watering our grounds and facilities with discharged water delivered via the sprinkler systems installed on rooftops of our key business offices. Going forward, we are committed to pursuing efficient use of our water resources, and will make sure that all of our employees engage in water conservation practices, such as by using waste water from our biotope in tree planting operations.



#### Water consumption and discharge

### **Environmental Risk and Chemical Substance Management**

#### CSR Report 2013

#### Basic policy for environmental risk management

One of our corporate responsibilities is that we take steps to reduce our environmental footprint while preventing environmental pollution and avoiding other environmental risks. Accordingly, the Advantest Group sets voluntary standards more stringent than prevailing environmental laws and regulations, and implements such standards in the course of operating equipment that could potentially impact the environment, and in monitoring and assessing those operations.

Furthermore, to ensure that we respond without hesitation should an environment-related incident occur, we have forged rules for addressing such risks, stipulated in documented operating procedures and chemical substance emergency-response procedures and other such guidelines, and have put management systems in place related to those rules.

Moreover, our employees and contractors handling particularly high risk operations regularly take part in specialized training and emergency drills, conducted to ensure that they are able to act swiftly in the event of an emergency.



#### **Business location compliance management**

### Evacuation drills conducted at night

On two separate days, August 8 and August 21, 2012, we performed evacuation drills during the nighttime hours at our Advantest Laboratories facilities and at the Sendai Factory. Whereas we had previously conducted emergency drills exclusively during the daytime, experience with the Great East Japan Earthquake prompted us to also conduct such drills at night to ensure better disaster preparation over different shifts.



Evacuation drill conducted during the night

In carrying out the drills, we put forward a conceivable scenario involving a power outage in clean room facilities triggered by a major earthquake at night. The drill was performed with the emergency lighting activated, and involved ensuring the safety of employees as they evacuated, combined with operations entailing search and rescue of missing individuals.

Because there is no way of knowing when a natural disaster might strike, Advantest Laboratories and the Sendai Factory will continue performing regular drills to prepare for such contingencies, and will improve protocols for ensuring that employees are able to evacuate swiftly and safely.

The Advantest Group experienced no accidents or related grievances during fiscal 2012.

### Basic policy for chemical substance management

We are working to ensure safety management and compliance with laws and regulations in the use and storage of chemical substances used at business locations at the Advantest Group.

To this end, we have adopted a chemical substance management system. Based on this system, chemical substances are registered, safety reviews are conducted, design that supports input/output control and laws and regulations is adopted, and the material safety data sheets (MSDS) that are necessary for the safe handling of chemical substance have been made available for inspection at any time.

In addition, for strengthened risk management and chemicals substance management, we are constructing a safety training system, and conducting audits and providing guidance through the corporate chemical management division to ensure the safety of stored chemical substances to further enhance our safety control system.

Furthermore, we plan to build up our global management system as we aim to achieve the same level of risk management overseas as in Japan.

## 

#### Ramping up chemical substance controls – Pursuing higher control precision –

In implementing its systems for ensuring proper management of chemical substances, the Advantest Group applies container-level controls on chemical elements handled in the course of operations. Moreover, we pursue flexible practices in this regard through a process that involves first assigning substances to different control rankings on the basis of control levels required for respective substances under the Pollutant Release and Transfer Registers (PRTR Act), the Poisonous and Deleterious Substances Control Act, the Industrial Safety and Health Act, and other such laws and regulations, and then establishing different control methods for each respective ranking.

# Adopting chemical control methods more precisely aligned with potential risks

In fiscal 2012, we further revamped our methods for chemical substance control, thereby embarking on practices entailing ramping up control precision on substances that are extremely hazardous and those that we use in large quantities, while otherwise simplifying controls on substances that pose little potential risk.

#### General education on chemical substances targeting all employees

Moreover, in combination with the specialized training we have been providing on chemical substance safety, in fiscal 2012 we embarked on an e-learning program via the corporate intranet delivering general training on chemical substances intended for all employees, including those whose jobs normally do not entail handling such materials.

We opted to extend this sort of training to a broader range of employees for a number of reasons. For one, an employee handling even familiar chemical agents could cause an accident or pollute the

environment as a result of mishandling. Likewise, misuse even of everyday detergents, adhesives and other such items could result in chemical injury, loss of sight, poisoning or bring about other such grave repercussions. Finally, we extended the training to all employees because we want everyone in the company to gain an understanding of ways in which they can better reduce such risks.

#### Chemical substance control rankings

Level	Description	Locked storage	Input/output control	Inventory control
4	Substances that need to be registered with the government when handled due to their extremely high toxicity and impact on society Examples: narcotics, stimulants	0	0	As per laws and regulations
3	Substances that need to be reported when lost due to their extremely high toxicity Examples: poisonous and deleterious substances	0	0	Monthly
2	Combustible, corrosive, or chronically toxic substances Examples: organic solvents, acid, alkali substances	0	0	Semiannually
1	Substances that pose low threat of hazard yet must be controlled on the basis of significant use and other such rationale Examples: solder, fluorinert, adhesives available on the market, lubricants	_	0	_



Stringent chemical controls



Controls applied to each and every container



Materials used in training on chemical substances

## Materials and waste (FY2012)

## CSR Report 2013

Japan facilit	ties			
		INPUT		
Energy         423,119,592 MJ           •Electricity         40,900 MWh           •Heavy oil         428.7 kl           •Gas         288,350 m <sup>3</sup>		Wh •5	<b>aw materials</b> Steel Aluminum Copper Resins Dthers	506.3 t 84.8 t 57.5 t 55.4 t 26.7 t
Packing materialsOthers•Wood/plywood2.9 t•Water222,753 m³•Cardboard243.5 t•PRTR-listed2.1 t•Others28.5 tchemical substances				
Research/ development/ desing	Materials procurement	Assembly/ adjustmen	nt/ logistics	Sales & Customer- support
Focus activities •Developing environmentally friendly products	Focus activities •Green procurement •Compliance with environmental laws and regulations (RoHS Directive, REACH requirements)	Focus activiti •Reducing waste •Energy efficiency •Preventing water polluti •Environment risk managemen	<ul> <li>Reducing packaging materials</li> <li>Shift to forms of transport</li> <li>with a lighter</li> <li>More efficient distribution</li> </ul>	Reducing packaging materials •Raising proportion of low-emissions vehicles in company car

OUTPUT				
Waste Greenhouse gases				
Total waste 269.8 t	•CO2	17,626.9 t-CO2		
<ul> <li>Permanent disposal 1.3 t</li> </ul>	•NO <sub>X</sub>	1.3 t		
Recycling rate 100 %	•SO <sub>X</sub>	0.8 t		
Products	Others			
<ul> <li>Total sales 132.9 billion yen</li> </ul>	<ul> <li>Wastewater</li> </ul>	69,861 m <sup>3</sup>		
No. of units of 986	<ul> <li>PRTR-listed</li> </ul>	1.6 t		
green products sold	chemical subst	ances		
	<ul> <li>BOD</li> </ul>	1.8 t		
	•COD	0.3 t		

### Overseas subsidiaries

INPUT							
•Energy 210,017,138 MJ •Water 26,262.7 m <sup>3</sup>							
OUTPUT							
●CO2 ●Total waste	8,345.2 t-CO <sub>2</sub> 126.9 t	•Recycling rate	67.6 %				

# 

## **Environmental Accounting Results**

Japan

CSR Report 2013

Scope: All business locations in Japan; period: April 2012 to March 2013 Unit: ¥1,000

0.1		Major	Capital investment		Costs	
Category		activities	FY 2011	FY 2012	FY 2011	FY 2012
	1) Business area costs					
	(1)Pollution prevention costs	Installation, repair, environmental assessment, and maintenance of pollution prevention facilities		0	122,282	51,194
	(2)Global environmental conservation costs	Installation of energy-efficient equipment and facilities	16,820	22,022	121,524	9,355
	(3)Resource circulation costs	Disposal and recycling of waste; construction of water supply facilities	0	0	73,293	68,632
Environmental	2) Upstream / downstream costs	Green procurement and purchasing; introduction and development of recycled packaging materials	0	0	0	0
conservation costs	3) Administrative costs	Operation of Environmental Management System; management of the biotope; disclosure of environmental information	0	0	221,847	182,414
	4) R&D costs	R&D of environmentally friendly products and production technologies	0	0	6,471	3,670
	5) Social activity costs	Tree-planting in the surrounding areas	0	0	2,225	4,583
	6) Environmental remediation costs	Environmental remediation; penalties or litigations concerning environmental conservation	0	0	0	0
	Total		16,820	22,022	547,642	319,848
	Category	Major activities	FY 2011 FY 2012			
	1) Economic benefits		Benefit amount			
	(1)Energy cost savings	Installation of energy-efficient equipment and facilities; implementation of energy-saving measures	65,924		3,050	
	(2)Revenue from sale of recycled materials	Sale of recovered metals, etc.	40,394		69,440	
	(3)Packaging material cost savings	Introduction of reusable packaging materials and returnable containers				
	(4)Waste disposal cost savings due to reduced waste volumes	Reduction of wastewater disposal costs through the use of wastewater treatment facilities	40,885		48,204	
Environmental conservation	(5)Publicity benefits from media coverage	Coverage by newspapers	6,054		4,050	
benefits	Total		153,257 1		124,744	
	2) Physical benefits		Volume reduced / effectively used			ely used
	(1)Power consumption reduction	Installation of energy-efficient equipment and facilities	1,554 (MWh)		52.2 (MWh)	
	(2)Heavy oil consumption	Installation of energy-efficient	364 (kl)		50 (kl)	
	reduction	equipment and facilities				
	reduction (3)City gas consumption reduction	Installation of energy-efficient equipment and facilities	307,000	) (m <sup>3</sup> )		
	(3)City gas consumption	Installation of energy-efficient		) (m <sup>3</sup> ) 958(MJ)	 2,475,434	4(MJ)



Denenits	No. of units of green products sold			
Customer				FY2012 No. of units sold
	(8)Reduction of the quantity of purchased packaging materials	Introduction of reusable packaging materials and returnable containers		
	(7)Effective utilization of waste	The percentage of waste recycled to the total volume of waste generated at sites	99(%)	100(%)
	(6)Effective utilization of resources	The total quantity of metals, paper, waste plastics, and other resources recycled	366(t)	394(t)

### Overseas

Scope: 10 overseas affiliates; period: April 2012 to March 201 Unit: ¥1,000

Category			Costs
		Major activities	FY 2012
	Global environmental conservation	Installation of energy-efficient equipment and facilities; improvement of facilities	23,599
	Resource recycling costs	Disposal of waste	2,620
Environmental conservation costs	Administrative costs	Operating environmental management; environment-related seminars	2,891
00313	Social activity costs	Clean-up activities in the surrounding areas; donations to civil society organizations	3,029
	Total		32,139
Category		Major activities	FY2012
	1) Economic benefits		Benefit amount
	(1)Power cost reduction	Installation of energy-efficient equipment and facilities; implementation of energy-saving measures	3,984
Environmental conservation	(2)Revenue from sale of recycled materials	Sale of recovered metals, etc.	53
benefits	2) Physical benefits		Volume reduced
	(1)Power consumption reduction	Installation of energy-efficient equipment and facilities	265,631kW
	(2)CO <sub>2</sub> emission reduction	Installation of energy-efficient equipment and facilities	102 t -CO

### **Environmental Related Data**

CSR Report 2013

Advantest keeps tabs of the company's annual environmental loads, using such numerical data to pinpoint areas where our operations are impacting the environment so that we can introduce measures and policies to reduce our environmental footprint.

### Environmntal accounting results

### Environmental load data — Japan

Scope: Major business locations and affiliated companies in Japan















#### Environmental load data — overseas

Scope: Major affiliated companies overseas









