

SONY

CSR Reporting 2014

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About CSR Reporting

Sony first issued its environmental report in 1994, then enhanced the information related to corporate social responsibility (CSR) and changed the name of report to "CSR report" in 2003. In 2012 and 2013, Sony issued its Annual Report which included its financial and CSR information. In order to update disclosure information rapidly against the changes of Sony's business area and its circumstances, Sony is disclosing its CSR activities mainly on this website from 2014. You also find more detail of Sony's CSR activities on this website.

Reporting Scope and Composition

- This website summarizes the CSR activities of the Sony Group worldwide during fiscal year 2013 (which began on April 1, 2013 and Ended on March 31, 2014). It also includes reporting on some material activities, such as major organizational changes, up to the end of July, 2014. In this website, the Sony Group refers to Sony Corporation -- the parent company that operates in Japan -- and all consolidated subsidiaries in which Sony Corporation holds a capital stake of more than 50%. "Sony" and "the Company" refer to the Sony Group.
- Sony discloses its operating and financial results in the "[Investor Relations](#)" website and information on our CSR activities in the CSR website.
- This report contains Standard Disclosures from the GRI Sustainability Reporting Guidelines and Environmental Reporting Guidelines (Fiscal year 2007 version), published by Japan's Ministry of the Environment. For comparative tables that are covered in GRI Sustainability Reporting Guidelines, please see below.

• [GRI Sustainability Reporting Guidelines G4 and its Content Index](#)

- Materiality for defining contents has been identified by two axes (materiality matrix): Sony views CSR materiality assessment as a process for understanding issues of importance to multi-stakeholders as well as business and validating its CSR agenda which will help us prioritize our CSR initiatives.

• [CSR at Sony](#)

- About the environmental data, please also find a third-party verification report below.

• [Independent Verification Report](#)

Management Message

Letter to Stakeholders

A Message from Kazuo Hirai, President and CEO



Continuously enhancing corporate value while helping to shape a better, more sustainable society

(Updated on August 12, 2014)

Sony's corporate social responsibility (CSR) activities reflect our ongoing commitment to innovation and sound business practices and to creating products, services and content that excite and inspire audiences worldwide.

While society's expectations of Sony are constantly evolving in line with the diversification of markets and customer lifestyles; advances in technology, products and services; and the changing concerns of the Company's stakeholders, we strive to remain abreast of such changes and continue to undertake bold measures and initiatives in the seven key areas of our CSR agenda—corporate governance, compliance, human resources, responsible sourcing, quality and services, environment and community—all with the dual goals of enhancing corporate value and strengthening the communities in which we operate over the years, thereby helping to shape a better and more sustainable society.

Overall Operating Environment

Naturally, our CSR program is conducted in the context of our overall operating environment. In fiscal year 2013, the Sony Group reported consolidated sales and operating revenue of 7,767.3 billion yen, an increase of 14.3% from fiscal year 2012, and operating income of 26.5 billion yen, a decrease of 200.0 billion yen from the previous fiscal year. Given these results, our efforts are focused on profitability and sustainable business growth. Toward that end, in fiscal year 2014, we plan to:

1. Complete the structural reform of our electronics business;
 2. Undertake key initiatives to strengthen our core businesses of Game and Network Services, Mobile, Imaging, Entertainment and Financial Services; and
 3. Advance technology development and pursue measures for new business creation to deliver further growth from fiscal year 2015
- ([For more information](#))

Strengthening our financial foundation will enable us to continue to meet both the business and societal expectations of our stakeholders.

CSR Highlights

Taking into consideration our overall operating environment in fiscal year 2013, we continued to promote initiatives in each of the seven key areas of our CSR agenda, bearing in mind their relevance to Sony's businesses and the concerns of our stakeholders. In the area of responsible sourcing, we launched a new initiative to enhance transparency across the entire Sony Group supply chain and disclose information regarding the use of four key minerals in that supply chain. We also undertook sustainable grass-roots community initiatives around our sponsorship of the 2014 FIFA World Cup, including a soccer-themed social contribution program for children in Latin America, Africa and Asia. Let me share some details regarding both of those initiatives with you.

Investigating and Disclosing Information on the Use of Conflict Minerals in Sony Group's Supply Chain

As part of our ongoing commitment to responsible sourcing, and to comply with the Dodd-Frank Wall Street Reform and Consumer Protection Act transparency and disclosure requirements, we determined the use and source of four key minerals in our products-tin, tantalum, tungsten or gold-to help ensure that our products do not contain those minerals from sources that benefit armed rebel groups in the DRC or the adjoining region, while at the same time making sure that we are still able to source responsibly from that region, and we submitted a report of our findings to the U.S. Securities and Exchange Commission (SEC). We also supported and participated in a range of multi-industry, nongovernmental organizations (NGOs) and public-private programs addressing this issue. -In addition to continuing to pursue these and other initiatives, we promote active, on-going dialogue with NGOs, industry groups and other external stakeholders as part of our overall effort to achieve a conflict-free supply chain.

Dream Goal 2014: A Soccer-Themed CSR Program for Children Around the World

As an official FIFA partner, Sony launched "Dream Goal 2014," a special CSR program conducted in conjunction with the 2014 FIFA World Cup Brazil™. This program, made possible through collaboration across the Sony Group in partnership with participating NGOs worldwide, showcases a wide range of online and offline initiatives that are expected to benefit approximately 30,000 children in Latin America, Africa and Asia, including:

- Street Football Stadium Project:** In partnership with streetfootballworld gGmbH, Sony is providing 25 easy-to-build, portable, pop-up football stadiums to children in eight countries in Latin America. As part of this project, workshops will be conducted, using these stadiums and the game of soccer, with a focus on developing and promoting leadership skills and gender equality, among other things, for approximately one year following the conclusion of the 2014 FIFA World Cup™.
- Football for Hope Siyakhona Media Skills Program:** Led by FIFA and Sony, this program provides media skills training workshops to young community leaders using media equipment, such as digital cameras, provided by Sony. These efforts will continue through April 2015, spanning 11 countries in Latin America, Africa and other regions.

Through these and other initiatives, we look forward to continuing our investment in the communities we serve and to fulfilling our responsibilities as a global corporate citizen. By driving innovation and implementing sound, ethical business practices with the goal of enhancing corporate value, and by continuing to foster a corporate culture that values CSR, we aim to meet the expectations of our stakeholders in contributing to a better, more sustainable society for all.

A handwritten signature in black ink, appearing to read 'K. Hirai', enclosed within a simple hand-drawn oval shape.

Kazuo Hirai
President and CEO
Representative Corporate Executive Officer
Sony Corporation

CSR at Sony

"It is the core corporate responsibility of Sony Group to the society to pursue its corporate value enhancement through innovation and sound business practice."

(Sony Group Code of Conduct, adopted in May 2003)



Sony's corporate social responsibility (CSR) activities reflect its philosophy of implementing sound business practices; innovating to realize products, services and content that inspire and excite; assisting the communities in which we operate; and helping to shape a better, more sustainable society. Sony believes that these activities both benefit society and enhance corporate value.

Verifying Key CSR Agenda and Determining Materiality

Objective of Conducting Materiality Assessment

Sony currently promotes CSR initiatives in line with its CSR agenda, which sets seven key areas of focus - corporate governance, compliance, human resources, responsible sourcing, quality and services, environment and community - with the aim of strengthening its operating foundation and continuously enhancing its corporate value. Stakeholder input on CSR-related issues and suggestions is fed back to management and to pertinent Sony departments (e.g., legal, compliance, environment, product quality, procurement and human resources), to be incorporated into key actions, including the formulation of Sony Group policies. Sony's CSR section is tasked with monitoring the progress of initiatives and disclosing information about Sony's efforts by preparing CSR reports and promoting dialogue with stakeholders.

• [CSR Organizational Structure](#)

To align and respond effectively to evolving social imperatives and changes in the business environment, Sony recently conducted a CSR materiality assessment with BSR (Business for Social Responsibility), an independent organization with expertise in global CSR trends and international standards, with the aim of validating its CSR agenda by incorporating the perspectives of stakeholders and to identify emerging CSR topics relevant to new business areas.

CSR Materiality Assessment Process

The Sony Group is a global organization with a broad business portfolio. Sony is engaged in the development, design, manufacture, and sale of various kinds of electronic equipment and devices for consumer and professional markets as well as game consoles and software. Sony is also engaged in the production and distribution of motion pictures, television programs, music, and digital networks. Further, Sony is also engaged in various financial services businesses through its Japanese insurance subsidiaries and banking operations through a Japanese Internet-based banking subsidiary. Given the diversity of the Group's operations, the expectations of its stakeholders regarding its CSR initiatives also vary. Sony views CSR materiality assessment as a process for understanding issues of importance to multi-stakeholders as well as business and validating its CSR agenda which will help us prioritize our CSR initiatives.

In conducting the CSR materiality analysis, we first identified global CSR issues of particular relevance to Sony. The Company then looked at issues that are most significant today as well as emerging issues to its external stakeholders, which include nongovernmental organizations (NGOs), customers, and socially responsible investors, as well as at stakeholders' views regarding the changes in roles and responsibilities of corporations. Sony then assessed those issues likely to have the most importance to business and identified topics that are material from both a stakeholder and a business perspective.

● Stakeholder Engagement and Partnership

Key Findings

Sony's materiality assessment reaffirmed the importance of the seven key areas of its CSR agenda in which continues to be in the areas that Sony shall promote its initiatives. The assessment also showed a cluster of topics related to Sony's electronics business, including managing its operation's social and environmental impact and improving transparency across the supply chain, as being of particular concern to stakeholders. In addition, the assessment identified emerging topics such as those concerning the management of content and information with the growth of Sony's network and entertainment businesses. The assessment also identified topics that Sony

has limited influence or have already been addressed through ongoing programs. At the same time, the assessment showed that stakeholder expectations are high toward innovation in developing sustainable products and services and creating value to society.

Going forward, Sony pledges to continue working to better understand the expectations of its stakeholders and to address the challenges and opportunities identified through the materiality assessment.

CSR at Sony

CSR Organizational Structure

CSR Organizational Structure

(Updated on August 12, 2014)

Sony has established an office for CSR that is responsible for formulating policies concerning Sony's social responsibilities, implementing these policies throughout the Group and communicating with third parties through, among others, the sharing of information.

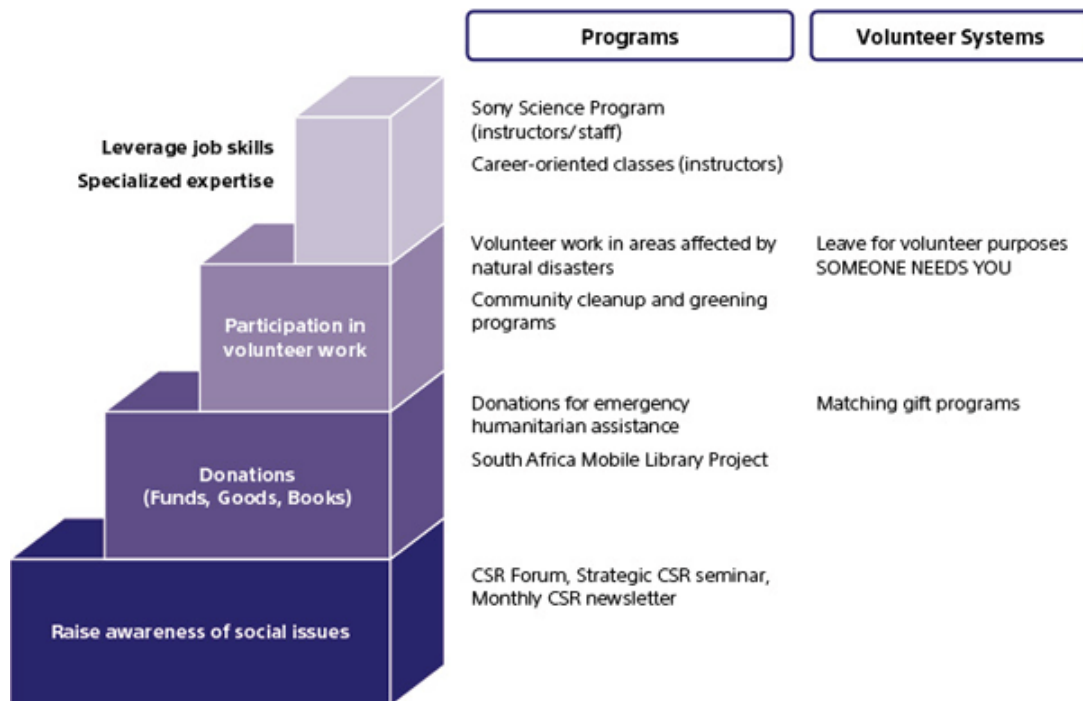
CSR section also handles CSR-related disclosure, promotes dialogue with stakeholders, ensures feedback reaches management and any pertinent Sony department (e.g., legal & compliance, environment, product quality, procurement, human resources, marketing) as well as interdepartmental meetings, and is incorporated into management's actions. The relevant departments promote CSR activities throughout the Group by ensuring policies and initiatives thus incorporated are conveyed to Group companies.

Raising Awareness

(Updated on August 12, 2014)

Recognizing the importance of raising employee awareness with regard to the effective promotion of CSR, Sony offers a variety of educational programs based on a three-level approach, whereby employees are encouraged first to learn about CSR, second to participate in CSR activities and third to incorporate CSR into their day-to-day work.

Employee Participation in CSR Activities



e-learning

CSR training for new employees and management focuses on instilling know-how and introducing Sony's CSR program.

CSR Update (Newsletter)

Sony publishes CSR Update, a monthly newsletter for Sony Group employees detailing Sony's principal CSR initiatives and reporting on related awards received from third parties and CSR trends.



CSR Forum

Held after hours and completely voluntary, the CSR Forum provides Sony employees in Japan with the opportunity to increase their knowledge of CSR. This event features lectures by invited experts, film screenings and other activities, and addresses a variety of themes, including emergency relief, the environment, human rights, poverty, international understanding, employment opportunities for the disabled, work-life balance and diversity, base-of-the-pyramid (BOP) businesses and social innovation. Employees of Sony Group companies were able to view the proceedings via streamed video or other media, substantially boosting participation in the event.

Employee Participation

Sony believes that employee participation is crucial to ensuring its community engagement activities are truly meaningful. Accordingly, Sony encourages employees to be aware of social issues, strive constantly to deepen their understanding and then to participate in fundraising initiatives, community projects and/or other activities. Sony also encourages employees to act as instructors for workshops organized for children and students and in other capacities that capitalize on their specialized skills.

Volunteer systems for employees

- [Leave for volunteer purposes](#)
- [SOMEONE NEEDS YOU \(employee volunteer program\)](#)

Volunteer initiatives

- [Employee volunteer work in areas affected by the Great East Japan Earthquake](#)
- [Instructors and staff for Sony Science Program](#)
- Cleanup activities and tree-planting, among others

Fundraising and donation programs

- [Sony's matching gift programs](#)
- Emergency humanitarian assistance
- [South Africa Mobile Library Project](#)

Related information:

- [Volunteer systems for employees](#)

CSR at Sony

Stakeholder Engagement and Partnership

Recognizing that conduct that is socially and professionally acceptable in one culture or region may be viewed differently in another, Personnel are required to give careful consideration to cultural and regional differences in performing their duties. (Sony Group Code of Conduct)

Relations with Stakeholders

(Updated on August 12, 2014)

Sony understands that addressing issues of interest to its many stakeholders is intrinsically linked to its ability to ensure a strong operating foundation, which is in turn vital to ensuring the well-being and sustainability of its business activities and to achieving sustainable growth. Sony's CSR initiatives reflect this understanding. Sony works to earn the trust of its stakeholders through its business activities, as well as through a range of CSR initiatives.

Stakeholders	Principal Goals	Page to Visit
Customers	<ul style="list-style-type: none"> • Provide products that deliver satisfaction, safety and peace of mind from the customer's perspective • Provide customer service that further enhances customer satisfaction • Enhance usability and accessibility 	Quality and Services
Shareholders	<ul style="list-style-type: none"> • Promote swift and appropriate disclosure • Achieve continued growth in corporate value 	Investor Relations

<p>Business partners</p>	<ul style="list-style-type: none"> • Ensure appropriate, transparent and fair procurement practices, in line with the Sony Group Code of Conduct • Ensure that procurement practices are in harmony with the environment and society (including labor issues, human rights and conflict minerals) 	<p>Responsible Sourcing</p>
<p>Employees</p>	<ul style="list-style-type: none"> • Support employees with diverse backgrounds • Promote diversity in hiring • Foster global business leaders and engineers who will drive growth in the future • Support individual career-building efforts) • Promote dialogue through employee surveys and town hall meetings 	<p>Human Resources</p>
<p>Local communities</p>	<ul style="list-style-type: none"> • Promote initiatives that contribute to communities in fields where Sony is best able to do so • Provide emergency relief • Work with NGOs and NPOs to help resolve issues facing society 	<p>Community Community Engagement Environment</p>

<p>Global environment</p>	<ul style="list-style-type: none"> • Reduce the environmental footprint of Sony's business activities and products throughout their life cycle to zero - Reduce CO2 emissions of Sony's business activities and products throughout their life cycle to zero - Reduce the volume of virgin resources used and maximize the use of recycled resources; conserve water resources; and promote the collection and recycling of end-of-life products - Prevent pollution by reducing the volume of chemical substances used - Promote the conservation and restoration of biodiversity and the sustained use of biodiversity-friendly products 	<p>Environment</p>
<p>NGOs, NPOs and other organizations</p>	<ul style="list-style-type: none"> • Collaborate with NGOs and NPOs to help address social challenges • Participate in global frameworks • Participate in CSR-related organizations and projects 	<p>Community Engagement Partnership and Participation in frameworks</p>

Partnership and Participation in frameworks

(Updated on August 12, 2014)

For Sony, engaging and working together with various stakeholders is vital for pursuing CSR activities. Sony not only promotes engagement with stakeholders in implementing its CSR activities but also encourages the participation of multiple stakeholder groups in the planning of those activities, thereby contributing to the creation of a global framework.

Collaboration with Environmental NGOs

In July 2006, Sony joined the Climate Savers Programme, which partners the World Wide Fund for Nature (WWF), a leading environmental protection NGO, with companies in the drive to reduce greenhouse gas emissions. Through the Climate Savers Programme, leading corporations partner with the WWF to establish targets for reducing absolute emissions of CO₂ and other greenhouse gases. Progress toward these targets is monitored by an independent body. As of July 2014, 28 corporations worldwide had signed on as Climate Savers Programme partners.



Under the program, Sony is committed to achieving a 7% reduction in emissions of greenhouse gases from all of its sites from the fiscal year 2000 level by the end of fiscal year 2010, as well as to lowering energy consumption by its products and working with the WWF to communicate with consumers.

In November 2009, Sony announced a new set of climate change-related targets for fiscal year 2011 and beyond. These are to (a) achieve an absolute reduction in greenhouse gas emissions –measured in CO₂ emissions–from Sony Group sites of 30% from the fiscal year 2000 level by the end of fiscal year 2015; and (b) achieve a reduction in power consumption per product of 30% from the fiscal year 2008 level by the end of fiscal year 2015. These targets were reviewed and approved by the WWF as revised targets for Sony under the Climate Savers Programme.

In February 2008, Sony and the WWF co-hosted the Climate Savers Tokyo Summit 2008, which was held at Sony's Tokyo headquarters and attended by representatives of current and intended program participants. In addition to the WWF's annual assembly, the summit for the first time welcomed participants representing industry and government, as well as the press. The summit featured presentations highlighting the efforts and achievements of program participants, as well as panel discussions featuring leading experts and a keynote address by James Leape, Director General of WWF International. The highlight of the event was the announcement by Sony Chairman and CEO (as of 2008) Howard Stringer of the Tokyo Declaration, signed by 12 Climate

Savers Programme participants. On behalf of the signatory companies, Mr. Stringer declared support for the Intergovernmental Panel on Climate Change (IPCC) and its conclusion that global greenhouse gas emissions must peak and begin to drop in the next 10–15 years, to well below half the level recorded in 2000, by the middle of the 21st century. He further asserted that with the aim of realizing a low-carbon society the signatory companies will take further action, including trying to widen the scope of emissions reduction activities through greater cooperation with business partners and promoting a low-carbon lifestyle to consumers and customers.

In 2009, Sony also joined as a participant in the Climate Savers Programme's "Let the Clean Economy Begin" campaign, and has been actively engaged in a wide range of related initiatives. These include taking part in joint advertising activities and linking its corporate website with those of partner companies.

Participation in the Development of a Global Framework

Sony undertakes a wide range of activities with the aim of promoting CSR initiatives. One example was its role as joint chair of the working group on the formulation of the ISO 26000, international standard of social responsibility published in November 2010, on which Sony submitted reports in Japan through the Japanese Industrial Standards Committee (JISC). Sony was also involved in the development of a global CSR framework, which includes participating in the multi-stakeholder planning and revision process for the Global Reporting Initiative's (GRI's) GRI Sustainability Reporting Guidelines.



Participation in CSR-Related Organizations and Projects

Sony is a member of numerous worldwide CSR organizations, including Business For Social Responsibility (BSR), and the Council for Better Corporate Citizenship (CBCC).

The CBCC was established in 1989 as The Council for Better Investment in the United States, an initiative Nippon Keidanren, with the purpose of promoting good relations between Japanese-affiliated companies and various stakeholders, including local communities and employees, by encouraging good corporate citizenship. Sony's founder, Akio Morita, served as the organization's first chairman. Authorized as a "designated public benefit organization" in June 2010, the CBCC was chaired by Ryoji Chubachi*, vice chairman of Sony Corporation

* Ryoji Chubachi retired on June 2013



Launch of the "Eco-Patent Commons"

On 2008, Sony joined forces with IBM (USA), Nokia (Finland), Pitney Bowes (USA) and the World Business Council for Sustainable Development (WBCSD) to launch the "Eco-Patent Commons." This portfolio of patents for environmental technologies released by founding and participating members is available on a website. As of May 2014, 11 companies in a wide range of industries had released more than 100 patents.

The patents that make up the portfolio include patents that address environmental issues, as well as patents covering innovative manufacturing and business processes. Releasing these patents encourages their application in the development of innovative products, processes and services that contribute to environmental preservation.

• [Eco-Patent Commons.](#)





Corporate Governance



Sony has long been committed to strong corporate governance, as one of its most important management initiatives. As a part of this effort, in 2003, Sony adopted the "Company with Committees" corporate governance system under the Companies Act of Japan. In addition to complying with the requirements of applicable corporate governance laws and regulations, Sony has introduced its own requirements to help improve and maintain the soundness and transparency of its governance by strengthening the separation of the Directors' function from that of management and advancing the proper functioning of the statutory committees. Under Sony's system, the Board of Directors defines the respective areas for which each of the Corporate Executive Officers is responsible and delegates to them decision-making authority to manage the business, thereby promoting the prompt and efficient management of the Sony Group.

Governance Structure

Primary Roles of the Governance Entities

Sony Initiatives

Meeting Record

Cooperation of the Audit Committee and the Internal Audit Division

Governance Related to the U.S. Sarbanes-Oxley Act

Board of Directors' Determination Regarding Internal Control and Governance Framework

Risk Management System

Crisis Management System

Business Continuity Plan

Corporate Governance

Governance Structure

(Updated on August 12, 2014)

Sony Corporation is governed by its Board of Directors, which is appointed by resolution at the annual shareholders' meeting. The Board has three committees (the Nominating Committee, Audit Committee and Compensation Committee), each consisting of Directors named by the Board of Directors. Corporate Executive Officers are appointed by resolution of the Board of Directors. In addition to these statutory bodies and positions, Sony has Corporate Executives who carry out business operations within designated areas.



Corporate Governance

Primary Roles of the Governance Entities

(Updated on November 17, 2014)

Board of Directors :

- Determines the fundamental management policies of the Sony Group
- Oversees the management of Sony Group's business operations
- Appoints and dismisses the statutory committee members
- Appoints and dismisses Representative Corporate Executive Officers and Corporate Executive Officers

Nominating Committee:

- Determines the content of proposals regarding the appointment/dismissal of Directors

Audit Committee:

- Monitors the performance of duties by Directors and Corporate Executive Officers
- Oversees and evaluate the work of the independent auditor, including to propose its appointment/dismissal or non-reappointment, to approve its compensation, to evaluate the appropriateness of its audit regarding the financial results and internal control over financial reporting, and to pre-approve its engagement for any other services than audit services to be provided.

Compensation Committee:

- Sets policy on the contents of individual compensation for Directors, Corporate Executive Officers, Corporate Executives and Group Executives, and determines the amount and content of individual compensation of Directors and Corporate Executive Officers in accordance with the policy

Corporate Executive Officers:

- Make decisions regarding the execution of Sony Group business activities within the scope of the authority delegated to them by the Board of Directors

Corporate Executives:

- Carry out business operations within designated areas, including business units, headquarters functions, and/or research and development, in accordance with the fundamental policies determined by the Board of Directors and the Corporate Executive Officers

Supervision

Board of Directors

Chairman of the Board: Osamu Nagayama* Representative Director, Chairman and Chief Executive Officer, Chugai Pharmaceutical Co., Ltd.	Joichi Ito* Director, MIT Media Lab, Massachusetts Institute of Technology
Kazuo Hirai Representative Corporate Executive Officer, President and CEO, Sony Corporation	Tim Schaaff Retired President, Sony Network Entertainment International LLC Independent Startup Advisor
Kenichiro Yoshida Representative Corporate Executive Officer, EVP and CFO, Sony Corporation	Kazuo Matsunaga* Retired Vice-Minister of Economy, Trade and Industry
Kanemitsu Anraku* Director, Mizuho Financial Group, Inc.	Koichi Miyata* President, Sumitomo Mitsui Financial Group, Inc.
Takaaki Nimura* Certified Public Accountant	John V. Roos* Former United States Ambassador to Japan
Eikoh Harada* Representative Director, Chairman and CEO, Benesse Holdings, Inc.	Eriko Sakurai* Chairman and CEO, Dow Corning Toray Co., Ltd.

Nominating Committee

Osamu Nagayama* (Chair)
Joichi Ito*
Tim Schaaff
Koichi Miyata*

John V. Roos*
Kazuo Hirai
Kenichiro Yoshida

Audit Committee

Takaaki Nimura* (Chair)
Kanemitsu Anraku*
Kazuo Matsunaga*

Compensation Committee

Eikoh Harada* (Chair)
Eriko Sakurai*
Kenichiro Yoshida

* An Outside Director who satisfies the requirements under Item 15, Article 2 of the Companies Act of Japan

Management

Corporate Executive Officers

Kazuo Hirai** Representative Corporate Executive Officer, President and Chief Executive Officer	Tomoyuki Suzuki Executive Vice President, Officer in charge of Device Solutions Business and RDS Platform
Kenichiro Yoshida** Representative Corporate Executive Officer, Executive Vice President and Chief Financial Officer	Kunitaka Fujita Executive Vice President, Officer in charge of Human Resources and General Affairs
Tadashi Saito Executive Vice President, Officer in charge of Medical Business	Shiro Kambe Executive Vice President, Officer in charge of Legal, Compliance, Corporate Communications, CSR and External Relations
Shoji Nemoto Executive Vice President, Officer in charge of Professional Solutions Business, Digital Imaging Business and Disc Manufacturing Business	

** Representative Corporate Executive Officer concurrently serving as Director
(Name and positions of Directors and Corporate Executive Officers as of November 16, 2014)

[Click to enlarge](#)



Board of Directors, Sony Corporation

Corporate Governance

Sony Initiatives

(Updated on August 12, 2014)

To strengthen its governance structure beyond legal requirements, Sony Corporation includes several provisions in its Charter of the Board of Directors to help ensure the separation of the Board of Directors from the execution of business, and to advance the proper functioning of the statutory committees. The main provisions are as follows:

- separating the roles of the Board chairperson/vice chairperson and Representative Corporate Executive Officers;
- limiting the number of terms of outside Directors;
- appointing chairs of statutory committees from the ranks of outside Directors;
- setting forth qualifications for Directors for the purpose of eliminating conflicts of interest and ensuring independence;
- raising the minimum number of Nominating Committee members (five or more) and requiring that at least two Directors of the Committee be Corporate Executive Officers;
- suggesting that, as a general rule, at least one Director of the Compensation Committee be a Corporate Executive Officer
- prohibiting the CEO or COO of Sony Group (or persons in any equivalent position) from serving on the Compensation Committee; and
- discouraging the concurrent appointment of Audit Committee members to other committees.

Corporate Governance

Meeting Record

(Updated on August 12, 2014)

During the fiscal year ended March 31, 2014, the Board of Directors convened ten times. The Nominating Committee met six times, the Audit Committee met eight times and the Compensation Committee met eight times. All 12 outside Directors participated in all meetings of the Board of Directors held during his/her tenure period of the fiscal year ended March 31, 2014 except for Sir Peter Bonfield, Ryuji Yasuda, Yukako Uchinaga, Tsun-Yan Hsieh, and Yorihiro Kojima (Sir Peter Bonfield, Ryuji Yasuda, Yukako Uchinaga and Yorihiro Kojima each participated in nine meetings out of ten; Tsun-Yan Hsieh, whose tenure ended in June 2013, participated in two meetings out of three). Also, all 10 outside Directors who are members of Committees participated in at least 75 percent of the aggregate number of meetings of each Committee held during the fiscal year ended March 31, 2014, except for Yorihiro Kojima. All three outside Directors who are members of the Audit Committee participated in all meetings of the Audit Committee held during his/her tenure period of the fiscal year ended March 31, 2014.

Corporate Governance

Cooperation of the Audit Committee and the Internal Audit Division

(Updated on August 12, 2014)

Sony Corporation has an Internal Audit Section, which coordinates closely with the internal audit departments of major subsidiaries around the world to promote Sony Group's internal audit activities on a global basis. The Sony Corporation Internal Audit Section makes periodic presentations to the Audit Committee, the CFO, and the Corporate Executive Officer in charge of Internal Audit. To help assure its independence, the appointment and dismissal of the person in charge of the Sony Corporation Internal Audit Section is subject to the prior approval of the Audit Committee.

Corporate Governance

Governance Related to the U.S. Sarbanes-Oxley Act

(Updated on August 12, 2014)

Sony is subject to the Sarbanes-Oxley Act (SOX) regulations because it is a foreign private issuer of equity securities registered with the U.S. Securities and Exchange Commission (SEC) and subject to SEC reporting requirements. Among other requirements, SOX requires the CEO and the CFO of Sony Corporation to sign certain certifications to accompany the Sony Annual Report on Form 20-F filed with the SEC, relating to the "fair presentation" of the consolidated financial statements, disclosure controls and procedures, and internal control over financial reporting. Sony has established "Disclosure Controls and Procedures," outlining the process through which potentially material information is reported from important business units, subsidiaries, affiliated companies and corporate divisions and is reviewed and considered for disclosure in light of its materiality to the Sony Group. The "Disclosure Committee," comprised of officers and senior management of the Sony Group including those who oversee investor relations, accounting, corporate planning, legal, corporate communications, finance, internal audit, human resources and group risk, supervises the preparation of Sony's annual reports, current reports, quarterly earnings releases and other material disclosure, and assists the management in the establishment and implementation of this system and also in undertaking appropriate and timely disclosure. Effective since the fiscal year ended March 31, 2007, SOX also requires the inclusion of a management report on the company's internal control over financial reporting in the Form 20-F. In order to ensure compliance with this requirement, Sony formed a cross-functional steering committee comprised of management in charge of the principal Sony Group headquarters functions to monitor necessary actions including documentation, testing and evaluation of controls and to perform oversight and assessment of the global evaluation. Based on the company's evaluation, management has concluded that Sony maintained effective internal control over financial reporting as of March 31, 2014.

Corporate Governance

Board of Directors' Determination Regarding Internal Control and Governance Framework

(Updated on August 12, 2014)

At a Board meeting held on April 26, 2006, the Board of Directors reaffirmed the existing internal control and governance framework (including the system regarding rules and other structure of risk management) and determined to continue to evaluate and improve such framework going forward, as appropriate. At a Board meeting held on May 13, 2009 the Board of Directors reaffirmed such internal control and governance framework, as slightly amended, in effect as of the date of determination and determined to continue to evaluate and improve such amended framework going forward, as appropriate. This determination was required by and met the requirements of the Companies Act of Japan.

Related Links

-  [Charter of the Board of Directors](#)
-  [Basic policy regarding remuneration for Directors and Corporate Executive Officers and amount of such remuneration \(pages 104-105\)](#)
-  [Board of Directors' determination regarding internal control and governance framework pursuant to the Japanese Companies Act](#)
-  [Significant differences between the New York Stock Exchange's corporate governance standards and Sony's corporate governance practices \(including the explanation of "outside Directors"\)](#)

Corporate Governance

Risk Management System

(Updated on August 12, 2014)

Each Sony Group business unit, affiliated company and corporate division is expected to review and assess business risks on a regular basis and to detect, communicate, evaluate and respond to risks in their particular business areas. In addition, Sony Corporation's Corporate Executive Officers have the authority and responsibility to establish and maintain systems for identifying and controlling risks that have the potential to cause losses or reputational damage to the Sony Group in the areas for which they are responsible.

The Corporate Executive Officer in charge of Human Resources and General Affairs is tasked with establishing and reinforcing the Sony Group's risk management systems through the coordinated activities of relevant groups. The Sony Corporation Group Risk Office is responsible for promoting Group-level risk management initiatives, including the enhancement of business continuity plans (BCPs).

Corporate Governance

Crisis Management System

(Updated on August 12, 2014)

One aspect of risk management is the proper handling of crises if and when they arise, and the proper preparation for such crises. Sony's crisis management and business continuity activities predominately occur at the business and operational level closest to the events the Company may encounter. Since some events can have a significant impact on the entire Sony Group as a whole, Sony has established a Group crisis management procedure to enable a swift and organized Group-wide response to crises as needed. Under this system, crises are evaluated and classified into three levels to ensure dynamic and appropriate responses. Level 1 is defined as a crisis with the possibility of significant impact on the Sony Group, and the possibility of serious negative impact on the business of the Sony Group or its reputation, and will be handled under the direction of the CEO. Level 2 is a crisis that is determined not to be Level 1, but still has the possibility of widespread impact within the Sony Group, and will be addressed by a cross-functional committee composed of headquarters executives relevant to the issue. Level 3 is a crisis that the Corporate Executive Officer in charge of the subject area determines may be resolved within his/her authority.

Corporate Governance

Business Continuity Plan

(Updated on August 12, 2014)

Sony continues to work on business continuity plans (BCPs), which include disaster prevention and mitigation with the objective of reducing the risk of its business being interrupted in the event of a natural disaster, accident or other such event. A BCP also functions to ensure that critical business operations are not interrupted, even in the event of a disaster, as well as to facilitate the earliest possible recovery of operations, should interruption be unavoidable.

In the fiscal year ended March 31, 2012, the electronics industry struggled to cope with the impact of the Great East Japan Earthquake and severe flooding in Thailand. Sony's employees and top management rallied together, capitalizing on their experiences in implementing measures to ensure business continuity, and succeeded in minimizing the impact of production disruptions.

Subsequently, individual units within the Sony Group, including business units, Sony's headquarters and subsidiaries, have reviewed and made enhancements to update and strengthen their BCPs. Recognizing the implementation of effective BCPs as a crucial management responsibility, Sony will also continue to capitalize on its experience in coping with major disasters and to implement effective measures such as enhancement of risk management across its group-wide supply chain.



Compliance



Ethical business conduct and compliance with applicable laws and regulations are fundamental aspects of Sony's corporate culture. To this end, Sony has established a Global Compliance Network comprised of the Compliance Division at the corporate headquarters, a global compliance leadership team and regional compliance officers around the world. Additionally, it has adopted and implemented the Sony Group Code of Conduct, and set up Compliance Hotline systems through its Global Compliance Network. Sony has taken these actions in order to reinforce the Company's worldwide commitment to integrity and help assure resources are available for employees to raise concerns or seek guidance about legal and ethical matters.

Strengthening the Compliance System

Sony Group Code of Conduct

Internal Hotline System

Educating Employees about the Sony Group Code of Conduct and the Internal Hotline System

Compliance Monitoring Program

Sony Group Anti-Bribery Program

Basic Approach and Systems to Exclude Anti-Social Forces

Information Security and Privacy

Compliance

Strengthening the Compliance System

(Updated on August 12, 2014)

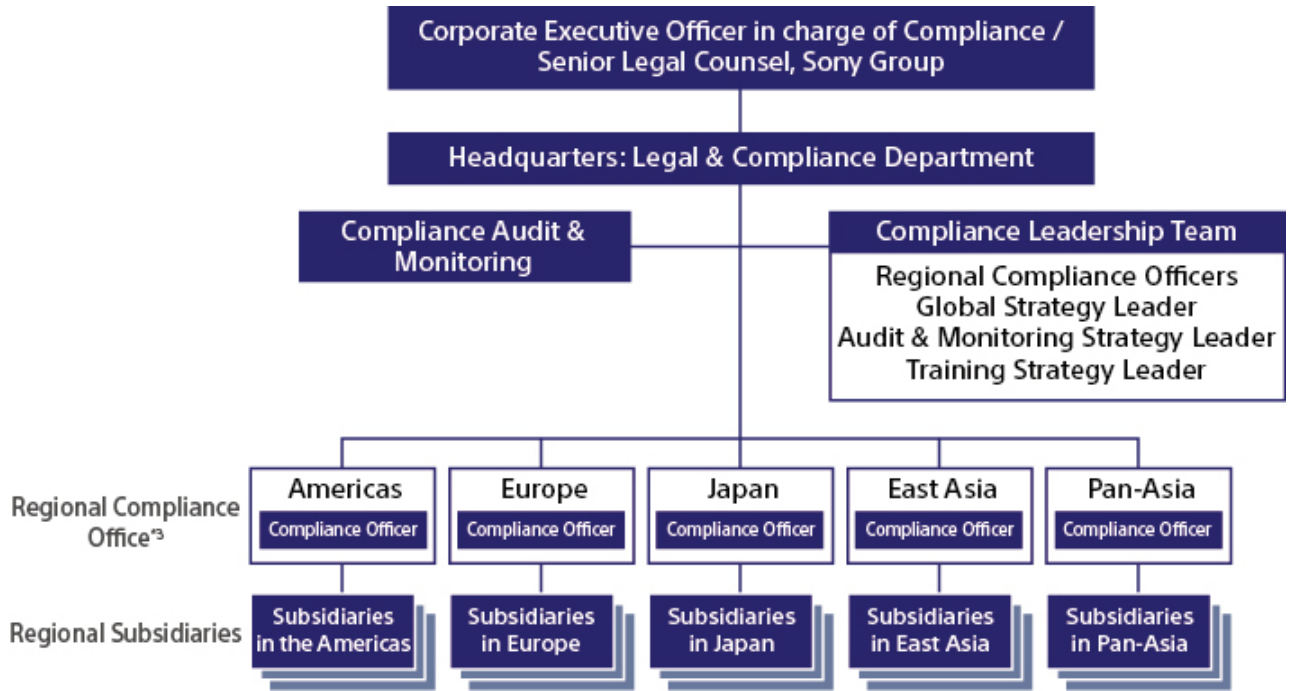
In July 2001, Sony Corporation established a compliance department responsible for exercising global direction and oversight of compliance activities across the Sony Group, to emphasize the importance of business ethics and compliance with applicable laws, regulations and internal policies. The organization (currently, the Legal & Compliance Department) establishes compliance policies and structures for the Sony Group.

To implement this mandate more effectively, in July 2003, Sony established a regional compliance network, comprised of regional compliance officers in the Americas, Europe, Japan, East Asia*1 and Pan-Asia*2, who are charged with exercising regional control over compliance activities to strengthen the compliance system throughout the Sony Group. Officers responsible for compliance in each region have the authority to issue instructions concerning compliance to Sony Group companies in their respective regions and, by coordinating with one another, are working to establish and maintain a comprehensive global compliance structure.

The Compliance Audit & Monitoring function was established as part of the compliance network in April 2008 to support the company's global compliance initiatives and monitor and evaluate compliance program activities. To further reinforce global compliance efforts, a Compliance Leadership Team was formed in September 2009 as an additional component of the global compliance network. The Compliance Leadership Team assists in identifying, developing and implementing key compliance strategies and compliance-related measures; encourages more active participation in Group-wide compliance activities from a larger group of key Sony personnel by involving not only the Regional Compliance Officers but also experienced legal/compliance personnel from Sony Group companies; and creates a global framework that by its very structure highlights the company's compliance priorities and commitment to best practices.

*1 Coverage area of East Asia compliance office: Mainland China, Hong Kong, Taiwan and South Korea

*2 Coverage area of Pan-Asia compliance office: Southeast Asia, Middle East, Africa and Oceania



*3 The Americas Office is responsible for Sony Corporation of America, the Sony Pictures Entertainment Group, and the Sony Music Entertainment Group, in addition to the Electronics Group companies in the America's Region. The Europe, East Asia and Pan-Asia Offices are responsible for the Electronics Group companies in their respective regions. The Japan Office is responsible for Sony Corporation, the Sony Computer Entertainment Group, and Sony Financial Holdings Group, in addition to the Electronics Group Companies in Japan.

Compliance

Sony Group Code of Conduct

(Updated on August 12, 2014)

In May 2003, Sony adopted the Sony Group Code of Conduct, which sets the basic internal standards to be observed by all directors, officers and employees of the Sony Group, in order to emphasize and further strengthen corporate governance, business ethics and compliance systems throughout the Sony Group. In addition to legal and compliance standards, the Code of Conduct sets out the Sony Group's basic policies concerning ethical business practices and activities on such topics as respect for human rights, safety of products and services, environmental conservation and information disclosure.

The Code of Conduct has been adopted and implemented by each Sony Group company globally and is the subject of frequent "tone from the top" messaging and other training. To date, the document has been translated into 26 languages.

[Sony Group Code of Conduct:](#)

The Sony Group Code of Conduct reflects principles set out in the Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises, the United Nations Global Compact and the United Nations Universal Declaration of Human Rights. Sony also participated in the formulation of and observes the standards outlined in the Charter of Corporate Behavior of the Keidanren (Japan Business Federation), an alliance of Japan's leading corporations.

- [OECD Guidelines for Multinational Enterprises](#)
- [United Nations Global Compact](#)
- [United Nations Universal Declaration of Human Rights](#)
- [Keidanren Charter of Corporate Behavior](#)

Environment

Internal Hotline System

(Updated on August 12, 2014)

Following the adoption of the Sony Group Code of Conduct, Sony also established a Sony Group compliance hotline system as a resource for employees to report concerns or seek guidance about possible violations of laws or internal policies, and to allow the Sony Group to respond swiftly to potential risks of such possible violations.

The Sony Group compliance hotline system is available worldwide. It is operated independently from the ordinary line of command under the supervision of the Corporate Executive Officer in charge of Compliance and the Senior Legal Counsel, Sony Group, and callers who report issues in good faith are protected from any possibility of retaliation for the report. Summaries of hotline calls, results of investigations, and updates on the operation of the system are reported to senior management and the Audit Committee.

During fiscal 2013, the Sony Group received approximately 420 hotline contacts covering issues primarily relating to employment, labor, work environment, information management and possible conflicts of interest. All contacts received are investigated for the purpose of verification and appropriate action. In certain cases, these contacts have led to a review of internal procedures and the strengthening or enforcement of internal rules.

Sony Group compliance hotline system



Compliance

Educating Employees about the Sony Group Code of Conduct and the Internal Hotline System

(Updated on August 12, 2014)

To ensure that all employees understand the importance of the Sony Group Code of Conduct, as well as to promote use of the internal hotline system, Sony Group senior management informs executives and employees about these topics through ongoing dissemination of e-mails, as well as implementation of online and class room training. Further, Sony Group executives and senior management with a certain level of authority are annually requested to submit a certification stating that they understand that all personnel must comply with applicable laws, regulations and internal policies and the need, in their role as managers, to communicate the importance of acting ethically and compliance with applicable laws, regulations and internal policies. Sony Group companies inform their employees about the Code and the internal hotline system on an ongoing basis through the dissemination of e-mails, booklets, wallet cards, posters, feature articles in internal newsletters, and/or postings on the company's intranet.

In addition to these initiatives, the Sony Group provides education and training sessions that use e-learning and other approaches presenting real-life examples to impart more in-depth expertise regarding business ethics and individual aspects of the Sony Group Code of Conduct that are crucial to compliance by the Sony Group. These include fairness in competition and business dealings, anti-bribery, and the prevention of discrimination and harassment in the workplace. Sony has adopted a compliance education protocol that sets forth minimum mandatory global communications and training requirements in a wide range of compliance areas. Through ongoing communication, awareness and training efforts, Sony will continue to promote a thorough Group-wide understanding of the importance of the policies and values set forth in the Sony Group Code of Conduct.



Booklets, wallet cards, posters and training videos used to raise awareness of the Sony Group Code of Conduct and the internal hotline system

Compliance

Compliance Monitoring Program

(Updated on August 12, 2014)

The compliance monitoring program helps to ensure thorough global adherence to the Company's Code of Conduct, internal policies, and training and other protocols. The program relies on risk assessments, self-assessments, compliance audits and internal audits, along with monitoring of hotline and other reporting.

Key Sony Group companies worldwide periodically undertake compliance self-assessments, which involve self-inspection of enumerated compliance-related activities and detailed reporting on their status. The Regional Compliance Officers and the Compliance Audit & Monitoring group evaluate the results of the self-assessments and report the results to the Corporate Executive Officer in charge of Compliance, the Senior Legal Counsel, Sony Group, and the Legal & Compliance Department. The Regional Compliance Officers, with the support of the Compliance Audit & Monitoring group, also identify measures to address reported issues, provide relevant instruction and supervision to Sony Group companies in their respective regions and monitor any necessary remediation.

Compliance

Sony Group Anti-Bribery Program

(Updated on August 12, 2014)

As one example of its compliance-related initiatives, Sony has adopted the Sony Group Anti-Bribery Policy, which builds on the anti-bribery and accurate record-keeping requirements in the Sony Group Code of Conduct to help ensure that Sony Group personnel do not violate, or appear to violate, any applicable anti-corruption laws or regulations. This Policy reflects Sony's strong commitment to business integrity and, in particular, establishes practices and procedures that must be followed to help ensure integrity in Sony's dealings with government officials, as well as training requirements.

Compliance

Basic Approach and Systems to Exclude Anti-Social Forces

(Updated on August 12, 2014)

Sony strives to comply with all applicable laws, regulations and internal policies and to conduct its business activities in an honest and ethical manner. As a part of this effort, Sony personnel strongly oppose anti-social forces (i.e., organized crime) that threaten to disrupt the order and safety of our community and endeavor to prevent or eliminate any relationship with anti-social forces.

Sony's frequent messaging and ongoing training of all its personnel on the Sony Group Code of Conduct help ensure that its corporate ethics are understood and observed throughout the Sony Group. In addition, Sony maintains strict anti-money laundering policies, supplemented by anti-money laundering "Know Your Customer" procedures and training. These policies and measures, along with Sony's internal hotline system to encourage its personnel to report concerns or raise questions about possible violations of laws, regulations and internal policies, should help prevent or eliminate relationships with anti-social forces.

Compliance

Information Security and Privacy

(Updated on August 12, 2014)

Sony has established an Information Security and Privacy organization headed by a Chief Information Security Officer (CISO) reporting directly to the Senior Legal Counsel, Sony Group. Sony also has established global information security policies and standards, and global privacy policies, which set forth Sony's commitment to information security and privacy and define practices and procedures to be followed by all Sony personnel. The CISO and his organization are charged with developing and implementing these policies and standards globally to ensure network security and the protection of privacy. This organization coordinates with individuals responsible for information security and privacy at Sony Group companies globally to create a Group-wide information security and personal information management system. Under the supervision of the CISO, Sony continuously reinforces internal rules and business processes to further strengthen the information security management framework of the Sony Group and contribute to the protection of personal information. Recognizing that employee awareness of information security and privacy is vital, Sony requires training programs for its employees to raise awareness and improve the overall level of information security and protection for individuals' privacy.

- [Sony Group Privacy Policy](#)



Human Resources



Sony endeavors to create a rewarding corporate climate that supports the efforts of a diverse range of employees.

Since its establishment in 1946*, Sony has sought to remain at the forefront of technological development, building continuously on its achievements to create new lifestyles for people everywhere. Sony has also fostered groundbreaking new businesses, adopting an innovative approach to this challenge that exceeds national and regional boundaries. In these efforts, Sony recognizes its employees to be one of the most crucial aspects of its corporate foundation.

To fulfill its commitment to providing uniquely Sony products, services and user experiences that inspire dreams, excite curiosity and enrich lives, Sony acknowledges the importance of securing and fostering talented employees with a wide range of values and personalities, irrespective of nationality, culture, race, gender, age, or the presence or absence of physical limitations. Guided by the concepts of diversity and inclusion, Sony recruits individuals from various backgrounds. Sony also strives to create positive working environments and opportunities that enable individuals with diverse backgrounds to fulfill their potential by learning from one another, believing these to be essential to a rewarding corporate climate.

* Established as Tokyo Tsushin Kogyo K.K., the company changed its name to Sony Corporation in January 1958.

Employee Data

Diversity	Basic policies on Diversity	Human rights and equal opportunities
	Promoting greater opportunities for women	Fostering an environment conducive for global career development
	Creating accessible working environments and promoting greater opportunities for individuals with disabilities	Systems that support a healthy work-life balance
	Support for employees undertaking child care or nursing care	Collaboration with External Organizations Promoting Diversity
Recruitment	Basic policies on Recruitment	Diversity in recruiting practices
	Recruiting Practices	

<p>Training & Talent Development</p>	<p>Basic policies on Training & Talent Development</p>	<p>Training activities</p>
	<p>Development and recruitment of core human resources capable of excelling globally</p>	<p>Measures for enabling employees to extend their experience and career globally</p>
	<p>Nurturing and leveraging engineering talent</p>	<p>Support for career building</p>
	<p>Establishment of human resource development committees for each specialist field</p>	
<p>Employee Communication</p>	<p>Basic policies on employee communication</p>	<p>Practices for active communication</p>
	<p>Global Employee Survey</p>	



Human Resources

Employee Data

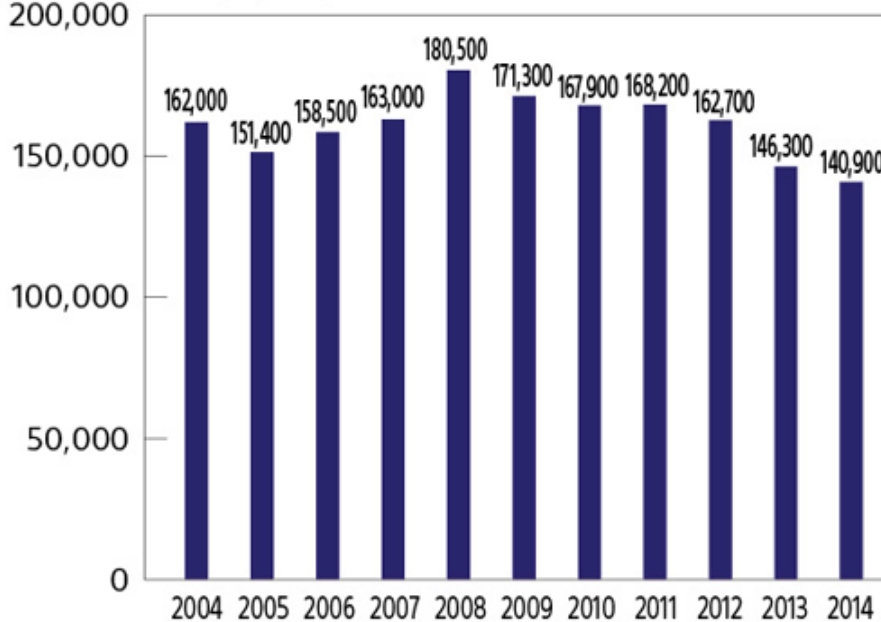
The total number of employees in the Sony Group at the end of fiscal year 2013 was 140,900, a decrease of 5,400 compared with the end of the previous fiscal year. Although there were increases in the financial services and music businesses, there was a large decrease in employees in the electronics business as a consequence of restructuring in Japan, North America, Europe and Latin America.

Sony Corporation's headcount peaked at 23,000 in 1993, after which it remained fairly consistent at approximately 17,000. As of March 31, 2014, Sony Corporation's headcount was approximately 14,600.

(Updated on November 17, 2014)

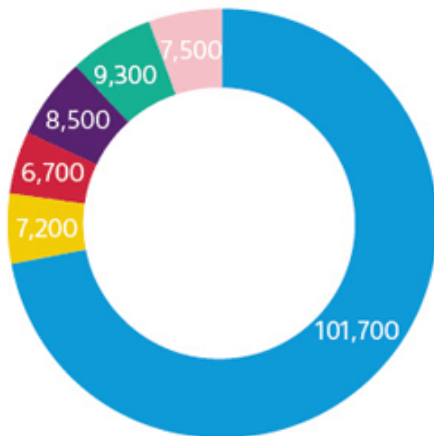
Total Number of Employees (Sony Group)

(Number of employees)



(As of March 31)

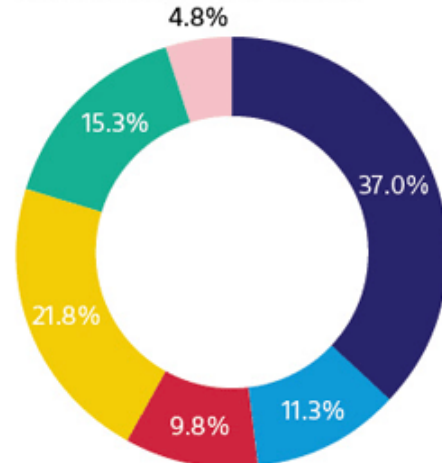
Personnel by Business Segment



- Electronics
- Pictures
- Music
- Financial Service
- Other
- Group Companies in Japan

Total 140,900
(As of March 31 2014)

Personnel by Geographic Segment



- Japan
- United States
- Europe
- China*1
- Asia-Pacific*2
- Other Areas*3

Total 140,900
(As of March 31, 2014)

*1 Coverage area: Mainland China and Hong Kong

*2 Coverage area: Southeast Asia, Oceania, India, South Korea and Taiwan

*3 Coverage area: Middle East, Latin America, Africa and Canada

Composition of Sony Corporation's Directors and Corporate Executive Officers
(As of November 16, 2014)

	Total	Female	Non-Japanese Nationals
Directors	12	1	2
Corporate Executive Officers	7 *4	0	0
Corporate Executives	22	1	0
Sony Group Directors	15	1	5

*4 Of the seven Corporate Executive Officers, two serve concurrently as Directors.

Human Resources

Diversity

As a company with a broad business portfolio encompassing electronics, entertainment and financial services, Sony employs individuals of different nationalities, cultural backgrounds and genders. To promote diversity globally, Sony established the Diversity Committee, which reports directly to the CEO, in 2012 and formulated the Diversity Policy, a common diversity statement for the Sony Group, in 2013. In accordance with this policy, top managers from each country and region worldwide are taking the lead in promoting a wide range of diversity programs. Under one of the main programs, Sony has assigned diversity officers to each of its Group companies. These officers meet regularly with the aim of sharing information.

• Global site

Sony Group Diversity Statement

It is in Sony's DNA - and a source of our innovation - to value different perspectives and backgrounds as we conduct our business activities globally and rise to new challenges. Sony promotes diversity across the Sony Group as a key management strategy by ensuring an inclusive work environment and by recruiting, hiring, training and promoting employees from diverse backgrounds.

- Human rights and equal opportunities
- Promoting greater opportunities for women
- Fostering an environment conducive for global career development
- Creating accessible working environments and promoting greater opportunities for individuals with disabilities
- Systems that support a healthy work-life balance
- Support for employees undertaking child care or nursing care
- Collaboration with External Organizations Promoting Diversity

Human Resources

Human rights and equal opportunities

(Updated on August 12, 2014)

Sony is committed to creating a workplace where human rights are respected and equal employment opportunities allow all individuals to make the most of their capabilities. In light of the increasing diversity of human rights issues facing corporations, Sony believes a common awareness among employees is crucial to ensuring such issues are addressed appropriately.

The Sony Group Code of Conduct, enacted in May 2003, contains articles related to respect for human rights and maps out policies that guide human rights-related rules and activities throughout the Sony Group. The article in the Code concerning equal opportunity in employment lays down the Group's policy for recruiting, hiring, training, promoting and otherwise treating applicants and employees without regard to non-business-related characteristics, including race, religion, skin color, nationality, age, gender or physical limitation. These provisions are based on existing international standards, including the United Nations Universal Declaration of Human Rights.

Education and Training (Japan)

(Updated on August 12, 2014)

Sony holds an annual diversity message (slogan) competition on human rights-related issues to raise awareness among individual employees. This has become a well-established event, thanks to active promotion throughout the Sony Group and extensive employee participation every year. A selection of messages (slogans) from the competition is displayed by Group companies to help raise awareness of human rights issues.



Sony provides training for new recruits through an e-learning module called "Human Rights and the Company" and holds regular human rights-themed training sessions for managers. Sony also distributes a Human Rights Handbook to management-level employees. Each year in December, to coincide with Human Rights Week, Sony organizes a Diversity Forum, which gathers diversity offers from each Sony Group company.

In November 2013, Sony Corporation participated in "Work With Pride 2013," organized by external organization Work With Pride. Sony cooperated by providing a venue for the event at Sony City Osaki in Tokyo. Through this event, Sony communicated a message of support for lesbian, gay, bisexual and transgender (LGBT) employees who find it difficult to be open about their sexuality. In addition, Sony provided information to promote the development of workplaces in which LGBT employees can feel comfortable about being themselves at work, and it also provided a forum for discussion of diversity management in relation to LGBT issues. Sony also cooperated with organizers to create a dynamic atmosphere, including by providing background music recorded by LGBT artists and LGBT supporters affiliated with Sony Music.

Sony Corporation has introduced the EEO* Counseling Service, which provides support to employees while ensuring a high level of privacy and a swift response.

* EEO is an acronym for "Equal Employment Opportunity."

Human Resources

Promoting greater opportunities for women

(Updated on August 12, 2014)

In the electronics business, which accounts for a large proportion of engineers, the percentage of male employees is comparatively high, reflecting the generally low percentage of female students majoring in engineering and sciences in Japan. Hence, it is not easy to recruit a similar or greater number of women for engineering roles.

Because Sony Corporation is an electronics-focused company, many of its employees are engineers. For this reason, Sony believes that it is important to be proactive in the recruitment and career development of female employees, and undertakes a variety of programs in line with this thinking.

In August 2013, Sony announced that it had set a goal of increasing the percentage of female managers to 15% by 2020. In addition, to bolster the population of women in engineering and science fields, Sony cooperates in the organization of science festivals at universities and promotes a range of programs to develop the talents of women in science and engineering, including the Sony Science Program for Girls, which is aimed at junior high and high school girls who are interested in science.

To promote the career development of women, the Diversity Development Department within the Human Resources Division takes the lead in collaborating with the DIVI@Sony*1 diversity project (established in 2005), and undertakes measures to support female employee career development and personal networking, and to promote the development of an organizational culture that proactively recruits women.

In fiscal year 2013, Sony held the DIVI Women's Forum, through which it sought to communicate the views of top management regarding diversity. Through training programs aimed at fostering female managers and the holding of roundtable discussions and seminars related to the development of women's careers, Sony continues to promote greater awareness of related issues and the expansion of interpersonal networks among employees. Project members also organize roundtable meetings for male managers to promote better management understanding and support.

Another increasingly well-established part of Sony's effort to provide career support for female employees is the DIVI@Sony mentoring system. Women find that the higher they rise in rank the fewer role models there are and the fewer people with whom they can consult. The mentoring system aims to encourage women to continue setting their sights higher and gain more confidence by discussing work- and career-related issues with experienced mentors.

*1 DIVI is an acronym for Diversity Initiative for Value Innovation. The DIVI@Sony project is designed to promote employment diversity in the Sony Group in Japan.

Ratio of Female Employees in Management Positions in the Sony Group (Japan)*2(%)

	FY08	FY09	FY10	FY11	FY12	FY13
Ratio of female employees (%)	24.8	20.9	19.5	20.0	20.0	18.6
Ratio of female employees in management positions (%)	3.5	3.6	3.6	3.9	4.2	5.7

Ratio of Female Employees in Management Positions in the Sony Group (USA) (%)

	FY08	FY09	FY10	FY11	FY12	FY13
Ratio of female employees (%)	38.2	39.3	32.6	38.7	36.4	37.8
Ratio of female employees in management positions (%)	32.2	35.6	33.8	36.1	32.7	33.3

Ratio of Female Employees in Management Positions in the Sony Group (China)*3(%)

	FY08	FY09	FY10	FY11	FY12	FY13
Ratio of female employees (%)	78.8	68.2	64.8	63.9	59.2	55.5
Ratio of female employees in management positions (%)	36.5	33.5	25.2	29.1	22.5	26.2

Ratio of Female Employees in Management Positions in the Sony Group (Asia Pacific)*4 (%)

	FY08	FY09	FY10	FY11	FY12	FY13
Ratio of female employees (%)	51.8	52.9	49.2	48.2	46.5	42.5
Ratio of female employees in management positions (%)	26.6	22.6	18.7	20.5	20.6	26.4

Ratio of Female Employees in Management Positions in the Sony Group (Europe) (%)

	FY08	FY09	FY10	FY11	FY12	FY13
Ratio of female employees (%)	42.3	40.5	34.6	38.0	33.3	34.3
Ratio of female employees in management positions (%)	18.0	17.9	20.5	16.8	23.2	26.6

Ratio of Female Employees in Management Positions in the Sony Group (Other Areas)*5(%)

	FY08	FY09	FY10	FY11	FY12	FY13
Ratio of female employees (%)	—	—	—	—	—	37.4
Ratio of female employees in management positions (%)	—	—	—	—	—	24.7

*2 Totals are based on data provided by Sony Group companies as of the end of each fiscal year. The definition of "manager" varies in different countries, regions and companies.

*3 Coverage area: Mainland China and Hong Kong

*4 Coverage area: Southeast Asia, Oceania, India, South Korea and Taiwan

*5 Coverage area: Middle East, South and Central America, Africa and Canada

Main Sony Group Programs to Promote Women's Career Development Around the World

<p>Electronics (Japan)</p>	<p>Sony runs a regular networking event for young female employees across several Sony Group companies. This event has the objective of broadening the career design perspective of female employees, with participants hearing the views of women who are currently working at management level, and taking part in follow-up discussions and the sharing of problems faced by employees. These activities are contributing to the expansion of women's career choices.</p>
<p>Financial Services</p>	<p>In the financial services business, Sony is implementing the Kirakira Career Project, which considers measures to enable women to pursue long, vibrant careers.</p> <p>Since the project's inception, 11 measures and programs have been proposed to management level, and the implementation of these proposals is seeing steady progress, including</p> <ul style="list-style-type: none"> • Proactive promotion of increases in the number of female employees and the recruitment of women for management roles; • Introduction of an Intra-Group exchange program to promote the broadening of career options; • Introduction of programs to support long careers, including a program for transfers to different business areas and a re-recruitment program; • Implementation of training programs for female employees and managers.

Human Resources

Fostering an environment conducive for global career development

(Updated on August 12, 2014)

As of March 31, 2014, Sony had approximately 1,500 employees working in countries other than their own. Of these, approximately 140 employees were transferred between Sony Group companies outside Japan. To enhance the global mobility of human resources, Sony gathered experts on global personnel policies and standards with the aim of enhancing the ease and efficiency of overseas assignments by formulating common Sony Group policies and standards and expanding rules for the treatment of employees assigned to overseas positions under various formats. In 2012, these policies, standards and rules were applied worldwide.



Employees participating in the Buddy Program

With the rapid increase in opportunities for human resource mobility on a global basis, Sony Corporation has made existing internal websites, personnel & accounting-related systems and other applications bilingual to enable employees whose native language is not Japanese to work effectively within the company using English. Sony is also implementing other measures with the aim of establishing an environment that makes it possible for employees in Japan who don't speak Japanese to perform their jobs, including setting up a specialized unit within the Human Resources Division to provide career support and other assistance. In 2013, to facilitate the development of interpersonal networks, Sony initiated the Buddy Program, in which an employee from overseas and an employee from Japan pair up to teach each other their respective languages.

Human Resources

Creating accessible working environments and promoting greater opportunities for individuals with disabilities

(Updated on August 12, 2014)

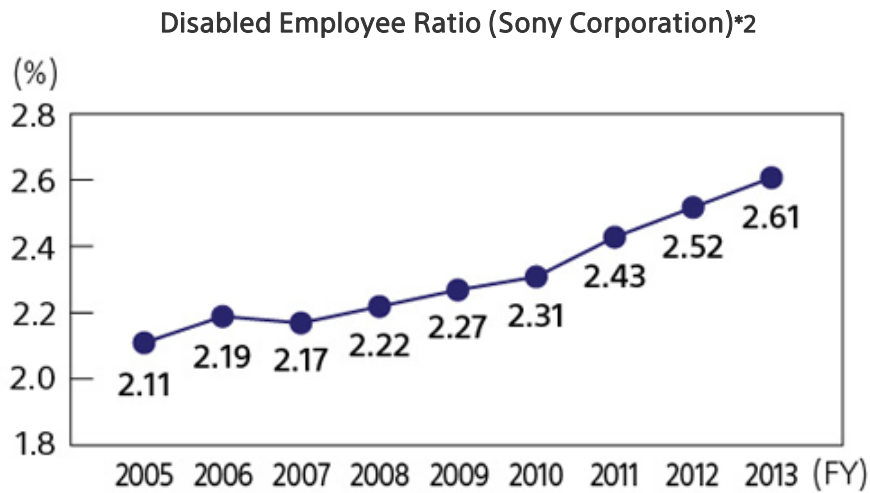
Based on the philosophy of Sony co-founder Masaru Ibuka of creating workplaces that do not offer charity, but rather create an environment that makes it possible for individuals with disabilities to manufacture products that exceed those manufactured by individuals without disabilities, the Sony Group strives to realize an environment in which individuals do not feel held back by their disability and disabilities do not create barriers. To achieve this goal, Sony has initiated a wide range of programs.

In recruitment and job assignment at Sony Corporation, Sony believes that employees should be able to exercise their full potential notwithstanding any disabilities. Sony facilitates this by building consensus regarding necessary considerations from the selection stage, while opening up career fields in line with individual attributes and capabilities. There is no differentiation in either job assignment or treatment of employees.

At Sony Group companies in Japan, employment know-how and experience related to past cases are integrated in a dedicated department within the Human Resources Division. This particularly leverages knowledge gained through special-purpose subsidiaries Sony Taiyo Corporation*1, which has over 35 years of experience in this field, and Sony Hikari Corporation and Sony Kibo Corporation, which specialize in providing employment opportunities for individuals with intellectual disabilities. These programs support individuals with disabilities and undertake programs that leverage advantages of the Sony Group. Specifically, at joint recruiting events (in their sixth year) in which approximately 20 Sony Group companies take part, guidance is given to workplaces that are striving to improve their work environments to accommodate new employees with disabilities. Training programs are also implemented by Sony Group companies to provide the perspective of employees with disabilities to their supervisors and colleagues and vice versa.

In addition, employees with disabilities participate in lectures and symposia mainly targeting university students, with the aim of communicating Sony's philosophy and programs relating to the employment of people with disabilities to students with disabilities and their supporters. These programs also aim to enhance awareness of diversity and inclusion issues. For example, Sony Taiyo Corporation holds inclusion workshops aimed at providing opportunities for elementary and junior high school-aged children - both those with disabilities and those without - to experience the fun of science firsthand.

Sony's commitment in this area extends beyond legal compliance, by making workplaces accessible and actively encouraging greater awareness of diversity and inclusion issues. In fiscal year 2013, employees with disabilities accounted for 2.61% of Sony Corporation's workforce, while the average for domestic Sony Group companies (with over 201 employees) was 2.2% as of June 2013, both well above the 2.0% mandated by Japanese law for companies over a certain size.



- *1 Sony Taiyo, Sony's first special purpose subsidiary, has implemented concepts such as universal design and inclusive design - a comprehensive workplace design concept that emphasizes usability, environment and education to meet the needs of people regardless of age or ability - to create a work environment in which anyone can work irrespective of whether or not they have a physical limitation.
- *2 Average for each fiscal year (average of month-end ratios from April to March)

Main Sony Group Programs to Promote Career Development of Individuals with Disabilities Around the World

<p>Electronics (Japan)</p>	<p>At the Disability Matters Award (Asia Pacific) ceremony, Sony Taiyo Corporation and Sony Hikari Corporation received awards in the accessibility category and workplace inclusiveness category, respectively. These awards are organized by Springboard Consulting LLC, which is particularly active in the United States and supports the employment of people with disabilities from a business perspective.</p>
<p>Electronics (Asia Pacific)</p>	<p>At Sony Technology (Thailand) Co., Ltd., as a result of internal diversity programs, the disabled employee ratio reached double the legally mandated level (1%), and the company received awards from central and local government agencies.</p>
<p>Financial Services</p>	<p>Since fiscal year 1996, "healthcare (massage) rooms" have been established at 16 sites in Japan, and visually impaired individuals have been employed in technical roles. In fiscal year 2012, a personnel program was introduced for technical staff.</p>

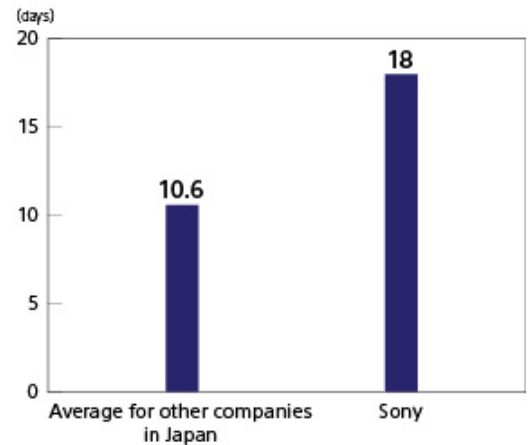
Human Resources

Systems that support a healthy work-life balance

(Updated on August 12, 2014)

In Japan, Sony Corporation has introduced a flex-time system and a discretionary working system, which enables employees to work with versatile options. Sony employees regularly use their allotted annual paid days off with a high percentage, which in fiscal year 2013 averaged 18 days.

Average Annual Paid Holidays for Sony Corporation Employees in Japan



Source for average for other companies in Japan: Comprehensive Survey of Wage Conditions (Fiscal 2013), Ministry of Health, Labour and Welfare. Surveyed companies had a workforce of more than 1,000 employees.

Sony Group Work-Life Balance Initiatives Around the World

<p>Electronics (Latin America)</p>	<p>Since fiscal year 2008, Sony Latin America Inc. has held a number of events promoting work-life balance, including family picnics and company tours for employees' families.</p>
<p>Electronics (Asia Pacific)</p>	<ul style="list-style-type: none"> · In Singapore, Sony has established a committee that is tasked with considering the recreational needs of employees. Each year, the committee asks employees to vote on recreational program proposals for the following year. · To promote healthy lifestyles among employees, programs have been introduced for specific sports and activities that include subsidies for participating employees. These include programs for soccer, yoga, badminton and swimming.

Human Resources

Support for employees undertaking child care or nursing care

(Updated on August 12, 2014)

Under a work-life balance initiative, Sony Corporation provides paid leave programs such as "child care leave," "special child care leave (up to 20 days)" and "reserve vacation covering such areas as pregnancy, childbirth, child rearing, fertility treatment and nursing care." These programs are widely used by employees. Employees with child care or nursing care responsibilities also have access to modified work formats, including systems that let them work at their home or take paid annual leave on an hourly basis.

Number of Employees Taking Child Care Leave at Sony Corporation*1 in 2013

Number of employees taking child care leave	205 (incl. 4 male)
Percentage of eligible employees taking child care leave	100%
Percentage of employees who returned to work	93.2%

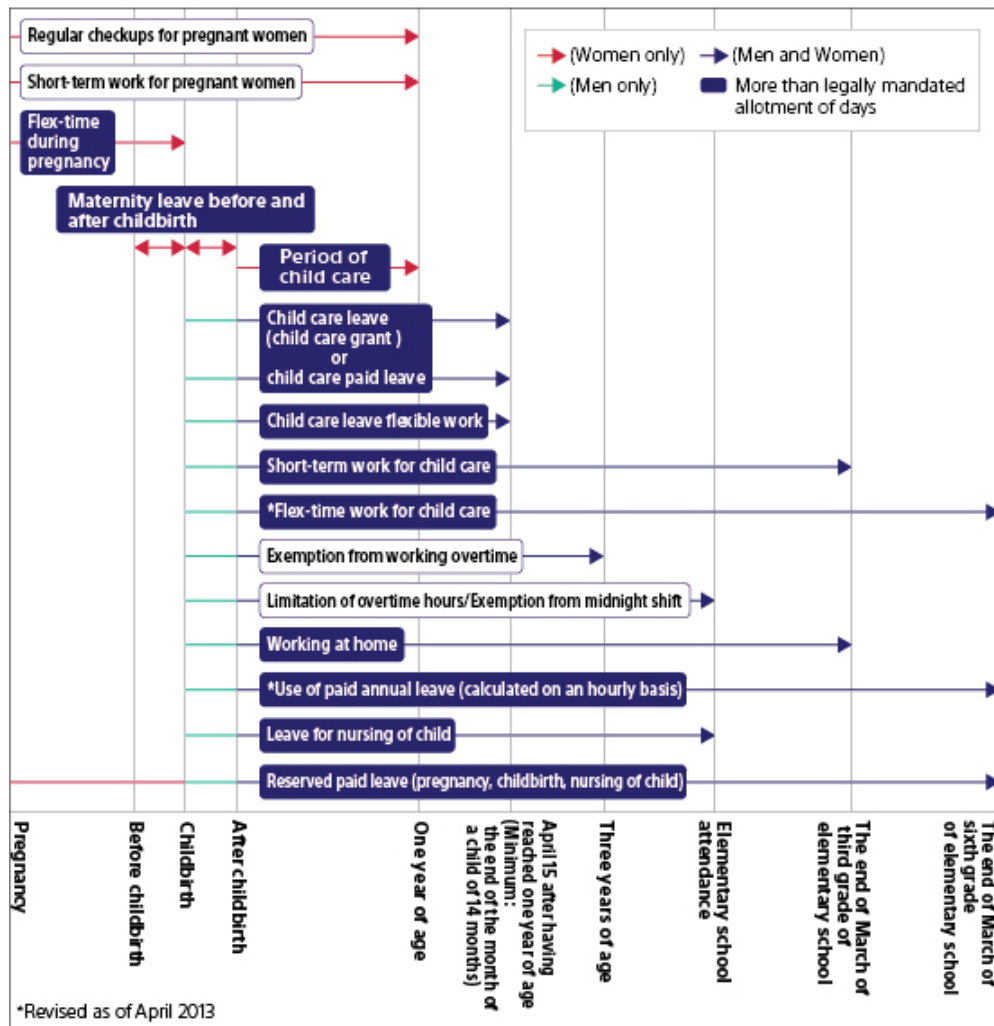
*1 Figures represent employees who gave birth in fiscal year 2013.

Systems that Support Efforts to Balance Work and Child Care at Sony Corporation

System	Introduced (FY)	Description
Child care leave	1990	<ul style="list-style-type: none"> • Until April 15 after child reaches 1 year of age • Can be used in combination with special child care leave when child reaches 8 weeks of age (for men)
Reduced working hours for child care	1995	<ul style="list-style-type: none"> • Until end of March of third grade of elementary school • Flex-time system can also be used during period of reduced working hours for child care
Child care grant	2007	<ul style="list-style-type: none"> • Grant of 50,000 yen/month during period of child care leave
Special child care leave	2007	<ul style="list-style-type: none"> • Provides for 20 days' paid leave • Can be used in combination with child care leave when child reaches 8 weeks of age
Working at home	2008	<ul style="list-style-type: none"> • Enables employees to work at home when involved in child rearing or providing nursing care for a family member
Use of paid annual leave	2008	<ul style="list-style-type: none"> • Enables use of paid annual leave, calculated on an hourly basis, for child rearing or providing nursing care for a family member *2
Child care flex-time	2013	<ul style="list-style-type: none"> • Can be used until the end of March of the year in which the child enters the sixth grade of elementary school

*2 Child care systems expanded as of April 2013.

Child Care Leave Systems at Sony Corporation



In addition to establishing systems that promote work-life balance, Sony promotes a variety of career support measures for employees trying to balance the demands of child care (or nursing care) and work. Of particular note, Sony holds forums and seminars for employees featuring messages of support for work-life balance initiatives from top management. In fiscal year 2012, Sony launched the Working Mothers' Meeting, an annual event that enables female employees who have returned, or are returning, to work after having taken child care leave. Employees from other Sony Group companies in Japan are also invited to participate. Meetings feature lectures by guest speakers and provide a forum for the exchange of information among employees in this particular position. Sony has also established a hotline for male and female employees trying to balance the demands of work and child rearing. In addition, Sony provides information to employees regarding nursing care, which is likely to become a key work-life balance issue in the future.



Working Mothers' Meeting

In 2007, 2010 and again in 2013, Sony was certified by the Tokyo Labor Bureau as a company that actively supports parenting initiatives in line with the Law for Measures to Support the Development of the Next Generation. Sony received high marks for the ease with which employees can make use of its various parenting support systems, its support for employees' work-life balance, high rates of participation in its various systems and its support for male participation in child rearing.



Kurumin Mark, certifying companies with next-generation child care systems, from Japan's Ministry of Health, Labour and Welfare

Systems that Support Efforts to Balance Work and Child Care at Sony Corporation Around the World

<p>Services for employees raising children</p>	<p>Some group companies provide a private area for nursing mothers, emergency child care and other services for employees who are raising and/or expecting children. There are also child-raising support programs that aim to build communities of employees who are parents to facilitate the sharing of information on such topics as children's education.</p>
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Human Resources

Collaboration with External Organizations Promoting Diversity

(Updated on August 12, 2014)

Sony is a sponsor and active participant in the Japan Women's Innovative Network (J-Win), which was founded in 2005 and became a nonprofit organization in 2007. J-Win supports the development of a network for the advancement of women's careers and also promotes diversity management. Sony is also a participant in the Support Forum for Women in Business, a project of the Japan Institute of Workers' Evolution. Sony further promotes diversity in collaboration with external organizations in each of the countries and regions in which it operates.

Examples of Measures to Promote Diversity in the Sony Group Around the World

<p>Electronics (USA)</p>	<p>In the United States, both Sony Pictures Entertainment Inc. and Sony Electronics Inc. received awards based on assessments of the maximum score of 100% in the Corporate Equality Index from the Human Rights Campaign Foundation as companies that create ideal working environments for lesbian, gay, bisexual and transgender (LGBT) employees. These scores reflect the level of fairness achieved within the organization toward LGBT employees, which is underpinned by rules designed to support these employees.</p>
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Human Resources

Recruitment

Having a deep regard for diverse experiences and values and recognizing the importance of originality, Sony has long sought to secure a wide range of employees both from Japan and overseas. Sony is implementing a variety of cross-border and cross-business initiatives aimed at bringing the capabilities of such employees into full play, irrespective of nationality, culture, race, gender, or the presence or absence of physical limitations.

[Diversity in recruiting practices](#)

[Recruiting Practices](#)

Human Resources

Diversity in recruiting practices

(Updated on August 12, 2014)

As a company with sales, manufacturing and R&D bases in a number of different countries, Sony is promoting the localization of these operations by working to secure local human resources that best respond to national, regional and location-specific needs. Additionally, with the aim of securing talented human resources crucial to growing its global business, Sony recruits university graduates overseas to work in Japan.

Early in the 21st century, Sony expanded the scope of its efforts to recruit students to work in Japan, who were mainly from Europe and North America previously, and began to actively seek out promising university and post-graduate students in China and India. Recruiting in China began in earnest in 2000. As of April 2014, Sony had recruited a cumulative total of 300 university and post-graduate students in China. Recruitment from universities and graduate schools in India began in earnest in 2007.

In both countries, recruitment efforts benefited from the cooperation of local Sony Group companies, which ensured that Sony secured top-level human resources. To encourage acclimatization, Sony provided new recruits with a variety of training, including Japanese language lessons, both before and after they began working in Japan.

Sony has also established a Global Internship Program, which welcomes university students widely around the world. Sony is conducting recruiting presentations at universities, graduate schools and research facilities around the world, as well as for groups of overseas students studying in Japan.



Presentation to potential recruits at the Indian Institute of Technology in Bombay

Human Resources

Recruiting Practices

(Updated on August 12, 2014)

In an effort to change Japan's traditional approach to hiring new graduates, and that the nail that sticks out is the only one we want, Sony has adopted new recruiting practices in the hope of bolstering applications from individuals who are attracted to the idea of helping to shape the Company's future. To promote greater understanding of the Sony Group's various businesses, products and services, approximately 20 Group companies got together to stage joint recruiting fairs. As a way to encourage young people in Japan to develop a more global perspective, in 2011 Sony EMCS (Malaysia) Sdn. Bhd. - the Sony Group's largest strategic manufacturing operation - began direct recruitment, providing an opportunity for young people to hone their talents overseas. The program invites graduates to "take your diploma to the tropical rain forest" and advertises annually for interested individuals. To date, the program has recruited many talented graduates who have excelled putting their skills to work in Malaysia.

Principal Recruiting Initiatives in Different Regions

<p>Electronics (USA)</p>	<p>Each year in May the Equality Professionals Network (EPN) holds a career event in San Diego for LGBT individuals looking to make career changes or searching for employment. Sony Electronics Inc. participates in this event, and is proactively working to recruit a diverse array of employees.</p>
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Human Resources

Training & Talent Development

The development and vitality of its employees drive Sony's dynamic growth. Sony recognizes its people as its most important management asset and the growth of its people as a crucial aspect of its management foundation. Sony strives to further enhance motivation and encourage personal growth for its employees through on-the-job learning, as well as through access to a variety of programs designed to enhance individual abilities and skills and tailored to local needs.

As a company that does business in a variety of countries and regions, Sony recognizes the importance of cultivating future business leaders with a global perspective and diverse cultures. Accordingly, Sony is implementing initiatives aimed at fostering such employees and bringing their capabilities into full play.

The Sony Group is also undertaking a broad range of human resource development and recruitment programs on a Groupwide basis, thereby ensuring its ability to leverage Group strengths and generate innovation.

- [Training activities](#)
- [Development and recruitment of core human resources capable of excelling globally](#)
- [Measures for enabling employees to extend their experience and career globally](#)
- [Nurturing and leveraging engineering talent](#)
- [Support for career building](#)
- [Establishment of human resource development committees for each specialist field](#)

Human Resources

Training activities

(Updated on August 12, 2014)

In Japan, Sony Corporation offers more than 300 employee training programs - including general training, e-learning, on-site training - tailored to specific objectives. Mandatory multilevel job-specific training helps participants acquire crucial skills in a systematic effort to foster human resources with the skills to drive future business growth. Sony is also expanding its menu of elective training options, consisting of lectures, correspondence courses and courses provided by affiliated training agencies, which are aimed at enhancing job performance, as well as providing support for self-learning and personal development. In fiscal year 2013, the cost of training for a single Sony Corporation employee was estimated at approximately 200,000yen.

Participation in Companywide Training in Fiscal Year 2013 (Sony Corporation)

	Targeted	Mandatory	Elective (Technology- related)	Elective (Others)	Total
Number of programs	7	34	213	15	269
Number of times offered	8	218	233	24	483
Participants	139	10,446	13,471	2,108	26,164
Cumulative total training time (Hours)	17,582	104,906	37,551	2,189	162,228

Human Resources

Development and recruitment of core human resources capable of excelling globally

(Updated on August 12, 2014)

Established in 2000 to promote cross-border and cross-business cultivation of global business leaders, Sony University, in Tokyo's Shinagawa district, offers short- and long-term development programs that address this task from the perspectives of the Sony spirit, business vision, management decision-making capabilities and networking.



For instance, potential business leaders from around the world participated in a four-month program that promoted friendly rivalry. In Japan, Sony also strives to foster future business leaders, offering a 10-month module for prospective core leaders, as well as a program for more junior employees identified as possible future management, both promoting active interaction and mutual learning. In 2012, Sony established a branch of Sony University in Singapore to provide trainings aimed at fostering future business leaders by equipping them with critical skills, thus establishing a global structure for developing business leaders in various training stages around the world. Sony offers a variety of distinctive training programs in countries and regions around the world that capitalize on the unique aspects of its various businesses.



Participants in a Sony University program

Sony Group Global Leadership Programs Around the World

<p>Electronics (Global)</p>	<p>Global Leadership Development Program The logistics division of Sony Corporation runs the Global Leader Development Program (GLDP) for personnel at manager level who have the potential to become future global leaders of the business. Participants come from domestic Group company, Sony Supply Chain Solutions, Inc., overseas subsidiaries and the logistics departments of overseas sales subsidiaries within the Sony Group. In fiscal year 2014, 15 individuals from eight countries (including eight women) took part in the program. Participants aim to broaden their perspectives based on an understanding of the business environment over the past several years, and through workshops and simulation exercises, build a personal network within the logistics function while seeking their own leadership style. In addition, in the SCM Academy, participants simultaneously acquire knowledge and theory necessary for supply chain management.</p>
<p>Electronics (Global)</p>	<p>Global Leadership Development Program A program to develop the next generation of leaders in the information systems field was held at the Sony University Singapore Campus. The 17 participants were drawn from seven countries. Through group discussions and exercises, and a roundtable talk with the Chief Information Officer (CIO), the program aimed to improve leadership capable of responding to a diverse range of changes driven by an acceleration in globalization. The program also served as a venue for building broad personal networks among leaders across national and regional boundaries.</p>

<p>Pictures</p>	<p>Decoding Digital Program</p> <p>As evidenced by the increasingly diverse ways to view movie content and the global growth of its operations, Sony's Pictures business is changing rapidly. In this environment, Sony is implementing a program aimed at fostering insight and innovation with the goal of proposing new ways to have fun that maximize the distinctive capabilities of its Pictures business. More than one-third of employees in the Pictures business worldwide are participating in the program, which is benefiting from the involvement of individuals of various nationalities, ages and departments. Sony executives are playing a key role, collaborating across organizational lines to formulate and implement the program and serving as role models, thus transforming it into an opportunity to cultivate human resources worldwide, as well as to foster global business leaders.</p>
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Since fiscal year 2008, Sony has appointed Global Talent Directors from among its regional human resource managers. Global Talent Directors are charged with identifying promising individuals in all businesses and all regions with the aim of fostering such individuals as future business leaders through worldwide job rotations.

Thanks to this effort, approximately 100 Sony employees, primarily management-level and mid-tier executives, have successfully been rotated through a schedule of job assignments to date.

Since 2011, Sony has begun debating the idea of linking its job rotation program with other initiatives aimed at fostering employees to create a more integrated, comprehensive global program.

Basic Philosophy behind Rotation Project



Examples of Activities for Appointing Global Business Leaders Around the World

<p>Electronics (Latin America)</p>	<p>With the aim of reinforcing efforts to foster future regional business leaders, in fiscal year 2010 Sony in Latin America introduced the Positioning for Success program, a job rotation initiative that encompasses key positions in the region, as well as cross-border assignments arranged by global talent directors. Sony in Latin America also participated actively in the succession program.</p>
<p>Electronics (Asia Pacific)</p>	<p>This core human resource recruitment program operates in tandem with each Group company in the Asia Pacific region to recruit and foster future regional business leaders. Multinational job rotation is implemented for business leaders and young talent.</p>
<p>Electronics (Japan)</p>	<p>The president of Sony Marketing (Japan) Inc. took the lead in initiating and is implementing a job rotation program aimed at developing core human resources.</p>

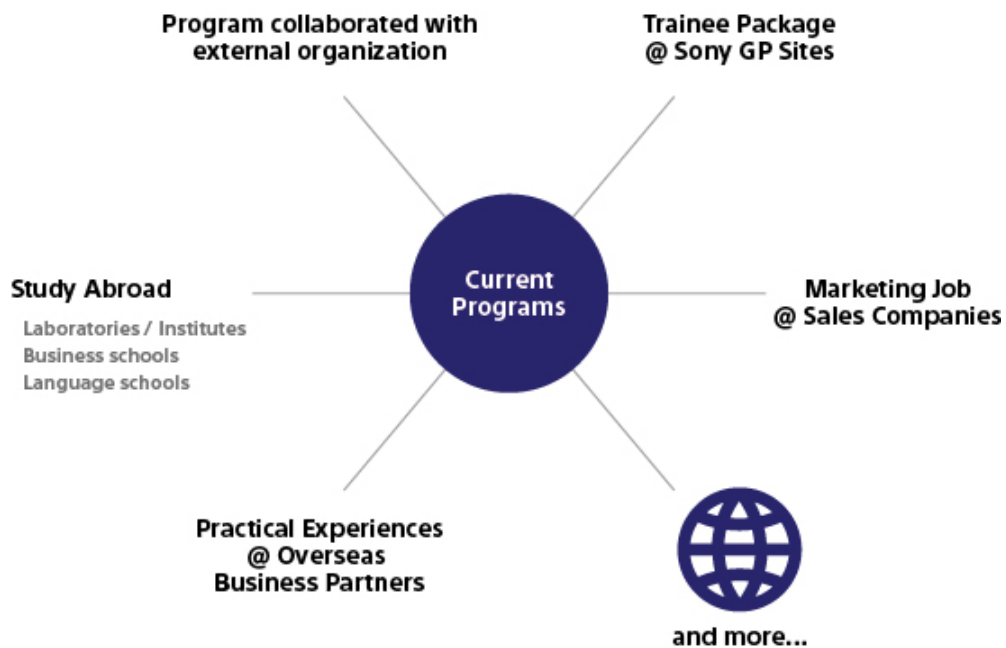
Human Resources

Measures for enabling employees to extend their experience and career globally

(Updated on August 12, 2014)

Sony Corporation operates a wide variety of programs to enable employees to gain experience overseas in preparation for careers on the global stage. These include opportunities to study overseas for an MBA, overseas study programs aimed at engineers wishing to expand their knowledge through research of cutting-edge technologies at overseas universities and research institutions, and the Global Job Postings program under which employees can apply for transfer to an overseas site for career development.

Scheme for Young Employees to Acquire Overseas Experience (examples)



To bolster English-language communication skills, Sony recently runs English training program targeted particularly at younger employees. Sony also provides diverse learning opportunities to enable employees to study languages based on their individual level and needs. Sony actively supports employees in their individual efforts for personal growth and learning. In fiscal year 2013, approximately 1,900 employees utilized these programs to improve their English-language capabilities. Sony has a growing number of language training programs and participants for languages in addition to English, including Chinese.

Similarly, at Group companies in Japan, employees participate in a variety of programs such as "Self-Improvement," "School Attendance Support" and "In-House TOEIC®."

Main Measures in the Sony Group in Each Country and Region

<p style="text-align: center;">Electronics (Japan)</p>	<p>"MUSHA" program Sony Global Solutions, Inc., runs the "MUSHA" program as a one-year transfer assignment for young employees in the information systems field. Participants work at sales subsidiaries in emerging economies, which are positioned as particularly important within Sony's sales and marketing strategy. In fiscal year 2013, a total of three employees took part, undertaking assignments in Indonesia (Jakarta), Russia (Moscow) and India (Delhi), respectively. The participants worked as local staff, receiving supervision from local managers while contributing to sales and marketing business operations. Through this program, Sony aims to not only nurture IT solutions capabilities but also cultivate human resources capable of understanding the operations of sales subsidiaries, and thereby support the realization of Sony's business strategy.</p>
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Human Resources

Nurturing and leveraging engineering talent

(Updated on August 12, 2014)

Despite the increasing openness of technologies, as well as the acceleration of cross-border and cross-business collaboration, Sony continues to excel as a technological innovator.

Approximately 200 Sony engineers with frontline expertise in key technological fields develop curricula and textbooks for use in Key Technology training courses, aiming at enhancing the expertise of engineers. The courses also offer the opportunity to learn a leading-edge technology from a specialist outside the company and more than 10,000 employees take part in these training courses every year.



A lecture at a Key Technology training course

New recruits undergo general technological training organized by the Technology Training Committee, which is comprised of leading Group engineering experts. They also receive specialized training aimed at familiarizing them with technologies specific to each of Sony's businesses. This is arranged by the businesses themselves. In addition, at the behest of their supervisors or tutors, new recruits participate in theme-based training, which addresses issues that crop up in real everyday work, helping them to become familiar with how business is conducted and enhancing their ability to act efficiently.

In addition, Sony continues to undertake a variety of activities under the direction of its top engineers, aimed at ensuring its reputation for engineering excellence, as well as at advancing in-house technologies.

In fiscal year 2006, Sony introduced the special designation of Distinguished Engineer (DE) to acknowledge individual engineers who have played instrumental roles in the development of Sony's core technologies. Sony has also established the "DE Community," which enables engineers to participate in free discussions with other engineers from the same technological background from across the organization. DE Community activities are founded on "Three Values": to upgrade Sony's technological level, to achieve "One Sony" from a technological perspective across organizations and to foster next generation of engineers.

To date, Sony has designated a cumulative total of 250 individuals as DEs. Each year, the DE Communities hold DE Sessions, in which DEs promote technological exchange by sharing recent technological information from both within and outside the Sony Group and seek to elucidate important technological developments in the spotlight. DE Seminars, held regularly by DEs, and DE Workshops, which bring together engineers from around the world to debate key issues, also play a role in Sony's efforts to cultivate human resources over the medium to long term. The DE Technological Declaration, which pertains to medium- to long-term technological developments, is also reflected in R&D plans, thus playing an important role in advancing Sony technologies.

In fiscal year 2003, Sony established the Sony MVP award, which honors individual employees who have applied specialized technology and knowledge to create new value for Sony and is designed to help motivate engineers to pursue greater challenges and achievements, thereby creating a corporate culture that emphasizes the creation of value. In fiscal year 2013, nine Sony employees from around the world were certified as MVPs, bringing the cumulative total certified to date to 245.

Each Sony Group company has also established unique systems for recognizing leading engineering talent. In addition to acknowledging the outstanding achievements of these individuals, such systems support efforts to effectively deploy valuable human resources worldwide.



Scope of Activities of Sony
Distinguished Engineers



Sony MVP logo

Unique Systems for Engineers in the Sony Group in Each Country and Region

<p>Equipment Engineer System</p>	<p>Established as part of an effort to fortify production technologies, this system recognizes equipment engineers at Sony Semiconductor Corporation. The aim is to encourage equipment engineers to refine their skills through continued participation in training programs and to acquire practical capabilities and specialized expertise on a par with equipment manufacturers.</p>
<p>Engineering Specialist System</p>	<p>By clarifying career paths for engineers, this system plays an important role in fostering and increasing the motivation of engineers, as well as facilitates the sharing of key talent among Sony EMCS Corporation sites in China, thus helping to maximize human resources. To have standardized, specialized positions, official designations and selection/dismissal procedures, from April 2013, Sony EMCS sites in China began gradually introducing the system.</p>
<p>Award System</p>	<p>In China and Asia Pacific (Thailand and India), Sony has introduced an award system to recognize the achievements of engineers.</p>

Human Resources

Support for career building

(Updated on August 12, 2014)

Sony respects the individual's desire to take on new challenges and has fostered the development of a corporate culture in which employees are inspired to seize the initiative in building their own careers. This approach, together with Sony's belief that structure is essential to the training of employees, guides Sony's efforts to provide support for employee career development.

For example, since as long ago as 1966, Sony has operated an internal recruitment program. This is now a familiar part of the Sony organization. As well as encouraging the spirit of challenge among employees, it enables the Group to assign the right people to the most appropriate roles while simultaneously bolstering key parts of its business. To date, more than 6,000 employees have qualified for this program and undertaken internal transfers.

Sony Corporation operates a self-review system on a six-monthly basis under which employees assess their own performance from two perspectives-output and approach-in relation to goals set at the start of each year. The system includes an interview between each employee and his or her supervisor. During these interviews, future tasks are agreed upon and ways of improving expertise and skills are discussed.

Since 2007, Sony Corporation has also designated October "Career Month," a period during which it works to create opportunities for employee growth. Over the course of this month, employees can meet directly with their supervisors to discuss training and development plans regarding their careers. The results are fed back to management and applied to efforts to reinforce Sony's programs for fostering human resources, thereby facilitating carefully tailored support for career building. As a program to promote such activities, Sony operates an internal portal site called "Search," through which employees can refer to a broad range of information helpful when thinking about their own career development. This includes information that will be helpful in progressing discussions on career development and growth, information on training programs for personal growth, and internal career case studies. In addition, Sony assigns career advisors and internal mentors who possess specialist knowledge, as part of its efforts to make it easier for employees to discuss career development. Such career support efforts also play a key role in revitalizing work environments.

Examples of Support for Career Building in other Sony Group Companies

<p>Electronics (USA)</p>	<p>Sony introduced the "Develop U" portal site that offers employees content to facilitate personal career and skills development.</p>
<p>Electronics (Canada)</p>	<p>Sony offers online training programs encompassing job competency and related areas. During performance reviews, supervisors and subordinates discuss competencies that require development and training programs necessary to achieve these goals. These programs support employee career development.</p>



The Search web portal of Sony Corporation which provides support for the cultivation of human resources, as well as for career building

Human Resources

Establishment of human resource development committees for each specialist field

(Updated on August 12, 2014)

In today's rapidly evolving business environment, it is crucial to foster human resources that are capable of achieving growth while coping with various changes. In the area of human resource development, Sony believes that it is important to deepen the professional expertise of each employee while spreading such knowledge. To achieve this goal, in addition to conducting development in the Personnel Division and in each organizational unit, Sony has established human resource development committees for each specialist field, which operate broadly across organizational and business boundaries.

These committees gather together experts in each field from across the Sony Group, who discuss medium- to long-term measures and programs appropriate to the field's particular characteristics based on debate on what experience is necessary for early acquisition of expertise. Hence, Sony strives to provide opportunities through this type of framework to acquire a diverse array of experience that would not be feasible for any one particular organization and which goes beyond the organizational structure. The expertise thus developed is then applied by each individual employee, and the active cross-pollination of such expertise with other employees generates new value and innovation.

Human Resources

Employee Communication

Employee communication is very important at Sony. Communication forms the basis for a good corporate culture, allowing each party to build mutual trust and developing an environment that reduces the potential for harassment to occur. With the aim of maintaining a healthy work environment and facilitating the smooth execution of business operations, Sony works to encourage active communication.

[Practices for active communication](#)

[Global Employee Survey](#)

Human Resources

Practices for active communication

Communication between top management and employees

(Updated on August 12, 2014)

Starting with the CEO, Sony sees communication between top management and employees as very important. Through the corporate intranet, information is provided on progress made in the Group's businesses, and reciprocal communication is conducted via e-mail and other media. Sony also works to create many other opportunities for direct dialogue between top management and employees. For example, Sony management holds regular informal gatherings and town hall meetings with employees, which cover a wide variety of themes from technology to management. By sharing opinions from both perspectives, not only do employees gain a closer affinity with management but the views of employees can also be used to enhance the quality of management. In particular, CEO Kazuo Hirai places very strong focus on utilizing such opportunities, and frequently Sony Group operations worldwide to create the chance to participate in direct communication with employees.

Principal Communication between Top Management and Employees

Electronics (USA)	Town hall meetings are held on a quarterly basis, and these are broadcast via the Web so that employees gain a better understanding of management policies. Management and general employees each have a blog through which opinions can be shared, facilitating reciprocal communication.
Electronics (China)	Friendly gatherings and town hall meetings are held to facilitate the sharing of information on management directions between top management and employees. Efforts are also made to promote communication with employee labor unions. In addition, management makes use of intranets, internal newsletters and employee questionnaires to ensure information is conveyed to frontline manufacturing staff.

Financial
Services

The president, vice president and directors responsible for specific functions hold luncheon meetings, and when employees formally join the company the president holds separate interviews with each new employee. These programs reflect the importance of communication between management and general employees.

Communication between supervisors and subordinates

(Updated on August 12, 2014)

Communication between supervisors and employees is also active. Each employee has the opportunity to discuss goals and review performance with his or her supervisor several times a year through regular interviews. In particular, in the autumn each year, Sony runs a "Career Week" during which supervisors listen to employees' own aspirations for their future career direction, and the supervisor provides advice based on this dialogue.

Communication among employees

(Updated on August 12, 2014)

Sony has created a specific space in which employees are able to exchange ideas freely, dubbed the "idea secret base." This space enables employees to organize discussions and group study sessions as well as test out of ideas hands-on. This idea space provides opportunities for employees to freely exchange opinions outside of their own organizational units and particular specialized fields. The contact made in this space generates diverse communication, including informal discussions with colleagues that result in mutual inspiration and broaden personal networks and knowledge. There are also internal programs to harness employee ideas for the generation of new businesses.



Sony also promotes communication among Group companies through a variety of programs. Since 2007, the annual Sony Futsal Cup provides the opportunity to deepen relationships across Group companies through the medium of futsal—a popular five-a-side version of soccer played on an indoor or outdoor court. The tournament aims to create business chances beyond the confines of Group organizational units, and in an average year some 1,500 employees gather to take part in

this large event. Several of the teams hold many practice sessions prior to the competition, and this also contributes to employee health.



Communication between employees' families and workplaces

(Updated on August 12, 2014)

Since 2007, Sony has held an annual Sony Family Day when employees can invite their family members to come along to their office. On the day of this event, members of employees' families can experience using Sony Group electronics products and games as well as listen to music and see movie content, and they have the chance to see the desk their family member actually works. By providing this opportunity for interaction between families and workplaces, family members gain a deeper understanding of Sony's business and employees' work, and it also serves as an opportunity to increase mutual understanding.



Human Resources

Global Employee Survey

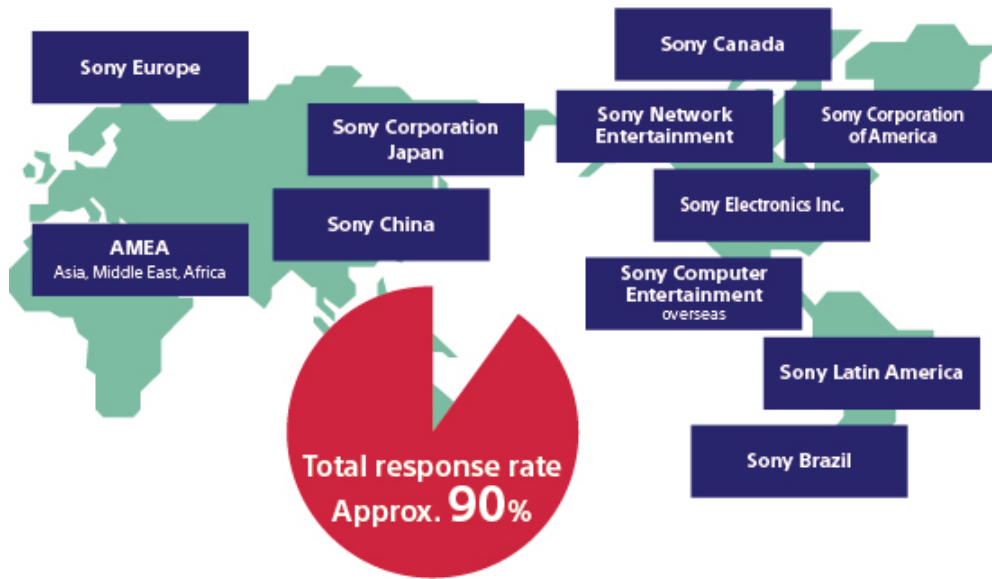
(Updated on August 12, 2014)

Since fiscal year 2010, Sony has integrated various formerly independent Group surveys into a global employee survey. The survey is divided into such categories as Innovation, Customer Focus, Corporate Culture, and Human Resource Management and Development. The survey enables Sony to access and analyze the views of employees across the Sony Group in a consistent manner. The response rate for this annual survey has remained around 90%, reflecting employees' high level of interest in participation. Of particular note, 80% of employees routinely respond that they understand and identify with Sony's Values and Objectives, indicating a level of awareness that is a key Sony strength. Survey findings are used as feedback to top management. At Sony Corporation, for example, they are also used in internal workshops held throughout the company. Such programs address issues identified through the survey and assist in the drafting of personnel strategies, while helping to maintain organizational vitality.

In 2013, the internal website used for the survey was revamped, enabling global best practices to be shared and promoting direct communication beyond national and regional boundaries for the improvement of the organization based on the survey's results.

Furthermore, Sony Corporation implements a parallel survey to provide feedback from subordinates to all supervising managers regarding their leadership activities. This survey aims to facilitate a check-up of organizational management style and is part of efforts to strengthen management.

Global Employee Survey Implementation



* The response rate is the percentage of responses received from employees who completed the survey.



The Global Employee Survey Website

Human Resources

Occupational Health & Safety

Sony strives to adopt sound labor and employment practices and to maintain a healthy, safe and productive work environment.

- [Basic Policy and Management System](#)
- [Establishing an OH&S Management System](#)
- [Global OH&S Initiatives](#)
- [Global Workplace Injury Statistics](#)

Human Resources

Basic Policy and Management System

(Updated on August 12, 2014)

In 1998, Sony enacted a Global Policy on Occupational Health and Safety (OH&S), which serves as a Group standard and reflects Sony's commitment to the health and safety of its employees. The policy not only requires compliance with countries' and regions' laws concerning OH&S, but also sets out additional activities to be undertaken through its health and safety management structure.

Sony Group Global Policy on Occupational Health & Safety

This policy applies to all Sony Group companies and organizations throughout the world.


[Philosophy]

Sony recognizes that occupational health and safety (OH&S) is an integral part of all business operations. Sony therefore secures a safe and healthy working environment for its employees.

[Policy]

1. To observe all local OH&S-related laws, regulations and agreements, and to establish independent standards to improve management ability of OH&S to practice OH&S activities more than just what the laws require.
2. To establish and maintain an appropriate organizational structure that clearly defines responsibility for promoting OH&S activities in all Sony Group companies and organizations.
3. To perform an OH&S risk assessment to evaluate potential dangers and hazards with a proactive science based analysis in all areas of operation.
4. To respect the voice of employees with the recognition that their health and safety is ensured by good communication between employer and employee.
5. To conduct effective OH&S training to all Sony employees, and to exchange information with outside companies performing services on Sony locations in order to secure OH&S.
6. To undertake internal promotion and information activities to enhance safety awareness.
7. To undertake periodic OH&S audits and endeavor to improve the OH&S management system.
8. To participate in public OH&S activities of both government and the local community.
9. To develop and introduce new methods and technologies for protecting the OH&S of employees.
10. To invest relevant capital in enforcing this policy, and to undertake continuous improvement of the OH&S management system.

Kazuo Hirai
 President and CEO
 Representative Corporate Executive Officer
 Sony Corporation



Human Resources

Establishing an OH&S Management System

(Updated on August 12, 2014)

Based on the OHSAS 18001 occupational health and safety standards, and guided by its own Global Policy on OH&S, Sony is working to establish a proprietary OH&S management system for each of its sites around the world. Sony is also promoting ongoing initiatives aimed at ensuring compliance with countries' and regions' laws concerning OH&S, as well as the achievement of voluntary targets.

Human Resources

Global OH&S Initiatives

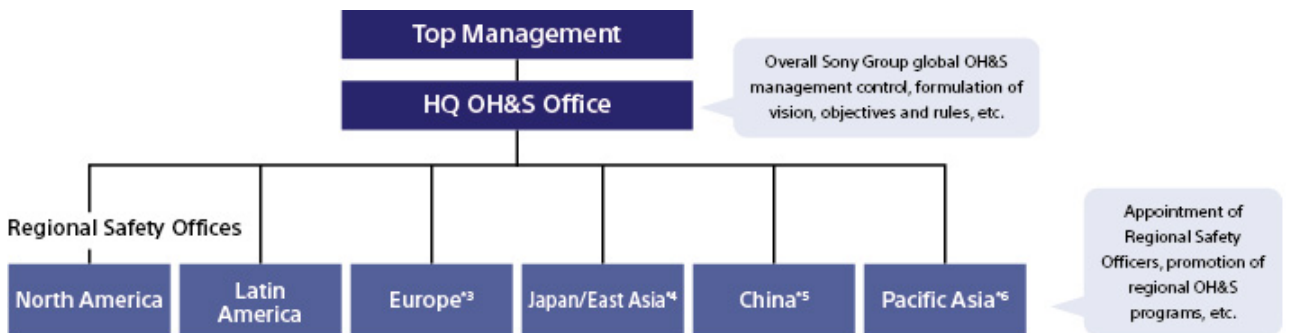
Common Global Programs

(Updated on August 12, 2014)

Global management structure

The Sony Group recognizes the health and safety of employees as an important management priority, and all Group companies manage relevant programs under a single management structure.

Furthermore, to promote global OH&S programs, Sony has established regional safety offices and appointed regional safety officers, and carries out programs across regions.



*3 Europe, Turkey, Israel, Russia and former Soviet Union countries
 *4 Japan, Taiwan and South Korea
 *5 Mainland China and Hong Kong
 *6 Asia excluding the above (including Mongolia), Middle East, Oceania and Africa

Sony Group OH&S Vision

Under a philosophy of "placing the highest priority on employee health and safety," Sony has formulated the Sony Group OH&S Vision and mid-range activity plan as steps toward realizing this vision. Sony's ultimate objective is to realize "Vision Zero" - its goal of achieving zero occupational accidents. To realize Vision Zero by 2020, Sony is carrying out programs with the mid-range target of "zero serious accidents."

Key initiatives to realize the mid-range target

(1) Hazard identification

Across regions and product categories, the range of base chemical materials and production machinery and equipment used by Sony is becoming more diverse.

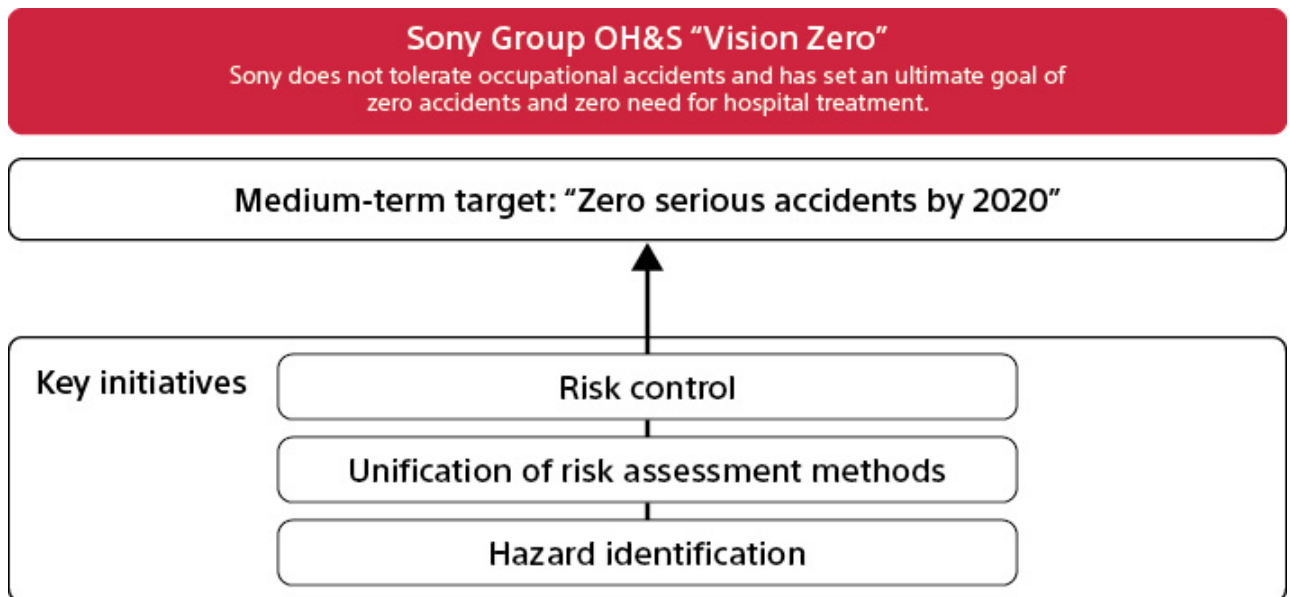
It is extremely important to identify all of the "accident seeds" lurking within workplaces without exception, and for this reason Sony carries out hazard visualization training programs. With many employees exchanging opinions, this process of identifying hidden hazards in the workplace enables each individual to increase his or her sensitivity to risks.

(2) Unification of risk assessment methods

At present, each Sony Group site uses its own particular method for assessing risks in the workplace to build potential accident scenarios. Since there is inconsistency in the benchmarks used to measure the severity of risks, Sony plans to unify optimal risk assessment methods in the near future, so that it can build a framework for assessing the magnitude of risks using standardized benchmarks and indices.

(3) Risk control

Through the initiatives outlined in points (1) and (2) above, Sony aims to formulate and carry out plans to reduce the risks identified that lead to serious accidents. Based on this process, Sony aims to achieve appropriate risk control.



Japan

Guided by its Global Policy on OH&S, Sony is working to establish a proprietary OH&S management system with standards that are based on the OHSAS 18001 occupational health and safety standards, and is promoting a variety of OH&S initiatives. A particularly distinctive feature of this system is that it addresses OH&S from a comprehensive perspective, focusing not only on the risk of occupational accidents at Sony sites but also on risks to sites associated with earthquake damage, fire and site security. Sony has also established an internal audit system for OH&S-related initiatives conducted at sites and conducts corporate audits separately on a regular basis. This enables it to assess the level of initiatives at principal domestic locations, as well as make improvements on a continuous basis.

Common objectives in Japan

Based on the global objectives, in Japan Sony is carrying out programs for risk assessment and health improvement as common objectives for the Japan region.

Protecting Employee Health: Programs to Help Employees Quit Smoking

As part of the OH&S management system used at sites in Japan, Sony supports efforts to encourage employees to quit smoking. Both site occupational health staff and local health insurance associations offer classes aimed at ensuring a proper understanding of the health risks associated with smoking.

To date, Sony has provided smoking rooms at its domestic sites to facilitate the complete separation of smoking and nonsmoking areas and protect employees from secondhand smoke. In fiscal year 2011, Sony reduced the number of smoking rooms at its headquarters and adopted a new policy of not facilitating smoking in the workplace as a measure designed to further protect employee health.

Monitoring Legal and Regulatory Trends

To keep abreast of legal and regulatory trends in Japan in the area of OH&S, in-house specialist staff members have developed and regularly update a database of related information and are charged with determining whether changes to laws and regulations apply to Sony sites. Sony has also created a framework for providing support to sites affected by such changes through the dissemination of up-to-date information, and enforces strict compliance standards at all work sites. Sony also includes information on legal and regulatory matters in the OH&S newsletter it publishes for Group companies in Japan, with the aim of enhancing employees' level of compliance awareness.

North America

Wellness

In North America, Sony has continued the wellness program that covers employees and their spouses/domestic partners who are eligible for the Sony Healthcare Program. The objective of this program is to help employees and their spouses/domestic partner live healthy, active lives. Participants have access to health risk assessments, biometric screening, telephone counseling with a healthcare advisor, and other online or telephone-based programs and resources. Among these are programs on quitting smoking, weight loss, stress management, blood pressure, diabetes, nutrition and physical activity (including programs using exercise/activity trackers). In 2014, employees can receive incentives for participation in such health-promoting programs.

With regard to influenza vaccinations, employees may receive vaccinations at either site-based clinics or a national pharmacy chain using a vaccination voucher. These are provided over a six-month period, beginning in October.

At manufacturing sites, based on job requirements, employees receive regular medical exams, and where necessary, industrial hygiene surveys are carried out.

Risk Control Audits and Recommendations

Environmental, Safety & Health (ESH) and Fire & Life Safety audits are conducted on an ongoing basis at nearly all Sony sites in North America. Internal inspections are conducted as well as audits by insurance companies and brokers. The objective of the internal inspections is to assess facility areas overall from an ESH and housekeeping standpoint. This ensures that potential risks are identified and any other items needing attention are addressed in a timely fashion. These inspections are generally conducted by trained employees serving on on-site safety committees or work teams. The frequency of internal audits varies among sites, from monthly to semi-annually. The audits performed by the insurance companies or brokers are generally classified into one of the following three categories: (1) identifying and addressing fire safety risks within a location; (2) thermographic analysis of a site's electrical systems; and (3) ergonomic assessment of workstations in both production and office areas. For each category, recommendations for improving the current status of the site are provided, as needed.

Chemical Safety Information

Each Sony site in the Americas has a written Hazard Communication program for chemicals in place, including information on Material Safety Data Sheets, labelling and training. In 2013, employees in the U.S. with exposure to potentially hazardous materials received additional training based on the revisions to the U.S. Hazard Communication OSHA Standard, which is more

closely in line with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). New chemical labels and Safety Data Sheets (SDS) required by the revisions are being introduced into the workplace as they are received. In addition, all applicable sites are following procedures for controlling and eliminating specified chemical substances from the product supply chain, as defined by Sony's environmental rules.

AED Program

Many Sony sites in North America have installed automated external defibrillators (AEDs) that can be used in the event of ventricular fibrillation and ventricular tachycardia. Employees at each site are trained and certified in first aid and cardiopulmonary resuscitation (CPR), in addition to their training in the operation of the AED. Monthly inspections of AEDs are conducted to ensure that they will be ready for use in case of emergencies.

Latin America

At Sony sites in Latin America, a high emphasis is placed on legal compliance and the prevention of OH&S accidents and efforts focus on maintaining and improving workplace environments. At the Sony Brasil Ltda. Manaus Plant, a manufacturing site, an annual in-house event is held with the aim of enhancing safety consciousness as part of efforts to reduce OH&S accidents.

Europe

OH&S Risk Reduction Program

Sony sites across Europe have identified OH&S management as a top priority and have implemented an OH&S risk reduction program since 2004 that aims to lower OH&S risk by reducing occupational accidents and advancing the health and well-being of employees. This program is based on three main pillars: (1) risk assessment; (2) mandatory OH&S training for all employees; and (3) accident/incident investigation and follow-up. The program also sets annual numerical targets for decreasing the number of workplace injuries and related lost days. Based on the results of risk management initiatives and a systematic analysis of regional occupational accident data, each site formulates measures aimed at improving its performance. These efforts are assessed through performance reviews, which are conducted quarterly. Program implementation and performance is reviewed by top management at annual European management review meetings. Sony Europe is committed to ensuring the safety of Sony workplaces in Europe through a variety of OH&S programs.

Site Chemicals Program

The Site Chemicals Program was initiated to minimize the risks for employees and contractors working on-site who handle chemical substances and to reduce the amounts of hazardous chemicals used at sites. This program ensures that training is provided for all employees and contractors, enabling them to learn about changes concerning hazard classification, labelling and packaging of chemical substances arising from the new Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Projects implemented with the aim of reducing chemical substances used at sites and switching to alternatives have helped Sony sites to achieve safe, environmentally conscious operations.

Road Safety Program

Since 2010, Sony Europe has implemented a road safety program. This program prioritizes the prevention of road accidents through the implementation of interactive road safety training for employees and on-site contractors; extending the scope of OH&S reporting to include road accidents. Sony Europe also conducts workplace risk assessments for employees who drive a great deal during working hours.

Sony Europe has also introduced an e-learning program for all employees in the region who drive during working hours. Beginning in fiscal year 2011, Sony adopted formal reporting procedures for road accidents, enabling the collection of specific data related to occupational road accidents.

AED Program

Sony Europe is promoting the installation of AEDs at all sites. A sufficient number of AED units have been placed at each site to achieve the specified maximum response time. Sony Europe's AED Program also requires AED training as part of regular first aid training.

In 2014, the AED Program underwent some revisions with the aim to increase the effectiveness of the program. Recognizing that reduced response time means increased survival rates, the company set a new maximum response time target of two minutes. Sony Europe has also expanded the scope of mandatory AED training to include more employees such as security staff and reception staff.

Pan-Asia

Sony's Pan-Asian sites employ individuals with a wide range of nationalities and cultural backgrounds. A key objective of OH&S activities in the region is to raise awareness of safety issues and instill an appropriate mindset through training and education. For example, Sony EMCS Malaysia Penang Tec stages events aimed at enhancing safety awareness several times each year and organizes safety poster competitions for employees. At Sony India Software Center, local medical doctors are invited to conduct lectures on such topics as ergonomics, wellness and chemical hazards as part of a program designed to improve the safety awareness not only of employees but also of site security, facility management and cleaning staff. All Sony sites in the region undertake concrete initiatives aimed at, among others, ensuring equipment safety and minimizing fire risk, in compliance with regional requirements governing annual OH&S activities.



A site OH&S and environmental event (Malaysia)



A safety awareness improvement lecture (India)

China

Sony's manufacturing sites in China have significant annual output and a widely varied product mix. To secure and maintain the safety of production lines at these sites, Sony promoted initiatives that capitalize on know-how and technologies accumulated at its manufacturing sites in Japan. Subsequently, Sony expanded the scope of these efforts, retaining the OH&S management systems developed to date at each manufacturing site, while also creating a unified OH&S management system for China encompassing the China Regional Safety Office and sites. As a result, Sony in China earned integrated OHSAS 18001 certification in fiscal year 2013.

Human Resources

Global Workplace Injury Statistics

(Updated on August 12, 2014)

Since fiscal year 2001, Sony has employed a data collection system to gather annual occupational health and safety data in the countries and regions in which it has operations. Sony analyzes these statistics to gain an understanding of circumstances and trends in terms of country/region, injury, accident and illness, and the related practices of Sony Group companies in order to help prevent recurrences.

Country-specific frequency and severity rates for workplace injuries in the manufacturing sites are shown below.

Frequency rate*1

Country	2010	2011	2012	2013
United States	N/A	N/A	6.86	2.93
Mexico	N/A	N/A	5.95	4.41
Brazil	15.75	7.11	7.21	5.12
France	5.49	7.52	6.45	7.71
Austria	4.13	4.34	7.08	2.69
United Kingdom	2.01	1.48	0.42	3.91
Malaysia	1.77	0.84	0.52	1.02
Singapore	0.00	0.00	0.00	1.17
Thailand	3.15	1.19	2.31	0.08

Australia	N/A	N/A	2.95	4.14
China	0.43	0.42	0.27	0.52
South Korea	0.97	0.00	0.93	0.00
Japan	0.03	0.11	0.02	0.05*2

*1 Frequency rate = Number of deaths and injuries attributable to incidents in the workplace ÷ Total number of man-hours worked × 1,000,000

*2 Reference: The average frequency rate for the manufacturing sector in fiscal year 2013 was 0.94; the average for the electrical machinery and equipment manufacturing industry was 0.41.

Severity rate*3

Country	2010	2011	2012	2013
United States	N/A	N/A	0.216	0.032
Mexico	N/A	N/A	0.166	0.111
Brazil	0.053	0.053	0.049	0.068
France	0.060	0.063	0.065	0.042
Austria	0.039	0.038	0.051	0.026
United Kingdom	0.019	0.004	0.011	0.053
Malaysia	0.010	0.005	0.003	0.006
Singapore	0.000	0.000	0.000	0.013
Thailand	0.000	0.000	0.000	0.000
Australia	N/A	N/A	0.004	0.110

China	0.006	0.007	0.010	0.017
South Korea	0.050	0.000	0.020	0.000
Japan	0.000	0.002	0.000	0.001*4

*3 Severity rate: = Number of work days lost ÷ Total number of man-hours worked × 1,000

*4 Reference: The average severity rate for the manufacturing sector in fiscal year 2013 was 0.10; the average for the electrical machinery and equipment manufacturing industry was 0.01.

Scope of data: 48 manufacturing sites around the world

Human Resources

External Evaluation

(Updated on August 12, 2014)

The Randstad Award* is the world's largest employer branding research and award that identifies the most attractive employer worldwide. It is conducted by major Dutch human resources (HR) service provider Randstad Holding NV along with its local operations in each country, including Randstad Japan. In the 2014 Global Randstad Award, Sony placed second overall, and in the individual country-based rankings Sony placed third among Japanese companies. The 2014 survey and award covered 23 countries and regions, and used 10 criteria to measure and evaluate the attractiveness of companies. These criteria included interesting job content, opportunities for career advancement, good training opportunities, a pleasant and stimulating working environment, a good work-life balance, and progressive policies concerning the environment and society (CSR). In the award by country, Sony received a particularly high evaluation for interesting job content, particularly reflecting not only Sony's electronics business but also a wide range of other businesses, including entertainment and financial services, through which Sony provides customers with exciting services, products and content in unique ways.

Sony is committed to providing users with thrilling experiences and remaining a company that stimulates people's curiosity. To realize this goal, Sony is committed to continue providing attractive work that expands employees' experience and a workplace that is open and lively.

- * Since the launch of the Randstad Award in Belgium in 1999, Randstad has teamed up with independent research company ICMA International to expand the award to many countries worldwide as an annual survey based on common international criteria. In each country, male and female survey respondents aged 18 to 65 years answer survey questionnaires focusing on whether respondents feel attracted to working for a company. The Global Award was launched in 2014 to identify the global company with the most attractive employer brand, and sets no regional or national limitations within the globalized marketplace.

External Evaluation of the Sony Group in Each Country and Region

- [Main Sony Group Programs to Promote Career Development of Individuals with Disabilities Around the World](#)
- [Examples of Measures to Promote Diversity in the Sony Group Around the World](#)



Responsible Sourcing



In recent years, stakeholders have grown increasingly aware of the importance of companies fulfilling their overall responsibilities to society as corporate citizens, including managing their supply chains in a responsible manner. In response to stakeholder concerns, Sony is working with its suppliers to address issues related to human rights, labor conditions, health and safety, and environmental protection at the production sites of outsourcing partners and parts suppliers, as well as in its procurement of minerals and other raw materials.

Responsible Sourcing and CSR in Supply Chain Management

Responsible Sourcing of Raw Materials

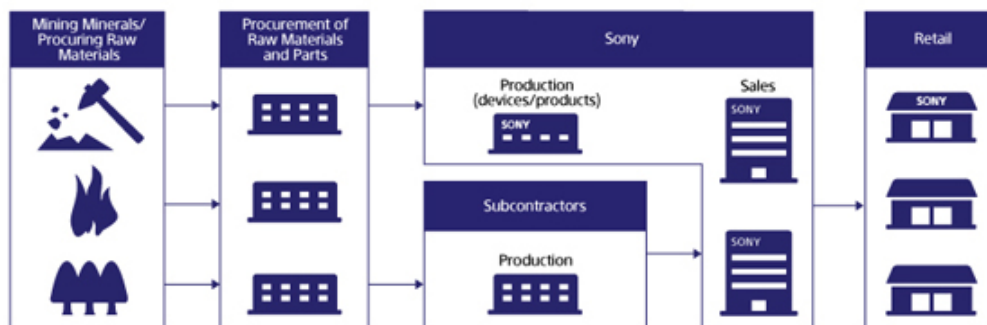
Responsible Sourcing

Responsible Sourcing and CSR in Supply Chain Management

(Updated on August 12, 2014)

Sony is committed to conducting its operations in a socially and environmentally responsible manner and to sourcing from suppliers that share its values. Accordingly, in order to enable positive change in its supply chain, Sony works closely with its suppliers and subcontractors to address human rights, labor, health and safety, and environmental protection issues related to the procurement of raw materials and components.

Basic Structure of the Supply Chain



Policy for CSR in the Supply Chain

(Updated on August 12, 2014)

Compliance with "Sony Group Code of Conduct" in Business

In May 2003, Sony adopted the Sony Group Code of Conduct, which stipulates the basic standards to be maintained by all directors, officers and employees of the Sony Group in order to emphasize and further strengthen corporate governance, business ethics and compliance systems throughout the Sony Group. The code includes basic policies concerning dealings with suppliers, categorized under such headings as "Fair Procurement" and "Gifts and Entertainment," with which all personnel in the Sony Group are required to comply.

Managing Chemical Substances in Procurement

Given the global nature of its suppliers, Sony has led the industry by introducing its own global standards for management of certain chemical substances contained in products or parts, called Management Regulations for Environment-related Substances to be Controlled which are Included in Parts and Materials (SS-00259). To implement this standard, Sony has established the Green Partner Environmental Quality Approval Program for supplier qualification. Only suppliers that comply with Sony's standards for management of chemical substances qualify for certification as "Green Partners." By procuring parts and products only from certified suppliers, Sony realizes consistent chemical substance management globally.

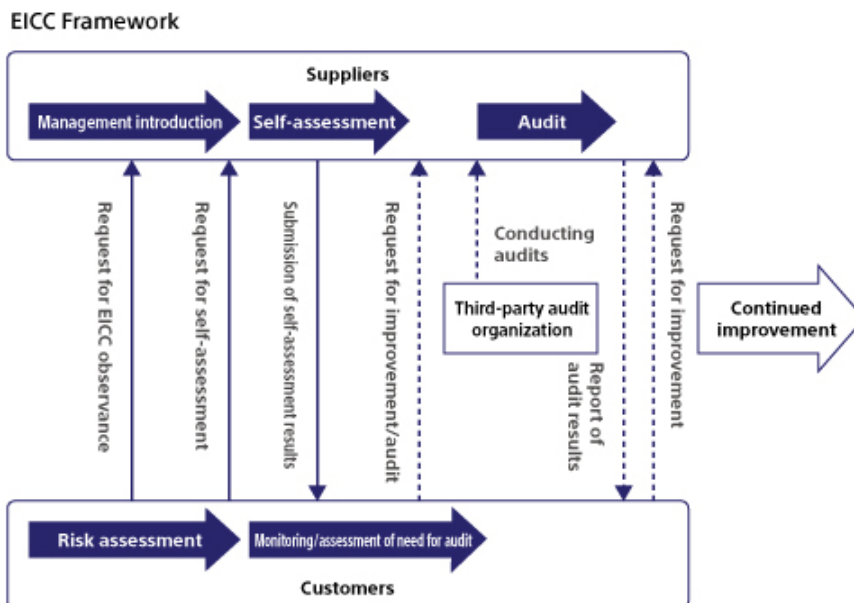
<< Please refer to the following page for information on other procurement activities:<http://www.sony.net/SonyInfo/procurementinfo/> >>

Participation in the Electronic Industry Citizenship Coalition (EICC)

Supply chains overlap considerably in the electronics industry, with multiple manufacturers of finished products sharing the same subcontractors and parts suppliers. Accordingly, there are fears that the introduction of independent, company-specific standards for socially responsible management will cause confusion and constitute a significant burden on companies in the supply chain. With the aim of improving processes in the electronics industry supply chain, Sony, as one of the member companies, participated in the establishment of the Electronic Industry Citizenship Coalition (EICC) in 2004. The EICC formulated a basic code of conduct based on industry best practices and is working to develop the tools and Web-based system, as well as the skills development programs for suppliers, necessary to create a framework for ensuring the code is upheld. As of March 2014, the EICC consisted of 90 participating companies from Europe, the Americas and Asia, and members include manufacturers and OEM companies. In cooperation with the Global e-Sustainability Initiative (GeSI) Supply Chain Working Group, consisting mainly of the European telecoms sector and other electronics industry organizations, the EICC is currently promoting social responsibility across the global supply chain.



- Formulation and revision of the EICC Code of Conduct
- Development of common implementation tools
- Risk assessment tool (a tool designed to help companies identify areas of risk and prioritize activities)
- Supplier self-assessment questionnaire (a self-administered survey for suppliers to provide information on their CSR efforts and management systems)
- Audits
- Standardization of audit procedures
- Identification of qualified third-party firms to conduct audits
- Development and administration of a Web-based system
- A Web-based information system for collecting, managing and analyzing CSR data provided by individual suppliers
- Education and training
- Stakeholder engagement
- Working groups related to particular subjects
- Environmental Sustainability working group
- Extractive working group
- Asia Program



Adoption of and Compliance with the Sony Supplier Code of Conduct

In recent years, stakeholders have become increasingly concerned about manufacturers' general responsibilities in relation to products, including issues related to human rights, labor conditions, health and safety, and environmental protection at the production sites of outsourcing partners and parts suppliers. From the perspective that partner firms are involved in the production of Sony products, and in recognition of the importance of addressing various issues in conformance with a framework that would meet Sony's own standards, in 2005 Sony established the Sony Supplier Code of Conduct, based on industry best practices as highlighted in the EICC Code of Conduct. In line with subsequent changes to the EICC Code of Conduct, Sony made an amendment to its own code, including adding a reference to the conflict minerals reporting requirements set forth in Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, which was passed by the U.S. government in 2010. The updated second edition of the Sony Supplier Code of Conduct was published in 2012.

Sony's basic procurement contract with material suppliers lays down observing related laws and regulations and the Sony Supplier Code of Conduct. Sony requests all potential new suppliers to comply with the Code, as well as to conduct assessments as a part of requirements of a preliminary examination.

It is Sony's basic policy to reconsider its business relationship with the supplier in the event that an existing supplier is confirmed to have committed a major violation of the Sony Supplier Code of Conduct, or not exhibit an appropriate level of cooperation with studies and audits. In the event that a violation of the Sony Supplier Code of Conduct is reported by a third party and a violation is confirmed, Sony will ask the supplier to take corrective actions and report back on the progress. If the violation has been committed by a secondary supplier, Sony will work in cooperation with the relevant primary supplier to urge corrective action.

Sony Corporation has also installed a hotline for suppliers to report compliance violations on the part of Sony Group company employees or executives. Appropriate actions are taken in response to such reports once veracity has been confirmed.

 [Sony Supplier Code of Conduct](#)

Sony's Structure for Promoting Supply Chain Management

(Updated on August 12, 2014)

Sony's head office divisions - centering on CSR procurement and manufacturing groups - take the lead in promoting responsible sourcing activities in cooperation with other related head office divisions, business groups and relevant functions at manufacturing sites. The CSR group keeps abreast of external trends and communicates with stakeholders, drawing on both to formulate Companywide basic supply chain management policies. The procurement group is responsible for overall implementation of responsible sourcing policies by ensuring that suppliers comply with the Sony Supplier Code of Conduct and conducting necessary studies and audits of suppliers, analyzing the results thereof and implementing necessary measures.

Monitoring Activities and Follow-up Measures to Ensure Compliance with the Sony Supplier Code of Conduct

(Updated on August 12, 2014)

Supplier Assessments

Sony established the Sony Supplier Code of Conduct to ensure that suppliers understand Sony's expectations in more detail. Suppliers of products and materials to Sony around the world are required to observe this code.

As part of its effort to ascertain supplier compliance with the Sony Supplier Code of Conduct, Sony conducts assessments worldwide. To this end, Sony uses the concept of risk appraisal to determine risks associated with the country and region in which each supplier is based, as well as with the scale, status and nature of the supplier's business, and tailors its assessment to the supplier's risk level. Sony also continues to support the efforts of suppliers to conduct their business in a socially responsible manner through additional assessments and inquiries regarding follow-up measures.

As of March 31, 2011, assessments had been conducted and Sony had received the results of assessments from almost all of its suppliers worldwide. The results of these assessments indicate several overall trends, including that organizational development, i.e., the establishment of labor and ethical management systems, remains at a transitional stage. Sony will continue to support the efforts of suppliers to improve their activities.

Ongoing Communication with Primary Suppliers of Products and Materials

Acting through the department responsible for administration of the Sony Supplier Code of Conduct, Sony promotes ongoing communication with its primary suppliers of products and materials. This facilitates the exchange of information concerning the progress of suppliers' CSR initiatives and their efforts to ensure that secondary suppliers comply with such initiatives, and also enables Sony to provide support for efforts to improve CSR across the entire supply chain.

Additionally, Sony compels its primary suppliers of products and materials to conduct regular self-assessments. For suppliers shown by such self-assessments to have a high risk of violation, Sony conducts EICC audits in the areas of : labor practices, ethics, safety and health, environment and management system. Sony also follows up on recommendations for remedial actions implemented as a result of these audits.

Third-party EICC Audits

The EICC has also established a framework for third-party supplier audits based on the EICC Code of Conduct. This framework encompasses the certification of third-party auditors, as well as the provision of necessary auditing tools, including manuals and audit checklists. These audits focused on suppliers in regions where member companies consider the risk of violation to be high. Sony's suppliers have also undergone audits based on EICC standards through the EICC's shared audit program. The results of these audits identified non-conformance issues in the categories of labor and ethical management systems, health and safety, and labor.

In cases where violations of the Sony Supplier Code of Conduct are reported via external sources, such as NGOs or media reports, Sony cooperates with the supplier in question to confirm the facts of the case expeditiously and objectively. Specifically, Sony may request that the supplier's manufacturing site undergo a third-party EICC audit. If the originally reported facts are confirmed, Sony ensures remedial action is taken and, if necessary, provides additional support for the supplier's efforts to improve its performance in the form of follow-up audits to confirm the progress of initiatives. In cases where violations are reported at a secondary supplier, Sony cooperates with the primary supplier to ensure that remedial action is carried out.

Stakeholder Engagement

(Updated on August 12, 2014)

With the aim of developing a basic framework for promoting effective supply chain management, the EICC holds discussions periodically with NGOs, socially responsible investors and other stakeholders. Sony participates in these discussions and takes into account the views of a diverse range of stakeholders. Such discussions are held regularly in Asia, the United States and Europe.

Responsible Sourcing

Responsible Sourcing of Raw Materials

(Updated on August 12, 2014)

Our stakeholders care about sustainability issues, including biodiversity, ethics and respect for human rights related to the sourcing of raw materials. Sony is working with its suppliers to address issues related to human rights, labor conditions, health and safety, and environmental protection at the production sites of our partners and parts suppliers, as well as in our procurement of minerals and other raw materials.

Sony's Conflict Minerals Policy

(Updated on August 12, 2014)

The Democratic Republic of the Congo (DRC) and its adjacent countries have been mired in conflict with armed groups perpetuating human rights abuses in that region. These armed groups have been trading in certain minerals commonly found in that region to finance their activities. These four minerals - columbite-tantalite, also known as coltan (tantalum), cassiterite (tin), gold and wolframite (tungsten) - are commonly found in many products, ranging from jewelry to electronics to airplane components. To the extent these minerals are found to be financing armed activities, these four minerals are commonly referred to as "conflict minerals."

In order to ensure transparency and reporting, the Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act became effective in January 2013. The law requires companies that issue shares on the US stock exchange, such as Sony, to conduct an inquiry into the origin of tin, tantalum, tungsten and gold in their supply chains. If these minerals come from the DRC or its adjacent countries, or if their country of origin is uncertain, then the company must conduct a more thorough review of its supply chain in an attempt to determine whether the supplies supported armed groups in the DRC. On June 2, 2014, Sony submitted its first report to the U.S. Securities and Exchange Commission (SEC) based on its review of its supply chain activities for calendar year 2013.

- [Sony's report to the SEC\(Form SD & Conflict Minerals Report\)](#)

It is Sony's policy to refrain from knowingly purchasing any products, components or materials that contain conflict minerals so that it can avoid contributing to conflict through its sourcing practices. To help ensure compliance with its Conflict Minerals Policy, Sony designed an internal due diligence framework to determine the country of origin and chain of custody for any conflict minerals in its supply chain in accordance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. We endeavor to ensure that our products do not contain tin, tantalum, tungsten or gold from sources that benefit armed rebel groups in the DRC or the adjoining region, while at the same time making sure that we are still able to source responsibly from that region and avoid a de facto embargo. It is also Sony's policy to require its suppliers to source materials from smelters determined to be compliant with the Electronic Industry Citizenship Coalition (EICC)/Global e-Sustainability Initiative (GeSI) Conflict-Free Smelter (CFS) Program* protocols, or other smelters that have been determined to be conflict-free smelters or determined to be conflict-free under other trusted traceability projects.

* CFS Program: A voluntary program in which an independent third party evaluates a smelter's procurement activities and determines if the smelter has demonstrated that all the materials it processed originated from conflict-free sources

Sony's Activities to Support Supply Chain Transparency and Reporting

(Updated on August 12, 2014)

Tungsten, tantalum, tin and gold enter global supply chains from the DRC as well as from numerous other supplying countries. Determining the mine of origin for these minerals requires the cooperation of many levels of suppliers and intermediaries in the supply chain. Our conflict minerals program is aimed at continuous improvement of our understanding of our supply chain and risk reduction over time. Our expectation is to make progress in the early years of our program, and achieve increased transparency over time based on our efforts to obtain increased supplier cooperation. Prior to reporting to the SEC, Sony began exercising due diligence regarding its use of tin, tantalum, tungsten and gold in selected product categories in August 2011. Sony expanded its focus to the entire Sony Group in 2013. Sony exercised due diligence on its supply chain by investigating whether tin, tantalum, tungsten or gold were present in any Sony products. If any of these minerals were determined to be necessary to the functionality or production of any products manufactured by Sony or a subcontracted manufacturer, Sony assessed the country of origin and the smelters at the product level through a supplier survey sent to all relevant suppliers, utilizing the Conflict Minerals Reporting Template developed by the EICC/GeSI. Sony also held briefing sessions to ensure the cooperation of pertinent suppliers. The smelters identified by our direct suppliers were then compared against the conflict-free smelter list prepared by the Conflict-Free Smelter Initiative (CFSI) established by the EICC/GeSI, to further enhance the accuracy of Sony's findings.

While the results of Sony's due diligence did not reveal that any of the tin, tantalum, tungsten or gold in our electronics products were sourced from the DRC or any of its adjacent countries or were financed by or benefited armed groups in these countries, Sony concluded that it lacks sufficient information at this time to definitively determine the country of origin all such minerals in our electronics products. Some of our suppliers, however, identified approximately 80 smelters and refiners in our supply chain that were validated as Conflict-Free Smelters (CFS) by the CFSI. Six of these conflict-free smelters were reported to procure materials from the DRC and its adjacent countries.

Please refer to the CFSI's Smelter List, which includes smelters confirmed as conflict-free through Sony's traceability program.

 ["EICC® and GeSI Launch Conflict-Free Sourcing Initiative" \(press release\)](#)

 [CFSI conflict-free smelter program and conflict-free smelter list \(CFSI website\)](#)

Participation in Industry Groups and the Public-Private Alliance

Sony recognizes that effective change requires a joint effort. We have joined in multi-stakeholder dialogue about conflict minerals with nongovernment organizations (NGOs) and peer companies. We also have funded and participated in a range of programs addressing this issue. Sony actively cooperates with and provides support for industry organizations and alliances whose objectives and activities are focused on preventing and reducing the harmful impact of minerals mining in high-risk regions, including the EICC which was founded with the objective of addressing social and environmental issues in the electronics supply chain.

In 2011, the EICC launched the CFS Program to provide leadership to the industry in this area. With the aim of promoting collaboration with other industries and multi-stakeholders, in August 2013 the EICC/GeSI launched the CFSI. Sony utilizes the frameworks developed by the EICC and other alliances as part of its efforts to ensure responsible sourcing of tin tantalum, tungsten and gold.

Sony also supports and contributes to such industry initiatives as the traceability project for tin launched in 2010 by ITRI, a tin industry organization, to validate that the metals used in its products are not contributing to conflict and come from sustainable sources and participates in the Public-Private Alliance for Responsible Minerals Trade (PPA), a joint effort of government, industry and civil society organizations led by the U.S. government to support responsible mineral trade from the Great Lakes region of Central Africa. Since its establishment, the PPA has supported the creation of a pilot supply chain management system that includes certifying conflict-free mines, that is, mines that engage in responsible trade practices. The PPA also provides a platform for coordination amongst government, industry and civil society actors seeking to support

conflict-free sourcing and self-sustaining trade from the DRC and the Great Lakes Region, and serves as a resource for companies seeking information regarding how to source responsibly.

Moreover, as part of our overall effort to achieve conflict-free supply chains, Sony promotes active, on-going dialogue with civil society organizations, industry groups and other external stakeholders for further improvement of conflict-free sourcing practices. For example, CFSI holds workshops for discussions periodically with NGOs, socially responsible investors, local government representatives and other stakeholders with whom Sony participates. Such workshops have been held on more than 10 occasions in various countries and regions, including Europe and North America. Sony is promoting the industry initiatives of the Japan Electronics and Information Technology Industries Association (JEITA). Sony has taken a leading role in the establishment of JEITA's workgroup program and in the EICC's activities.

● [Sony Participates in Public-Private Alliance for Responsible Minerals Trade \(PPA\), a Joint Effort Led by the U.S. Government](#)

📄 [JEITA Responds to Conflict Minerals Provision of the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act \(JEITA release\)](#)



Expectations for Sony Suppliers of Tin, Tantalum Tungsten and Gold

To the extent it is determined that tin, tantalum, tungsten or gold is used to manufacture a product, the supplier of any such product is required to commit to Sony's conflict minerals policy and respond to our due diligence survey regarding sourcing the such minerals. In addition, to ensure that products, components or materials delivered to Sony do not contain any conflict minerals, Sony expects suppliers to have in place pertinent policies, a due diligence framework and a management system consistent with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

Risk mitigation plan

In the event that Sony confirms that any of our products, components or materials may contain conflict minerals, Sony, in collaboration with our relevant suppliers, shall take actions reasonably necessary to eliminate such minerals from such products, components or materials and shall request that the suppliers makes necessary improvement to its sourcing practices. This includes adoption of a conflict-free sourcing policy, increased responsiveness and accuracy of the supplier survey, and increased use of the four minerals sourced from smelters or refiners participating in

the CFS program. Further, in the event that Sony confirms that a supplier has failed to cooperate sufficiently with a due-diligence investigation, fails to follow Sony requests for remediation or has otherwise violated this policy, Sony shall take necessary actions, including without limitation, termination of business with such supplier by stopping new orders

Sony has established a hotline to allow any interested party to voice concerns regarding the circumstances of mineral extraction, trade, handling and/or export in conflict-affected and other high-risk areas. In addition to our internal risk assessments, the hotline will help to allow us to be alerted to risks in our supply chain.

[> Conflict Minerals Policy Hotline](#)

Initiatives Related to Paper Procurement

(Updated on August 12, 2014)

Sony recognizes that paper resources are limited and strives to reduce the amount of office paper used at sites and limit the number of pages in its product manuals.

Sony also recognizes the impact of illegal logging on biodiversity and considers it important to ensure responsible procurement of lumber and paper products. Sony takes environmental conservation into consideration when purchasing paper materials by adhering to the Sony Group Paper/Printed Material Purchasing Policy.

Sony sources paper from forests certified as responsibly managed and works not only to ensure that the paper it purchases has been produced from forests that are managed in accordance with legal requirements but also to promote the use of paper products certified by the Forest Stewardship Council (FSC), which audits forests based on a range of criteria, including sustainability and uses FSC-certified paper in its corporate printed materials, calendars and business cards.



Quality and Services



Sony has various businesses globally to provide products and services that meet customer requirements in terms of satisfaction, reliability and trust.

Philosophy and Policy for Product Quality and Services

Product Quality and Quality Management

Responsiveness and Customer Service

Usability and Accessibility

Quality and Services

Philosophy and Policy for Product Quality and Services

Sony is wholeheartedly committed to improving product and service quality from the customer's viewpoint with the aim of maintaining and enhancing customers' satisfaction, reliability and trust. This reflects Sony's belief that our most important goal is to remain a highly trusted partner for our customers.

Philosophy and Policy

(Updated on August 12, 2014)

Since the start of its operations, Sony has given top priority to providing customer-oriented, high-quality products and services as an operating foundation. This philosophy is set forth in the Founding Prospectus drafted in 1946 by Sony's co-founder, Masaru Ibuka.

The Sony Group Code of Conduct, established in May 2003, compels Sony to continuously seek technologies that enable it to comply with or exceed legally mandated standards in all standards of its business activities to ensure the safety of its products and services.

To reflect changes in its operating environment, in April 2012 Sony revamped the Sony Pledge of Quality, which lays out its basic policy on product and customer service quality in the Electronics business. This move was aimed at reinforcing awareness of Sony's commitment to ensuring that the quality of its products and customer services exceeds the expectations of its customers around the world.



Quality and Services

Product Quality and Quality Management

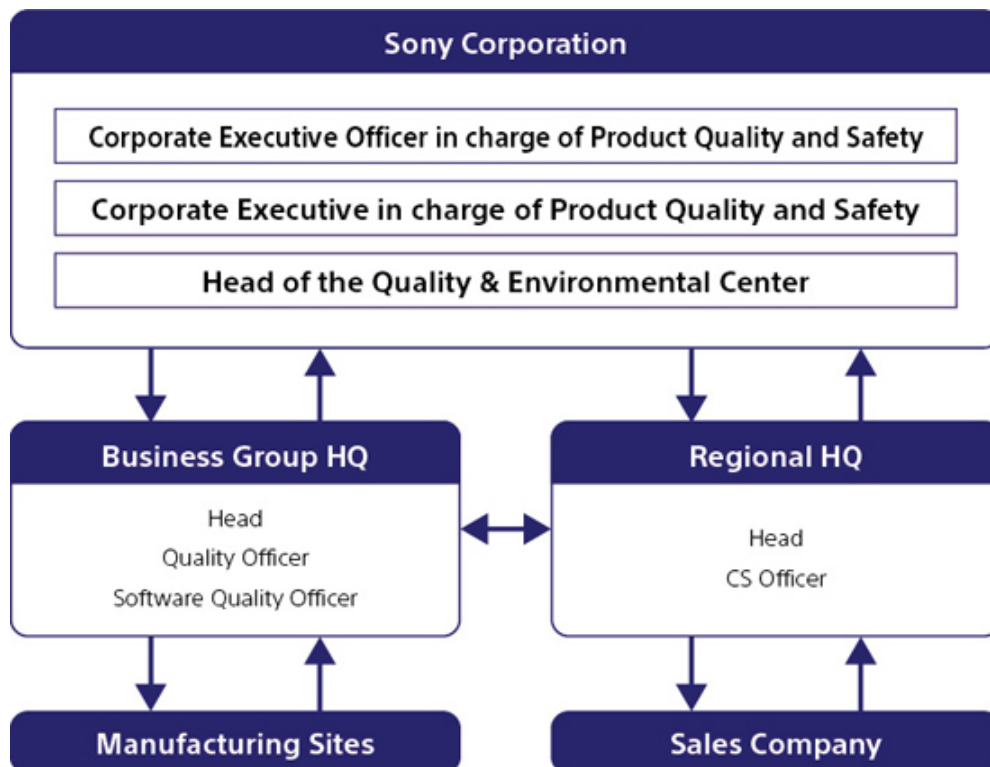
In the Sony Pledge of Quality, Sony sets forth a commitment to "respect our customers' viewpoints in striving to deliver product quality and customer service that exceed their expectations." To this end, Sony promotes continuous, decisive efforts to enhance product quality and to reinforce its quality management system.

Sony's Quality Management System Framework

(Updated on August 12, 2014)

Sony recently reconfigured its quality management system by reviewing quality management mechanisms across all processes, from development, planning, design and manufacturing through to sales and service. This has included redefining the roles, responsibilities and authority of those responsible for product and service quality and establishing guidelines.

Framework of Sony's Quality Management System



Based on this quality management system, Sony is implementing measures on an ongoing basis to improve the quality of its products and services. Examples of such measures are shown below.

- Has appointed the Corporate Executive in charge of Product Quality and Safety and has tasked them with coordinating efforts to improve product and customer service quality and ensure timely responses to problems;
- Has appointed Quality Officers within each business unit and has tasked them with spearheading product- and business-specific initiatives under the supervision of the Corporate Executive in charge of Product Quality and Safety and the senior executive of the relevant business unit;
- Has appointed a Software Quality Officer in each business unit to promote the maintenance and improvement of overall software quality under the direction and supervision of the Quality Officer. This includes ensuring connectivity between the products supported;
- Has appointed CS Officers to coordinate customer service departments in markets around the world where Sony products are sold and has tasked them with spearheading a network of global-level initiatives under the supervision of the Corporate Executive in charge of Product Quality and Safety and the individual in charge of the relevant regional headquarters;
- Has created a framework for promoting business unit- and region-specific initiatives to ensure Sony's products comply with pertinent laws and regulations;
- Has obtained certification under ISO 9001 for all sites manufacturing electronics products;
- Has formulated mid-term and fiscal year quality and CS targets, as well as key quality-related indicators for business plans, with the aim of fulfilling the Sony Pledge of Quality. Business units and regional headquarters subsequently devised their own fiscal year quality and CS targets and CS-oriented business plans, in line with which they continue to promote quality improvement initiatives;
- Has held regular Quality Strategy Meetings, attended by top management, which function as the ultimate decision-making authority for quality in the Electronics business, to deliberate and decide on policy, strategies and targets related to product quality, as well as key measures to further improve quality;

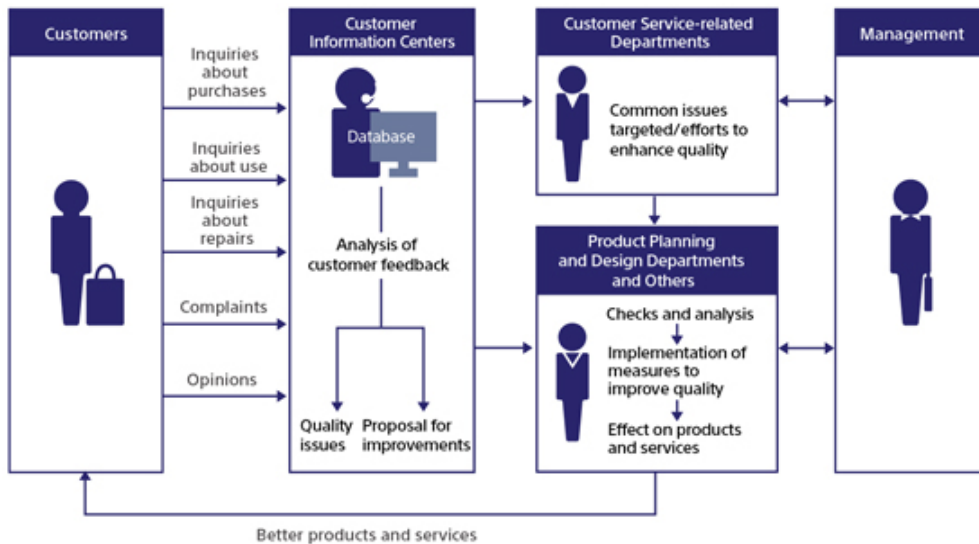
- Has held regular Quality Officer Meetings and Software Quality Officer Meetings, attended by, respectively, business unit Quality Officers and business unit Software Quality Officers, to evaluate the progress of quality-oriented business plans, promote initiatives aimed at achieving targets, and debate specific activities and responses to quality-related issues and common challenges. Sony has also held Quality CS Officer Meetings, attended by business unit Quality Officers and regional CS Officers, to evaluate the progress of CS-oriented business plans and promote initiatives aimed at achieving targets, and to share information on service and product quality activities and common challenges, thereby contributing to global efforts to improve product quality;
- Has formulated and administers Sony Group quality standards applicable to Sony's electronics products and related customer services, which focus on such criteria as product safety and performance, labeling and customer services. These standards are updated continuously to reflect technological advances, changes in applicable legal and regulatory requirements and social changes, aimed at ensuring Sony's ability to deliver quality and services that exceed the expectations of customers;
- Has strengthened rules worldwide from September 2006 to ensure prompt reporting to the Corporate Executive in charge of Product Quality and Safety, when Sony receives information about an incident involving a Sony product that affects customer safety or has the potential to do so. Based on these reports, the Corporate Executive in charge of Product Quality and Safety provides the necessary follow-up and instructs the relevant divisions to investigate the incidents and respond appropriately to the customer. In December 2007, Sony applied the same system to possible software vulnerabilities in products, and ensures full implementation of the system.

Responding to the Customer

(Updated on August 12, 2014)

Sony makes active use of customer feedback to improve its products and customer services. Opinions, reports of malfunctions after purchase, questions regarding use and other feedback received through Customer Information Centers are evaluated promptly and accurately and disseminated to the planning and design groups so that improvements in product quality can be made in a timely fashion, thus contributing to efforts to enhance product power.

For example, Sony has reinforced the self-diagnostic functions in most new models in its lineup of BRAVIA™ LCD televisions, an improvement that makes it easier for customers to configure initial settings after purchase and to resolve connectivity and other issues during use swiftly and without assistance. Additionally, by strengthening its network remote diagnostic functions, the Customer Information Center is able to provide customers with appropriate support, even for more complicated problems.



Quality Hotline

(Updated on August 12, 2014)

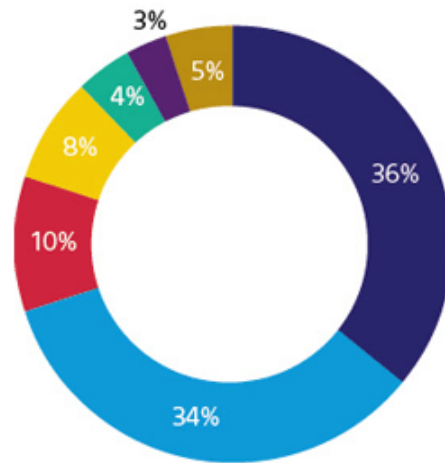
It is vital to detect product quality-related problems as early as possible. To that end, Sony established the Quality Hotline in 2003 to gather product quality-related information, including reports of problems, as well as opinions from Sony Group employees. Employees can send messages regarding such matters as issues that are too difficult to handle at their workplace and problems concerning the quality of Sony products and/or customer services from the customer's perspective, to the Quality Hotline's in-house website. Upon investigating a problem to ascertain the veracity of the information received, the Quality Hotline proposes and introduces measures to prevent previous problems from recurring and precluding potential new problems.

The Quality Hotline is closely linked to the Sony Pledge of Quality, which states that "Sony employees will always respect our customers' viewpoints in striving to deliver product quality and customer service that exceed their expectations." As of March 2014, Sony had received more than 1,640 reports since the establishment of the Quality Hotline. The diverse range of information

received has included proposals to develop products and manuals more user-friendly, and has led to more than 1,053 improvements.

As these initiatives indicate, Sony is wholeheartedly committed to improving product and service quality from the customer's perspective with the aim of maintaining and enhancing customers' satisfaction, reliability and trust.

Breakdown of Quality Improvements to Date



- Website and catalog improvements
- Design reviews
- Services reviews
- Manual improvements
- Verification system reviews
- Manufacturing technology improvements
- Other reviews and improvements

(As of March 31, 2014)

Market Quality Improvements

(Updated on August 12, 2014)

Sony has established dedicated quality management organizations in each of its business areas that are responsible for improving quality for pertinent products in market places.

At Sony's head office, information related to quality issues arising in the marketplace is gathered in a timely manner from a broad range of sources in Japan and overseas and reported weekly to head office quality management and technical specialists under an information-sharing system. Based on reported information, Sony ascertains whether or not issues in the marketplace have been addressed appropriately. As well as ensuring that such issues are thoroughly addressed, by promoting measures to prevent recurrence and proactive measures in relation to quality issues, Sony is accelerating its quality improvement performance.

Initiatives Aimed at Improving the Quality, Safety and Long-Term Reliability of Products

(Updated on August 12, 2014)

Initiatives Aimed at Improving the Quality of Products

Sony pursues design-, manufacturing- and parts-related initiatives aimed at improving product quality.

Design-related quality initiatives

In the initial stages of the design process, the individual in charge of a particular business group verifies new technologies and new parts and, from a user's perspective, determines how a product is to be used. At the conclusion of the design process, the individual in charge confirms the degree to which the intended level of product quality, reliability and usability has been realized.

In addition, to ensure our ability to provide customers with products of a quality worthy of the Sony brand, we required OEM/ODM companies and parts suppliers to comply with Groupwide quality standards. Compliance with these standards is also tested at the end of the design process.

Such approaches prevent the occurrence of problems pertaining to new technologies and new product parts, as well as ensure product designs that incorporate consideration for user convenience.

Manufacturing-related quality initiatives

In its effort not to receive, manufacture or ship anything with quality-related problems, Sony adheres to a policy of workmanship at all of its manufacturing sites that ensures customers can use Sony products with confidence. Initiatives include setting important targets at each site and implementing Plan-Do-Check-Act (PDCA), thereby facilitating the achievement of such targets and the continuous improvement of product quality. Sony has also established standard product quality rules to ensure Sony products manufactured by OEM/ODM companies are of the same high quality as those manufactured at Sony production sites.

Parts-related quality initiatives

Recognizing the importance of parts, and resolved to manufacture products built for long-term use, Sony carefully selects key parts independently for each of its major product categories and is pursuing focused efforts aimed at increasing the reliability of the parts it uses through cooperation with relevant departments and Sony's headquarters.

Initiatives Aimed at Improving Product Safety

In line with its efforts to improve the safety of its products, Sony has assigned managers in charge of product safety assessment from a medical perspective, and has prepared related internal standards, which they updates and modifies as necessary to reflect the ever-evolving understanding of human health. Sony is also promoting efforts to strengthen internal processes for ensuring that Sony's products are in line with applicable laws, regulations and standards.

When developing products employing new technologies, Sony also seeks advice on product safety from a medical perspective from experts outside the Company, which it then incorporates into product development, design and engineering. When deemed necessary, Sony also conducts evaluation tests to verify safety with the assistance of a specialized organization.

Initiatives Aimed at Improving the Long-Term Reliability of Products

The Quality Reliability Lab continues to enhance Sony's product reliability, thereby ensuring Sony's ability to deliver safe, durable and reliable products to customers.

Sony has assigned specialists to work full time on improving technologies essential to product reliability and continues working to ensure the long-term reliability of its products by developing elemental technologies for preventing the deterioration, wear and corrosion of materials and parts, as well as technologies necessary to ensure the reliability of new technologies and products and to evaluate such technologies and products.

The reliability and evaluation techniques, and the information obtained through these activities, are openly accessible and available to all Sony employees via training sessions, seminars, and websites, and are utilized to improve design and parts selection processes. Sony also presents

some of its own knowledge on evaluation techniques at academic meetings and industry conferences and gatherings, in its efforts to contribute to industry.

Efforts to Eliminate Software Vulnerability

(Updated on August 12, 2014)

Increases in the digitization and networkability of electronics products have heightened the danger of, among others, personal information leaks and the destruction of data. As a consequence, eliminating the vulnerability of software in Sony products has become a critical issue.

In addition to establishing a special function for collecting security risk-related information from outside experts, researchers and other individuals, Sony has created an internal software vulnerability team comprising individuals assigned to each business group who are responsible for software vulnerability issues. Based on information received, the team - led by such individuals - assesses the impact of risk on customers from a software vulnerability perspective and implements appropriate measures.

To ensure its ability to deliver products that customers can use with confidence, Sony has also established internal guidelines pertaining to software vulnerability and continues to implement employee training programs. Additionally, in 2009 Sony introduced a mechanism that detects software vulnerability during security inspections conducted prior to product shipment. Sony is also working to further fortify its efforts to eliminate software vulnerability by developing a system that will ensure the security of products shipped over their entire life cycle.

Responses to Quality Issues

(Updated on August 12, 2014)

Sony recognizes that ensuring its customers' satisfaction, reliability and trust is one of its most important management tasks and strives to prevent quality-related problems through the systems and efforts described above.

Sony responds swiftly in the event of a quality-related issue, with local operations, the business unit in charge and Sony's headquarters in Japan working together to investigate facts and take appropriate action on a global scale. When such an issue arises, Sony also seeks to address the concerns of customers, following a process common to all Sony products: conducting various inspections, determining the content and timing of public announcements, and responding to

market concerns. This process starts with the gathering of information from Customer Service Centers worldwide and collaboration with concerned local parties to ensure an accurate grasp of the issue. Based on information collected, Sony then works to determine the correct response by identifying the cause of the issue, implementing countermeasures and promptly verifying the effectiveness thereof, and reviewing the issue from the customer's perspective. Sony also cooperates with individuals in charge of CS at sites in each country to ensure the same level of service is provided to customers the world over.

With regard to methods and media for issuing public announcements of product quality-related issues, Sony examines the effectiveness of the various means at its disposal, including the Internet, e-mail or other electronic media, as well as direct mail, newspaper advertisements or other conventional media.

Quality and Services

Responsiveness and Customer Service

In addition to continuously improving product quality, Sony is taking various steps to improve its responsiveness and its customer service capabilities, in line with its commitment - set forth in the Sony Pledge of Quality - to "respect our customers' viewpoints in striving to deliver product quality and customer service that exceed their expectations." In customer service, this includes responding to changing customer needs, and in repair services, building a structure for providing the best possible repair service quality.

System

(Updated on August 12, 2014)

Sony has assigned CS Officers to coordinate customer service operations in markets around the world where its products are sold. Under the guidance and supervision of the Corporate Executive in charge of Product Quality and Safety, and of regional headquarters, Sony has also introduced a set of Key Performance Indicators (KPIs) - including improvement in rate of repair completion within a predetermined period of time - and, with the aim of enhancing customer service quality on a global level, has established a network of bases through which it provides services tailored to the needs of local customers.

Training for Customer Support Staff

(Updated on August 12, 2014)

With the aim of providing high-quality services to customers around the world, Sony provides ongoing training for employees and the staff of service partners. In addition to focusing on the acquisition of new service technologies and the sharing of solutions to ensure issues are swiftly and effectively addressed, staff are trained to help customers get the greatest enjoyment possible from their Sony products.

Customer Information Centers and Customer Service Improvements

(Updated on August 12, 2014)

Sony established its first Customer Information Center in 1963 in Japan to respond to customer inquiries. Today, Sony has Customer Information Centers worldwide, enabling it to provide prompt responses to customer needs that reflect customers' perspectives, thereby helping Sony to enhance the quality of its customer service.

Sony utilizes the Internet extensively to communicate with its customers. As well as websites that provide downloads of instruction manuals and software updates along with customer service information, Sony offers websites featuring frequently asked questions (FAQs) and detailed product troubleshooting guides. These websites give customers access to timely and easy-to-understand product and customer service-related information.

In certain regions, Sony also provides customer support via such means as live Internet chat sessions, support using social networking service (SNS) platforms and online forums through which customers can share information to find solutions to issues. In each region, Sony tailors its support to meet the diversifying needs of its customers, as it constantly strives to raise the level of customer satisfaction.

Number of Inquiries Received from Customers (Fiscal Year 2013)

(Thousands)

Region	Number of Inquiries Received (Telephone, E-mail, Chat, Letter)
Japan	2,875
United States	2,373
Europe	2,164
China*1	1,861
Asia-Pacific*2	4,220
Others*3	2,454

- *1 Coverage area: China (mainland) and Hong Kong
- *2 Coverage area: Southeast Asia, Oceania, India, South Korea and Taiwan
- *3 Coverage area: Middle East, Latin America, Africa and Canada

Initiatives Aimed at Maximizing Customers' Enjoyment of Sony Products

Sony provides information on its websites aimed at maximizing customers' enjoyment of Sony products. The following website is one that offers such insight.

 [Experience WALKMAN® like never before](#)

This website features a variety of content designed to reinforce customers' fondness for their WALKMAN®, including what inspired the engineers behind the WALKMAN® to create such a product. The website also gives visitors access to information that enables them to experience first-hand the innovative value provided by the WALKMAN®, as well as to download songs and audio samples.

Repair and Service Network

(Updated on August 12, 2014)

Currently, there are more than 5,000 Sony customer service locations worldwide, including Sony customer service stations and those of authorized repair agents.

To enhance customer satisfaction, Sony is working to meet customer needs through such measures as reducing the number of days required for repairs, overhauling its repair pricing system and providing collection services for repair items. In new product categories, such as mobile devices, Sony is reinforcing its customer services and building systems that will enable its service network to respond to customer needs in line with the "One Sony" concept. By strengthening the feedback mechanism for product quality based on repair information, Sony also aims to further enhance quality.

Sony Service Locations (Fiscal Year 2013)

Region	Service Network (Number of Service Locations)
Japan	449
United States	926
Europe	1,126
China*1	645
Asia-Pacific*2	1,023
Others*3	865

*1 Coverage area: China (mainland) and Hong Kong

*2 Coverage area: Southeast Asia, Oceania, India, South Korea and Taiwan

*3 Coverage area: Middle East, Latin America, Africa and Canada

Quality and Services

Usability and Accessibility

Products and service today are increasingly complex and multifunctional. "Usability and Accessibility" is an essential aspect of quality, and Sony is taking steps aimed at making it easier for people to use our products and services.

Enhancing Usability

Technological advances, and greater market acceptance thereof, have greatly enhanced the convenience of products and services. At the same time, the development of increasingly multifunctional products and the evolution of user interfaces are spurring demand for greater usability and user-friendliness. Viewing usability as an essential aspect of quality, Sony works continuously to make it easier for more people to use its products and services.

Sony provides products and service for a broad range of customers not only in Japan, Europe and North America, but also in other parts of the world, including emerging economies. As such, Sony recognizes that it must accommodate definitions of "usability" that vary in different cultures and lifestyles.

(Updated on August 12, 2014)



User test (usability assessment)

Examples of Sony products that feature enhanced usability:

- **One-seg TV sound/FM stereo/AM radio**

Sony's XDR-63TV pocket radio enables users to enjoy one-seg television sound, as well as FM stereo and AM broadcasting, and was developed in response to feedback in the wake of Japan's transition from analog to digital television from customers who wanted to be able to receive television sound on their radios. Channel buttons are positioned on the top, making it easy for users to operate without having to remove the device from their pocket. The unit also features a jog dial, making tuning simple, and other features incorporated as a result of repeated user testing.



Sony's XDR-63TV pocket radio also offers one-seg television reception

- **Memory recorder**

The ICD-LX31 memory card recorder is designed such for confident, effortless use by people of all ages. Developed in response to views expressed in user tests with elderly customers, this unit operates like a traditional cassette tape recorder, one of several ways Sony sought to improve usability.



ICD-LX31 memory card recorder

Facilitating Accessibility

(Updated on August 12, 2014)

Spurred by the rapid graying of society in Japan and many other countries in the developed world, demand is growing for products and services that are easy to use and accessible to a broad range of people, including the elderly and persons with disabilities. Viewing accessibility as another integral component of quality, Sony is working to improve the accessibility of its offerings. Sony has also formulated accessibility guidelines for its websites and is taking steps to ensure more equitable access to the information there.

Examples of Sony products that feature enhanced accessibility:

- Remote control with built-in cordless speaker (only in Japan)

Easy-to-hear television sound at one's fingertips

The RM-PSZ35TV remote control realizes excellent usability for a wide range of users, from children to the elderly. To ensure the voices of people in news, drama and other programming are clearly audible, the RM-PSZ35TV remote control features a built-in cordless speaker with specially designed amplifier frequency characteristics and a distinctively shaped bass reflex port on the cabinet underside. Thanks to these innovations, users can hear voices and conversations from the speaker and do not have to raise the television volume excessively.



RM-PSZ35TV remote control with built-in cordless speaker

Unit design that focuses on usability and visibility

Sony incorporates usability into the design of this remote control by including such features as a combined speaker power switch and volume control that is easy to grasp and has an appropriate level of turning resistance, an indicator lamp and turning "click" so that users can easily tell whether it is switched on or off and buttons with easy-to-read large characters and function-specific colors.



Also, the base has rubber feet to prevent it from slipping or moving around the table or other surface when the buttons are pushed.

- For more information, visit [this page](#)

In addition, Sony's entire lineup of BRAVIA LCD televisions for the European market features an audio description function that provides access to a narrative soundtrack for visually impaired users, and digital video teletext for hearing-impaired users, both as standard features. Certain

Sony televisions come with headphones that do not override and can be adjusted independently from the speakers, enabling hearing-impaired individuals to enjoy watching television together with non-hearing-impaired family and friends without fear of disturbing others.

Looking ahead, ease-of-use and accessibility will remain core elements of Sony's product development efforts.

Providing Information to a Diverse Range of Customers

(Updated on August 12, 2014)

Sony Corporation provides CD versions of catalogs and audio user manuals to visually impaired users and customers who are unable to use regular catalogs and manuals for other reasons. Sony issues CD versions of catalogs twice a year with the same content that is released on Sony's website. These catalogs, which are produced by Sony Marketing (Japan) Inc. in cooperation with the Japan Braille Library, provide voice guides on the main functions of new products.

For some product models, audio guides that serve as audio user manuals and text data are available on Sony's product information website.

- [CD versions of catalogs website \(Japanese only\)](#)
- [Audio user manuals website \(Japanese only\)](#)

Age-based Rating Systems for Game Software

(Updated on August 12, 2014)

Sony Computer Entertainment Inc. (SCE) aims to make games as popular as music, movies and broadcasting and has been developing our PlayStation® business for users in all age groups.

Game industry organizations have responded to the proliferation of new game genres by introducing rating systems for customers in Japan, the United States and Europe (CERO, ESRB and PEGI, respectively), based on games' target age groups. The U.S. system has operated for more than 10 years and won top marks from the public not only for indicating age categories but also for being the first to add descriptions that detail the contents of a game. PEGI is endorsed by the European Commission as a paradigm of self-regulation in the entertainment industry. In Japan, measures are being promoted to make the system more effective,



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The So-net website's "Site Select" page

including, with the cooperation of retailers, the voluntary refusal to sell software rated by CERO for ages 18 and above to underage customers.

To regulate access by underage users, SCE has included a Parental Lock function in PSP® (PlayStation®Portable) and PlayStation®3. This function enables customers to adjust access levels and limit children's access only to appropriate software across the PlayStation® platform.

With the average age of Web users declining, concern is growing about sites on the Internet containing content that is inappropriate for or harmful to children. So-net Corporation, which provides an Internet-related service in Japan, has introduced "Site Select," a filtering system that blocks access to such sites, as well as to sites targeted by phishing scams, thereby aiming to create an environment in which the whole family can enjoy Internet use worry free.

● [The So-net website's Site Select page \(Japanese only\)](#)







Sony recognizes the importance of preserving the natural environment that sustains all life on the earth for future generations and thereby ensuring that all humanity can attain a healthy and enriched life. To this end, Sony strives to achieve a zero environmental footprint throughout the lifecycle of our products and business activities. By capitalizing on our superior technologies and our ability to innovate, we strive not only to reduce the environmental impact of our business activities, but also to deliver environmentally conscious products and services that enrich our customers' lives.

Sony's Environmental Plan

To ensure full awareness of the principles, mid- and long-term targets and compliance with internal rules of the Sony Group, we have established and continue to improve a unified global environmental management system.

[For more information](#) ▶

- | [Road to Zero: Sony's Global Environmental Plan](#)
- | [Sony Group Environmental Vision](#)
- | [Sony's Environmental Performance](#)
- | [Green Management 2015](#)
- | [Environmental Management Structure](#)

 <p>Message from the CEO</p>	 <p>Sony's Global Environmental Plan</p>
 <p>Sony and the Environment</p>	 <p>Environmental Data</p>

Sony's four environmental perspectives

Climate Change



While climate change poses a significant threat both to our corporate activities and to society in general, it also affords Sony an opportunity to become part of the solution.

[For more information](#) ▶

[Policy on Climate Change](#)

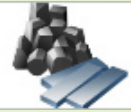
[Reducing Greenhouse Gas Emissions at Sites](#)

[Reducing Greenhouse Gas Emissions Related to Products and Services](#)

[Collaboration with NGOs](#)

[Grasping the Extent of Greenhouse Gas Emissions over the Entire Value Chain](#)

Resource Conservation



In order to utilize limited resources, Sony promotes product designs that conserve materials by measures such as resources recycling and use of recycled materials.

[For more information](#) ▶

[Policy on Resource Conservation](#)

[Resource Conservation at Sites](#)

[Conservation of Resources Used in Products and Services](#)

[Measures to Conserve Resources Used in Paper](#)

[Product Recycling](#)

Management of Chemical Substances



Sony manages the chemicals we use in products and at sites in a reliable manner which is based on precautionary approach.

[For more information](#) ▶

[Policy on Management of Chemical Substances](#)

[Management of Chemical Substances at Sites](#)

[Management of Chemical Substances in Products](#)

Biodiversity Conservation



Sony is taking steps to protect biodiversity at its sites through site greening activities and initiatives aimed at helping to restore areas outside its sites to their natural state.

[For more information](#) ▶

[Basic Policy on Biodiversity Conservation](#)

[Biodiversity Conservation at Sony Sites](#)

[Products and Business Activities that Support Biodiversity Conservation](#)

[Conservation of Local Environment](#)

Six stages of product life cycle

Environmental Technologies 

Taking the opportunities of minimizing environmental impact; an introduction to Sony's Technology.

[For more information](#) ▶

Products and Services 

Sony works to create environmentally conscious products to help reduce the use of energy, resources and chemical substances.

[For more information](#) ▶

Procurement 

To reduce environmental impact through product life cycles, Sony collaborates with its suppliers in the management of chemical substances and energy efficiency.

[For more information](#) ▶

Sites 


Sony conducts environmental protection activities at all of its manufacturing and nonmanufacturing sites worldwide in accordance with a unified policy.

[For more information](#) ▶

Logistics 

Sony proactively reduces greenhouse gas emissions related to the transport of products and parts.

[For more information](#) ▶

Product Recycling 

Sony supports the principle of Individual Producer's Responsibility and promotes collection and recycling of end-of-life products and easy-to-recycle designs.

[For more information](#) ▶

[Sony's Policy on Recycling Products](#)

[Improving Product Recyclability](#)

[Recycling Activities in Each Region](#)

[Links for Product Recycling Information in Each Region](#)

Environmental Communication



At Sony, we strongly believe in the importance of informing stakeholders, including customers, about our environmental philosophy and initiatives. Furthermore, employees of each Sony Group company receive environmental training and have access to other self-development programs to help raise environmental awareness.

[For more information](#) ▶

Environment

Sony's Global Environmental Plan: Table of Contents

Sony has formulated a global environmental plan "Road to Zero", which is long-term vision of achieving a zero environmental footprint. In order to realize this vision, Sony has set forth a number of mid-term targets and established a global environmental management structure.

[Road to Zero: Sony's Global Environmental Plan](#)

[Sony Group Environmental Vision](#)

[Sony's Environmental Performance](#)

[Green Management 2015](#)

[Environmental Management Structure](#)

Environment

Road to Zero: Sony's Global Environmental Plan

Since the early 1990s, Sony has pursued environmental initiatives in accordance with its environmental principles and targets. In April 2010, Sony announced the "Road to Zero", a new global environmental plan. This plan consists of the Sony Group Environmental Vision and several sets of mid-term environmental targets, which form key milestones on the road to achieving the Vision.

Striving to achieve a zero environmental footprint

(Updated on August 22, 2014)

As stated in the new Sony Group Environmental Vision, Sony strives to realize a sustainable society by achieving a zero environmental footprint throughout the life cycle of its products and business activities. It is this long-term goal that prompted Sony to name its new global environmental plan "Road to Zero." Using backcasting method, Sony has devised Green Management 2015, a set of specific mid-term targets that it has determined the Sony Group must meet by fiscal year 2015 if it is to achieve the ultimate goal of Road to Zero by 2050. These targets are based on four environmental perspectives-climate change, resource conservation, management of chemical substances and biodiversity-across all product life cycle stages.



Environment

Sony Group Environmental Vision

The Sony Group Environmental Vision presents a philosophy and principles for environmental management activities throughout the global Sony Group with the aim of contributing to the realization of a sustainable society. Since enacting the Sony Global Environmental Policy which is a predecessor of the Sony Group Environmental Vision and the Environmental Action Program, in 1993, Sony has pursued a broad range of environmental initiatives. Concurrent with the formulation of its Road to Zero global environmental plan, in 2010, Sony revised the Sony Group Environmental Vision.

Philosophy

(Updated on August 22, 2014)

Sony recognizes the importance of preserving the natural environment that sustains all life on the earth for future generations and thereby ensuring that all humanity can attain a healthy and enriched life. In order to realize such sustainable society, **Sony strives to achieve a zero environmental footprint throughout the lifecycle of our products and business activities.**

Principles

(Updated on August 22, 2014)

Sony reduces our environmental footprint and prevents environmental pollution throughout the lifecycle of our products and business activities by complying with all applicable environmental regulations and also by continually improving our global environmental management systems. Sony formulates the following goals in four key environmental perspectives and takes proactive actions to achieve those goals.



Sony focuses on four environmental perspectives

Climate Change

Sony reduces energy consumption and strives to achieve zero emissions of greenhouse gases* generated throughout the lifecycle of our products, service and business activities.

Management of Chemical Substances

Sony minimizes the risk of chemical substances that we use causing serious harm to human health and the environment. Sony maintains strict control over the chemical substances we use, while, in line with the precautionary approach, taking steps whenever possible to reduce, substitute and eliminate the use of substances that have potentially significant impacts on the environment even in the cases where scientific evidence is not fully proven.

* Gases that raise the temperature of the earth's surface by absorbing infrared radiation from reflected sunlight. Six typical examples are carbon dioxide (CO₂), methane, nitrous oxides, hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆).

In order to realize the Environmental Vision, Sony formulates targets and concrete plans and initiates actions to implement, while contributing to a better society through partnerships and communications with internal and external stakeholders.

● [Click here for more details in Sony's Global Environmental Plan's web site](#)

Resources Conservation

In order to minimize resource inputs for our business activities, Sony identifies "Key Resources" and strives to achieve zero usage of those virgin materials. Sony also uses water efficiently, minimizes wastes from sites and maximizes our effort for take back and recycling products from markets.

Biodiversity Conservation

Sony protects and utilizes ecosystem services in a sustainable manner, while actively promoting maintenance and recovery of biodiversity through our business and local contribution activities.

Environment

Sony's Environmental Performance

Sony's business activities may affect the environment in various ways. This overview looks at Sony's environmental footprint from the perspective of product life cycles.

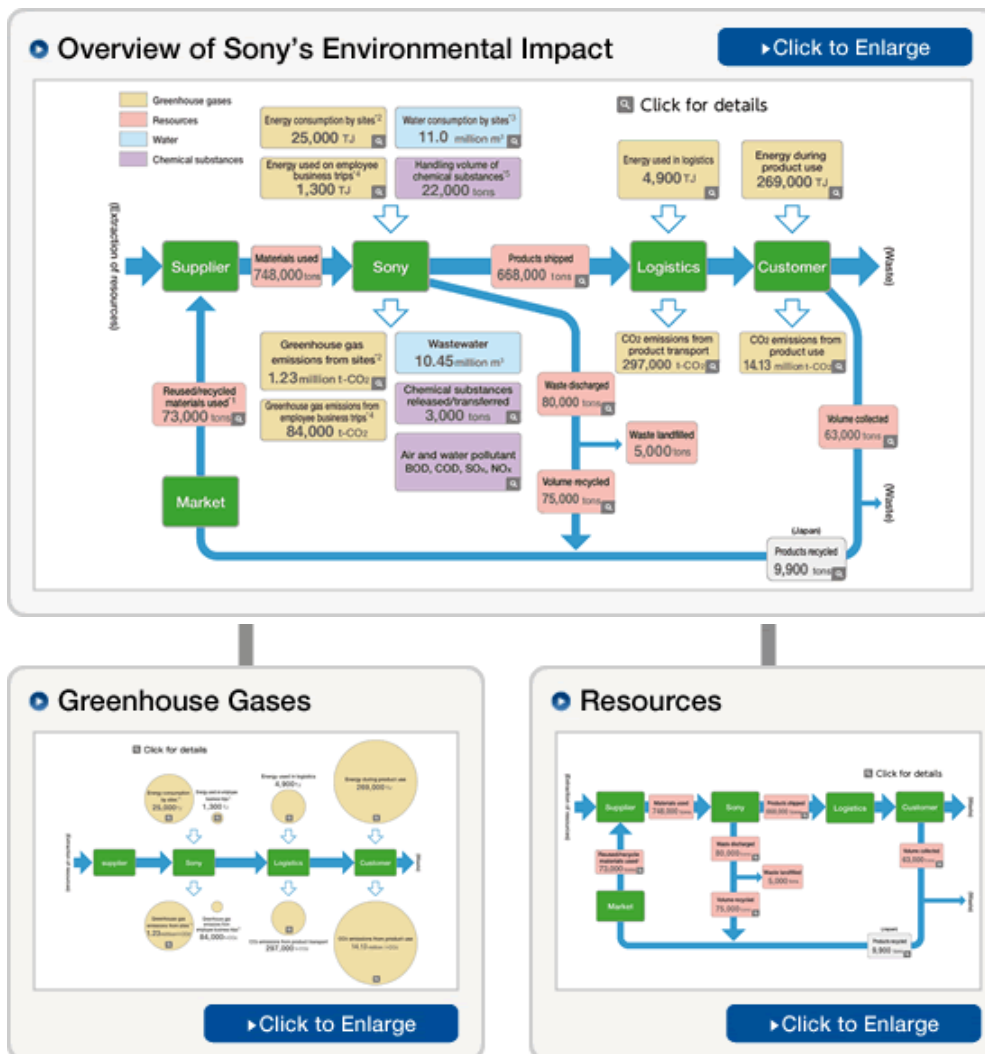
-
- [Overview of Environmental Impact](#)
 - [Environmental Indicators and Eco-Efficiency](#)
-

Environment

Overview of Environmental Impact

(Updated on August 22, 2014)

The chart below shows Sony's impact on the environment over the entire life cycle of its business activities, including energy and resources used in business activities, energy consumed by Sony products when used by their customers, and the recycling and disposal of products after use. The chart shows the principal environmental impact during fiscal year 2013 for items that Sony can recognize and manage directly.



Links to Related Items:

- [Environmental Data > Environmental Data Collection Methods and Rationale](#)

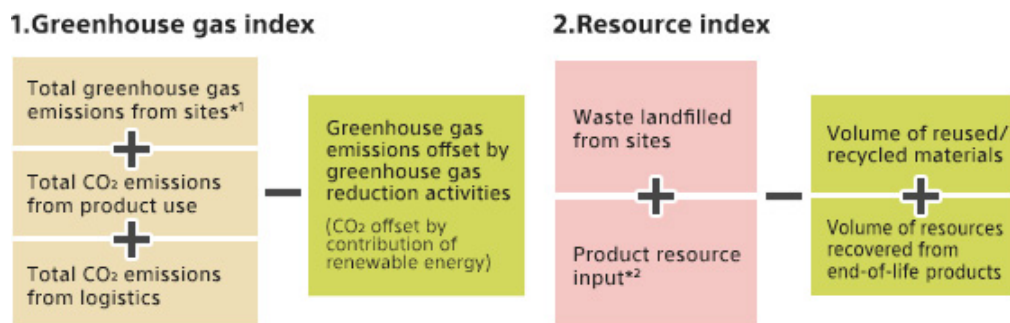
Environment

Environmental Indicators and Eco-Efficiency

Establishing a Unique Set of Environmental Indicators and Eco-Efficiency

(Updated on August 22, 2014)

Based on careful consideration of the life cycles of the Sony Group's business activities, Sony has established its own unique set of environmental indicators. These indicators-greenhouse gas emissions and resource use-are used to determine the environmental impact of the total life cycles of the Sony Group's business activities, products and services, to the maximum possible extent. The indicators are also used to monitor Sony's performance in relation to measures to reduce environmental impact throughout life cycles. To determine whether the values of these two indicators are effective against the Sony Group's business size, the Group uses the eco-efficiency equation below. In Green Management 2015, which lays down environmental targets through fiscal year 2015, Sony has set targets for these indicators.



$$\text{Calculation formula for Eco-Efficiency : Eco-Efficiency} = \frac{\text{Sales}}{\text{Environmental impact (Environmental index)}}$$

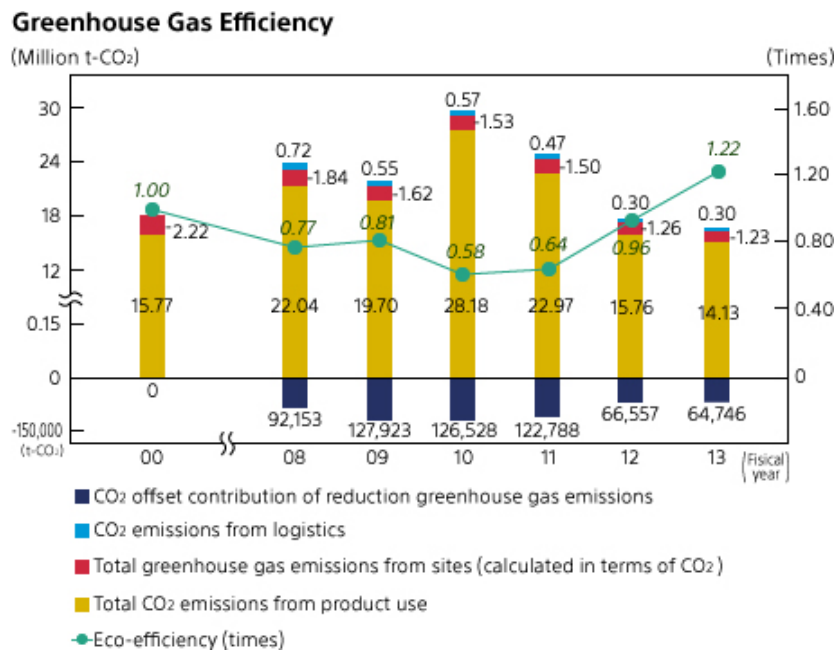
- *1 Total greenhouse gas emissions, calculated in terms of CO₂ emissions (the total of CO₂ emissions from energy use and perfluorocarbon [PFC] emissions), from sites.
- *2 Total resources used in products, accessories, instruction manuals and packaging materials. This total does not include resources produced from recycled Sony Group product waste.

Environmental Indicators and Eco-Efficiency in Fiscal Year 2013

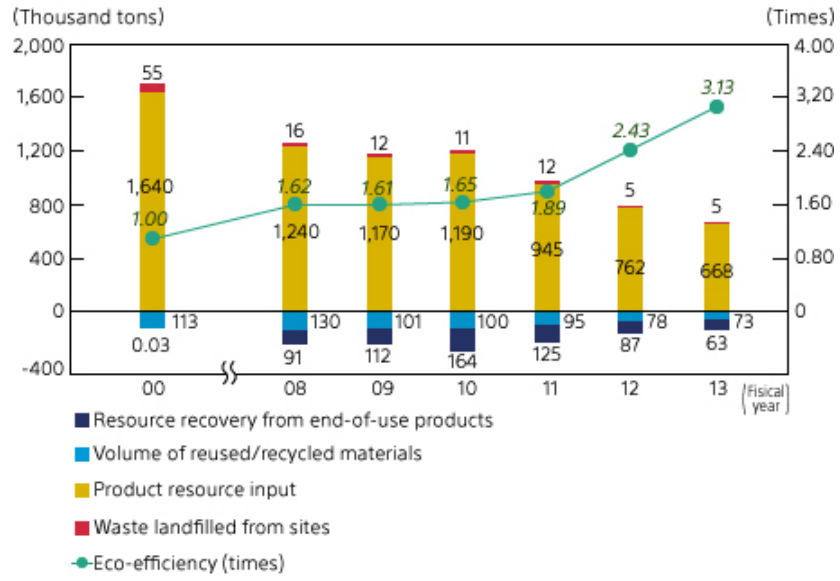
(Updated on August 22, 2014)

In fiscal year 2013, Sony's greenhouse gas emissions totaled approximately 15.65 million tons, down 10% from fiscal year 2012. This decrease was attributable to the reduction of greenhouse gas emissions from sites, CO₂ emissions from product use and logistics. Sony's eco-efficiency index for greenhouse gas emissions in fiscal year 2012 was 0.96 times, compared with 1.22 times in fiscal year 2000, an improvement of approximately 27%.

A look at Sony's resource index for fiscal year 2013 shows that resources used during the period totaled approximately 0.539 million tons, down 11% from fiscal year 2012. This decrease occurred despite declines in the volume of reused/recycled materials and resources recovered from end-of-life products and was due primarily to a significant decline in product resource input. Sony's eco-efficiency index for resources in fiscal year 2012 was 2.44 times, compared with 3.12 times in fiscal year 2000, an improvement of approximately 28%.



Resource Efficiency



Environment

Green Management 2015

Since the 1990s, the Sony Group has focused on a variety of environmental activities. These include developing environmentally conscious products, reducing the environmental impact of its sites and promoting product recycling. Since 1998, Sony has formulated uniform environmental mid-term targets that encompass its operations around the world, in line with which it has promoted a broad range of environmental initiatives. In 2010, Sony devised a new Sony Group Environmental Vision, the goal of which is a zero environmental footprint, and Green Management 2015, a set of new mid-term targets designed to facilitate the achievement of that goal by serving as a yardstick for the environmental activities of Sony Group companies and divisions worldwide until fiscal year 2015. Green Management 2015 went into effect in fiscal year 2011. Sony will periodically disclose the progress of these activities.

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- ◆ [Basic Stance of Green Management 2015](#)
 - ◆ [Basic Policies for Achieving Green Management 2015](#)
 - ◆ [Targets of Green Management 2015](#)
-

Environment

Basic Stance of Green Management 2015

(Updated on August 22, 2014)

Sony has continuously provided people with a vast array of products, services and entertainment. Such corporate activities are only possible if the global environment, which sustains all life on earth, is healthy. We must address such environmental issues as climate change, resource exhaustion and the need for effective management of chemical substances

both as risks to business continuity and as business opportunities. In doing so, it is important that we act strategically and with a medium- to long-term perspective.



Recognizing this, we aim to be a leader in the environmental arena by ensuring that we conduct our business in a sustainable manner. To this end, we will also collaborate with others wherever possible to ensure our ability to provide innovative environmentally conscious products and services that enrich our customers' lives.

Taking these sentiments into account, we have set forth the Sony Group Environmental Vision, the goal of which is a "zero environmental footprint," that is, reduction of the environmental footprint of our corporate activities and of every Sony product throughout its life cycle to zero, and we continue to pursue a wide range of related initiatives. We will strive to achieve this by 2050; our goals for the first phase, which continues through 2015, are outlined in Green Management 2015.

Focusing on four environmental perspectives

(Updated on August 22, 2014)

Green Management 2015 focuses on four key environmental perspectives-climate change, resources, chemical substances and biodiversity-to formulate appropriate goals for 2015, we estimated our current status vis-à-vis our ultimate goal of "zero environmental footprint" for each of these perspectives, after which we employed backcasting to determine desirable levels for 2015 and analyze the differences between these figures and our actual forecasts. In setting these goals, we exchanged opinions and ideas with relevant nongovernmental organizations (NGOs) and experts.



Sony focuses on four environmental perspectives

Managing the product life cycle

(Updated on August 22, 2014)

At present, every Sony product negatively affects the environment to some degree throughout its life cycle or at different stages thereof. To ensure our ability not only to conduct our business in a responsible manner, but also to take responsibility for the environmental impact of every Sony product at each stage of its lifecycle, we have divided the product lifecycle into six stages: Research and development, product planning and design, procurement, operations, logistics, and take back and recycling. We have also set specific goals for each stage.



Six stages of product life cycle

Environment

Basic Policies for Achieving Green Management 2015

(Updated on August 22, 2014)

Our efforts to achieve the targets of Green Management 2015 will be guided by three basic policies.

1. Achieve targets through unrelenting efforts to increase efficiency

We will strive to minimize our impact on the environment by improving the efficiency of production processes, logistics and office activities, among others.

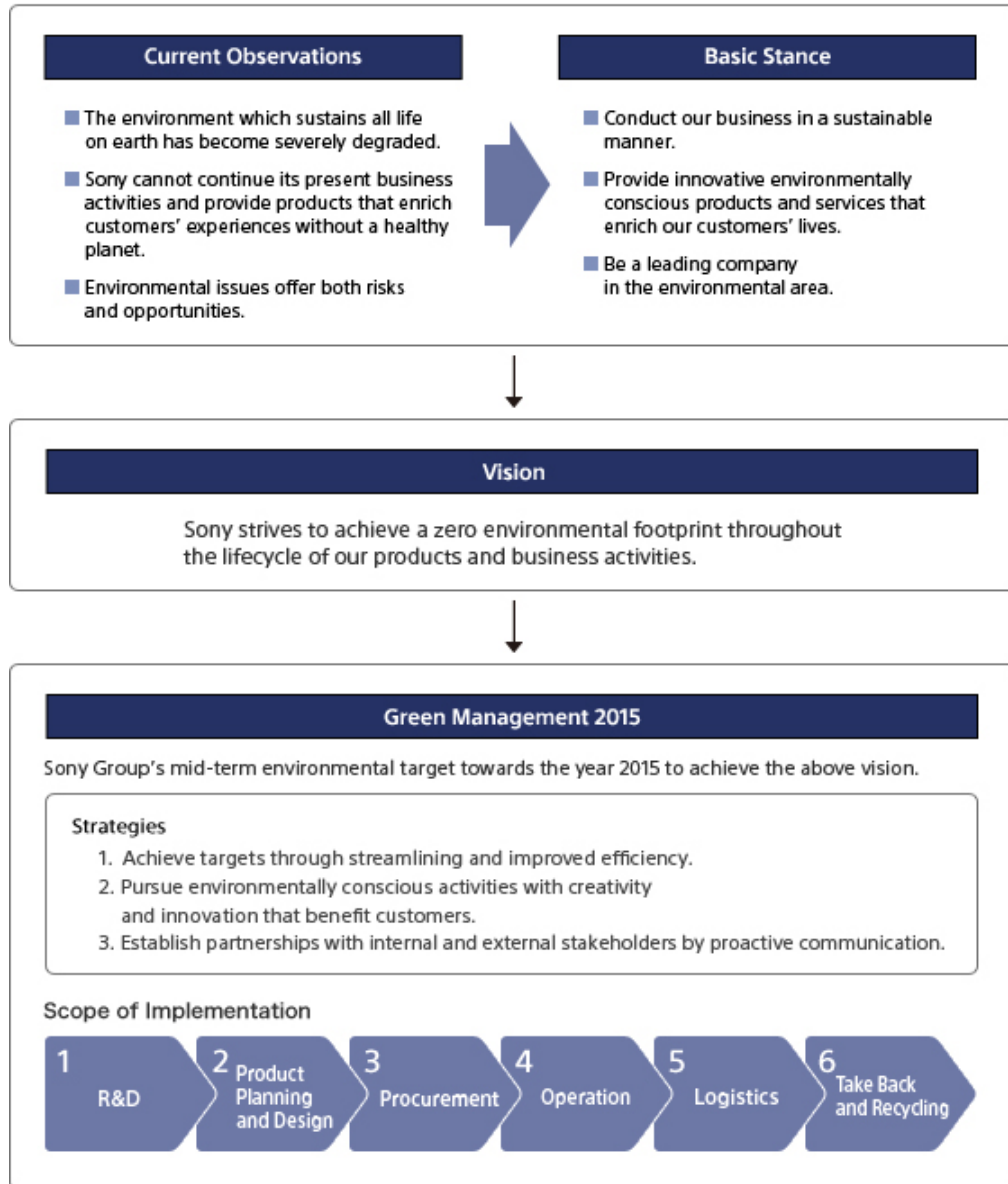
2. Place a high priority on creativity and innovation and implement environmentally conscious actions that are approved and supported by our customers

To date, the Sony spirit of creativity and innovation has enabled us to amuse and delight a wide range of customers. The same spirit guides our environmental activities. By ensuring our corporate activities are environmentally conscious, we will continue to provide life-enriching products that are not only superior in terms of functionality, performance and quality, but also exert very little impact on the environment.

3. Communicate and establish partnerships with stakeholders within and outside the Company

In addition to Sony innovation, cultivating renewable energy and other such new elements of social infrastructure, developing technologies and creating mechanisms for reducing environmental impact require collaboration with other companies, NGOs and nonprofit organizations (NPOs), universities and research organizations. It is also crucial that everyone at Sony, from front-line production personnel to top management, is actively involved in this endeavor, and that we encourage such efforts by promoting environmental education and training.

Philosophy behind Target Setting



Environment

Targets of Green Management 2015

(Updated on August 22, 2014)

Under Green Management 2015, Sony has divided the product life cycle into six stages: research and development, product planning and design, procurement, operations, logistics, and take-back and recycling. Sony has also set specific goals for each stage, which are outlined in the chart below. These targets went into effect in 2011 and are to be achieved by fiscal year 2015.

1. Targets in Research and Development

To date, Sony has developed technologies that have enabled it to build environmentally conscious products that are small, light and energy efficient. Looking ahead, Sony will continue to develop innovative, industry-leading technologies that contribute to environmentally conscious lifestyles.

	Targets	Fiscal Year 2013 Performance
Climate Change	1. Develop technologies that improve self-sufficiency ratio in the energy supply at the individual level by further implementation of energy-saving measures in products and expansion of renewable energy. 2. Develop information and communication technologies to support lifestyles indispensable to realize a low-carbon society.	Pursued the development of "authentication outlets," which will contribute to the establishment of a next-generation electrical infrastructure.
Resources	3. Develop and refine 3R technologies*1 in product life cycle to achieve reductions in the use of exhaustible resources and water, and to reduce waste.	Expanded the categories of products made with SORPLAS™ (Sustainable Oriented Recycled Plastic), a proprietary recycled plastic, to include BRAVIA™ LCD TVs, Cyber-shot™ digital still cameras, α™ DSLR cameras and digital recording binoculars.

<p>Chemical Substances</p>	<p>4. Develop technologies to reduce the use of substances of high concern and alternative materials.</p>	<p>By using a proprietary flame retardant in its SORPLAS™ recycled plastic, eliminated the use of bromine- and phosphorus-based flame retardants in those products.</p>
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*1 Reduce, Reuse and Recycle

2. Targets in Product Planning and Design

Since Sony's establishment, the Sony spirit of creativity and innovation has enabled us to amuse and delight a wide range of customers. The same spirit guides Sony's environmental activities. By ensuring its corporate activities are environmentally conscious, Sony will continue to provide life-enriching products that are not only superior in terms of functionality, performance and quality, but also exert very little impact on the environment.

	Targets	Fiscal Year 2013 Performance
<p>General</p>	<p>1. Launch environmental flagship models and services in each category continuously.</p>	<p>Launched environmentally conscious models in its main product categories.</p>
<p>Climate Change</p>	<p>2. Reduce annual energy consumption of products: -30% (compared with FY2008)</p>	<p>Down 31%</p>
<p>Resources</p>	<p>3. Reduce utilization ratio of virgin oil-based plastics in products: -5% (compared with FY2008)</p>	<p>Down 1.5%</p>
	<p>4. Reduce mass of products: -10% (compared with FY2008)</p>	<p>Down 33%</p>

<p>Chemical Substances</p>	<p>5. Eliminate Environment-related Substances to be Controlled*2 which are of very high concern and BFRs*3/PVC*4 within specified use.</p>	<p>PVC:</p> <ul style="list-style-type: none"> •Switched to alternatives for all product packaging materials; electronic equipment casings and decorative coverings for such casings; casings and laminate finishes for speaker housings; contactless IC cards; bags and carrying cases for products (excluding those for professional use); flexible flat cables (FFCs); insulating plates; and heat shrink tubes (excluding those for batteries). •Designated product categories and eliminated the use of PVC in new products in these categories. Click here for more details in "Replacement of PVC" <p>BFRs:</p> <ul style="list-style-type: none"> •Designated product categories and eliminated the use of BFRs in new products in these categories. Click here for more details in "Replacement of BFRs" <p>Environment-related Substances to be Controlled which are of very high concern:</p> <ul style="list-style-type: none"> •Designated five substances including phthalates to be reported of the use and applications in products.
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*2 "Environment-related Substances to be Controlled ('Controlled Substances')": Among the substances contained in parts and devices, "Environment-related Substances to be Controlled ('Controlled Substances')" are those which, in Sony's judgment, have significant environmental impact on both humans and the global environment.

*3 Brominated flame retardants

*4 Polyvinyl Chloride

3. Targets in Procurement

To reduce environmental impact throughout the product life cycle, it is necessary to adopt a broad perspective that also takes into account the procurement of materials and parts. Sony has always worked with suppliers to ensure the proper management of chemical substances. Moving forward, Sony will also actively seek the cooperation of suppliers on other fronts, including the reduction of energy and resource use.

	Targets	Fiscal Year 2013 Performance
Climate Change	1. Establish mechanisms to determine greenhouse gas emissions from suppliers. 2. Contribute to the development of an industry-wide common reporting format.	Established a mechanism for collecting data from principal OEM/ODM*5 suppliers, and commenced operation of this mechanism.
Resources	3. Conduct procurement in ways that enable Sony to achieve the "Product Planning and Design" and "logistics" targets.	Strengthened collaboration with relevant internal divisions to enable rapid identification of recycled plastic usage trends. Based on identified needs, developed relationships with suppliers and promoted materials development.
Chemical Substances	4. Conduct procurement in ways that enable Sony to achieve the "Product Planning and Design" targets.	Ensured the strict observation of Sony's standards for the management of chemical substances and promoted efforts to address the challenge of reducing Environment-related Substances to be Controlled*6 which are of very high concern, PVC and BFRs from the procurement stage.
Biodiversity	5. Assess impact on biodiversity at mining and collection sites.	Assessed the impact of mining of the principal mineral resources Sony uses.

*5 OEM suppliers are companies that manufacture products on behalf of Sony. ODM suppliers are companies that design and manufacture products on behalf of Sony.

*6 "Environment-related Substances to be Controlled ('Controlled Substances')": Among the substances contained in parts and devices, "Environment-related Substances to be Controlled ('Controlled Substances')" are those which, according to Sony's judgment, have significant environmental impact on both humans and the global environment.

4. Targets in Operations

Reducing Sony's impact on the environment demands an approach that targets absolute reductions. Having formulated consistent global targets for the absolute reduction of greenhouse gas emissions and waste generation, among others, Sony will take steps to minimize the impact of operations at factories, offices and other sites. Sony will also promote local environmental contribution initiatives worldwide.

	Targets	Fiscal Year 2013 Performance
General	1. Conduct environmental assessments (including biodiversity impact assessment).	Conducted at all Sony sites worldwide.
Climate Change	2. Reduce greenhouse gas emissions by absolute value: -30% (compared with FY2000).	Down 45%
Resources	3. Reduce waste generation by absolute value: -50% (compared with FY2000).	Down 71%
	4. Improve waste recycling rate Groupwide: 99% or more	94%
	5. Reduce water consumption by absolute value: -30% (compared with FY2000).	Down 59%

<p>Chemical Substances</p>	<p>6. Take actions for class 1-4. Detailed groups of chemical substances are described separately.</p> <p>Class 1 substances: Prohibit use.</p> <p>Class 2 substances: Eliminate use by a specified date.</p> <p>Class 3 substances: Reduce the amounts released and transferred.</p> <p>>Reduce the amounts released to water, and the amounts transferred to sewer / as waste (including VOC*7) by -14% (compared with FY2008).</p> <p>>Reduce the amounts of VOC released to the atmosphere by -50% (compared with FY2000)</p> <p>Class 4 substances: Comply with the relevant laws and regulations and use under appropriate control.</p>	<p>Class 1 substances: No use of prohibited substances.</p> <p>Class 2 substances: Planned elimination of all use by 2015.</p> <p>Class 3 substances:</p> <p>>Amounts released to water, transferred to sewer, or transferred as waste (including VOC*7): Down 28%</p> <p>>Amount of VOC released to the atmosphere: Down 56%</p> <p>Class 4 substances: Complied with relevant laws and regulations and used under appropriate control.</p>
<p>Biodiversity, Contribution to Local Communities, Others</p>	<p>7. Promote environmental activities respecting the needs of the local community.</p>	<p>Undertook activities in many places around the world to contribute to environmental protection and local communities. For example, groundwater recharging in Kumamoto, Japan; protection of loggerhead turtles in Oita, Japan; conservation of biodiversity in a reservoir in Singapore; and protection of the harpy eagle in Panama.</p>

*7 Volatile organic compounds

5. Targets in Logistics

Considerable resources and energy are used in the transport of parts and finished products. Accordingly, Sony will promote the use of compact packaging, increase loading efficiency and shift to rail, sea and other modes of transport that have only minimal environmental impact. By doing so, Sony will reduce the use of such resources as well as CO2 emissions.

	Targets	Fiscal Year 2013 Performance
Climate Change	1. Reduce total CO2 emissions by -14% (compared with FY2008).	Down 48%
Resources	2. Reduce incoming parts packaging waste by -16% (compared with FY2008).	Down 63%

6. Targets in Take-back and Recycling

In order to take responsibility for its products even after their usage, Sony will continue to design products that are easy to recycle. Sony will also continue to develop recycling systems suited to local needs and promote the collection and recycling of end-of-life products.

Targets	Fiscal Year 2013 Performance
Based on the idea of Extended Producer Responsibility (EPR), Sony strives to achieve an environmentally conscious recycling system and effective operation for take-back and recycling of end-of-life products. In addition, Sony continues to increase the use of recycled resources and to design products that are easy to recycle. This is based on the idea of Individual Producer Responsibility (IPR) to help in promoting the establishment of appropriate laws and the building of infrastructure to recycle Sony products.	In Japan, North America, Europe and other areas where collection and recycling laws have been enacted, Sony implemented collection and recycling efforts that satisfy legal requirements. In areas where such laws have not yet been introduced, Sony promoted voluntary collection and recycling initiatives in certain areas. Sony also strengthened the internal system for promoting the design of easily recyclable products.

Environment

Environmental Management Structure

Sony is implementing and continually improving its globally integrated environmental management system with the aim of realizing the Sony Group Environmental Vision, achieving its mid-term environmental target and complying fully with legal requirements, regulatory demands and internal policies established for the Group.

- [Global Environmental Management System](#)
- [Linked to Business Activities](#)
- [Environmental Audits](#)

Environment

Global Environmental Management System

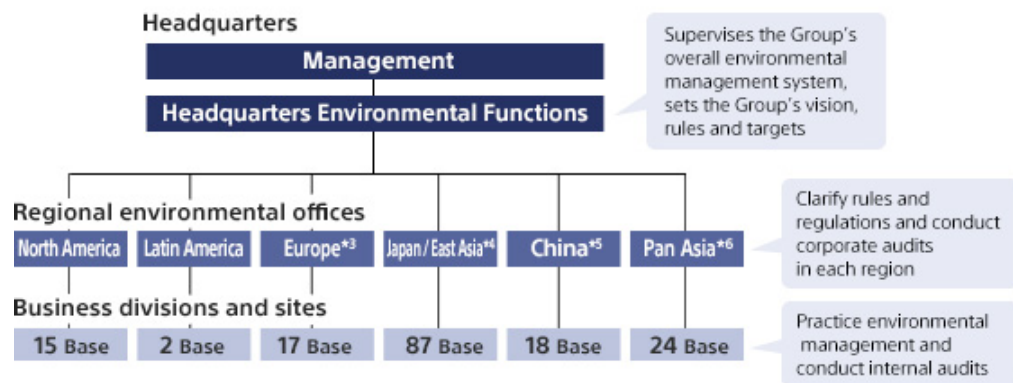
Integrated ISO 14001 Certification for the Entire Sony Group

(Updated on August 22, 2014)

Since the 1990s, Sony sites*1 throughout the world have sought certification under ISO 14001, the international standard for environmental management systems. Acquisition of ISO 14001 certification at all sites was completed in fiscal year 2000. Since then, Sony has expanded this effort, establishing an environmental management system that integrates Group headquarters with overseas environmental departments, business units and sites, while taking advantage of the management systems already operational at each business site, and acquiring integrated ISO 14001 certification*2 for the entire Sony Group in fiscal year 2005.

- *1 "Sites" refers to manufacturing and non-manufacturing sites.
- *2 The scope of integrated ISO 14001 certification is all manufacturing, distribution centers with 100 or more employees and non-manufacturing sites with 1,000 or more employees.

The Sony Group Global Environmental Management System (As of March 31, 2014)



Integrated ISO 14001 certification for 163 Sony Group sites worldwide

*3 Coverage area: Europe including Turkey, Russia and former Soviet Union
 *4 Coverage area: Japan, Taiwan and South Korea
 *5 Coverage area: Mainland China and Hong Kong
 *6 Coverage area: Mongolia and other parts of Asia (excluding the aforementioned countries in Asia), Middle East, Oceania and Africa

An Effective Global Environmental Management System

(Updated on August 22, 2014)

To deal with increasingly diverse and complex environmental issues that may affect Sony's operations, such as manufacturing and sales of environmentally conscious products, recycling and environmental management at sites, Sony has established specialized functions at the Sony Group's environmental headquarters, specifically in the areas of environmental management related to energy consumed at sites and by products; resource conservation, including recycling; chemical substance management; biodiversity conservation; procurement; logistics; technological development; and communications, which the Representative Corporate Executive Officer is in charge of overseeing.

Each of these specialized functions works together with regional offices and departments that specialize in such areas as product quality, customer satisfaction, occupational health and safety, and disaster prevention, to achieve a uniform and effective management system. Each specialized function issues targets to the operating units, divisions and sites and reviews their progress. To promote integrated environmental management globally, Sony has established regional environmental offices to facilitate region-wide environmental management activities, such as a better understanding of local, legal and regulatory trends, effective communication of standards and instructions set forth by headquarters to the regional divisions and sites, and effective performance of audits at all regional business divisions and sites.

● [Click here for more details in Corporate Governance.](#)

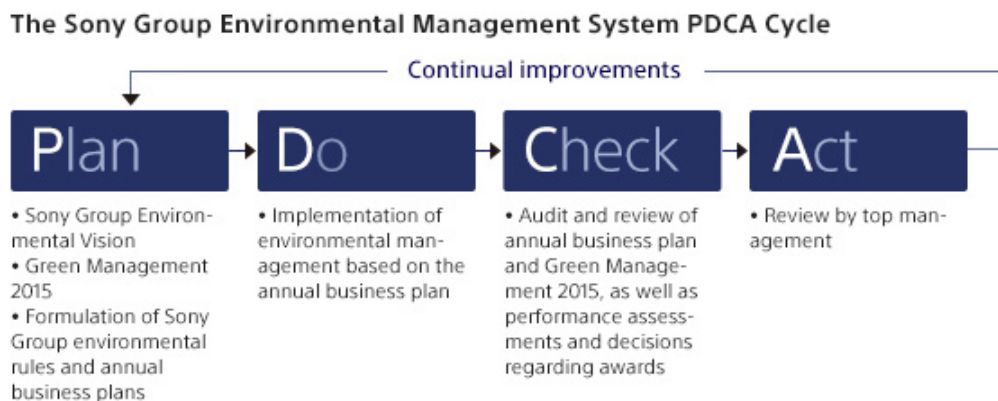
Environment

Linked to Business Activities

(Updated on August 22, 2014)

In compliance with ISO 14001, the global standard for environmental management systems that is based on the rationale of the Plan-Do-Check-Act (PDCA) cycle, Sony's corporate headquarters conducts annual assessments of the environmental impact of the entire Sony Group and, after identifying risks and opportunities, incorporates its findings into mid-range environmental targets and annual plans. In line with these plans, individual business units and sites establish and implement their own annual plans, incorporating essential elements of guiding principles established by the headquarters. Progress on the implementation of these business plans is reviewed regularly by a committee that is headed by the officer in charge of environmental affairs, contributing to ongoing improvement efforts. Awards are given annually at the global levels to recognize outstanding activities in core businesses. These activities are counted as part of overall annual performance evaluations for main business units and sites and the results of these assessments are reflected in the bonuses awarded to management-level employees. To gauge the progress of these environmental activities, Sony has developed an online data system for periodically collecting performance for, among others, power consumption by products, energy used by sites and volume of waste generated. To ensure the effective functioning of the PDCA cycle, Sony has created an environmental document structure in line with requirements of ISO 14001. The structure covers overall elements of environmental management such as management procedures on site and in the business groups, internal environmental communications and efforts to make products more environmentally conscious.

Another means by which the Sony Group facilitates environmental action is to provide a broad environmental education for employees that is tailored to specific objectives or the type of work they perform.



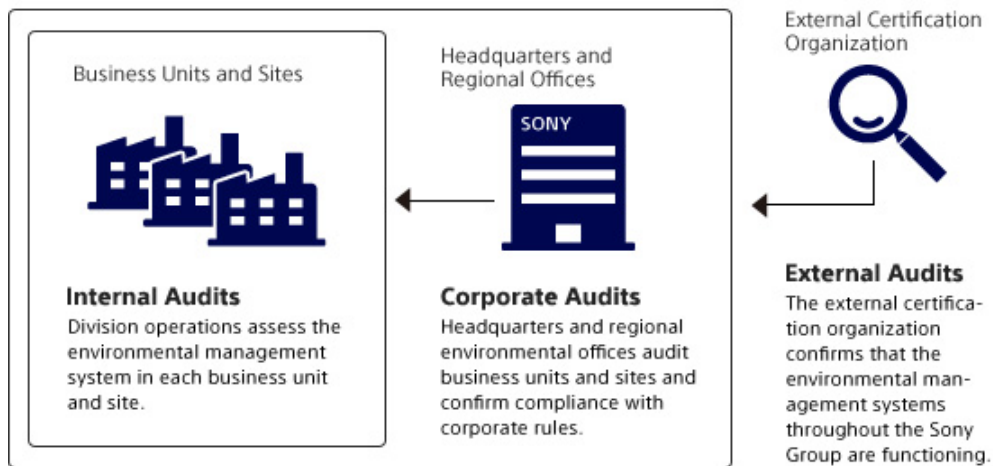
Environment

Environmental Audits

(Updated on August 22, 2014)

Sony has established an integrated environmental audit system that combines three kinds of audits -- internal, corporate and external -- and aims to facilitate continual improvements to the Sony Group's environmental management system, prevent environmental accidents at sites, and ensure the reliability of environmental data.

Sony Group Environmental Audit System



Environment

Strategy on Climate Change: Table of contents

Sony considers that while climate change poses a significant risk both to our corporate activities and to society in general, it also provides Sony business opportunities. Sony proactively pursues to tackle the climate change issue.

[Policy on Climate Change](#)

[Reducing Greenhouse Gas Emissions at Sites](#)

[Reducing Greenhouse Gas Emissions Related to Products and Services](#)

[Collaboration with NGOs](#)

[Grasping the Extent of Greenhouse Gas Emissions over the Entire Value Chain](#)

Links to Related Items:

- [Logistics > Reducing the Environmental Impact of Logistics](#)

Environment

Policy on Climate Change

Target: Achieving Zero Emissions of Greenhouse Gases

(Updated on August 22, 2014)

In its Road to Zero global environmental plan, Sony has set forth a long-term goal of achieving a zero environmental footprint throughout the life cycle of its business activities and its products and services. As the first step toward achieving this goal, Sony has established Green Management 2015, a set of mid-term environmental targets, which includes the target for greenhouse gas emissions indicated in the table below. Currently, Sony is implementing measures aimed at directly and indirectly minimizing its greenhouse gas emissions. These include taking decisive steps to lower energy consumption at its sites and promoting the development and provision of energy-efficient, environmentally conscious products and services. In seeking to lower energy consumption at sites, Sony is prioritizing efforts to improve energy efficiency and cut emissions of greenhouse gases used and is thus focusing on the use of renewable energy.

Sony positions the use of the Green Power Certification system and emissions credits as ways to supplement efforts to reduce emissions attributable to its operations. A participant since 2006 in the Climate Savers Programme, advanced by World Wide Fund for Nature (WWF), Sony has set ambitious targets, outlined below, in consultation with the WWF. Sony's progress toward these targets is audited by external organizations. In addition, Sony is working to ensure it has a solid grasp of greenhouse gas emissions in its value chain, as well as to implement effective management measures for such emissions.

Mid-Term Greenhouse Gas Emissions Targets

Technology Development	<ul style="list-style-type: none"> ● Develop technologies that improve self-sufficiency ratio in the energy supply at the individual level by further implementation of energy-saving measures in products and expansion of renewable energy. ● Develop information and communication technologies to support life styles indispensable to realize a low-carbon society.
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Product Planning and Design	Reduce annual energy consumption of products: -30% (compared with FY2008)
Procurement	<ul style="list-style-type: none"> ● Establish mechanisms to determine GHG emissions from suppliers. ● Contribute to the development of an industry-wide common reporting format.
Operations	Reduce total GHG: -30% (compared with FY2000)
Logistics	Reduce total CO ₂ : -14% (compared with FY2008)

Understanding and Responding to Business Risks

(Updated on August 22, 2014)

As a company that strives to contribute to the achievement of a sustainable society, Sony believes that addressing environmental issues, including climate change, is crucial to achieving this goal. Sony also recognizes the importance of such efforts from the perspective of business continuity. The failure to take appropriate steps to respond to such issues involves various underlying risks that could negatively impact Sony's operations. These include risks involving new or amended laws or regulations that could elicit higher carbon taxes, broaden the geographic applicability of emissions trading schemes or impose tougher energy-saving standards on products. Another example is physical risks, such as the risk of rising sea levels and abnormal weather patterns caused by climate change. There is also the market change brought about by evolving consumer perceptions. Sony realizes that flawed responses to such risks and changes could have major social and financial ramifications. Accordingly, Sony works constantly to assess underlying risks, as well as to ensure it is prepared to respond effectively to those risks that it judges likely to have an impact on its operations. Sony has, for example, established and continues to maintain a system for collecting information on laws and regulations in force in countries and territories around the world and to ensure that its business activities and products comply.

Creating and Expanding Business Opportunities

(Updated on August 22, 2014)

Efforts to address the issue of climate change also present promising business opportunities. With general awareness of climate change growing, energy efficiency will become an increasingly important aspect of consumer needs. Having long worked to build energy-saving features into its products through a variety of distinctive innovations, Sony sees this trend as a positive development that has further enhanced the competitive advantages of its products.

In recent years, Sony has begun marketing an energy storage module, as well as a lithium-ion storage battery unit that includes a controller, an inverter and a converter, for commercial use. In June 2014, Sony and Hydro-Québec, Canada's largest electric power utility, established a joint venture to conduct R&D in the area of large-scale energy storage systems for power grids. Sony will explore ways to capitalize on the development achievements of the joint venture to enhance the stability of solar, wind and other renewable energy sources and meeting excess demand at peak times, thereby responding to key social imperatives.



IJ1001M energy storage module, which went into mass production in 2011



ESSP-3005/18P commercial energy storage battery: In combination with a solar power generation system*, this lithium-ion, high-capacity unit delivers a maximum energy storage capacity of 6.0kWh, thus functioning as an "autonomous energy storage system."

* Solar power charging unit sold separately

Environment

Reducing Greenhouse Gas Emissions at Sites

- Greenhouse Gas Emissions
- Promoting Efficient Energy Use
- Use of Renewable Energy

Environment

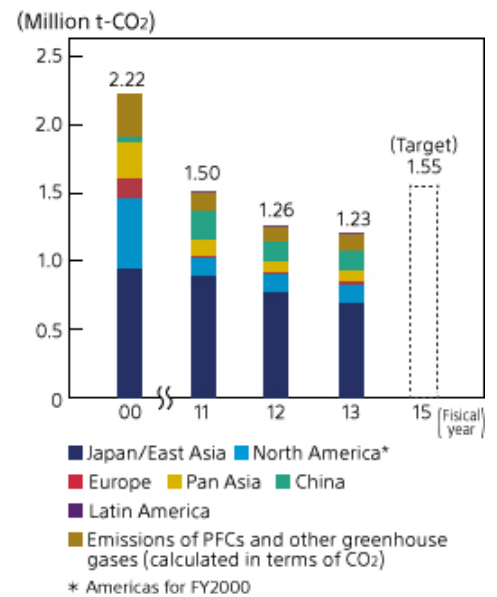
Greenhouse Gas Emissions

Reducing Greenhouse Gas Emissions by 45% from the Fiscal Year 2000 Level

(Updated on August 22, 2014)

Sony has set a target to achieve an absolute reduction in greenhouse gas emissions (calculated in terms of CO₂) of 30% or more from the fiscal year 2000 level by fiscal year 2015. To this end, Sony strives to reduce greenhouse gases such as CO₂ related to energy consumption and emissions of perfluorocarbons (PFCs) and other gases. In fiscal year 2013, Sony's emissions of greenhouse gases* (calculated in terms of CO₂) totaled approximately 1.23 million tons. This represents an approximately 45% decrease from the fiscal year 2000 level, and a 2% decrease from the fiscal year 2012 level. Greenhouse gas emissions per unit of consolidated net sales, or emissions intensity (tons of CO₂/million yen), was 0.10 ton in Japan and 0.06 ton overseas.

Greenhouse Gas Emissions from Sites (Calculated in Terms of CO₂)



* Greenhouse gas emissions figures in this section represent total emissions after the subtraction of emissions offset by the use of renewable energy.

CO2 Emissions from Energy Use at Sites

(Updated on August 22, 2014)

In fiscal year 2013, emissions of CO2 from energy use at sites*1 accounted for approximately 1.09 million of the approximately 1.23 million tons of greenhouse gases emitted at Sony sites, down about 40,000 tons from fiscal year 2012. The decline was attributable largely to measures implemented by sites to reduce energy consumption as well as to production adjustments. CO2 emissions resulting from the use of energy at sites in Japan amounted to approximately 653,000 tons*2, a decrease of approximately 60,000 tons from fiscal year 2012. CO2 emissions resulting from energy use at Sony sites include emissions from fuel used by Sony-owned business vehicles. In fiscal year 2013, CO2 emissions resulting from fuel used in vehicles amounted to approximately 25,000 tons.

Going forward, Sony will take efforts to restrict greenhouse gas emissions through infrastructure-related measures, including the installation of high-efficiency equipment and the promotion of energy recycling, and to enhance nonstructural measures, notably the introduction of training programs designed to foster energy-saving leaders.

*1 This includes CO2 emissions from fuel use of business vehicles owned by Sony.

*2 Taking into account changes in the CO2 conversion rate for the energy purchased in Japan, the amount of CO2 emitted as a result of energy use in fiscal year 2013 was approximately 962,000 tons.

Emissions of PFCs and Other Greenhouse Gases

(Updated on August 22, 2014)

PFCs and other greenhouse gases with high global warming potential are used in cleaning and etching processes in the manufacture of semiconductors and LCD panels. Emissions of PFCs and other greenhouse gases in fiscal year 2013 (calculated in terms of CO2) totaled approximately 140,000 tons, up about 11,000 tons from fiscal year 2012. The main increase was attributable to emissions due to periodical maintenance of certain facilities that are carried out every few years. Sony continues for ongoing efforts to reduce emissions of PFCs and other greenhouse gases by, among others, installing gas abatement equipment.

Environment

Promoting Efficient Energy Use

The Eco Challenge Project: An Employee-Driven Initiative

(Updated on August 22, 2014)

Sony promotes a broad range of energy-saving efforts at its sites around the world. In addition to increasing the energy efficiency of buildings and equipment, in recent years Sony has actively promoted the Eco Challenge Project, a program for reducing energy consumption that centers on manufacturing site employees. This project focuses on the formulation and implementation of energy-saving solutions for manufacturing sites, which consume more electricity than any other part of Sony's manufacturing operations. Employees set ambitious project targets and take steps to shed light on energy consumed in different manufacturing processes. This enables employees to identify unnecessary uses of energy in such processes, as well as to develop and test solutions and, having confirmed the effectiveness thereof, to effect ongoing improvements. Particularly outstanding solutions are subsequently expanded to other sites. Building on the success at manufacturing sites, the scope of the Eco Challenge will be expanded to include logistics and office locations throughout the Pan Asia region.

The Eco Challenge Project was launched in 2009 at Sony Corporation's Sendai Technology Center and Sony Storage Media and Devices Corporation's Tagajo site, which led to both sites undertaking a number of distinctive initiatives. The effectiveness of these initiatives has since encouraged almost all manufacturing sites in Japan, as well as in the Pan Asia region and China, to introduce the project.



The Eco Challenge Project has been introduced at numerous manufacturing sites, primarily in Japan and Asia

Eco Challenge Project Initiatives in the Pan Asia Region and China

(Updated on August 22, 2014)

Originally introduced in Malaysia in 2011, the Eco Challenge Project in the Pan Asia region has since been deployed at manufacturing sites in Singapore, Thailand, and Australia.

Sites in these regions have sought to reduce energy consumption through a variety of initiatives, including slashing unnecessary consumption during break times, switching to gravity-fed conveyor belts and introducing highly energy-efficient equipment. These efforts have led to a reduction in CO₂ emissions from Sony sites in the Pan Asia region of approximately 7,900 tons since 2011.



Energy-saving initiatives at a Sony site in China

The Eco Challenge Project was also introduced in China in 2011. Deployment has since expanded to encompass XX sites. Targets for reducing energy consumption have been set at each site, while employees from both manufacturing and facilities departments have collaborated to implement frontline-level energy-saving measures, which include reviewing manufacturing processes and equipment operating procedures. Through these initiatives, Sony sites in China have succeeded in reducing CO₂ emissions by approximately 7,000 tons since 2011. In 2013, Sony Digital Products (Wuxi) Co., Ltd. expanded the scope of its environmental efforts beyond reducing energy consumption and is now promoting a comprehensive, manufacturing site-focused program aimed at lowering its environmental footprint that encompasses, among others, reducing its emissions of industrial waste and its use of water and paper.

Environment

Use of Renewable Energy

Sony Reduces Emissions of CO₂ in Fiscal Year 2013 by Approximately 65,000 Tons through the Use of Renewable Energy

(Updated on August 22, 2014)

The use of renewable energy* is a key part of Sony's effort to reduce greenhouse gas emissions. In fiscal year 2013, the use of the Green Power Certification System and the introduction of solar power generation systems helped reduce Sony's CO₂ emissions by approximately 65,000 tons. Renewable energy accounts for approximately 7% of the total amount of electricity that Sony uses worldwide

Sony and electric power companies in Japan jointly developed the Green Power Certification System in 2001. Prior to that, to utilize renewable energy, a company needed to possess its own electricity generation facilities or be located close to a renewable energy power station. Under the Green Power Certification System, by conducting trade in renewable power and heat certificates issued by power stations throughout Japan, use of the renewable energy generated is recognized even when the energy source is located a long distance from the user.

* Energy obtained from resources that are essentially inexhaustible, including solar power, wind power and energy produced from biomass products

Quantity of Renewable Energy Use by Region (Fiscal Year 2013)



■ North America : 28,283t-CO₂
 ■ Europe : 21,670t-CO₂
 ■ Japan/East Asia : 14,794t-CO₂

Japan: Largest Amount of Green Power and Green Heat Contracted under Certification System

(Updated on August 22, 2014)

Sony Continues to be One of Japan's Largest Users of Green Power

In Japan, Sony uses the Green Power Certification System to promote the introduction of renewable energy. As of March 2014, the Sony Group finalized a Green Power Certification System purchase contract for 36.5 million kWh annually, equivalent to around 2.6% of the Group's total power use in Japan. Since 2008, approximately 90% of electricity used by the Sony Building has been derived from green power. Additionally, all sites belonging to logistics company Sony Supply Chain Solutions on 100% green power.

Sony Has Been Japan's Largest Purchaser of Green Heat Certificates Since 2012

In addition to making extensive use of green power, in April 2012 Sony signed a biomass heat production contract with Japan Natural Energy Company Limited and began purchasing Green Heat Certificates for heat generated by wood biomass combustors. Green Heat Certificates signify recognition that the user is purchasing green heat produced through the combustion of biomass, solar power or other renewable energy technology that does not increase the volume of CO₂, thereby contributing to the reduction of CO₂ emissions. With this contract, Sony has agreed to purchase 133,333 GJ of green heat annually in 2013, making it the largest purchaser of Green Heat Certificates in Japan. This is expected to facilitate an annual reduction in greenhouse gas emissions of approximately 8,000 tons.



Sony is also an investor in the Japan Greenhouse Gas Reduction Fund (JGRF), a carbon fund established in December 2004 to acquire certified emissions reductions from greenhouse gas reduction projects in developing countries in the form of credits for distribution to investor companies. Sony had purchased credits equivalent to approximately 140,000 tons of CO₂ reduction as of March 31, 2014.

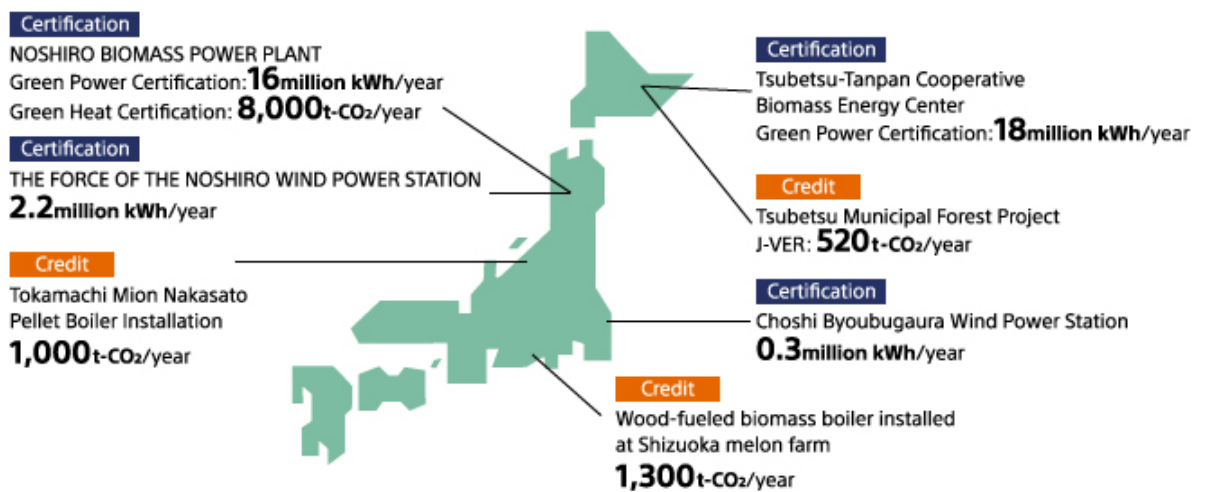
Sony utilizes the Domestic Clean Development Mechanism (CDM)*1 and Japan's J-VER Scheme*2. Sony has entered into three such CDM agreements, and has purchased credits equivalent to a total of approximately 6,800 tons of CO₂ as of March 31, 2014. Under one of these projects, an emissions reduction project in Tokamachi, Niigata Prefecture, Sony had purchased a cumulative total of approximately 1,200 tons of CO₂-equivalent credits from the Tokamachi municipal government and projects implemented jointly by the municipal government and local small and medium-sized companies as of March 31, 2014. In fiscal year 2013, Sony used the Carbon

Offsetting Scheme and the J-VER Scheme to purchase 524 tons of CO₂-equivalent credits from a carbon sink initiative for forests in Tsubetsu, Hokkaido, which were used as carbon offsets for Sony Bank.

Sony plans to continue actively utilizing the Green Power Certification System and the J-Credit Scheme*3 as means of introducing the further use of renewable energy in its operations in Japan, as it works to support the increased adoption and expansion of greenhouse gas reduction programs and renewable energy projects.

- *1 Domestic Clean Development Mechanism (CDM): A scheme whereby greenhouse gas emissions reduction projects executed by small and medium-sized companies in Japan generate carbon credits that may be purchased by large companies
- *2 J-VER Scheme: A verification scheme for offset credits generated through the reduction/removal by sinks of greenhouse gases through projects implemented in Japan
- *3 J-Credit Scheme: A scheme for certifying greenhouse gas reductions/removal by sinks as credits that was created through the integration of the Domestic Credit Scheme and the J-VER Scheme

Renewable Energy Certification and Emissions Credits in Japan (As of March 31, 2014)



Note: The figures in the above chart differ from those in the main text, as they were calculated on a contract basis, while the figures in the main text were calculated on an actual purchase basis.

Support for Smartlife Japan "Energy Saving × Energy Creation × Energy Storage" Initiatives

Sony's president and CEO, Kazuo Hirai, was recently named chairman of the Smartlife Japan Promotion Forum, an organization that promotes energy-conscious "smart lifestyles" by combining energy creation and energy storage equipment with energy-saving consumer electronics products to facilitate the efficient management of energy in the home. In his inaugural address, Mr. Hirai commented that while consumer electronics manufacturers have made great strides in reducing energy consumption by their products, the installation of solar power generating and energy storage systems in homes would facilitate significantly greater energy savings, adding that he looked forward to helping raise the energy awareness of consumers through these initiatives.

• [For more information, see the Smartlife Japan website\(Japanese only\)](#)

Europe: Using 100% Renewable Electricity

(Updated on August 22, 2014)

In Europe, Sony has been using renewable electricity since 2002. In fiscal year 2008, 100% renewable electricity usage has been achieved by Sony sites* in Europe through direct purchase of electricity generated from renewable sources and through the purchase of Renewable Electricity Certificates if direct purchase of renewable electricity is not possible. In fiscal year 2013, Sony used a total of approximately 73,500 MWh of renewable electricity in Europe.

* Sony sites in Europe that have obtained ISO 14001 certification



Sony DADC's site in Anif, Austria, one of several Sony sites in Europe that uses 100% renewable electricity

North America: Promoting the Use of Renewable Energy by Various Regional Group Companies

(Updated on August 22, 2014)

Beginning April 2008, four of Sony's sites in the United States-Sony DADC U.S. Inc.'s Pitman (at the time) and Terre Haute plants, the New York office of Sony Corporation of America (SCA) and the San Diego office of Sony Electronics Inc. (SEL)-signed Renewable Energy Certification contracts. Subsequently, the scope of purchases were expanded to cover additional sites, and in fiscal year 2013 Green Power Certification purchased by Sony Group covered more than 46,400MWh of electricity in the United States at the following sites: Sony DADC's Terre Haute plant; Sony DADC's Bolingbrook distribution center; the New York office of SCA; all major offices of SEL; and Sony Pictures Entertainment, Inc. (SPE). This is enough green power to meet an estimated 33% of these entities' electricity use in the United States. The Green Power Certificates purchased by SEL are equivalent to 44% of the electricity consumption of the main SEL sites in the United States and Mexico that have received unified ISO certification. At the SPE headquarters, 263MWh of electricity is provided by the company's own solar power generation system. Energy used by SPE's Arizona data center is provided by 100% renewable sources.



Solar power generation facility installed on the roof of SPE's headquarters

Environment

Reducing Greenhouse Gas Emissions Related to Products and Services

- Greenhouse Gas Emissions from Product Use
- Reducing Product Operating Power Consumption
- Expanding from the Development of Olivine-Type Lithium-Ion Iron Phosphate Storage Batteries to Include Other Peripheral Devices
- Systems Solutions that Help Reduce CO₂ Emissions

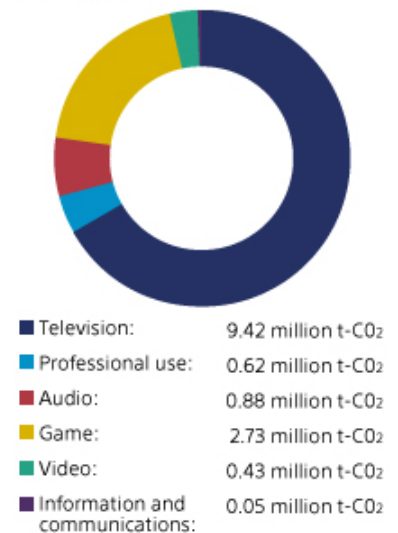
Environment

Greenhouse Gas Emissions from Product Use

Sony products consume electrical power while used in the hands of their owners, resulting in indirect emissions of CO₂. Having set a target for reducing annual energy consumption per product from product use of 30% from the fiscal year 2008 level by fiscal year 2015, Sony is promoting the incorporation of energy-saving features in a wide range of product categories. In fiscal year 2013, annual energy consumption per product was 31% lower than in fiscal year 2008. Particularly notable reductions were achieved for LCD televisions, Blu-ray Disc™ players and game consoles. Sony's total CO₂ emissions over the entire life cycle of all products sold in fiscal year 2013 were approximately 14.13 million tons, 10% lower than for products sold in fiscal year 2012, thanks to the incorporation of energy-saving features into products and to a decline in sales volume.

(Updated on August 22, 2014)

Greenhouse Gas Emissions from Product Use



Note: In theory, emissions during product use in the current fiscal year should be calculated from the total quantity of electrical power consumed by previously sold Sony products that are still in use by consumers in the current fiscal year. However, given the difficulty of determining how many previously sold Sony products are still in use by consumers of the total number of Sony products sold to date, Sony uses the total quantity of electrical power consumed while in use over the lifetime of Sony products sold in the current fiscal year as an indicator for CO₂ emissions during use.

Environment

Reducing Product Operating Power Consumption

(Updated on August 22, 2014)

Sony reduces the power consumption of individual products by setting specific annual targets for each product category. Regulations governing the energy efficiency of products are being enforced in countries all over the world. For example, from 2010, the subsequent enforcement of various product categories began in the European Union through the Energy-related Products Directive (ErP), legislation which, in addition to electrical products, covers windows, insulation materials and other energy-related products, demanding compliance with environmental legislation across a broad range of products. Electrical products, in particular, must comply with strict energy-reduction standards. Sony products comply with energy efficiency regulations in every country where they are enforced. In countries where no regulations exist, Sony has established product-specific energy reduction targets and is active in achieving these targets.

[Click here for Sony and the Environment, which features detailed information on environmental initiatives.](#)

- [Reducing the Power Consumption of BRAVIA™ LCD TVs](#)
- [Reducing the Power Consumption of Data Projectors](#)
- [Reducing the Power Consumption of Speakers with the Use of Magnetic Fluid](#)

Environment

Expanding from the Development of Olivine-Type Lithium-Ion Iron Phosphate Storage Batteries to Include Other Peripheral Devices

Development of olivine-type lithium-ion iron phosphate secondary batteries

(Updated on August 22, 2014)

Since commercializing the world's first lithium-ion battery in 1991, Sony has continued to focus efforts on the development and commercialization of technologies for lithium-ion batteries, which boast excellent energy efficiency and high energy/power density, among other superior properties. In 2009 Sony commercialized an olivine-type lithium-ion secondary battery, marking its first step toward full-scale entry into the storage battery market.



Olivine-type lithium-ion iron phosphate secondary battery

The crystalline structure of olivine-type lithium-ion iron phosphate is very stable, and even at high temperatures the material exhibits excellent thermal stability. By applying its proprietary powder-design and cell structure technologies, Sony realized high power output as well as a long battery life of over 10 years*. Since iron is a plentiful resource, this technology is more able to contribute to decreased environmental burden compared with storage batteries that use rare metals, which have extremely limited reserves and are in short supply.

Characteristics of Sony's Olivine-type Lithium-ion Iron Phosphate Secondary Batteries

<p>Long Life</p> <p>Can be used for more than 10 years*, and reduces environmental burden through long, repeated use</p>	<p>Rapid Charging</p> <p>Can be charged to 99% capacity within 30 hours</p>	<p>High Output</p> <p>Realizes 1,800W/kg output density</p>
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* Based on fully charging and discharging daily at room temperature (23°C)

Expansion of Storage Battery Lineup

(Updated on August 22, 2014)

In recent years, society's needs have been increasing in such areas as the stable use of renewable energy, efficient electricity usage and the security of power supply during times of disaster.

Consequently, lithium-ion storage batteries, which boast excellent energy efficiency and density, have garnered attention.

Anticipating society's needs, in 2011 Sony began mass production and shipment of a 1.2kWh-class storage battery module, which uses olivine-type lithium-ion iron phosphate secondary batteries.

Sony also commercialized compact storage battery units for use in the home and commercial settings. In 2013, Sony developed a new 2.1kWh storage battery module, which it plans to launch in

2014. In addition to a long life, high level of safety and rapid charging performance—features of Sony's olivine-type iron phosphate technology—this new module features a new proprietary control IC and software developed in-house, which enables connection to multiple modules either in a series or parallel. Thanks to its superior expansion capability, the module can be used to build a large-scale power storage system with a capacity up to 8MWh-class/1,000V. Furthermore, under a joint venture with Hydro-Québec-Canada's largest electric power utility Sony is developing a very large electric power storage system and materials for use in lithium-ion batteries suitable for large-volume storage batteries. Through such efforts, Sony aims to realize storage batteries for a variety of scales from small to large, thereby responding to diverse customer needs.



IJ1001M energy storage module, which went into mass production in 2011

Environment

Systems Solutions that Help Reduce CO2 Emissions

In addition to taking steps to lower greenhouse gas emissions from its operations, Sony is developing energy-saving products and IT technologies that help reduce CO2 emissions from Sony products during use by customers.

Digital Cinema Systems

(Updated on August 22, 2014)

In 2000, Sony developed HDW-F900, the world's first video camera for motion picture production, and in 2006 launched sales of 4K digital cinema projection systems, thereby promoting energy- and resource-saving cinema projection.

In 2013, Sony launched the PMW-F55 CineAlta 4K camera, which combines 4K image resolution with a compact size and a significant reduction in power consumption.

Reducing the Environmental Impact of Movie Production

Digital movie cameras record images to digital tape instead of traditional film stock. Additionally, where a single reel of film stock allows only about 10 minutes of continuous shooting, digital cameras can shoot for 50 minutes. These features greatly reduce the consumption of resources. Digital cameras also make it possible to review footage on the spot, thereby simplifying and increasing the efficiency of editing and other post-production work.



PMW-F55 CineAlta 4K camera

Sony is taking steps to reduce the size and energy consumption of digital movie cameras. In February 2013, Sony released the PMW-F55 CineAlta 4K camera, which achieves a reduction in maximum energy consumption of approximately 75% compared with previous models (F65 and SR-R4), from 100W to just 25W. Moreover, one camera facilitates multiple recording formats, reducing the number of cameras required. With a standard ISO setting of 1250, the PMW-F55 CineAlta 4K camera also boasts outstanding sensitivity, thus helping to lower lighting costs during filming.

Reducing the Environmental Impact of Movie Theater Operations

Sony also offers a digital cinema projection system that reduces the environmental impact of movie theater operations.

With this system, digital data is delivered to digital cinema-compatible movie theaters on a hard disc drive (HDD), so there is no need to develop film. This significantly lessens the need for water and chemicals used during the developing process, thus substantially reducing associated CO2 emissions. Further, whereas a single two-hour movie on film requires six reels of positive film, the same movie made with digital cinema needs only one HDD, thus increasing the efficiency of shipping and contributing to the reduction of associated CO2 emissions.

Estimated total CO2 emissions over the life cycle of a movie made using digital cinema are estimated to be approximately 160 tons less than those over the life cycle of a movie made using film.*

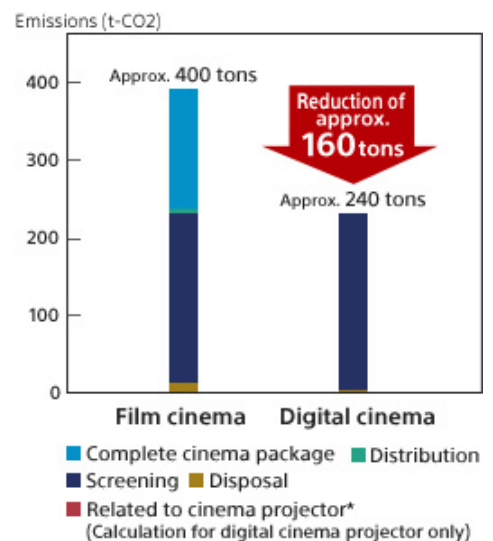
The Sony Digital Cinema 4K™ cinema projection system, which received the 58th Okochi Memorial Production Prize (fiscal year 2011), is estimated to achieve a reduction of approximately 40% in CO2 emissions compared with conventional film-based systems, and is rapidly being adopted around the world.

* Based on Sony data; premise for calculation is as follows:



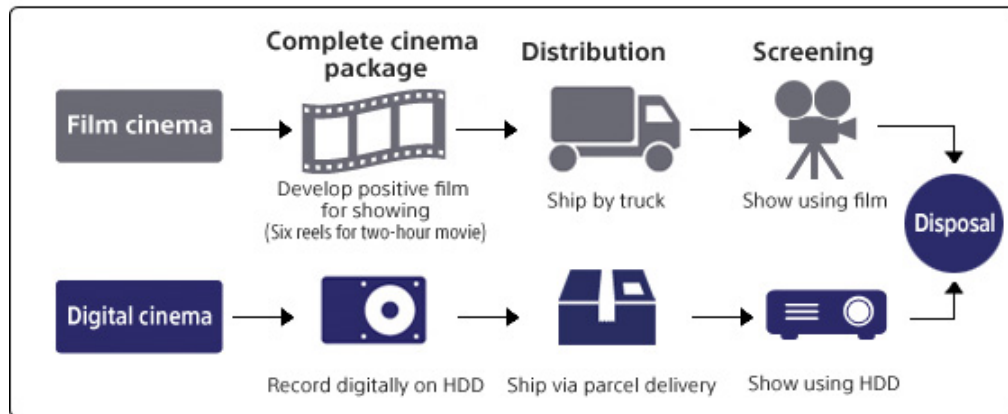
Sony Digital Cinema 4K™ cinema projection system SRX-R320 (left) and SRX-R515P (right)

Comparison of CO2 Emissions at Each Lifecycle Stage*



* From creating a complete cinema package for a 2-hour movie, to distributing, screening, and disposing at 300 theaters around Japan

Comparison of life cycle of movie made using digital cinema and movie made using film



Premise for Calculation of CO₂ Emissions

Movie made using film

CO₂ emissions from the following processes associated with a two-hour movie made using film, assuming six rolls of film per movie theater:

- CO₂ emissions during manufacture and developing of film
- CO₂ emissions during transport of film

Calculated in ton-kilometers assuming round-trip between Tokyo and each movie theater in a two-ton truck: Weight x distance traveled x fuel used per ton-kilometer x coefficient of CO₂ emissions per unit of fuel used

- CO₂ emissions from projectors during showing of movie

Power consumption by projectors during showing of two-hour film x coefficient of CO₂ emissions per unit of power consumed

- CO₂ emissions from disposal of film

Calculated assuming incineration of all positive film used

Movie made using digital cinema

CO₂ emissions from the following processes associated with a two-hour movie made using digital cinema, assuming one HDD per movie theater:

- CO₂ emissions during manufacture of HDDs

Distributed proportionally assuming one HDD can be used for a total of 120 movies

- CO₂ emissions during transport of HDDs

Calculated in ton-kilometers assuming round-trip between Tokyo and each movie theater in a two-ton truck: Weight x distance traveled x fuel used per ton-kilometer x coefficient of CO₂ emissions per unit of fuel used

- CO₂ emissions from projectors during showing of movie

Power consumption by projectors during showing of two-hour film x coefficient of CO₂ emissions per unit of power consumed

- CO₂ emissions from disposal of HDDs

Calculated assuming landfilling of HDDs

- CO₂ emissions over the life cycle of digital cinema projectors (except during showing of movie)

Video Conferencing Systems

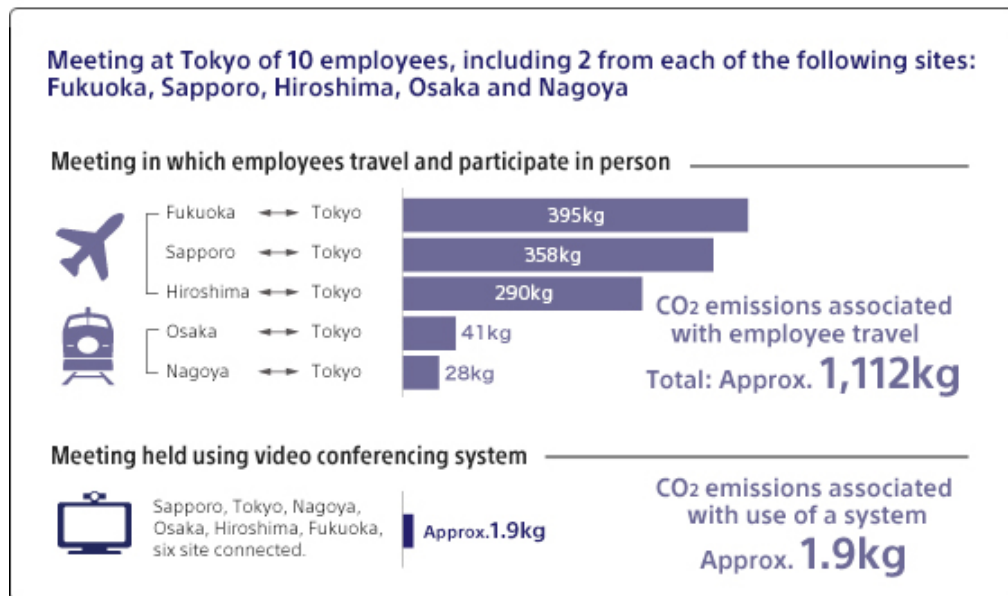
(Updated on August 22, 2014)

Meetings involving individuals from different locations generate significant CO₂ emissions, the principal component of which is emissions from travel. The use of Sony's video conferencing systems can greatly reduce CO₂ emissions associated with employee business trips and other travel. For example, CO₂ emissions associated with a single meeting involving two employees each from five cities across Japan and held using Sony's PCS-XG80 HD video conferencing system are estimated to be approximately 1.1 tons* lower than would be the case if the same two employees from each of the five cities were to travel to Tokyo to participate in the meeting in person. For a meeting held 24 times a year, therefore, the total annual reduction would amount to approximately 26 tons.



PCS-XG80 HD video conferencing system

Comparison of CO₂ emissions associated with meeting that involves employee business travel to meeting held using video conferencing system



Premise for Calculation of CO₂ Emissions

CO₂ emissions from meeting involving employee business travel to Tokyo:

- Return travel by air between Fukuoka and Tokyo: 1,812 km (906 km one way); Sapporo and Tokyo: 1,664 km (822 km one way); Hiroshima and Tokyo: 1,332 km (666 km one way)
- Return travel by shinkansen between Osaka and Tokyo: 1,090 km (545 km one way); Nagoya and Tokyo: 732 km (366 km one way)

(Coefficient used to calculate emissions: Data from "CO₂ Emissions per Unit of Transport [Passengers]," Ministry of Land, Infrastructure, Transport and Tourism)

CO₂ emissions from meeting using Sony videoconferencing system:

- Two-hour meeting using the PCS-XG80 videoconferencing system to link six locations and six FWD-S42H1 displays plus CO₂ emissions associated with manufacturing relevant equipment distributed proportionally over the number of times the equipment is used (assumes 24 times/year for 10 years)

Environment

Collaboration with NGOs

Participation in the WWF's Climate Savers Programme

(Updated on August 22, 2014)

In July 2006, Sony joined the Climate Savers Programme, established by the World Wide Fund for Nature (WWF), a leading international environmental NGO. Under the Climate Savers Programme, the WWF partners with leading corporations to establish targets for reducing absolute emissions of greenhouse gases that are meaningful, rather than simply expedient for corporations. Progress toward the achievement of these goals is monitored by the WWF, as well as by an independent body. Participation in the program has enabled Sony to set more ambitious targets, while monitoring by the WWF and an independent body has enhanced the transparency of its various environmental initiatives.



- [Click here for more details in Partnership and Participation in frameworks.](#)

Environment

Grasping the Extent of Greenhouse Gas Emissions over the Entire Value Chain

(Updated on August 22, 2014)

Recent escalation of climate change issues has prompted corporations to broaden the scope of efforts to grasp the greenhouse gas emissions not just of their own operations but also those over their entire value chain*1. Starting in fiscal year 2009, Sony has conducted trials to determine emissions from its main OEM/ODM*2 suppliers. Furthermore, based on the level of emissions identified, in fiscal year 2012, Sony first estimated greenhouse gas emissions over its entire value chain*3. The amount of greenhouse gas emissions from Sony's overall value chain in fiscal year 2013 is estimated to be approximately 21.85 million tons. The largest volume of emissions was from "energy consumed during product use." The next-largest category was "purchased goods and services" relating to materials and components. Sony plans to build its own system for identifying greenhouse gas emissions over the entire value chain, and will work to enhance the accuracy of the system and strengthen management of emissions.

- *1 Refers to the entire product life cycle process, from procurement of materials through to manufacturing, use and disposal. It includes manufacturing upstream and downstream processes.
- *2 OEM suppliers are companies that manufacture products on behalf of Sony. ODM suppliers are companies that design and manufacture products on behalf of Sony.
- *3 Calculated in accordance with the Greenhouse Gas Protocol's Scope 3 accounting and reporting standard and guidelines published by Japan's Ministry of the Environment.

Greenhouse Gas Emissions from the Value Chain



■ Use of sold products [category 11]	14,134,000 tons
■ Purchased goods and services [category 1]	6,122,000 tons
■ Capital goods [category 2]	551,000 tons
■ Downstream transportation and distribution [category 4]	330,000 tons
■ Other	712,000 tons

Status of Scope 3 Emissions per Category

Scopes and categories	Status
Category 1 : Purchased goods and services	○
Category 2 : Capital goods	○
Category 3 : Fuel- and energy-related activities (not included in scope 1 or scope 2)	○
Category 4 : Upstream transportation and distribution	○*
Category 5 : Waste generated in operations	○
Category 6 : Business travel	○*
Category 7 : Employee commuting	○
Category 8 : Upstream leased assets	-
Category 9 : Downstream transportation and distribution	○
Category 10 : Processing of sold products	○
Category 11 : Use of sold products	○
Category 12 : End-of-life treatment of sold products	○
Category 13 : Downstream leased assets	-
Category 14 : Franchises	-
Category 15 : Investments	○

○ : calculated
 - : not relevant

* : The emissions are assured by a third-party data verification. (In category 4, only product transport emissions are verified.)

● For details on scope 3 emissions, please refer to "Greenhouse Gas Emissions > Scope 3".

Environment

Resource Conservation: Table of contents

To ensure the efficient use of limited resources, Sony is working to minimize waste generation and to make use of recycled resources.

[Policy on Resource Conservation](#)

[Resource Conservation at Sites](#)

[Conservation of Resources Used in Products and Services](#)

[Measures to Conserve Resources Used in Paper](#)

Links to Related Items:

[Product Recycling](#)

Environment

Policy on Resource Conservation

(Updated on August 22, 2014)

One of the long-term targets of Sony's Road to Zero global environmental plan is to strive to achieve zero usage of virgin materials that Sony identifies as key resources such as oil and certain metals. As the first step toward achieving this target, Sony has set the following targets for conserving resources*1 by minimizing the volume of resources used and maximizing the use of recycled plastics and other recyclable materials as part of its Green Management 2015 mid-term environmental targets. To these ends, Sony is striving to develop products that are smaller and lighter and reduce the use of virgin plastics. At its sites, Sony is working to minimize waste generated and further the use of recycled materials. Sony is also actively advancing the recycling of resources by focusing on recycling-conscious design and the development of recycling technologies.

*1 Reused or recycled materials and vegetable-based materials

Mid-Term Resource Conservation Targets

Research and Development	Develop and refine 3R technologies*2 in product life cycle to achieve reductions in the use of exhaustible resources and water, and to reduce waste.
Product Planning and Design	<ul style="list-style-type: none"> ● Reduce utilization ratio of virgin oil-based plastics in products: -5% (compared with FY2008) ● Reduce mass of products: -10% (compared with FY2008)
Procurement	Conduct procurement in ways that enable Sony to achieve the "Product Planning and Design" and "logistics" targets.
Operations	<ul style="list-style-type: none"> ● Reduce waste generation: -50% (compared with FY2000) ● Improve waste recycling rate Groupwide: 99% or more ● Reduce water consumption: -30% (compared with FY2000)
Logistics	Reduce incoming parts packaging waste: -16% (compared with FY2008)

Take-Back and Recycling

Based on the idea of Extended Producer Responsibility (EPR), Sony strives to achieve an environmentally conscious recycling system and effective operation for take-back and recycling of end-of-life products. In addition, Sony continues to increase the use of recycled resources and to design products that are easy to recycle. This is based on the idea of Individual Producer Responsibility (IPR) to help in promoting the establishment of appropriate laws and the building of infrastructure to recycle Sony products.

*2 Reduce, Reuse and Recycle

Environment

Resource Conservation at Sites

- Waste at Sites
- Waste Reduction
- Policy on Water Use and Water Consumption at Sites
- Reduction of Water at Sites

Environment

Waste at Sites

Achieving an absolute reduction in waste at sites of 71% from the fiscal year 2000 level

(Updated on August 22, 2014)

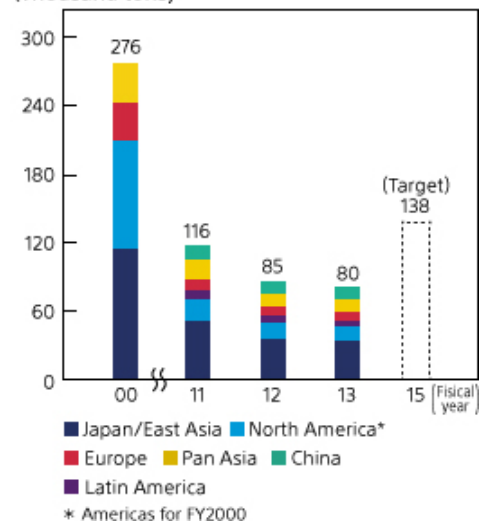
Sony is implementing a variety of measures to reduce waste and use materials more effectively in line with its targets to achieve an absolute reduction in waste at Sony sites of 50% or more from the fiscal year 2000 level and achieve a recycle rate of 99% or higher for global sites by fiscal year 2015.

In fiscal year 2013, waste at Sony sites totaled approximately 80,000 tons. This represents approximately 71% decline from the fiscal year 2000 level and is approximately 6% lower than in fiscal year 2012. This decline was largely attributable to a reuse of packaging materials used when shipping parts—a major component of waste generated by production sites—and the promotion of reuse and recycling within the Sony Group.

Waste at Sony sites per unit of consolidated net sales (tons/million yen) was 0.0046 ton in Japan and 0.0057 ton overseas.

Waste at Sites

(Thousand tons)



Recycling rate for Sony sites

(Updated on August 22, 2014)

In fiscal year 2013, the recycling rate for all Sony Group sites was 94%. From fiscal year 2012, this rate takes in to account the impact of incineration in Japan and other factors that reflect the reality of waste treatment. In Japan, the recycling rate for everyday waste at Sony sites also continued to rise, which surpasses 99%. The recycling rate for Sony sites overseas-calculated excluding waste that Sony is required by law or ordinance to dispose of in landfills-was 98%. Sony continues to promote the recycling of waste from sites and the reuse thereof within the Group. Looking ahead, Sony strives to further increase the volume and nature of recycled waste with the aim of promoting the recycling and reuse of resources.

Management of industrial waste

(Updated on August 22, 2014)

Sony takes precautions to ensure waste from its sites is not inappropriately disposed of. For example, in Japan Sony has set consistent internal standards for selecting waste disposal contractors and inspecting disposal sites on an ongoing basis. It has also established an internal system of accreditation for disposal site inspectors, and is stepping up efforts to minimize risks associated with contracting out waste disposal. To reinforce this system, Sony implements periodic on-site inspections in the waste disposal contractors, thereby ensuring rigorous management procedures.

Environment

Waste Reduction

The Sony Group is implementing a wide range of waste reduction measures at its sites worldwide. Examples of such measures are described below.

Reducing Waste by Improving Component Packaging

(Updated on August 22, 2014)

At all its sites, Sony works to reduce the amount of waste through overall reviews of the packaging used in components, and the optimization of this packaging.

For example, a range of measures are employed to reduce the amount of materials used in component packaging materials and hence curb the amount of waste. These include the complete elimination of protective bags for components, modifications to increase the capacity of containers used to store components, and the switch from disposable containers to multi-use returnable boxes. In particular, Sony is working to standardize the sizes of, and materials used in, returnable containers while aiming to expand the range of items for which such containers are used.



Returnable containers used to transport components at Sony EMCS (Malaysia) Sdn. Bhd.'s Kuala Lumpur TEC

- [For details on measures relating to the overall logistics system, please refer to "Reducing the Environmental Impact of Logistics."](#)

Environment

Policy on Water Use and Water Consumption at Sites

Policy on Water Use

(Updated on August 22, 2014)

Although water circulates around the earth continuously through the water cycle, the amount of water available for use by the planet's inhabitants is limited. With population growth and other issues putting further pressure on water supplies, the importance of conserving this resource will take on new importance in the years ahead. Taking into account the locations of its sites, as well as regional differences, Sony will continue taking steps to minimize its withdrawal of water and to ensure the water it returns to water sources is of a quality that does not negatively impact the environment.

Water Consumption at Sites

(Updated on August 22, 2014)

Sony is taking steps to reduce the consumption of water at its sites in line with its target of achieving an absolute reduction of 30%, compared with the fiscal year 2000 level, by fiscal year 2015. In fiscal year 2013, Sony sites used approximately 11.00 million m³ of water, a decrease of approximately 59% compared with the fiscal year 2000 level and approximately 8% decline from the fiscal year 2012 level.

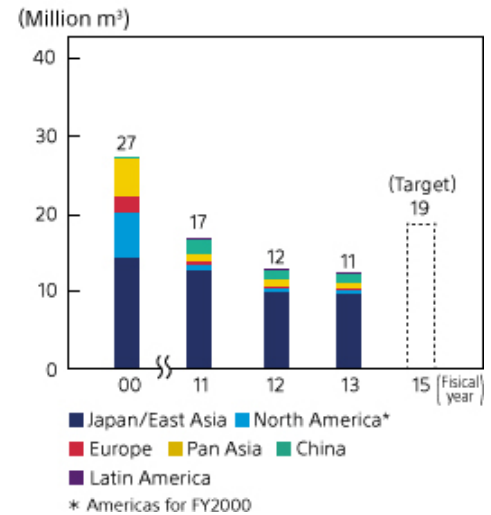
Factors behind the decrease from the fiscal year 2000 level include efforts to promote the reduction of water used and the recycling of wastewater within sites. Water used at Sony sites per unit of consolidated net sales (m³/million yen) was 1.05 m³ in Japan and 0.37 m³ overseas.

Sony also takes steps to ensure the quality of wastewater at its sites. In addition to observing related laws and regulations in each of the countries and territories in which it operates, Sony manages wastewater quality using stricter criteria than it is required to. For example, the introduction of sophisticated water treatment facilities has enabled it to reduce BOD and COD levels* in wastewater.

* Biochemical oxygen demand (BOD) and chemical oxygen demand (COD) levels are common measures of water pollution.

● [For more information on BOD and COD levels, see "Emissions of Air and Water Pollutants \(Worldwide\)"](#)

Water Consumption at Sites



Environment

Reduction of Water at Sites

A significant amount of water is required in the processes used to manufacture many digital products. At its production sites in Japan and overseas, Sony promotes a variety of measures in consideration of local water resources, including recycling wastewater and reducing the volume of water used. Examples of such measures are described below.

Japan: Reduction of Volume of Pure Water Used at Kumamoto TEC

(Updated on August 22, 2014)

Sony Semiconductor Corporation's Kumamoto Technology Center (Kumamoto TEC), a semiconductor manufacturing facility, reassessed its production processes with the aim of reducing the volume of pure water used therein. Kumamoto TEC also succeeded in minimizing the volume of pure water in its semiconductor wafer rinse baths. Persistent, meticulous measures aimed at reducing the volume of pure water for humidification in clean room air handling units have also enabled Kumamoto TEC to achieve a significant reduction in the volume of pure water it uses for this purpose.

Environment

Conservation of Resources Used in Products and Services

- Using Resources in Products
- Reducing the Use of Resources in Products
- Using Recycled Plastics in Products
- Promoting Environmentally Conscious Packaging
- Reduction of Packaging Materials in Logistics
- Resource Conservation through the Adoption of Lightweight Disc Cases

Environment

Using Resources in Products

Steady Reduction in the Volume of Resources Used in Products

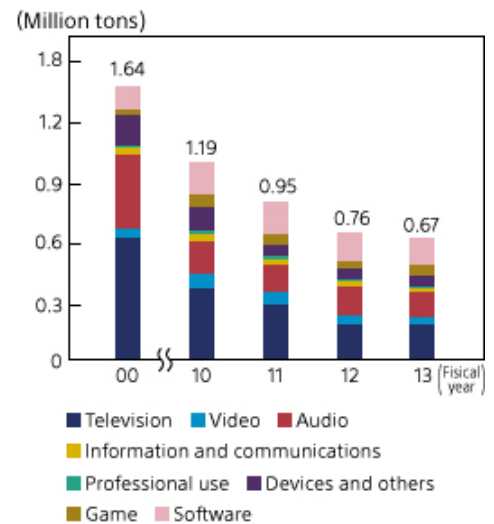
(Updated on August 22, 2014)

Having set targets for reducing the percentage of virgin plastics used in products and the mass of products of 5% and 10%, respectively, from the fiscal year 2008 level by fiscal year 2015, Sony is stepping up efforts to use reused/recycled materials in products and to reduce product weight.

For products sold in fiscal year 2013, Sony used approximately 670,000 tons of resources, down around 12% from fiscal year 2012.*1 This result reflected declines in product weights and sales volumes.

The average mass of product sold in fiscal year 2013 was approximately 33% less than in fiscal year 2008. This reflected efforts to reduce the size and weight of products and packages, particularly televisions, games and video-related products. Sony's utilization rate*2 for virgin plastic in fiscal year 2013 was 1.5% lower than in fiscal year 2008, owing to the progress of efforts to expand the use of recycled plastics, particularly in televisions and cameras and recording media.

Total Volume of Resources Used in Products



- *1 Total volume of resources used: Total weight of resources used in products, accessories, instruction manuals and packaging materials. The weight of total products shipped is substituted for this value.
- *2 Virgin plastic utilization rate: Percentage of plastics used accounted for by petrochemical-derived plastics

Environment

Reducing the Use of Resources in Products

(Updated on August 22, 2014)

In all product categories, Sony is working to reduce the use of resources in its products. Sony promotes the development of more lightweight and compact products and is expanding the use of recycled materials with the aim of minimizing the use of new resources. In the area of recycled materials, Sony has developed SORPLAS™ (Sustainable Oriented Recycled Plastic) and is expanding its use across a wide range of product categories. Furthermore, to make it easier to recycle products after disposal, ease of disassembly is included in Sony's product design criteria.

[Click here for Sony and the Environment, which features detailed information on environmental initiatives.](#)

- [Reducing the use of resources in BRAVIA™ LCD TVs](#)
- [Reducing the use of resources in Noise-Canceling Headphones](#)

Environment

Using Recycled Plastics in Products

Using Over 13,000 Tons of Recycled Plastics Annually

(Updated on August 22, 2014)

With the aim of eliminating the use of virgin materials such as oil and copper that have been identified as key resources, Sony is actively expanding the use of recycled plastics in products. In the fiscal year 2013 Sony Group currently uses more than 13,000 tons of recycled plastics annually in various products*1, including televisions, audio products, PCs and digital still cameras and recording media. Approximately 40% of the total volume comes from scraps from the production processes at manufacturing sites inside and outside of the Sony Group, while the remaining approximately 60% is post-consumer recycled plastics, that is, plastics recycled from used products and packaging. To further increase the use of such plastics, Sony is advancing the development of technologies and the adoption of recycled plastics in Sony products. Sony is also implementing measures to be in line with its Green Management 2015 mid-term environmental targets, one of which is to reduce the utilization ratio of virgin oil-based plastics in products by 5% from the fiscal year 2008 level-which is the same as increasing the utilization ratio of recycled plastics in products by 5%*2 from the fiscal year 2008 level. Sony will continue working to reduce the volume of virgin plastics it uses, including through the use of metal materials as alternatives to plastic.

*1 Gross value including virgin plastics and additives that are mixed with recycled materials

*2 Net value excluding virgin plastics and additives that are mixed with recycled materials

[Click here for Sony and the Environment, which features detailed information on environmental initiatives.](#)

 [Blu-ray Disc™ player manufactured with recycled plastics](#)

SORPLAS™, Sony's Original Flame-retardant Recycled Plastic

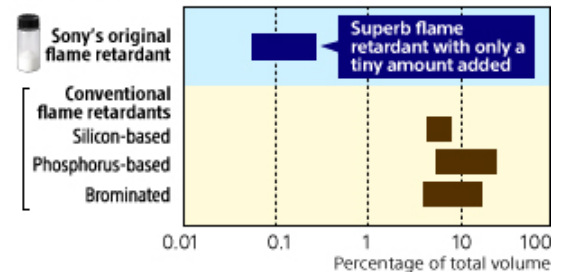
(Updated on August 22, 2014)

In 2011, Sony began practical use of Sustainable Oriented Recycled Plastic (SORPLAS™), a flame-retardant recycled plastic made possible by a proprietary compounding technology that combines an original, non-halogen and non-phosphorus, flame retardant—itsself produced using a Sony-developed process—and waste plastics (polycarbonate resin) from various sources in an optimal blend. Thanks to Sony's novel flame-retardant, which possible to impart flame-retardancy by the addition of a very small amount of less than 1% or less of total content, SORPLAS™ both surpasses conventional flame-retardant plastics in terms of durability, flame-retardancy and recyclability and achieves an outstanding recycled materials maximum content rate of 99%. At the same time, owing to the extensive use of recycled materials, CO₂ emissions attributable to SORPLAS™ are as much as maximum 80% lower than those from conventional flame-retardant plastics*. Moreover, Sony's waste plastics compounding technology makes it possible to tailor SORPLAS™ to the needs of a variety of products.

The first application of SORPLAS™ was the bezel (screen frame) of 2011-model BRAVIA™ LCD televisions (KDL-40EX52H, KDL-32EX42H/B, KDL-22EX42H/B). In 2012, SORPLAS™ was also used in digital video cameras and digital still cameras and in 2013 applications were expanded to include digital recording binoculars. In recognition of the development and use of SORPLAS™, the Japan Institute of Invention and Innovation awarded Sony a National Commendation for Invention in fiscal year 2014. Going forward, Sony will seek to further capitalize on the outstanding durability, flame-retardancy and recyclability of SORPLAS™ by marketing it extensively outside the Sony Group, thereby contributing to the expanded use of recycled plastics and the realization of a more recycling-oriented society.

* In the case of SORPLAS™ in the BRAVIA™ LCD TVs KDL-40EX52H. Based on Sony calculations, assuming plastic manufacturing(including shipping)

Volume of additive required for material to meet flammability standard (V-0 rating at 1.5 mm)



[Click here for Sony and the Environment, which features detailed information on environmental initiatives.](#)

- ☞ [Digital recording binoculars manufactured with SORPLAS™](#)
- ☞ [Cyber-shot™ digital still camera manufactured with SORPLAS™](#)
- ☞ [\[Spotlight\] SORPLAS™ - Sony's Recycled Plastic for a More Sustainable Future](#)

Introducing Post-Consumer Recycled Plastics

(Updated on August 22, 2014)

Sony actively introduces post-consumer recycled plastics into its products. Of all plastics used in Sony products, post-consumer recycled plastics accounted for approximately 2.3%*1 in fiscal year 2013. For example, the housing of the DSC-HX60/DSC-HX60V Cyber-shot™ digital still camera are made with post-consumer recycled plastic from beverage containers and other items collected from the market. Post-consumer recycled plastics account for approximately 24%*2 of the plastic used in this product.

- *1 Net value excluding virgin plastics and additives that are mixed with recycled materials (for new products in fiscal year 2013).
- *2 Percentage of post-consumer recycled plastics (net weight) of the total plastic used in the product excluding packaging and accessories. For all models.

Environment

Promoting Environmentally Conscious Packaging

(Updated on August 22, 2014)

Sony is promoting the development of its own original packaging with the aim of making packaging that creates less environmental impact. Efforts include expanding the use of recycled plastic, paper and other materials. At the same time, Sony is seeking to reduce the volume of resources used in packaging by shrinking packaging for medium-sized and large products.

[Click here for Sony and the Environment, which features detailed information on environmental initiatives.](#)

[☞ Reducing the Size of Packaging BRAVIA™ LCD TVs](#)

Environment

Reduction of Packaging Materials in Logistics

(Updated on August 22, 2014)

Sony strives to reduce the amount of resources such as packaging materials used in logistics through improvement of packaging technology.

- [Click here for more details in "Reducing the Environmental Impact of Logistics through Improvement of Packaging"](#)

Environment

Resource Conservation through the Adoption of Lightweight Disc Cases

(Updated on August 22, 2014)

At Sony Group companies in the entertainment field, initiatives have been implemented to reduce the amount of resources used in disc products, such as audio CDs and movie DVDs. In North America, Sony Pictures Home Entertainment (SPHE) has adopted a lightweight DVD case that uses approximately 32% less plastic* than conventional cases, and a lightweight Blu-ray Disc™ case that uses 20% less plastic than its conventional counterpart.

Sony Pictures Entertainment in Japan switched from plastic cases for rental DVDs to a proprietary simplified eco paper case called Secolo™ in August 2008. In furthering these efforts, since 2011 Sony has introduced a DVD case that weighs approximately half of the Secolo™ case, obtaining additional savings in resource usage.



Lightweight DVD cases adopted in North America

* In the case of a two-disc DVD set. For a single-disc DVD case, the difference is 20%.

Environment

Measures to Conserve Resources Used in Paper

Sony recognizes that paper resources are limited and not only makes it a point to procure environmentally preferable paper, such as recycled paper and paper made from certified forest products, but also strives to reduce the amount of office paper used at sites and limit the number of pages in its product manuals.

Sony Group Paper / Printed Material Purchasing Policy

(Updated on August 22, 2014)

Sony formulated a paper and printed material purchasing policy covering the entire Sony Group to promote the environmentally preferable use of paper within the organization in order to ensure the efficient use of resources, including the conservation of forests and preservation of biodiversity.

Objectives	Sony recognizes that paper resources are limited and therefore promotes the efficient use of paper resources, the conservation of forests and the preservation of biodiversity in order to reduce our environmental footprint.
Scope	Paper and printed material used by Sony worldwide, covering office paper, packaging materials for Sony products, instruction manuals, catalogues, and printed matter for both internal and external use.
Basic Policy	<p>Sony shall purchase paper and printed material based on the following principles:</p> <ol style="list-style-type: none"> 1. Wood as raw material for paper shall be produced in compliance with the regulatory requirements of the country where the wood is logged. 2. Priority for purchase shall be given to either paper made of recycled pulp or paper produced from wood under environmentally appropriate forest management, as certified by a third-party organization. In cases in which purchasing the above is difficult, environmentally preferable paper shall be selected from the paper available in each region. 3. The bleaching of paper shall be chlorine free. 4. Printed material shall be environmentally preferable, e.g., using VOC-free ink*1. 5. Paper shall not be purchased if it is produced by companies that are accused of environmental destruction*2.
Implementation	<ul style="list-style-type: none"> - Sony will implement the above Basic Policy through a step-by-step approach, taking into account regional differences on availabilities and markets of paper and printed material. - Sony will cooperate with stakeholders, e.g., with regard to information exchange, to achieve better paper and printed material purchasing. - Each Sony Group company or region is allowed to establish more stringent implementation rules.

*1 VOC stands for Volatile Organic Compounds.

*2 "[Policy for the Association of Organizations with FSC](#)" by the Forest Stewardship Council (FSC) is referred.

Use of Environmentally Preferable Paper

(Updated on August 22, 2014)

Recognizing that paper resources are finite, Sony strives continuously to reduce paper consumption. Sony has also established a purchasing policy for paper and printed materials, which prioritizes environmentally preferable paper, including forest-certified paper and recycled paper. With regard to paper made from certified forest products, Sony promotes the use of FSC-certified paper whose legality, forest sustainability and other aspects have been evaluated. In fiscal year 2013, Sony used 350 tons of FSC-certified paper in its corporate publication such as annual reports, and calendars, business cards and other printed materials.

In November 2013, Sony became a founding member of the Consortium for Sustainable Paper Use, the aim of which is to encourage environmentally preferable and socially responsible paper use by both companies and society at large. The consortium was established by a group of companies promoting progressive initiatives in the area of sustainable paper use in collaboration with World Wide Fund for Nature (WWF) Japan and Response Ability, Inc. Through participation in the consortium, Sony is advancing the practical application of measures to ensure sustainable paper use and at the same time to disseminate information and promote public awareness. Consortium members meet and exchange information regularly with the goal of promoting the consortium-wide application of particularly outstanding initiatives.



Consortium for Sustainable Paper Use logo (center) and participating companies (as of June 2014)

Digitization of Product Manuals

(Updated on August 22, 2014)

The number of pages in user manuals and operating guides has increased as products become more multi-functional. Reducing page counts will contribute to conservation of paper resources and also reduce CO₂ emissions from printing and transportation operations. Accordingly, Sony is advancing the digitization and Web-based publication of product manuals while ensuring content remains easy to understand. Manuals can now be viewed easily from PCs, tablets, smartphones and other digital devices, enhancing accessibility and at the same time facilitating a significant reduction in the volume of paper used for this purpose.

Sony Life Paperless Initiatives

(Updated on August 22, 2014)

By updating its insurance simulation system, based on its pioneering life planning concept, as well as other sales support systems, Sony Life Insurance Co., Ltd., transformed applying for insurance into a paperless procedure. In addition to significantly reducing the procedural burden on customers, this move facilitated a reduction in the volume of paper Sony Life Insurance uses.

Launch of Digital Paper

(Updated on August 22, 2014)

In December 2013, Sony announced the Digital Paper with a 13.3-inch display, which is equivalent to the size of an A4 sheet of paper*1. The device uses Sony's independently-developed technology to form a thin-film transistor (TFT) on a plastic substrate with high precision. By utilizing the latest 13.3-inch (1,200 x 1,600 dots) flexible electronic paper*2 in the device's display, texts and graphics are sharp and easy-to-read as they would be on conventional paper. Users can also use the dedicated stylus to write notes on the displayed text, thus further promoting the possibility of paper use reduction. Through the use of this Digital Paper, Sony aims to realize Digital Paper Solutions for paper-intensive environments, including universities and offices. Sony also hopes to support learning and productivity gains by digitizing educational materials and business documents. In May 2014, Sony also launched a Digital Paper Solution for Meetings (available in Japan only).



DPT-S1 Digital Paper

*1 The 13.3-inch display is equivalent to an A4-sized sheet of paper excluding the unprinted border area.

*2 Flexible electronic paper uses "E Ink Mobius," which was developed by E Ink Corporation.

Environment

Management of Chemical Substances: Table of contents

In line with its Road to Zero global environmental plan, Sony is taking decisive steps to maintain strict control over chemical substances. In products, Sony specifies applications for which alternatives to high-risk substances can be used and strives to eliminate such substances wherever possible, thereby reducing potential impact on the environment. Sony has also set the standards for managing high-risk substances at its sites and is working to reduce and eventually eliminate these substances.

[Policy on Management of Chemical Substances](#)

[Management of Chemical Substances at Sites](#)

[Management of Chemical Substances in Products](#)

Environment

Policy on Management of Chemical Substances

(Updated on August 22, 2014)

In conformance with its Green Management 2015 mid-term environmental targets, Sony maintains stringent control over the chemical substances it uses. This enables Sony to minimize the risk of chemical substances it uses causing serious harm to human health and the environment.

Chemical Substances Used in Products

(Updated on August 22, 2014)

Sony gathers information on restrictions in different countries and on environmental impact from Sony Group companies around the world, as well as from industry associations and specialized agencies in Japan, the United States and Europe, among others. Group technical committees then investigate relevance to Sony electric and electronics products, specific applications and instances of actual use.

Based on information thus obtained, as well as on risk assessment information from specialized programs such as the United States Environmental Protection Agency's Design for the Environment partnership program*1, Sony classifies individual chemical substances as either to be eliminated or to be controlled. Sony also monitors information on controlled chemical substances used in parts and finished products, eliminating use in specific applications that assessments have identified as high-risk. Considering the interests of its various stakeholders, Sony adopts a precautionary approach and takes steps to identify and strive to eliminate substances considered to be high-risk, even in cases where scientific evidence is insufficient, thereby reducing potential impact on the environment.

*1 [Click here for more details on the United States Environmental Protection Agency's Design for the Environment partnership program](#)

Targets for the Management of Chemical Substances in Products

Research and Development	Develop technologies to reduce the use of substances of high concern and alternative materials.
Product Planning and Design	Eliminate Environment-related Substances to be Controlled*2 of very high concern and BFRs/PVC within specified use.
Procurement	Conduct procurement in ways that enable Sony to achieve its "Product Planning and Design" targets.

*2 "Environment-related Substances to be Controlled ('Controlled Substances')": Among the substances contained in parts and devices, "Environment-related Substances to be Controlled ('Controlled Substances')" are those which, in Sony's judgment, have a significant impact on both humans and the global environment.

Chemical Substances Used at Sites

(Updated on August 22, 2014)

Regarding chemical substances used at Sony manufacturing and non-manufacturing sites, Sony assesses the risk level of substances and applications as "high" or "low" and designates appropriate standards for their management.

Targets for the Management of Chemical Substances at Sites

Operations	<p>Take actions for each class below.</p> <p>Class 1: Prohibit use.</p> <p>Class 2: Eliminate use by a specified date.</p> <p>Class 3: Reduce the amounts released and transferred.*</p> <p>* Specified substances: amounts released and transferred: -14% (compared with FY2008)</p> <p>* VOCs: amount released into the atmosphere: -50% (compared with FY2000)</p> <p>Class 4: Comply with the relevant laws and regulations and use under appropriate control.</p>
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Environment

Management of Chemical Substances at Sites

- [Chemical Substances Used by Sites](#)
- [Environmental Risk Management at Sony Sites](#)
- [Response to Soil and Groundwater Contamination](#)

Environment

Chemical Substances Used by Sites

(Updated on August 22, 2014)

The Sony Group has developed a Groupwide approach to the management of chemicals used at sites where the use of these chemicals is controlled by legislation; designated as having a potentially harmful impact on the environment; or used in large quantities.

Reinforcing Standards for Managing Chemical Substances

(Updated on August 22, 2014)

In line with Green Management 2015, which outlines Sony's targets for chemical substances requiring management, such substances are divided into four classes. Sony has implemented measures aimed at managing not only the amounts of these chemicals used, but also the amounts released into the air, water and soil or transferred as waste.

In countries where no legal reporting requirements exist for chemical management, Sony sites apply standards based on Japan's Pollutant Release and Transfer Register (PRTR) as internal rules.

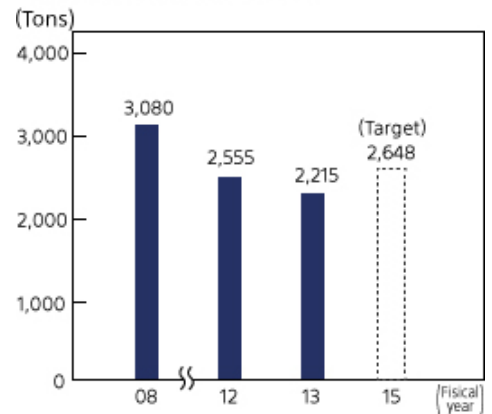
Class 1 chemical substances are those whose use is prohibited. These substances are either banned under international treaties or specifically recognized by Sony as having a high risk of contaminating the environment. With regard to mercury, Sony is expanding the use of alternative technologies. However, some mercury was used in exceptional cases, including at the request of customers. In fiscal year 2013, Sony used 34 kilograms of mercury as an additive in button batteries.

Class 2 chemical substances are those that are to be phased out. Sony previously used perfluorooctane sulfonate (PFOS) in semiconductor fabrication, but ceased using the substance in March 2010.

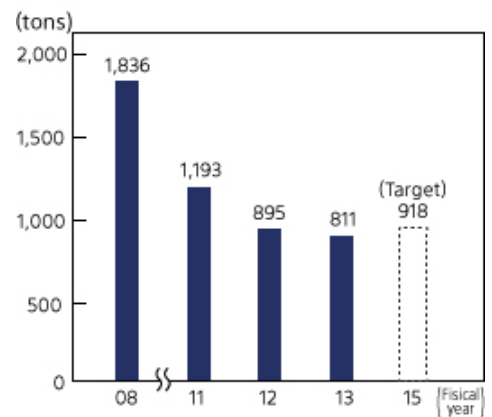
Class 3 chemical substances are those for which emissions are to be lowered. Having set targets for reducing the amounts released into water and transferred as waste or into sewers by 14% from the fiscal year 2008 level and reducing the amounts of volatile organic compounds (VOCs) released into the air by 50% from the fiscal year 2000 level, Sony is taking active steps to cut back its use of class 3 chemical substances. In fiscal year 2013, Sony released a total of approximately

2,215 tons of such substances into water and transferred as waste or into sewers, down approximately 28% from the fiscal year 2008 level. After analyzing its performance in fiscal year 2013, Sony will redouble its efforts, focusing particularly on those transferred as waste. Sony's release of VOCs into the air in fiscal year 2013 amounted to approximately 811 tons, 56% lower than in fiscal year 2000 and down 9% from fiscal year 2012. This decrease is attributable mainly to a switch to VOC alternatives and measures to reduce the amount of VOCs used in production processes. Sony has also promoted the development of compact treatment systems, which it has installed gradually at facilities used for semiconductor fabrication, the principal source of its VOC emissions. Emissions of VOCs per unit of consolidated net sales (tons/million yen) were 0.0053 ton in Japan and 0.0017 ton overseas.

Amounts of Chemical Substances Released into Water, Transferred into Sewers or as Waste



Release of VOCs into the Air



Example of Reduction in Chemical Substance Usage

(Updated on August 22, 2014)

Sony Semiconductor Corporation (SCK), a high-volume producer of image sensors, collaborated with an equipment manufacturer to develop a proprietary volatile organic compound (VOC) treatment system as part of efforts to reduce the amount of VOCs released. Conventional VOC treatment systems are installed near ventilation duct outlets. Since such equipment is designed to treat extremely rarefied organic substance, it is very large and semiconductor plants must overcome space and cost constraints when installing these types of systems. SCK responded by focusing on production equipment for highly concentrated organic substance and developed small, fixed condensing-type VOC treatment system in conjunction with an equipment manufacturer. The newly developed system can be installed near to production equipment and is able to treat VOCs efficiently.



Small, fixed, condensing-type VOC treatment system developed by SCK in conjunction with an equipment manufacturer

Ozone-Depleting Substances

(Updated on August 22, 2014)

Sony succeeded in completely eliminating first-generation chlorofluorocarbons (CFCs) from its manufacturing processes in 1993 and banned the use of second-generation hydrochlorofluorocarbons (HCFCs) at the end of fiscal year 2000. At present, Sony uses CFCs as a refrigerant in some air-conditioning units only. Strict care is taken to prevent leakage of CFCs from these units during maintenance.

Links to Related Items:

- [Environmental Data > Emissions of Air and Water Pollutants \(Worldwide\)](#)
- [Environmental Data > PRTR Data for Japan \(Japanese only\)](#)

Environment

Environmental Risk Management at Sony Sites

(Updated on August 22, 2014)

To carry out effective risk management of chemical substances and emergency responses, the Sony Group has enacted the Sony Group Standards for Site Environmental Risk Management, which set the management standard and examples of the improvement measures. Based on these standards, at each site Sony has implemented accident prevention measures, including prohibiting the burial of tanks and pipes, and various leak prevention measures. In addition, Sony rigorously works to prevent environmental accidents through ongoing improvements to its systems based on regular audits at each site, information sharing among sites and other initiatives. Sony has established a system whereby its sites are required to promptly report environmental accidents to the authorities and to take appropriate countermeasures. No such accidents were reported at any of Sony's sites in fiscal year 2013.

Environment

Response to Soil and Groundwater Contamination

(Updated on August 22, 2014)

When incidents of soil or groundwater contamination are identified at Sony sites through voluntary assessments, etc., decontamination processes are implemented to conform with pertinent local laws and ordinances. For example, Sony Group companies in Japan deal with the occurrence of contamination of soil and groundwater at Group sites by taking steps in line with the Sony Group Standard for Assessing Soil and Groundwater, an internal document that sets out procedures that comply with domestic laws and ordinances. This manual stipulates that issues be addressed through the following three steps (or phases):

- **Phase 1:** Investigate past and present chemical use and confirm the existence or otherwise of used or unused underground tanks, buried piping and other similar previous incidents at the site. Perform an inspection of the site to ascertain whether there is any residual soil or groundwater contamination.
- **Phase 2:** Based on the investigations undertaken in Phase 1, carry out an assessment of the areas that are potentially contaminated. Undertake measurements at these locations in line with the Soil Contamination Countermeasures Act.
- **Phase 3:** If any contamination is identified based on these results, carry out prevention and remediation procedures.

Sony continues to submit regular reports to the authorities and to implement remediation measures at two sites in Japan, Sony Haneda Corporation and Sony EMCS's Inazawa Site where incidents of soil and groundwater contamination were previously confirmed.

Progress of Soil and Groundwater Remediation

Site	Date Contamination Confirmed	Substance(s) Detected	Cause	Response/ Current Status
Sony Haneda Corporation (Japan)	September 2004 (Result of assessment conducted in line with Tokyo bylaws)	Fluorine Boron Trichloroethylene Cis-1 2-dichloroethylene Lead Mercury Arsenic	Leak in area where substances had previously been used	Groundwater pumping has been under way since July 2005. Sony continues to monitor substances which were previously found in concentrations that exceeded legal standards, or which were within standards but detected in groundwater. Both are currently below legal standards for groundwater.
Sony EMCS Corporation Inazawa Site (Japan)	June 2001 (Result of voluntary assessment)	Fluorine	Leak from crack in drainage pipe	Drainage pipes equipped with sensors to detect leaks have been installed. As of fiscal year 2010, the degree of contamination had been reduced to 1.2 mg/l, from a peak of 58mg/l. This level has remained essentially steady, with an analysis in fiscal year 2013 indicating a contamination level of 1.45 mg/l.

Environment

Management of Chemical Substances in Products

- [Management of Chemical Substances in Products](#)
- [Three Core Principles for Managing Chemical Substances in Products](#)
- [Reduction and Replacement of Chemical Substances of Very High Concern](#)
- [Management of Chemical Substances in Packaging Materials](#)

Environment

Management of Chemical Substances in Products

Sony's Proprietary Global Standards for the Management of Chemical Substances

(Updated on August 22, 2014)

Many of Sony's electronics products contain between a few hundred and a few thousand parts that are made of a variety of chemical substances, some of which may be classified as hazardous and may harm the environment if they are not properly controlled prior to product disposal.

To prevent such environmental harm, some countries and regions have introduced laws and directives, such as the European Union's Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive*1 restricting certain chemical substances in products. In Japan, products that contain certain chemical substances are required to carry the J-Moss mark*2, while in China it is required to disclose information on chemical substances contained in products in line with the Management Methods on the Pollution Control of Electronic Information Products, often referred to as China RoHS.*3

In light of the global nature of its markets and supply chains, Sony has established its own global standards for the management of chemical substances, titled "Management Regulations for the Environment-related Substances to be Controlled which are Included in Parts and Materials" (SS-00259)*4, taking into account the related laws and regulations around the world and simultaneously the opinions of various stakeholders. In line with these standards, Sony ensures globally consistent management of chemical substances in parts and materials.

- *1 Directive on the restriction of the use of certain hazardous substances in electric and electronic products (RoHS) (Enforced in 2006 and revised in 2011)
- *2 Japanese Industrial Standards (JIS) for marking the presence of certain chemical substances in electrical and electronic equipment
- *3 Management Methods on the Pollution Control of Electronic Information Products is a regulation passed in 2007 in China, to regulate the use of six substances, including lead and mercury, in electronic products and components sold in the Chinese market. All electronics and information devices sold in China must bear the "Environmental pollution control mark," "Information on chemical substances content," and "Packaging materials recycling mark."

- *4 Sony standards that are used to give direction to suppliers on chemical substances for items procured by Sony (thirteenth edition published in March 2014). These standards classify chemical substances as those that must be banned immediately, those for which a period for phaseout is individually set and those for which no deadline is set for ban of use but phasing out is planned. (For details, visit: [Management Regulations for the Environment-related Substances to be Controlled which are Included in Parts and Materials \(SS-00259\)](#).)

Complying with Regulations Governing Chemical Substances in Products

(Updated on August 22, 2014)

Sony has set up necessary procedures to ensure compliance with the EU's REACH*1 regulation requirements and revised RoHS Directive. In response to its obligation under REACH to provide information to customers, as well as to the CE marking requirement of the RoHS directive, Sony currently uses the Green Procurement Survey Response Tools standard*2 issued by the Japanese VT62474*3 committee of the International Electrotechnical Commission (IEC). This enables Sony to collect data on specified chemical substances in parts and materials purchased from suppliers for management in an internal database.

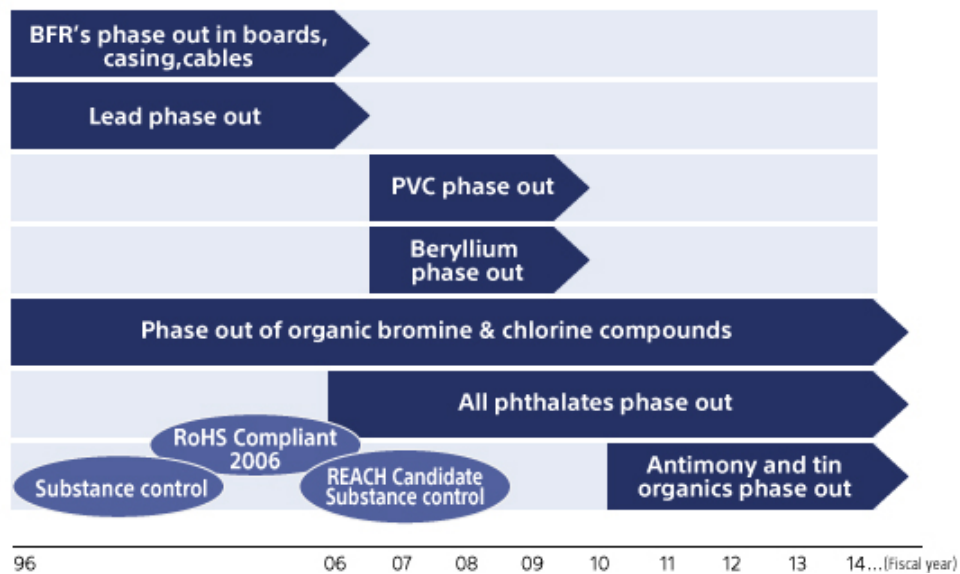
- *1 REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals): New regulations for managing chemical substances introduced in the EU effective June 1, 2008, whereby companies that meet certain conditions are required to, among others, register, apply for authorization, notify, restrict and communicate information on certain chemical substances. Information on REACH can also be found at <http://www.sony.co.uk/hub/eco/sustainable-business-processes> (only available in English).
- *2 Maintaining the electronic data format defined by the Japanese Green Procurement Survey Standardization Initiative (JGPSSI) for material declaration, the Japanese VT62474 committee issued a survey tool that covers additions to the list of declarable substances. The tool includes information on, among others, presence in parts, applications and sites where used.
- *3 The Japanese VT62474 committee was established in April 2012 as a subcommittee of the IEC under IEC TC111 technical committee for environmental standardization for electrical and electronics products and systems. Functioning primarily as a screening body in Japan, the Japanese VT62474 committee is responsible for summarizing opinions and providing information for the IEC's VT62474 project team, which is charged with updating the list of declarable substances in the IEC62474 database.

Managing Chemical Substances in Smartphones and Tablets

(Updated on August 22, 2014)

Sony is promoting efforts to manage chemical substances in its Xperia™ Smartphones and tablets. Sony Mobile Communications AB (SOMC) was the first to seek the phase out of brominated flame retardants (BFRs) from its mobile phones and in 2002 became one of the first companies in the industry to offer BFR-free mobile phones, meaning BFRs were not used in circuit boards, cables or casings. Consistent efforts since then have enabled SOMC to completely eliminate BFRs and polyvinyl chloride (PVC) from all of its products (excluding accessories). SOMC has also succeeded in eliminating phthalic esters, namely, Di(2-ethylhexyl) phthalate (DEHP), Dibutyl phthalate (DBP), Benzyl butyl phthalate (BBP), Di-isodecyl phthalate (DIDP), Di-n-octyl phthalate (DNOP) and Di-isonoyl phthalate (DINP), from all Xperia™ Smartphones and Tablets. Going forward, SOMC will also continue phasing out organic bromine and chlorine compounds from Xperia™ Smartphones, Tablets and accessories.

Phase out of critical substances in mobilephones



Note: Since fiscal year 2013, Sony has also been promoting the phaseout of critical substances in smartphones and tablets in accordance with the timeline shown above.

Information on "Color IQ™"* Incorporated in Some Television Models

(Updated on August 22, 2014)

BRAVIA™ LCD TV models:

X9200A, X9000A/X900A, W950A, W900A, W850A

Note: The series of LCD televisions above will be launched in various countries around the world, with some models incorporating "Color IQ™." For more details on these models, please visit the appropriate Sony website in each country.

"Color IQ™" is an advanced light-emitting semiconductor technology developed by QD Vision, Inc. By integrating QD Vision's "Color IQ™" optical component with Sony's unique display technologies, this television set achieves a significantly wider color gamut, which provides a far more natural and vivid viewing experience. The "Color IQ™" optical component produced by QD Vision contains a very small quantity of cadmium. This cadmium is fixed within a hardened resin which is sealed in glass inside the television. Customers can therefore enjoy using this television without being exposed to cadmium.

This television complies with all applicable environmental laws and regulations in countries and regions where Sony sells it. Sony's aim is to protect the environment throughout the life cycle of its products. As part of this effort, Sony provides its consumers, authorized repair workshops and recycling companies with information relating to the "Color IQ™" component in order to enable proper collection, handling, recycling and disposal of the component upon repair or disposal of the television, in accordance with applicable local environmental laws and regulations.

* "Color IQ™" and the "Color IQ™" logo are trademarks of QD Vision, Inc.

[● Frequently Asked Questions \(FAQs\)](#)

Environment

Three Core Principles for Managing Chemical Substances in Products

To guide its efforts to manage chemical substances in products in compliance with Sony's own global standards for management of chemical substances, titled "Management Regulations for Environment-related Substances to be Controlled which are included in Parts and Materials" (SS-00259)*, Sony has established three core principles:

- * Sony standards that are used to give direction to suppliers on chemical substances for items procured by Sony (13th edition published in March 2014). These standards classify chemical substances as those that must be banned immediately, those for which a period for phase-out is individually set and those for which no deadline is set for ban of use but phasing out is planned. (For details, visit: [Management Regulations for the Environment-related Substances to be Controlled which are included in Parts and Materials \(SS-00259\)](#))

Upstream management

(Updated on August 22, 2014)

In 2002, Sony established the Green Partner Environmental Quality Approval Program, which outlines Sony's Green Partner Standards for chemical substance management. Sony audits suppliers based on these standards. Sony purchases electronic parts only from suppliers who have passed this audit and have been certified as Green Partners. Sony also applies the Green Partner Environmental Quality Approval Program to OEM suppliers, who produce for Sony according to Sony specifications. To further enhance the efficiency of the system to manage chemical substances, in autumn 2003 Sony introduced the Green Book, a raw materials database, which was made available to Sony's direct suppliers via its electronic supplier portal. In the Green Book, Sony has registered only those materials that it has measured and confirmed compliance with the SS-00259 standards for Sony's designated raw materials such as recycled plastics and wires, and also for molding resins, paints, inks, printed wiring boards, steel sheets, adhesives and other basic materials that are commonly used by multiple first tier suppliers. To assist REACH compliance, Sony started by October 2008 to collect for raw materials listed in Green Book data on the content of certain chemical substances and makes these data available to its suppliers.

Management in Quality Control/Quality Assurance processes

(Updated on August 22, 2014)

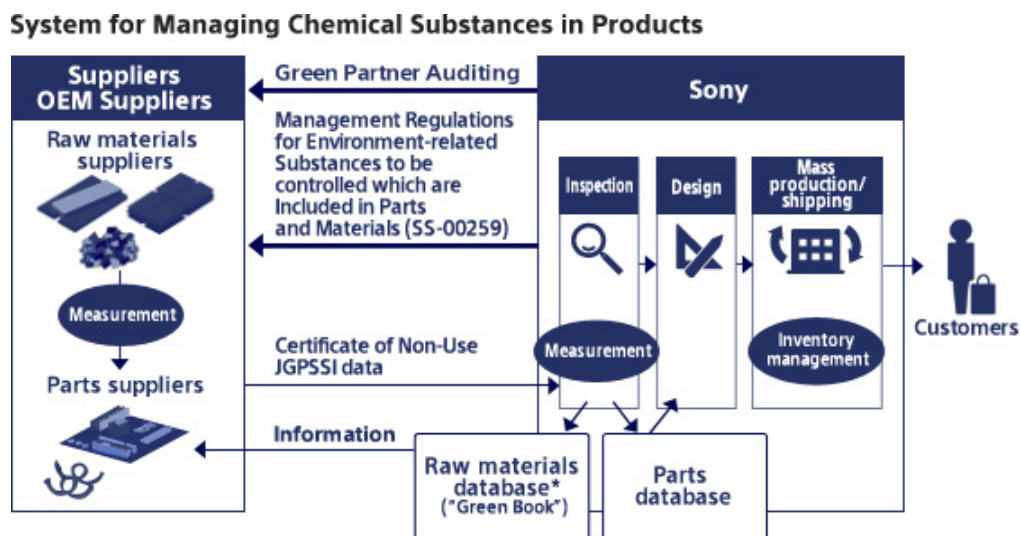
New parts and materials are tested to ensure conformity with SS-00259 standards in addition to compliance with conventional quality control standards. Data collected from suppliers based on JGPSSI format* are thoroughly evaluated for this purpose. By implementing these strict management procedures worldwide, non-compliant products are prevented from entering the market.

* Electronic data format defined by JGPSSI (Japanese Green Procurement Survey Standardization Initiative) for material declaration that includes information on mass contained in parts, purpose of use, sites where used, etc., of declarable substances. Sony is currently promoting the use of the Green Procurement Survey Response Tools standard (formerly JGPSSI) issued by the Japanese VT62474 committee of the International Electrotechnical Commission (IEC).

Utilization of chemical analysis

(Updated on August 22, 2014)

To prevent prohibited substances from accidentally entering products, suppliers are required to submit certificates of non-use attesting that the parts and materials they supply do not contain prohibited chemical substances as well as the JGPSSI data. For some high-risk substances Sony has also implemented internal control systems that involve using, for example, X-ray fluorescence (XRF) and other measurement devices, to Sony sites worldwide, to help confirm that prohibited substances are kept out of products.



* For direct suppliers, the Green Book was made available via its electric procurement system in autumn 2003

Environment

Reduction and Replacement of Chemical Substances of Very High Concern

"Controlled Substances" Defined by Sony	
Cadmium and cadmium compounds	Lead and lead compounds
Mercury and mercury compounds	Hexavalent chromium compounds
Polybrominated biphenyls (PBB)	Polybrominated diphenylethers (PBDE) (including decabromodiphenyl ether [DecaBDE])
Hexabromocyclododecane (HBCDD)	Other brominated organic compounds
Polychlorinated biphenyls (PCB)	Polychlorinated naphthalenes (PCN)
Polychlorinated terphenyls (PCT)	Short-chain chlorinated paraffins (SCCP)
Tris(2-chloroethyl) phosphate (TCEP), Tris(2-chloro-1-methylethyl) phosphate (TCPP), Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	Perchlorates
Polyvinyl chloride (PVC) and PVC blends	Other chlorinated organic compounds
Hydrofluorocarbon (HFC), Perfluorocarbon (PFC), Sulfur hexafluoride (SF6)	Ozone depleting substances (ODS)
Perfluorooctane sulfonates (PFOS)	Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA
Trisubstituted organotin compounds (including tributyltin (TBT) compounds and triphenyltin (TPT) compounds)	Dibutyltin (DBT) compounds
Diocetyl tin (DOT) compounds	Beryllium oxide
Beryllium copper	Cobalt dichloride
Diarsenic trioxide, Diarsenic pentaoxide	Bis (2-ethylhexyl)phthalate, Dibutyl phthalate, Benzyl butyl phthalate, Diisobutyl phthalate

Di-isononyl phthalate, Di-isodecyl phthalate, Di-n-octyl phthalate, Di-n-hexyl phthalate, "1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich", "1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters", Bis(2-methoxyethyl) phthalate, Diisopentylphthalate, "1,2-Benzenedicarboxylic acid, dipentylester, branched and linear", N-pentyl-isopentylphthalate, Dipentyl phthalate	
Asbestos	Specific azo compounds
Formaldehyde	Specific benzotriazole
Dimethyl fumarate (DMF)	Polycyclic aromatic hydrocarbons (PAHs)
Boric acid, specific sodium borates	4-(1,1,3,3-tetramethylbutyl) phenol
Bis(2-methoxyethyl) ether	N,N-dimethylacetamide (DMAC)
Ethylene glycol dimethyl ether (EGDME)	Trixylyl phosphate (TXP)

Note: Control level varies depending on application.

Polyvinyl Chloride (PVC)

(Updated on August 22, 2014)

Although PVC is not currently regulated by any laws that apply to chemical substances used in electronics products, Sony continues to promote the use of alternatives. As a result, Sony does not use PVC in product packaging materials, casings, sheets/laminates of speaker housings, contactless IC cards and carrying bags/cases for products (excluding those for professional use). Sony has also been successful in replacing PVC by a developed alternative in several internal components such as flexible flat cables, insulation plates and electrical heat shrink tubes (excluding those for batteries), all of which are difficult to remove prior to recycling. Sony is concerned with the possibility that, in particular, its small electronics products could be collected for obtaining valuable materials, and then the unwanted parts could be improperly incinerated and disposed of in landfills. Considering the impact of these activities on the environment, Sony is promoting the replacement of PVC with alternative substances (for products where quality, technological and supply problems have been resolved).

As of the end of July 2014, for the following products Sony replaced PVC with alternative substances in new products and new models. In addition to information on product categories provided below, follow the link for "[Examples of PVC-free Products and BFR-free Products.](#)"

PVC-Free and BFR-Free Product Categories*
Xperia™ Smartphone
Xperia™ Tablet
MP3 players WALKMAN®
IC recorder/Memory Card Recorder/Portable Radio Recorder/Linear PCM Recorder
Video Camera Handycam®
Video Camera Action Cam
Digital Still Camera Cyber-shot™
Digital Photo Frame S-Frame™
Interchangeable lens digital camera α™
PSP®(PlayStation®Portable)
PlayStation®Vita
Digital Book Reader Reader™
Portable DVD Player
Portable Blu-ray Disc™/DVD Player

* Parts in which PVC is eliminated are as below (excluding accessories):
 Xperia™ Smartphones: in all plastic components
 Products other than Xperia™ Smartphones: in casings and internal wiring

Brominated Flame Retardants (BFRs)

(Updated on August 22, 2014)

Some BFRs are harmful to human health and tend to remain in the environment and accumulate in living organisms.

As is the case with PVC, improper incineration of BFRs carries a risk of releasing harmful substances into the environment. Sony replaced BFRs with alternative substances in new products and new models (for products where quality, technological and supply problems have been resolved). As of July 2014, Sony had replaced BFRs with alternative substances in all new products and new models of the products listed below. For more information, refer to the table titled "[Examples of PVC-Free and BFR-Free Products.](#)"



BFR alternatives have been used in the main PWB of Xperia™ Z2

PVC-Free and BFR-Free Product Categories*
Xperia™ Smartphone
Xperia™ Tablet
MP3 players WALKMAN®
IC recorder/Memory Card Recorder/Portable Radio Recorder/Linear PCM Recorder
Video Camera Handycam®
Video Camera Action Cam
Digital Still Camera Cyber-shot™
Digital Photo Frame S-Frame™
Interchangeable lens digital camera α™
PSP®(PlayStation®Portable)
PlayStation®Vita
Digital Book Reader Reader™
Portable DVD Player
Portable Blu-ray Disc™/DVD Player

In accordance with the 13th edition of the SS-00259, released in 2014, Sony has banned the use of components and materials containing hexabromocyclododecane in its products. This is in addition to a ban on components and materials containing polybrominated diphenyl ethers and polybrominated biphenyls. Sony has also banned the use of tris (2-chloroethyl) phosphate, a chlorinated flame retardant identified as carrying risks similar to those associated with brominated flame retardants, as well as phosphoric acid tris (2-chloro-1-methylethyl) ester (TCPP) and tris (1,3-dichloro-2-propyl) phosphate (TDCPP).

Sony has also developed an environmentally conscious flame retardant that contains no bromine, to be used for polycarbonate plastic with high flame-retardant and thermal-resistant properties. This flame retardant is used, for example, in casings and components for interchangeable lens digital cameras, including α™58, and in internal parts of digital still cameras Cyber-shot™.

- * Parts in which BFRs are eliminated are as below (excluding accessories):
 Xperia™ Smartphones: in PWBs, casings and cables.
 Products other than Xperia™ Smartphones: in casings and main PWBs.

Mercury

(Updated on August 22, 2014)

Conventionally, button batteries require a minute amount of mercury to suppress the generation of hydrogen gas inside the battery. Eliminating the use of mercury in button batteries had proven very difficult from a technical standpoint. However, Sony was strongly determined to remove the environmental burden presented even by such a tiny amount of mercury. Sony began shipping mercury-free batteries in 2005 and in 2009 succeeded in developing a mercury-free alkaline button battery. One result of these and other efforts to reduce its use of mercury was the termination of the production of Sony-branded silver oxide batteries in 2013.



Mercury-free alkaline button battery

Phthalates

(Updated on August 22, 2014)

Sony is working to eliminate specific phthalates (phthalic esters), which are used as plasticizers in PVC, among other substances. Among these specific phthalates, for example, Sony has succeeded in eliminating phthalates (DEHP, DBP, BBP, DIDP, DNOP and DINP)* from Xperia™ Smartphones. Sony has also eliminated the use of phthalates in the bodies of PSP®(PlayStation®Portable) units and in the AC adapters packaged with those units shipped to Europe.

- * DEHP: Bis (2-ethylhexyl) phthalate, Di (2-ethylhexyl) phthalate; DBP: Dibutyl phthalate, Di-n-butyl phthalate; BBP: Benzyl butyl phthalate, Butyl benzyl phthalate; DIDP: Di-isodecyl phthalate; DNOP: Di-n-octyl phthalate; DINP: Di-isononyl phthalate.

Beryllium Compounds

(Updated on August 22, 2014)

Sony has designated beryllium oxide and beryllium copper as "Controlled Substances" since 2007 and is working to eliminate these substances. No beryllium oxide is used in any of its products. Sony has also succeeded in eliminating beryllium compounds from Xperia™ Smartphones.

Arsenic Compounds

(Updated on August 22, 2014)

In accordance with the 13th edition of the SS-00259, released in 2014, Sony has banned the use of LCD panels containing diarsenic trioxide and diarsenic pentoxide.

Environment

Management of Chemical Substances in Packaging Materials

(Updated on August 22, 2014)

Sony also takes precautions to increase the safety of its packaging materials and ensure that hazardous substances, including heavy metals, are not mixed into packaging materials by managing materials in line with its proprietary "Management Regulations for Environment-related Substances to be Controlled which are included in Parts and Materials" (SS-00259). The packaging section of SS-00259 is based on, among others, EU directives on packaging and packaging waste. Sony is also actively making use of inks that comply with "Voluntary Regulation Concerning Printing Inks (Negative List Regulations)" put forward by the Japan Printing Ink Makers Association, as well as inks that do not contain volatile organic compounds (less than 1% use of VOCs).

Environment

Biodiversity Conservation: Table of Contents

As part of its efforts to help maintain balance among all life forms on the planet, Sony is taking steps to conserve biodiversity, which is the base of all ecosystem services, at its sites through site greening activities and initiatives aimed at helping to restore areas outside its sites to their natural state.

[Basic Policy on Biodiversity Conservation](#)

[Biodiversity Conservation at Sony Sites](#)

[Products and Business Activities that Support Biodiversity Conservation](#)

[Conservation of Local Environment](#)

Environment

Basic Policy on Biodiversity Conservation

(Updated on August 22, 2014)

Sony recognizes the importance of natural capital and the ecosystem services supplied by natural capital. Through both its business activities and programs to contribute to local communities, Sony promotes the maintenance and recovery of biodiversity—the foundation of natural capital and ecosystem services. Natural capital means elements of the natural environment such as forests, rivers, the atmosphere and soil as well as the natural worth including living organisms. Natural capital is the source of ecosystem services, fossil fuels and minerals. Ecosystem services mean such services produced by natural capital as groundwater, lumber and climate regulation, which are received by humans from nature. Biodiversity means the state of existence of a diverse array of living organisms, and is essential to the supply of ecosystem services.

Sony conducts its business activities while using ecosystem services, and Sony's activities have an impact on ecosystems and other natural capital. To ensure the future maintenance of abundant natural capital—essential for business activities—the conservation of biodiversity is imperative. Sony promotes measures to reduce the environmental footprint of its business activities, including reductions in global warming gases, the use of fewer resources, and strict management of chemical substances. Sony also undertakes ongoing activities to contribute to the local communities in which it operates, such as programs to promote the greening of its business sites and the recovery of the natural environment in surrounding areas. By doing so, Sony is working to conserve natural capital and protect biodiversity.

Under Green Management 2015, Sony has set mid-term targets for the conservation of biodiversity, as indicated below. Sony has also formulated biodiversity guidelines for the implementation of related initiatives.

Targets for the Protection of Biodiversity at Sony Sites

Procurement	Conduct biodiversity assessments at resource extraction and harvesting sites
Operations	Promote environmental contribution activities that respond to the needs of local communities

Links to Related Items:

- [● Resource Conservation > Measures to Conserve Resources Used in Paper](#)

Environment

Biodiversity Conservation at Sony Sites

- Evaluation of Biodiversity at Sony Group Sites through the Green Star Program
- Site Greening Activities
- Monitoring Programs and Employee Education

Environment

Evaluation of Biodiversity at Sony Group Sites through the Green Star Program

Business sites are closely linked to their surrounding natural environment and local ecosystems. In April 2011, Sony introduced the Green Star Program as a means of assessing and promoting the level of environmental consciousness at its sites. Sony will continue to use this program in its biodiversity-related activities and promote a range of initiatives.

[Click here for more details on "Implementation of Green Star Program"](#)

Upgrading Biodiversity Conservation Initiatives

(Updated on August 22, 2014)

To date, greening activities carried out at sites had a tendency to focus on the size of natural landscapes and greenbelts. These activities did not necessarily take into account biodiversity issues. However, to address biodiversity conservation properly, sites must not only increase the size of greenbelts but also enhance their quality. By indicating specific measures and the level of initiatives, Sony is building a system that will facilitate quality improvements.

Promoting Step-by-Step Biodiversity Conservation Initiatives

(Updated on August 22, 2014)

As shown in the table below, the biodiversity section of the Green Star Program classifies and let each site self-assess specific assessment measures necessary to the implementation of biodiversity-related activities, including biodiversity conservation and land use, green space management and greening activities, at sites and in surrounding areas. Through this process, each site embarks on a step-by-step approach to conserve biodiversity at its sites in line with the local area's unique characteristics. The global introduction of the Green Star Program served to clarify the progress and challenges of initiatives aimed at conserving biodiversity. Challenges include determining how to implement measures tailored to the distinctive biodiversity issues that differ in each local community and how to promote biodiversity conservation in urban areas where the natural environment is poor. Through such efforts, Sony will continue working to improve the effectiveness of its ongoing biodiversity conservation initiatives.

[Click here for Sony and the Environment, which features detailed information on environmental initiatives.](#)

["Sony Forest" and "Sony Shionoka Park", now open to the public](#)

Consideration Points for Biodiversity in the Green Star Program

Measures	
Investigation	<ul style="list-style-type: none"> ● Monitor living things ● Give consideration to the ecological services related to site and business ● Grasp status of land use ● Give consideration to local biodiversity preservation plans
Improve ecosystem	<ul style="list-style-type: none"> ● Improvement of environment for living things ● Give consideration to ecological network ● Give consideration to three-dimensional vegetation ● Adoption of local species
Measures against bad effects	<ul style="list-style-type: none"> ● Measures against alien species ● Give consideration to bad effects on (disturbance of) ecosystems caused by emissions
Conservation	<ul style="list-style-type: none"> ● Grasp and conserve endangered species ● Conserve a wildlife sanctuary
Management	<ul style="list-style-type: none"> ● Ensure the appropriate management and use of chemical substances ● Ensure the effective use of organic resources ● Promote procurement that leads to biodiversity
Assessment	<ul style="list-style-type: none"> ● Restore, improve, or offset for the ecosystem. ● Performing environmental assessments that include biodiversity assessments
Cooperation with stakeholders	<ul style="list-style-type: none"> ● Cooperation with stakeholders ● Support for organizations that engage in biodiversity conservation activities

Environment

Site Greening Activities

(Updated on August 22, 2014)

As part of its efforts to help protect the natural environment and conserve biodiversity, Sony promotes ambitious biodiversity programs in green areas at its sites worldwide as well as in surrounding areas.

[Click here for Sony and the Environment, which features detailed information on environmental initiatives.](#)

["Sony Forest" and "Sony Shionoka Park," now open to the public](#)

Environment

Monitoring Programs and Employee Education

(Updated on August 22, 2014)

As part of a program designed to encourage biodiversity conservation at its various sites, Sony conducts monitoring programs aimed at ensuring site operations are in harmony with the local natural environment. For example, in fiscal year 2013 Sony launched a fixed-point bird observation program by the bird point census method in green spaces on its sites in Tokyo in collaboration with The Nature Conservation Society of Japan (NACS-J). Under this program, comparisons of the ecosystems of site green space with those of surrounding areas served to highlight several issues that will be reflected in conservation initiatives going forward.



Participants in a 2013 nature observation session

Sony also promotes a variety of educational initiatives aimed at helping employees better understand the importance of biodiversity conservation. Since 2010, Sony has organized nature observation sessions for employees in Tokyo. In 2012, this program was expanded to encompass multiple sessions, organized in collaboration with a number of other companies, which were held at a green space within the grounds of an office building in the Osaki district. Observing nature near their workplace over the course of a year helped employees to better grasp the importance of biodiversity, as well as encouraged additional initiatives such as the installation of nest boxes for birds and ponds for biological habitat. In recognition of this program, Shinagawa Ward, where Osaki is located, honored Sony with the 2013 Shinagawa Environmental Award.

Going forward, Sony will continue to conduct monitoring programs and other biodiversity conservation initiatives tailored to local communities.

Environment

Products and Business Activities that Support Biodiversity Conservation

(Updated on August 22, 2014)

In its product development, marketing programs and other business activities, Sony works to conserve biodiversity. For example, Sony's digital recording binoculars, digital still cameras and digital video cameras are useful for observing the natural environment and studying ecosystems. In marketing programs, companies within the Sony Group promote the use of timber from forest thinning to produce novelty goods.

[Click here for Sony and the Environment, which features detailed information on environmental initiatives.](#)

- [Digital Recording Binoculars for Observing and Recoding Ecosystems](#)
- [Novelty Goods Made by So-net Corporation](#)

Environment

Conservation of Local Environment

- [Conserving Water Resources](#)
- [Conserving Indigenous Species](#)

Links to Related Items:

- [Community Engagement<Environment>](#)

Environment

Conserving Water Resources

(Updated on August 22, 2014)

Kumamoto, home to Sony Semiconductor Corporation's Kumamoto Technology Center (Kumamoto TEC), was originally blessed with abundant groundwater resources. However, these resources have diminished sharply in recent years, attributable to a decline in the amount of land used as rice paddies cultivation and an increase in land used for residential purposes. Recognizing groundwater as an important ecosystem service, that is, a benefit nature provides humankind, Sony views the conservation of the natural capital, including the forests and woodlands that nurture groundwater, as an important challenge. Acknowledging its own responsibility as a manufacturer that uses significant quantities of water in the fabrication of semiconductors, Kumamoto TEC has been working since 2003 with local residents, an environmental NGO, agricultural organizations and agricultural cooperatives on groundwater recharge*1. During May to October, nearby paddy fields are filled with water drawn from a river prior to planting and/or after harvesting, causing the water to penetrate into the soil and ultimately return to the aquifer. Such practices are referred to as "Payment for Ecosystem Services (PES)"*2 and are recognized as playing a key role in efforts to conserve natural capital and biodiversity. In fiscal year 2013, Kumamoto TEC replenished approximately 2.29 million m³ of groundwater which is equivalent to its water use (including supply water and underground water).

A presentation on this initiative was made at a side event at the 10th Conference of Parties to the Convention on Biological Diversity (COP10), held in Nagoya, Japan, in October 2010. The initiative received wide praise as a new example of the effective application of PES.

There is a program in place enabling each Kumamoto TEC employee to purchase the rice harvested each year from the paddies within the groundwater recharge area. These programs contribute to the local community by supporting the area's farmers while also promoting the conservation of groundwater resources.

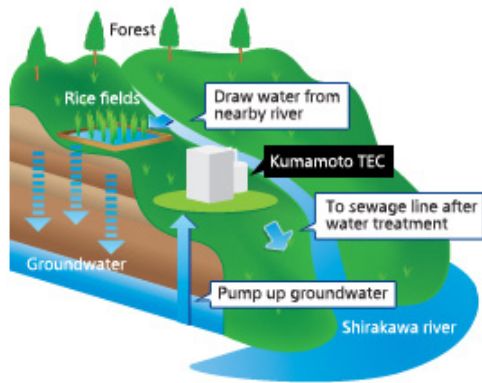


Rice growing in a paddy field belonging to a local farmer working in cooperation with Kumamoto TEC

*1 Groundwater recharge: The process by which surface water (precipitation and river water) permeates into an aquifer to replenish groundwater

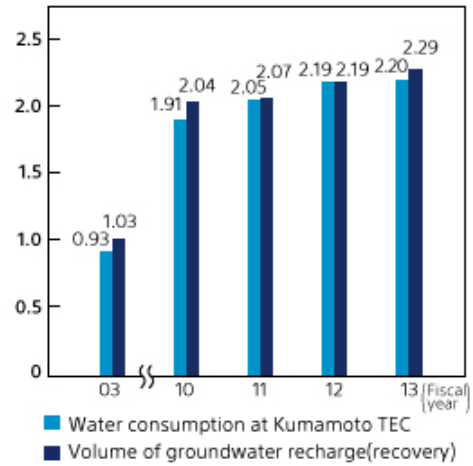
*2 PES (Payment for Ecosystem Services): The practice of paying for ecosystem services or for the cost of maintaining such services as a means of contributing to their conservation

"Groundwater recharge" using rice fields



Comparison of Water Used and Water Replenished by Kumamoto TEC

(Million m³)



Environment

Conserving Indigenous Species

(Updated on August 22, 2014)

To advance environmental preservation and encourage communication with local residents, Sony Group sites around the world promote the conservation of indigenous species.

[Click here for Sony and the Environment, which features detailed information on environmental initiatives.](#)

- [Singapore : "Water for Life" program - Conserving Water Resources and Biodiversity](#)
- [Panama : Protecting the Harpy Eagle](#)
- [Japan : Turtles return to breed, thanks to coastline cleanup](#)

Environment

Environmental Technologies: Table of contents

Sony conducts research aimed at developing proprietary technologies that contribute to the reduction of environmental impact and can be applied to new products and services, as well as to manufacturing processes.

- [Mid-Term Targets for the Development of Environmental Technologies](#)
- [Development Aimed at Environmental Technologies of the Future](#)
- [Sony's Proprietary Technologies Used in Manufacturing Processes](#)

Environment

Mid-Term Targets for the Development of Environmental Technologies

(Updated on August 22, 2014)

The table below outlines the mid-term targets for R&D set forth in Green Management 2015. To facilitate the achievement of these targets, Sony has established R&D themes that contribute to the reduction of environmental impact. Basic research is conducted at its headquarters' research centers, while the development of practical commercial applications is the responsibility of business units.

Mid-Term Targets for the Development of Environmental Technologies

Climate Change	<ul style="list-style-type: none"> ● Develop technologies that improve self-sufficiency ratio in the energy supply at the individual level by further implementation of energy saving measures in products and expansion of renewable energy. ● Develop information and communication technologies to support life styles indispensable to realize a low-carbon society.
Resources	Develop and refine "3R" (Reduce, Reuse, Recycle) technologies in product lifecycle to achieve reductions in the use of exhaustible resources and water, and to reduce waste.
Chemical Substances	Develop technologies to reduce the use of substances of high concern and alternative materials.

Environment

Development Aimed at Environmental Technologies of the Future

Authentication Outlet

(Updated on August 22, 2014)

There are recent signs that Home Energy Management Systems (HEMS) are beginning to gain traction globally. Against this background, Sony turned its attention to power outlets-essential in electricity usage-and has developed an authentication outlet, which provides electricity users with the means to actively manage and control power usage. This system applies contactless IC card technology, which has a proven record in such fields as mass transit ticket systems and electronic money. Under this system, an electrical appliance or vehicle has an IC chip built into its plug, while the outlet has an embedded IC card reader. When a plug is inserted into an outlet, electricity is supplied after device and user authentication. Based on this system, it will be possible to charge for electricity on an individual-user basis and manage consumption for each device. This technology is expected to contribute not only to the development of HEMS but also to the establishment of new public power-supply services.



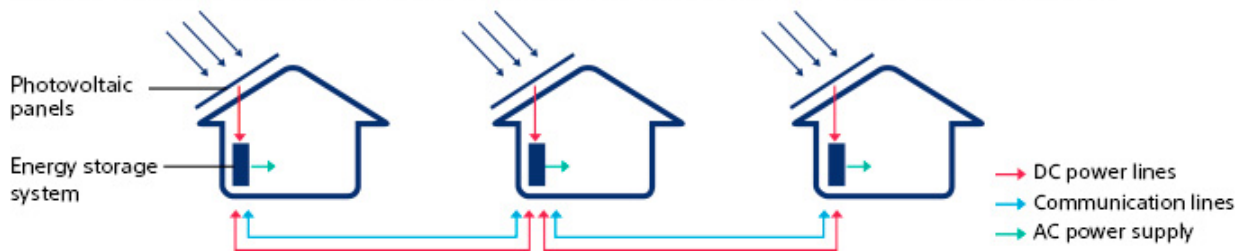
Authentication outlet prototype

Open Energy System

(Updated on August 22, 2014)

Although such renewable energy sources as solar and wind power generation are attracting much attention, there are significant issues to overcome before thinly dispersed renewable energy can be utilized effectively. Sony Computer Science Laboratories, Inc. (Sony CSL) is conducting research on Open Energy Systems (OES), which make possible ultra-distributed, dynamic electricity transmission and distribution. Sony CSL has teamed up with Okinawa Institute of Science and Technology Graduate University (OIST) to pursue joint OES demonstration experiments using Sony's storage batteries. In 2013, this research was selected by the Okinawa Prefectural Government to be part of its subtropical and island energy infrastructure technology research subsidy program, with Sony CSL and OIST collaborating in "Research related to Distributed DC Power Control for the Realization of OES." In fiscal year 2013, Sony CSL built the DC-based OES (DCOES) platform on the OIST campus in the faculty housing area, and conducted a demonstration experiment for electric power interchange between houses.

Demonstration Experiment for DC Electric Power Interchange at the OIST Faculty Housing Area



The houses are connected by DC power lines and communication lines. Each house stores power generated by PV panels in the ESS (storage batteries), and an automatic control system feeds power to houses whose storage battery levels are low.

Next-generation Flexible Display / OLED Display

(Updated on August 22, 2014)

Sony is pursuing research and development of a diverse array of flexible displays-the next evolutionary step beyond flat panel displays. Flexible displays are thin and light, similar to conventional paper, and can be flexibly bent, hence it is hoped that such technology will help make devices more compact, light and easily storable as well as enhance design features.

In 2012, Sony announced the successful development of a 9.9-inch flexible OLED display that uses a flexible substrate in place of a glass substrate. This display comprises a newly developed transparent oxide semiconductor (TOS) thin-film transistor (TFT) on a flexible substrate as the drive element of an OLED element. The display achieves high performance on par with a conventional glass-substrate display, indicating that commercialization of the flexible OLED display is now within sight.

Utilizing organic TFTs, Sony is also developing next-generation electronic paper and OLED displays that can be rolled up. Since these displays have similar properties to paper and can reproduce colors, they could potentially substitute for paper media, such as newspapers and magazines, thereby further reducing consumption of paper resources. Furthermore, by leveraging the properties of organic materials, Sony is developing technology to reduce the amount of materials and energy used during the manufacturing process.



9.9-inch flexible OLED display prototype (June 2012)



Organic TFT-driven OLED display prototype that can be rolled up (May 2010)

Environment

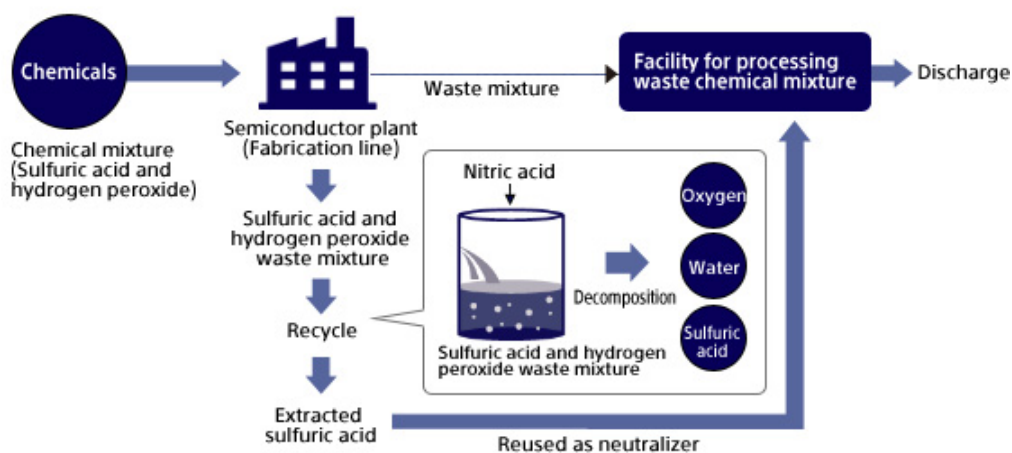
Sony's Proprietary Technologies Used in Manufacturing Processes

Recycling Waste Chemical Mixture at a Semiconductor Plant

(Updated on August 22, 2014)

The cleaning process during semiconductor fabrication processes frequently uses a mixture of sulfuric acid and hydrogen peroxide. The waste mixture resulting from cleaning is treated with large amounts of water and other chemicals, generating large volumes of sludge and wastewater. Sony discovered that by adding a trace of nitric acid, the residue of hydrogen peroxide in the waste mixture decomposed into oxygen and water effectively. Using this phenomena Sony developed a technology to extract highly concentrated sulfuric acid containing no hydrogen peroxide from the waste mixture. Sony Semiconductor Corporation has been using this technology at its plant since 2001, and the extracted concentrated sulfuric acid is being put to good use as a neutralizer for wastewater treatment within the plant. Because it does not require forced heating or cooling, this process also helps reduce the amount of energy consumed by recycling equipment.

Recycling Waste Rinse Liquid into Neutralizer



This technology reduces chemicals needed to decompose hydrogen peroxide by approximately 30% and improves water quality by 15%

Technologies for Recycling of Optical Disc Scrap

(Updated on August 22, 2014)

Sony makes effective use of scrap optical discs from its disc manufacturing facilities by recycling them into polycarbonate resin. Scrap optical discs are crushed, and then washed with chemicals and water to remove the coated film on the surface of the discs, resulting in clear flakes of polycarbonate resin. This recycling process, which involves the cooperation of recycling firms, yields a recycled polycarbonate resin that is almost equal in quality to virgin polycarbonate resin. A resin manufacturer working in cooperation with Sony blends the recycled polycarbonate resin with appropriate additives so that it is suitable for use in Sony products. One of the additives is a new environmentally conscious sulfur flame retardant, which is free of bromine and phosphorus and was developed by Sony. A original flame-retardant polycarbonate resin containing this non-bromine and non-phosphorus flame retardant, SORPLAS™ (Sustainable Oriented Recycled Plastic) is used in Sony's digital video cameras, digital still cameras and other mobile devices.

Click here for more details

[SORPLAS™, Sony's Original Flame-retardant Recycled Plastic](#)

Environment

Reducing the Environmental Impact of Products and Services: Table of Contents

Sony continues to promote technological innovations aimed at building products that are smaller, lighter and more energy efficient and thus exert less of an impact on the environment.

- [Progress Toward Achieving Mid-Term Environmental Targets for Products and Services](#)
- [Developing Environmentally Conscious Products](#)
- [Guiding Principles for Environmentally Conscious Products](#)
- [Examples of Eco-Conscious Sony Products](#)
- [Reducing Environmental Impact Through Product Life Cycle Assessment](#)

Environment

Progress Toward Achieving Mid-Term Environmental Targets for Products and Services

(Updated on August 22, 2014)

In its Green Management 2015 Mid-Term Environmental Targets, Sony has set the following targets for its products. Also, by setting specific targets and conducting environmental assessments for all products, Sony is stepping up efforts to develop environmentally conscious products.

Mid-Term Environmental Targets for Products (Product Planning and Design)

General	Launch Environmental Flagship models and services in each category continuously.
Climate Change	Reduce annual energy consumption of products: -30% (compared with FY2008)
Resources	<ul style="list-style-type: none"> ● Reduce utilization ratio of virgin oil-based plastics in products: -5% (compared with FY2008) ● Reduce mass of products: -10% (compared with FY2008)
Chemical Substances	Eliminate environment-related substances to be controlled of very high concern and BFR/PVC within specified use.

* "Environment-related Substances to be Controlled ('Controlled Substances)': Among the substances contained in parts and devices, "Environment-related Substances to be Controlled ('Controlled Substances)'" are those which, in Sony's view, have significant environmental impact on both humans and the global environment.

Environmental Performance of Products in Fiscal Year 2013

(Updated on August 22, 2014)

CO₂ emissions over the lifetime of Sony products sold in fiscal year 2013 amounted to approximately 14.73 million tons, down about 10% from those for products sold in fiscal year 2012. Average annual energy consumption per product in fiscal year 2013 was approximately 31% less than in fiscal year 2008. For products sold in fiscal year 2013, Sony used approximately 670,000 tons of resources, down around 12% from fiscal year 2012.*1 The average mass per product in fiscal year 2013 declined 20% from that of fiscal year 2008. Sony's virgin plastic utilization rate*2 in fiscal year 2013 was 1.5% lower than in fiscal year 2008.

Sony also understands the importance of recovering and reusing the resources of end-of-life products. As a manufacturer, Sony acknowledges its responsibility for ensuring the appropriate disposal and treatment of end-of-life products, and promotes the collection and recycling of its products in compliance with the laws and regulations of countries and regions around the world. In fiscal year 2013, Sony recovered approximately 63,000 tons*3 of resources from end-of-life products. This includes resources recycled from televisions and PCs collected in Japan, the reuse/recycling rate*4 for which was approximately 31%.

*1 Total volume of resources used: Total weight of resources used in products, accessories, instruction manuals and packaging materials. The weight of total products shipped is substituted for this value.

*2 Virgin plastic utilization rate: Percentage of plastics used accounted for by petrochemical-derived plastics

*3 Data for Europe excludes Switzerland.

*4 This calculation assumes an average period of use from time of sale of 10 years for televisions and seven years for PCs. The resulting percentage is the total weight of Sony televisions and PCs recovered by Sony in fiscal year 2012 as a percentage of the total weight of all Sony televisions and PCs sold ten years and seven years ago, respectively.

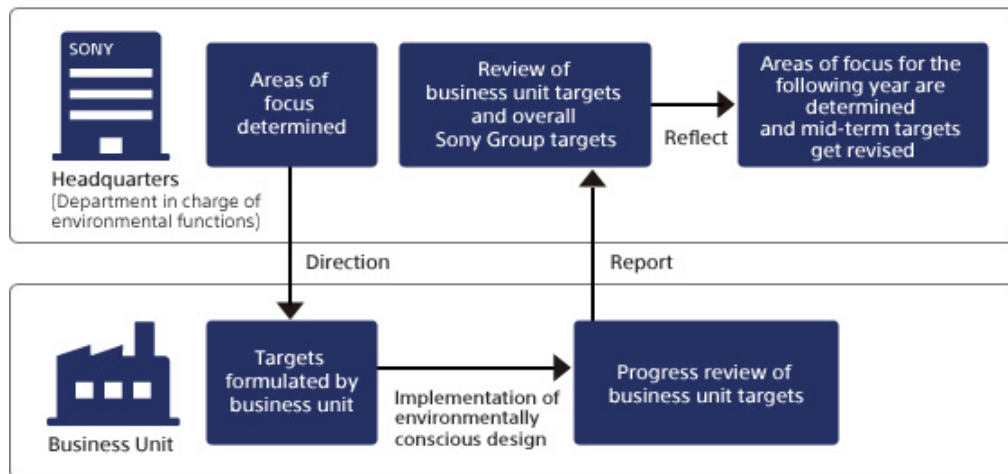
Environment

Developing Environmentally Conscious Products

(Updated on August 22, 2014)

The Sony Group's mid-term targets include targets for products, which involve the reduction of annual power consumption, the promotion of resource conservation and the management of chemical substances. Business units formulate annual targets that are consistent with environmental mid-term targets and reflect the unique characteristics of each product category, and regularly review progress toward achieving these targets, subsequently reporting their findings to the department in charge of environmental functions at Sony's headquarters. In turn, the environmental functions at the headquarters evaluate the targets and progress of each business unit, using these evaluations as the basis for its review of the Sony Group's progress toward achieving its environmental mid-term targets. Based on the results of this review, Sony determines areas of focus and revises targets for the subsequent fiscal year. By thus setting specific targets and conducting environmental assessments for all products, Sony is stepping up efforts to develop environmentally conscious products.

Management Structure for Eco-Conscious Product Development



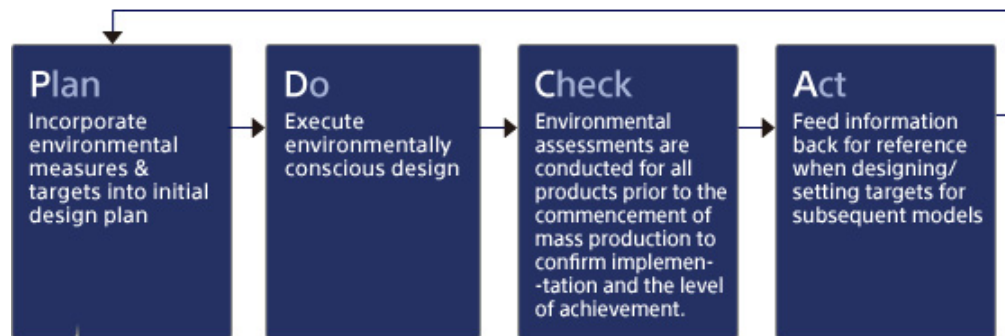
Environment

Guiding Principles for Environmentally Conscious Products

(Updated on August 22, 2014)

With the aim of developing life-enriching products that are not only superior in terms of functionality, performance and quality, but also help to reduce the impact on the environment compared to former conventional consumer electronics products, Sony has formulated its own guiding principles for environmentally conscious design, which it has designed for application with all products. In line with these principles, Sony is working to create industry-leading environmentally conscious products that incorporate world first features and technologies.

PDCA Cycle for Environmentally Conscious Products Design



Designing environmentally conscious products: Key considerations	
Observe relevant laws in individual countries	
Reduction of energy consumption	<ul style="list-style-type: none"> • Aim for zero energy use by products when in standby mode • Reduce power use in all modes • Enhance the efficiency of AC adapters • Incorporate energy-saving features in products
Resource conservation	<ul style="list-style-type: none"> • Reduce materials and number of parts used • Use recyclable materials • Extend product life
Management of chemical substances	<ul style="list-style-type: none"> • Respond to technical standard for management of controlled substances
Other	<ul style="list-style-type: none"> • LCAs*1 assess products' environmental impact over their entire life cycle • Disclose pertinent information

*1 LCA is an acronym for life cycle assessment.

Environment

Examples of Eco-Conscious Sony Products

(Updated on August 22, 2014)

Environmentally conscious features are designed into all Sony products, which are created to provide users with new and exciting experiences. From energy savings and reduced resource use to the management of chemical substances in the materials used to make Sony products, Sony considers the optimal set of features from an environmentally conscious standpoint and incorporates these features into its finished products.

[Click here for Sony and the Environment](#), which features detailed information on environmental initiatives.

[Product Examples](#)

Links to Related Items:

- [Reduction and Replacement of Chemical Substances of Very High Concern](#)

Environment

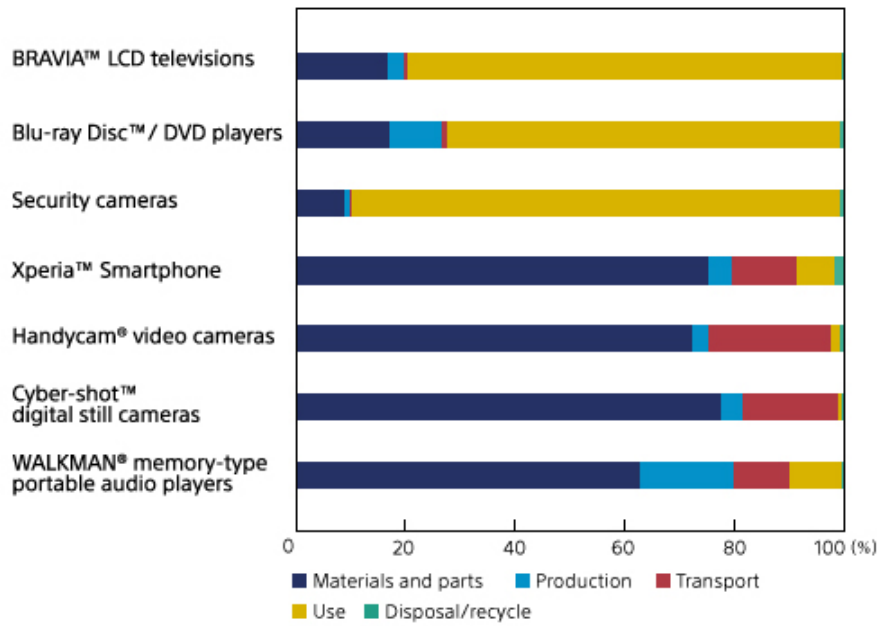
Reducing Environmental Impact Through Product Life Cycle Assessment

(Updated on August 22, 2014)

Sony conducts product life cycle assessments (LCAs) on products for all major electronics categories, with the aim of identifying and quantifying the environmental impact of products at all stages of their life cycles that include materials and parts production, product assembly and transport, product use and standby mode, and end of life (i.e., disposal and recycling). LCAs help us to clarify priorities for product improvement and environmental impact reduction measures.

As shown in the chart titled "Breakdown of CO₂ Emissions Over the Life Cycle of Sony Products," we see that the life cycle stages responsible for generating a large portion of a product's CO₂ emissions differ depending on the product category. For example, for product categories in the upper part of the chart, emissions during product use account for a large proportion of total emissions. For this reason, reducing the power consumption of these products during use is particularly important. Conversely, among the product categories in the lower part of the chart, rather than during use, a large portion of CO₂ emissions occur at the manufacturing stage and in the production of materials and parts. For these products, such measures as reducing the parts count are crucial in lowering life cycle CO₂ emissions.

Breakdown of CO₂ Emissions Over the Life Cycle of Sony Products



Sony calculated the emissions based on the following assumptions:

- Place of sale: Japan
- Product transportation: 500 kilometers by truck in Japan; by ship or by air for international transport
- Years of use: Walkman® Memory Type portable audio player: 5 years; Cyber-shot™ compact digital camera: 2.7 years; Handycam® digital camcorder: 6.4 years; Xperia™ Smartphone: 4 years; security camera: 7 years; Blu-ray Disc™ / DVD players: 7 years; BRAVIA® LCD television: 10 years

- * This chart shows the proportion of CO₂ emissions at each stage of the life cycle. It does not indicate the size of environmental impact of these products.
- * The assumptions (usage assumptions, shipping distance, mode of shipping, manufacturing site assumptions, etc.) used for calculation of CO₂ emissions differ among products.

Environment

Reducing the Environmental Impact of Procurement

Sony believes that reducing environmental impact throughout the life cycle of its products is a commitment that must extend to the procurement of materials and parts. To date, Sony and its suppliers have cooperated closely in the management of chemical substances. Efforts have now been expanded to include measures to save energy and resources. Sony will continue working closely with its suppliers as it strives to achieve its goal of a zero environmental footprint.

Mid-Term Targets for Procurement

(Updated on August 22, 2014)

The table below outlines the targets for procurement set forth in Green Management 2015. Sony has also begun to investigate greenhouse gas emissions, water consumption, and volume of waste generation by suppliers to better grasp suppliers' efforts to achieve reductions in those areas.

Mid-Term Targets for Procurement

Climate Change	<ul style="list-style-type: none"> ● Establish a mechanism for determining suppliers' greenhouse gas emissions ● Contribute to the development of a common industrywide reporting format
Resources	<p>Promote procurement practices that help</p> <ul style="list-style-type: none"> • reduce utilization ratio of virgin oil-based plastics in products by 5% from the fiscal year 2008 level
Chemical Substances	<p>Promote procurement practices that help</p> <ul style="list-style-type: none"> • Reduce utilization ratio of virgin oil-based plastics in products: -5% (compared with FY2008) • Reduce mass of products: -10% (compared with FY2008) • Reduce incoming parts packaging waste by -16% (compared with FY2008).

Biodiversity	Conduct biodiversity assessments at resource extraction and harvesting sites
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- * Environment-related Substances to be Controlled ('Controlled Substances'): Among the substances contained in parts and devices, Environment-related Substances to be Controlled ('Controlled Substances') are those which, according to Sony's judgment, have significant environmental impact on both humans and the global environment.

Links to Related Items:

- [Climate Change > Grasping the Extent of Greenhouse Gas Emissions over the Entire Value Chain](#)
- [Chemical Substances > Three Core Principles for Managing Chemical Substances in Products](#)

Environment

Environmental Activities at Sony Sites: Table of contents

Sony applies an integrated perspective to environmental activities that covers all sites worldwide, whether they are involved in manufacturing activities or not, based on Green Management 2015 mid-term targets and policies issued by the department in charge of environmental functions at the headquarters.

- [Progress Toward Achieving Mid-Term Environmental Targets for Sites](#)
- [Implementation of Green Star Program](#)
- [Promoting Green Purchasing](#)
- [Construction of Environmentally Conscious Buildings](#)

Links to Related Items:

- [Climate Change >Reducing Greenhouse Gas Emissions at Sites](#)
- [Resources Conservation >Resouces Conservation at Sites](#)
- [Chemical Substances >Management of Chemical Substances at Sites](#)
- [Biodiversity >Biodiversity Conservation](#)
- [Environmental Technologies](#)
- [Environmental Communication](#)

Environment

Progress Toward Achieving Mid-Term Environmental Targets for Sites

(Updated on August 22, 2014)

In its Green Management 2015 Mid-Term Environmental Targets, Sony has set the following targets for its sites. With the aim of achieving these targets, Sony is promoting site greening activities and other efforts aimed at conserving biodiversity, as well as undertaking environmental communications initiatives, embracing environmentally conscious technologies in manufacturing processes, promoting green purchasing practices and incorporating environmental perspectives when constructing buildings.

Mid-Term Environmental Targets for Operations

General	Conduct environmental assessments (including biodiversity impact assessment).
Climate Change	Reduce greenhouse gases emissions by absolute value -30% (compared with FY2000).
Resources	<ul style="list-style-type: none"> ● Reduce waste generation by absolute value -50% (compared with FY2000). ● Improve waste recycling rate group-wide: 99% or more ● Reduce water consumption by absolute value -30% (compared with FY2000).
Chemical Substances	<p>Take actions for class 1 - 4. Detailed groups of chemical substances are described separately.</p> <p>Class 1 substances: Prohibit use.</p> <p>Class 2 substances: Eliminate use by a specified date.</p> <p>Class 3 substances: Reduce the amounts released and transferred.</p> <p>> Reduce the amounts released to water, and the amounts transferred to sewer / as waste (including VOC) by -14% (compared with FY2008).</p> <p>> Reduce the amounts of VOC released to the air by -50% (compared with FY2000).</p> <p>Class 4 substances: Comply with the relevant laws and regulations and use under appropriate control.</p>
Biodiversity, Contribution to Local Communities, Others	Promote environmental activities respecting the needs of the local community.

Environmental Performance of Sites

(Updated on August 22, 2014)

Total CO₂-equivalent greenhouse gas emissions at Sony sites were about 1.23 million tons in fiscal year 2013, down about 45% from fiscal year 2000. Waste generated at sites amounted to about 80,000 tons in fiscal year 2013, down about 71% from the fiscal year 2000 level. The Groupwide recycling rate was 94%. Sites used approximately 11 million m³ of water, 59% less than the fiscal year 2000 level. Sony released approximately 811 tons of VOCs* into the air in fiscal year 2013, a decrease of approximately 56% from the fiscal year 2000 level, while Class 3 substances released into water and transferred as waste into sewers totaled 2,215 tons, down 28% from the fiscal year 2008 level.

* Volatile organic compounds

Environment

Implementation of Green Star Program

(Updated on August 22, 2014)

In fiscal year 2011, Sony launched the Green Star Program, an in-house system for assessing the environmental performance of Sony Group sites worldwide. Under the program—one of several initiatives designed to ensure achievement of the ultimate goal of Sony's "Road to Zero" global environmental plan—each site's activities are evaluated comprehensively through quantitative and qualitative assessments from four key perspectives: climate change, resource conservation, chemical substance management and biodiversity conservation.

Sony has developed numerical assessment criteria and countermeasures to measure progress toward achieving the Sony Group's Green Management 2015 mid-term environment targets, while managing attainment levels and promoting activities for reducing environmental impacts. Level of attainment is evaluated with four stars. All sites are thus striving to earn a four-star rating by 2015. Thanks to the implementation of the Green Star Program at sites worldwide, progress was made in fiscal year 2013 toward the formulation of plans for measures that had not yet been implemented in fiscal year 2012. All sites are thus now pursuing a range of initiatives with the aim of earning a four-star rating by 2015. In particular, measures being taken to address climate change are progressing favorably, underscoring the effectiveness of efforts to deploy best practices across the global Sony Group. (For details on such measures, see Promoting Efficient Energy Use.) Moving forward, Sony Group sites worldwide will continue to work as one to further enhance measures to reduce energy consumption. Having recognized room for improvement in efforts to address issues related to water and waste, sites will conduct detailed analysis on those water- and waste-related measures, taking consideration on characteristics such as local infrastructure of each region, as a prelude to developing and implementing more effective measures. Looking ahead, Sony will continue to maximize the Green Star Program as a common tool to help reduce the environmental impact by overall activities in Sony Group.

Example of qualitative assessment criteria

Climate change		Monitor and analyze energy use with an appropriate monitoring system; adopt highly efficient systems and equipment for effective operation; and promote activities to improve energy savings in the manufacturing process
Resources	Waste	Reduction of generated waste; promote resource recovery and recycling; and ensure proper processing by waste companies
	Water	Monitor and analyze water use; take steps to promote the efficient use of water and reduce water consumption, etc.
Chemical substances		Monitor and analyze handling amount and amount released and transferred; reduce volume used and replace with alternative substances
Biodiversity		<p>Implement biodiversity conservation plans that give consideration to the characteristics of regional ecosystems; Promote land use and green space management that take the importance of biodiversity into account</p> <p>Click here for more details on the Evaluation of Biodiversity at Sony Group Sites through the Green Star Program.</p>

Environment

Promoting Green Purchasing

(Updated on August 22, 2014)

Having set internal standards for green purchasing, Sony makes a conscious effort to choose nonproduction materials when procuring printing paper, stationery and OA equipment, among others. Sony employs the same parameters when purchasing finished products, and is mindful when deciding purchasing volume to consider volumes used and inventory levels. In Japan, Sony chooses from among recommended products, giving consideration to environmental impact at all stages of a product's life, from resource extraction through to production, distribution, use and disposal. Information on recommended products is included in Sony's purchasing system of nonproduction goods, making it possible for individuals in charge of purchasing decisions to give priority to environmentally conscious products. Since 2009, Sony Electronics Inc. in the United States has also used a green purchasing catalog, in compliance with the US Environmental Protection Agency and pertinent free trade agreements.

Environment

Construction of Environmentally Conscious Buildings

(Updated on August 22, 2014)

Sony places a high priority on environmental concerns when constructing its buildings. At Sony sites and offices built worldwide, Sony has implemented a wide variety of measures covering such aspects as the lowering of energy consumption and the reduction of waste generated. Furthermore, measures that prove highly effective in terms of environment-friendliness are rapidly adopted at other Sony sites.

[Click here for Sony and the Environment, which features detailed information on environmental initiatives.](#)

- [Japan: Environmentally conscious features at Sony City \(Sony headquarters\)](#)
- [United States: Environmentally conscious features at Sony Electronics \(SEL\) head office](#)

Environment

Reducing the Environmental Impact of Logistics: Table of Contents

Reducing the amount of energy consumed, the volume of greenhouse gases emitted, and the amount of cardboard and number of pallets used in the transportation of parts and finished goods is significant to reduction of the environmental footprint of products over their entire life cycle.

- [Progress Toward Achieving Mid-Term Targets for Logistics](#)
- [Reducing the Environmental Impact of Logistics through Improvement of Packaging](#)
- [Reducing of Packaging Materials for Transport](#)
- [Promoting Modal Shift](#)
- [Improvement of Transport Efficiency by Intra-Industry Collaboration and Milk Run](#)

Environment

Progress Toward Achieving Mid-Term Targets for Logistics

(Updated on August 22, 2014)

In its Green Management 2015 Mid-Term Environmental Targets, Sony has set the following targets for its sites. In its efforts to achieve the targets, Sony has been striving to reduce CO₂ emissions generated from transport and packaging materials by means of optimization of transport efficiency (i.e., downsizing of product packages, improving loading efficiency and optimizing parts packages) and switching to alternative transport modes which can reduce environmental impact (i.e. modal shift and joint shipping), as well as by reduction of gross transport weight through weight reduction of each product.

Mid-Term Targets for Logistics

Climate Change	Reduce CO ₂ emissions from logistics by 14% from the fiscal year 2008 level
Resources	Reduce waste from packaging for incoming parts by 16% from the fiscal year 2008 level

CO2 Emissions from Transport of Finished Products in Fiscal Year 2013

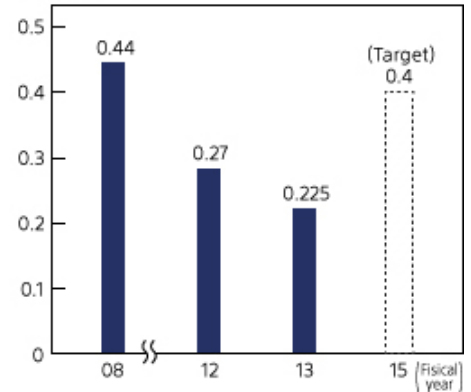
(Updated on August 22, 2014)

In fiscal year 2013, CO2 emissions from logistics totaled approximately 225,000 tons, 48% lower than in fiscal year 2008 and approximately 18% lower than in fiscal year 2012. Sony keeps working towards further reduction of CO2 emissions by measures such as downsizing and weight reduction of products and packages and also modal shift.

Since fiscal year 2008, the base year of our mid-term environmental targets, Sony has been taking steps to expand the calculation scope of CO2 emissions from logistics, and Sony's current scope covers more than 40 countries and territories such as Japan, the United States, Europe and Asia. As for those countries/territories which came into scope after fiscal year 2008, we have been promoting CO2 emissions reduction with targets set in line with the overall mid-term target, based on the year when the first data was captured. Owing to the addition of several countries and territories to the calculation scope, CO2 emissions from logistics in fiscal year 2013 amounted to approximately 300,000 tons.

CO2 Emissions from Product Transportation

(Million t-CO₂)



Environment

Reducing the Environmental Impact of Logistics through Improvement of Packaging

Sony is striving to reduce environmental impact such as CO2 emissions and packaging materials as well as to optimize total cost of products and parts, through joint packaging improvement projects consisting of divisions such as product design, procurement, manufacturing and logistics,.

Expanding the Use of Returnable Containers

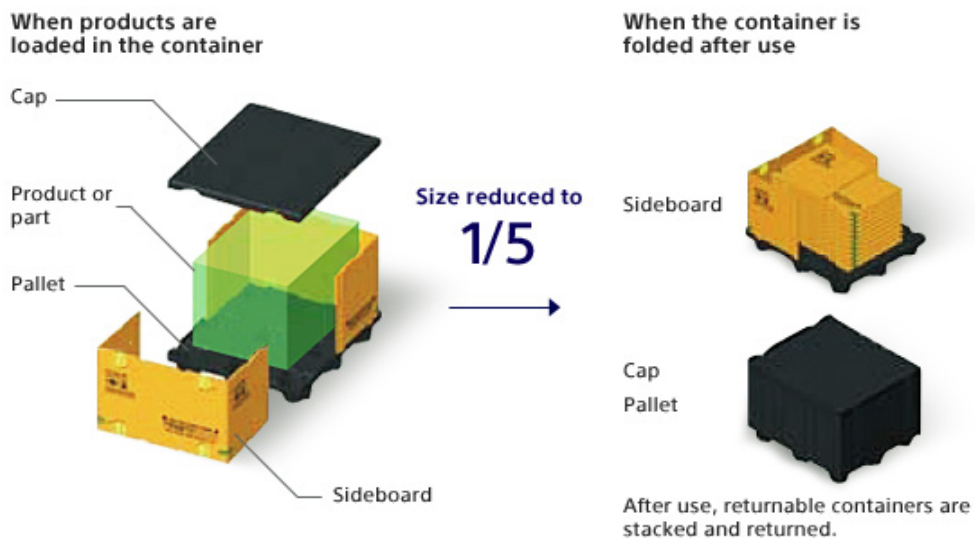
(Updated on August 22, 2014)

Sony reuses packaging materials and reduces waste by using returnable containers which can be reused repeatedly for products and parts transport. Sony has been using returnable containers in Japan since 2005, and is promoting use in Asia as well in accordance with the shift of production to sites outside of Japan.



Returnable containers

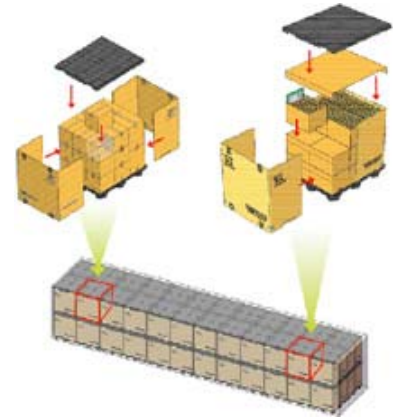
Structural overview of a returnable container



Increasing the Transport Efficiency by Returnable Containers

(Updated on August 22, 2014)

Sony's returnable containers are designed to enable efficient loading onto sea freight containers. Since 2009, Sony has been operating logistics using modular size (standardized) cartons which fit efficiently into returnable containers. By using modular cartons that match the storage requirements of each part, Sony has enhanced parts storage efficiency and optimized the number of units shipped in each container.



Returnable containers packed with modular cartons and a shipping container efficiently loaded with returnable containers

Environment

Reducing of Packaging Materials for Transport

Promoting the Use of Reusable Bands for Products and Parts Transport in Factories and Warehouses

(Updated on August 22, 2014)

For preventing collapse of stacked cartons during transport of products and parts in factories and warehouses, Sony uses reusable bands as one of packaging materials. This has contributed to the reduction of use and disposal of packaging materials such as stretch films.



Example of reusable band usage

Environment

Promoting Modal Shift

As a part of its efforts to reduce environmental impact from the transport of finished goods, Sony promotes modal shift, switching the modes of transport it uses from air to sea and from truck to railroad.

Modal Shift in International Transport

(Updated on August 22, 2014)

Sony's efforts to advance modal shift also include transport in overseas markets. In North America, for example, for a portion of the products it ships from the west coast of the United States to other parts of the country Sony is promoting a switch from air and truck to rail transport. This switch will also enable Sony to reduce CO₂ emissions associated with the transport of these products.



Modal Shift in Japan

(Updated on August 22, 2014)

In Japan, Sony has promoted modal shift from truck to rail transport. For large-sized products such as BRAVIA™ LCD TVs or Blu-ray Disc™ recorders, in particular, Sony proactively uses railroad, which accounts for more than 15% of all long-distance (500km or more) domestic transport. These efforts have gained recognition. Sony has been certified by the Japanese Ministry of Land, Infrastructure, Transport and Tourism as a certified company in the "Eco Rail Mark" system since 2011, while BRAVIA™ LCD TVs and Blu-rayDisc™ recorders have earned product certification. Sony also promotes domestic sea transport. Thanks to these efforts, CO₂ emissions attributable to the transport of products in Japan were approximately 960 tons lower than would have been the case if products had been transported by truck.



Logo indicating Eco Rail Mark certification for businesses

Environment

Improvement of Transport Efficiency by Intra-Industry Collaboration and Milk Run

(Updated on August 22, 2014)

Efficient transport by maximizing loading volume per truck reduces the environmental impact.

Sony promotes improvement of transport efficiency through various modes of intra-industry collaboration such as cooperative transport and milk run*.

Sony has been operating cooperative transport by truck in Hokkaido, Osaka, Fukuoka and Okinawa.

In China, Sony Supply Chain Solutions (China) Ltd. has been promoting improvement of transport efficiency which contributes to reduction of CO₂ emissions, through a combination of transport solutions such as milk run* and round trip.



Sony trucks run round trip as a means of contributing to increased transportation efficiency.

- * In a milk run, a truck follows a route to collect parts from several suppliers, thereby improving transport efficiency compared with the routing method of separate runs to each supplier.

Environment

Recycling End-of-Life Products: Table of contents

Sony supports the principle of individual producer responsibility (IPR). Accordingly, Sony promotes the collection and recycling of end-of-life products and incorporates consideration for recycling into product design.

[Sony's Policy on Recycling Products](#)

[Improving Product Recyclability](#)

[Recycling Activities in Each Region](#)

[Links for Product Recycling Information in Each Region](#)

Environment

Sony's Policy on Recycling Products

Mid-Term Environmental Targets for Collection and Recycling

(Updated on August 22, 2014)

Under its Green Management 2015 mid-term environmental targets, Sony has set targets for the collection and recycling of end-of-life products. Sony also supports the concept of individual producer responsibility (IPR), that is, the idea that a producer bears responsibility for its products over their entire life cycle, even after use. Accordingly, Sony continues to promote the collection and recycling of end-of-life products, as well as to design products that are easily recyclable. Sony also continues to develop recycling systems for global markets that suit local needs.

Mid-Term Environmental Target for Collection and Recycling

Based on the idea of Extended Producer Responsibility (EPR), Sony strives to achieve an environmentally conscious recycling system and effective operation for collection and recycling of end-of-life products. In addition, Sony continues to increase the use of recycled resources and to design products that are easy to recycle. This is based on the idea of Individual Producer Responsibility (IPR) to help promoting the establishment of appropriate laws and building of infrastructure to recycle Sony products.

• For policy, please refer to [Policy on Resource Conservation](#).

Sony's Recycling Record

(Updated on August 22, 2014)

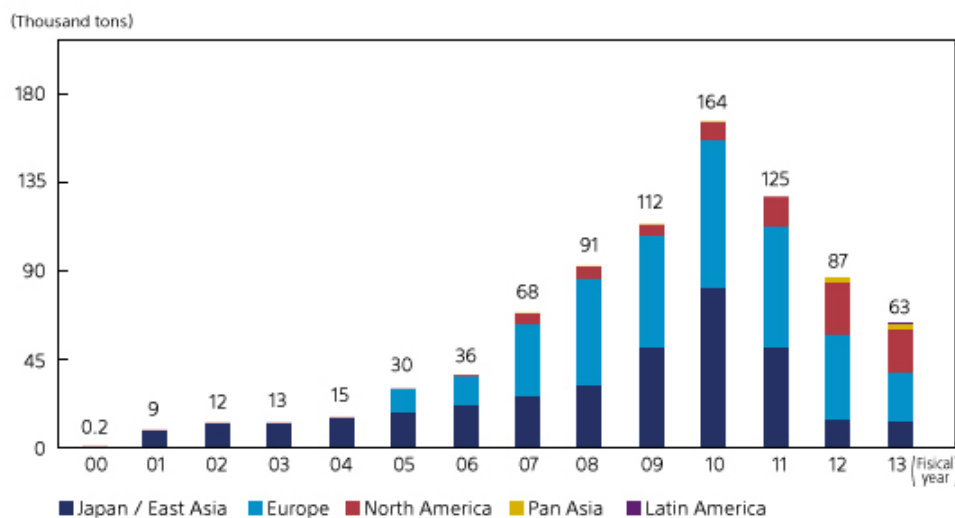
Sony is promoting the collection and recycling of end-of-life products in compliance with the legislative requirements of different countries and regions, including the Home Appliance Recycling Law in Japan, the EU Directive on Waste Electrical and Electronic Equipment (the WEEE Directive) in Europe and each state's Electronic Waste Recycling Act in the United States. As stated in its Green Management 2015 mid-term target for collection and recycling, Sony is actively advancing the collection and recycling of end-of-life products. To this end, Sony is developing recycling systems for global markets that suit local needs and is stepping up efforts to design products that are easy to recycle.

In fiscal year 2013, Sony recovered resources from 63,000 tons*1 of collected end-of-life products. This amount represented a decline from fiscal year 2011, attributable to the end of Japanese eco points scheme for the recycling of home appliances. Sony's collection rate*2-end-of-life products collected as a percentage of the estimated total weight of end-of-life televisions and PCs discarded in Japan-was 31%. This was also down from fiscal year 2012, owing to such factors as the start of digital terrestrial broadcasting in Japan, which resulted in a decline in the number of end-of-life televisions recovered.

*1 The calculation for "Europe" excludes Switzerland.

*2 The collection rate is expressed as a percentage of the estimated weight of televisions and PCs collected in fiscal year 2012 in Japan (determined based on the weight of televisions sold in fiscal year 2002 and PCs sold in fiscal year 2005 and assuming an average period of use of 10 years for televisions and seven years for PCs).

Weight of End-of-Life Products Collected



* The figure for Europe does not include Switzerland for FY2013.

Environment

Improving Product Recyclability

Incorporating Recyclability into Product Design

(Updated on August 22, 2014)

As part of its effort to design more environmentally conscious products, Sony is working to make its products more conducive to recycling. For example, Sony has formulated guidelines summarizing crucial points for consideration in creating environmentally conscious televisions and has incorporated these guidelines into the product planning and design stage. These guidelines encompass considerations for making televisions more conducive to recycling: making units easy to disassemble; clearly marking the position of screws and indicating the number of screws; and indicating materials and flame retardants used in plastic parts. This facilitates the recycling process by making it easier to pull end-of-life televisions apart and separate constituent materials. To enhance the suitability of televisions for recycling, Sony also makes use of feedback from Green Cycle Corporation, the Sony Group's home electronics recycling company.



Label listing optical sheet materials

Japan's new Act on Promotion of Recycling of Small Waste Electrical and Electronics Equipment, took effect in April 2013, manufacturers are legally obligated to incorporate recyclability into product design with the purpose of reducing costs associated with the recycling/reuse of resources. Sony is currently taking steps to ensure compliance in all applicable product categories.

Recyclability Training Program

(Updated on August 22, 2014)

With the aim of enhancing the awareness of efforts to incorporate recyclability into product design among Sony employees, Green Cycle Corporation has offered a recyclability training program since 2006. Program participants tour Green Cycle's LCD television dismantling line, after which each individual is tasked with dismantling an LCD television on his or her own. Following this exercise, participants receive feedback from Green Cycle's site manager, who outlines current challenges faced in recycling electronics. Participation in this program enables employees to see first-hand the difficulty of dismantling electronics products and enhances their awareness of the importance of recycling collected and sorted resources, both of which are then applied to the designing of new products.



Sony employee learning how to dismantle an LCD television

Environment

Recycling Activities in Each Region

(Updated on August 22, 2014)

- [Recycling Activities in Japan](#)
- [Recycling Activities in Europe](#)
- [Recycling Activities in North America](#)
- [Recycling Activities in Pan Asia](#)
- [Recycling Activities in Latin America](#)
- [Recycling Activities in China](#)

Environment

Recycling Activities in Japan

Sony recycles televisions and personal computers in line with applicable recycling-related laws in Japan. Sony also bears the cost of recycling lithium-ion batteries and other small batteries, as well as packaging materials, as required by law.

Recycling of Television Sets

(Updated on June 24, 2014)

Japan's Home Appliance Recycling Law, which came into effect in April 2001, initially covered four major home appliances: televisions, refrigerators, washing machines and air conditioners. In April 2009, the law was revised to also cover LCD and plasma televisions and clothes dryers. Among applicable products, Sony manufactures televisions (CRT, LCD and plasma models, including products bearing the Aiwa brand). The Home Appliance Recycling Law requires that consumers to pay collection, transport and recycling fees when disposing of applicable home appliances, retailers to take back such appliances and return them to manufacturers, and manufactures to recycle these appliances.



TV being dismantled at Green Cycle Corp

Sony has established a nationwide cooperative recycling network with five other manufacturers. As a consequence, Sony-manufactured televisions are now recycled at 15 recycling plants across Japan. Sony operates Green Cycle Corp. in Aichi prefecture.

In fiscal year 2013, approximately 359,000 CRT televisions and 116,000 flat-screen televisions manufactured by Sony were recycled. The Home Appliance Recycling Law obliges manufacturers to maintain recycling rates of at least 55% for CRT televisions and at least 50% for flat-screen televisions. Sony has consistently exceeded these rates since fiscal year 2001. In fiscal year 2013, the recycling rate for Sony-manufactured CRT televisions was 79%, while for Sony-manufactured flat-screen televisions it was 90%.

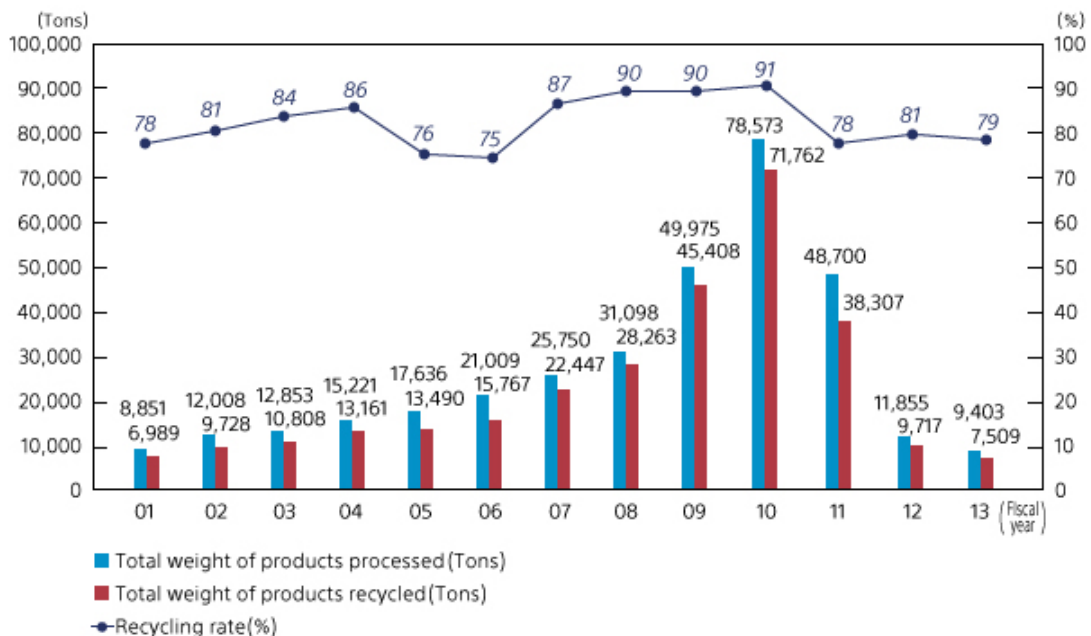
Television Recycling in Japan (Fiscal 2013)

	Units	CRT televisions	LCD and plasma televisions
Number of products brought into plants	Thousand	368	122
Number of products recycled	Thousand	359	116
Total weight of products processed	Tons	9,403	2,276
Total weight of recycled products and materials	Tons	7,509	2,068
Recycling rate	%	79%	90%

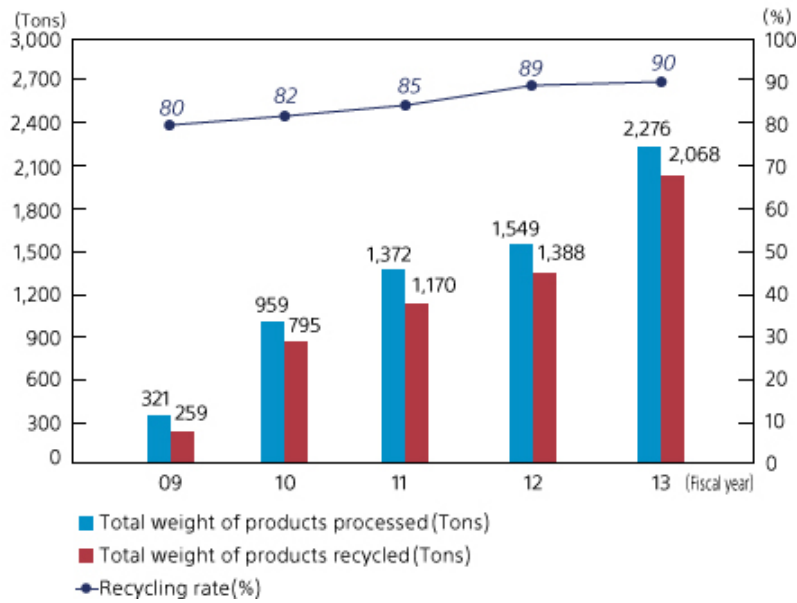
Notes:

1. Figures have been truncated.
2. The number of products recycled and total weight of products processed refer to the number and weight of products for which recycling processes were implemented in fiscal year 2013.
3. The number of products brought into plants and number of products recycled do not include products for which responsibility for recycling is undecided owing to, for example, the entry of incorrect information in tracking sheets.

CRT television Recycling Performance



LCD and plasma Television Recycling Performance



Parts and Resources Recycled from Televisions

Total weight of parts and resources which were processed to become possible to be transferred to someone for profit or free of charge who use these as parts or materials of their products

Resources Recycled from CRT Televisions (Fiscal year 2013)



■ Iron:	1,092 Tons
■ Copper:	370 Tons
■ Aluminum:	2 Tons
■ Nonferrous and ferrous compounds:	11 Tons
■ CRT glass:	3,729 Tons
■ Other Valuable resources:	2,303 Tons

Resources Recycled from LCD and Plasma Televisions (Fiscal year 2013)



■ Iron:	812 Tons
■ Copper:	21 Tons
■ Aluminum:	97 Tons
■ Nonferrous and ferrous compounds:	11 Tons
■ Other Valuable resources:	1,125 Tons

Notes:

1. Figures have been truncated.
2. Other valuable resources include plastics, among others.

Environment

Recycling Activities in Europe

(Updated on August 22, 2014)

Take-back legislation in Europe - in particular, the European Union (EU) directives on Waste Electrical and Electronic Equipment (WEEE), batteries and packaging - requires manufacturers to organize and finance the collection and recycling of end-of-life products and packaging.

Sony takes full responsibility for its take-back obligations in all those European countries where it has sales bases.*

In December 2002, Sony joined forces with Braun GmbH, AB Electrolux and Hewlett Packard Europe S.A., to form the European Recycling Platform (ERP). The aim of ERP was to establish efficient and cost-effective systems for the collection and recycling of end-of-life electrical and electronic products to enable member companies to fulfill their obligations as manufacturers.

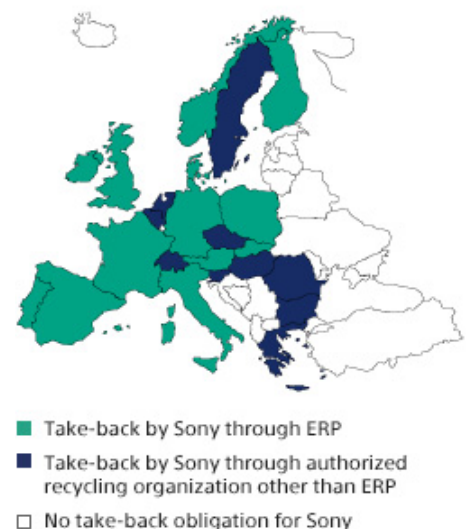
- * Sony has sales bases in the following European countries: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Sony's WEEE Directive Compliance System

(Updated on August 22, 2014)

Sony utilizes ERP's services for WEEE collection and recycling in Austria, Denmark, Finland, France, Germany, Ireland, Italy, Norway, Poland, Portugal, Slovakia, Spain, and the United Kingdom. ERP conducts regular on-site audits of all contracted recyclers to ensure compliance with the WEEE directive as well as to prevent illegal shipments of WEEE outside the EU. In European countries where it is not using ERP's services, Sony cooperates with authorized recycling organizations that undertake recycling in lieu of manufacturers to ensure its products are recycled in a manner that complies with the WEEE directive or related legislation and regulations in each country. In 2013, Sony financed the costs of recycling around 28,430 tons * of waste electrical and electronics products in Europe. Sony

Sony's WEEE Directive Compliance System



discloses for all its products placed on the market in Europe information on substances and components that require special treatment to facilitate safe recycling.

* Excluding Switzerland.

Sony's Battery Compliance System

(Updated on August 22, 2014)

The EU battery directive enacted in September 2008 replaced existing national legislation and expanded mandatory producer take-back and recycling of batteries for the entire EU. The directive encompasses all types of batteries. Sony complies with this directive by making use of the ERP and other battery recycling services.

Sony's Battery Compliance



Sony's Packaging Compliance System

(Updated on August 22, 2014)

In numerous European countries, producers are legally obliged to collect and recycle waste packaging. Sony fulfills this obligation through participation in authorized collection and recycling organizations wherever applicable.

Sony's Packaging Compliance



Environment

Recycling Activities in North America

Sony Electronics Inc. (SEL) in the United States and Sony of Canada Ltd. continue to contribute to the development of the recycling infrastructure in North America. All recycling and support activities are committed to a responsible recycling process that complies with a growing mandate of state and provincial legislation.

North America

(Updated on August 22, 2014)

Promoting the Sony Take Back Recycling Program

In the United States, Sony Electronics Inc. (SEL) continues to expand its voluntary recycling sponsorship program. On September 15, 2007, the company introduced the Sony Take Back Recycling Program, which aims to further encourage consumers to recycle and dispose of electronics equipment in an environmentally sound manner. Developed in collaboration with waste administration and recycling companies in the United States, the program allows consumers to drop off Sony products at designated collection centers free of charge. In fiscal year 2013, these collection centers collected 20,262 tons (44,567,000 pounds) of used consumer electronics. SEL aims eventually to provide a collection center within 20 miles of the homes of 95% of the country's population. SEL in 2013 recycled 0.89 pounds for every 1 pound sold which is an improvement towards the goal of recycling the equivalent weight of recovered consumer electronics for every new product sold.



Sony Take Back Recycling Program collection activity (United States)

Launching Trade-in and Recycling Program Website

SEL provides a website through which consumers may search for the optimal method of returning and recycling used electronics products (including non-Sony products). The site enables consumers to learn about state specific recycling programs. It also includes various ways of bolstering the recycling rate, including a search function for the nearest take-back recycling center. For consumers whose closest center is more than 40km (25 miles) away, Sony products up to 11kg

(25 pounds) are taken back by free-post and recycled free of charge.

As of March 2014, SEL has cumulatively collected approximately 157,207 tons (345 million pounds) of electronics equipment scrap, thereby contributing to reduced use of natural resources. In the future, through the site, SEL plans to promote higher rates of used electronics collection and conduct educational campaigns on appropriate recycling methods of used products.



Take back Recycling Program Website

Implementing the Sony Green Glove Program

SEL also conducts the Sony Green Glove program, whereby consumers purchasing a new 37" or larger LCD television from a direct retailer are eligible to have their old televisions removed and hauled away for recycling free of charge. This program was launched nationwide in November 2008. Used televisions thus collected are recycled in a cooperative effort involving SEL's logistics- and environment-related departments and Sony Store, facilitating a low-cost sustainable service for customers. To date, a total of 63 tons (139,000 pounds) of used electronics have been collected through this project.



A used television collected under this program

Consumers can drop off mobile phones, and rechargeable batteries can be dropped off for collection at direct retailers and participating kiosks. As a member of the Call2Recycle program, SEL recycles rechargeable batteries free of charge in line with Call2Recycle's recycling scheme.

In addition to conducting its own independent audits of recyclers and the downstream processing firms to which they subcontract, SEL has set forth a recycling policy whereby all recyclers it does business with must obtain Responsible Recycling (R2) or e-Stewards certification. R2 and e-Stewards are certification systems for recyclers organized in part by the U.S. Environmental Protection Agency (EPA) that evaluate such factors as environmental management performance and workplace environment.

- * Call2Recycle is a nonprofit public service organization that conducts and manages rechargeable battery recycling programs and provides related consulting services in the United States and Canada.

Canada

(Updated on August 22, 2014)

Working with Provincial Governments to Set Up Electronics Equipment Recycling Programs

Since first provincial program was launched in 2004, Sony of Canada Ltd. (Sony Canada) has worked with provincial governments* to set up recycling programs for end-of-life electronics equipment. To date, these programs have recycled more than 533,000 tons (106,000,000 pounds) of such equipment.



Recycling Activities
(Canada)

In April 2008, Sony Canada expanded its recycling program for small electronics equipment across Canada, enabling consumers to take such products to any of its 14 direct retailers across the country for collection and recycling at no charge. Like its counterpart in the United States, Sony Canada also conducts the Sony Green Glove program. In 2013, Sony Canada increased its network of nonretail locations where it collects televisions and other large Sony electronics products for recycling free of charge from 25 to 46. Since fiscal year 2008, Sony Canada has collected and recycled 765 tons (1,660,000 pounds) of consumer electronics.

In accordance with electronics recycling standards set forth by Electronics Product Stewardship Canada (EPSC), which prohibits the export of waste to countries not in the Organisation for Economic Co-operation and Development, Sony Canada conducts its own independent audits of recyclers and the downstream processing firms which they subcontract.

* All provinces except New Brunswick, which is expected to begin within the year.

● [Click here for more details on Sony Canada's website.](#)

Environment

Recycling Activities in Pan Asia

Sony's operations in the Pan Asia stretch from South Africa to New Zealand. Throughout the region, our offices and manufacturing locations continually work to ensure that the recycling needs of the local community are met. In terms of national electronic waste recycling legislation, India and Australia are two key countries where Sony actively works with local partners to ensure the local requirements are met.

India: Working with Local Partner to Collect & Recycle E-Waste in India

(Updated on August 22, 2014)

In order to ensure continued compliance with local legislation, Sony India has partnered with a leading third party recycling company to provide recycling services for e-waste. In fiscal year 2013, Sony India has collected approximately 170 tons of e-waste, including generated service waste, to our recycling partner. Additionally, Sony India has expanded its focus to include the creation of a broad network of e-waste collection centers, thereby making it easier for customers to turn in their e-waste. As of the end of March 2014, 20 collection points across the country had been established. Sony India plans to review the results of this initiative at the end of its financial year and formulate future plans accordingly.

Australia: First Manufacturer to Join DHL Supply Chain Recycling Scheme

(Updated on August 22, 2014)

In March 2012, the DHL Supply Chain (Australia) Pty Limited recycling scheme was approved by the Australian Federal Government as the first scheme to recycle television and computer products in the country under the new e-waste recycling legislation. As an advocate of such legislation, Sony Australia became the first manufacturer on board to use the DHL scheme for Sony's recycling. As part of the program, Sony had collected 2021 tons between April 2013 and March 2014.

Environment

Recycling Activities in Latin America

Sony has offices in a number of Central and South American countries, including Mexico, Brazil, Argentina, Colombia, Chile, Costa Rica, Panama, Ecuador, Bolivia and Peru. These offices operate recycling programs designed to meet the needs of their particular areas. Here we introduce a joint project operated throughout Latin America as well as Colombia's voluntary recycling program; as representative examples of Sony commitment to recycling initiatives.

Sony Joint Project in Central and South America: Green Service Program

(Updated on August 22, 2014)

Since 2010, Sony sales companies in Latin America-including Sony Mexico, Sony Panama, Sony Costa Rica, Sony Colombia, Sony Peru, Sony Chile and Sony Argentina-gradually launched the Green Service Program. During 2012 this program was expanded to Sony sales companies in Ecuador, Bolivia and Puerto Rico as well. Under this initiative, using participating companies' service networks, products and components that are under warranty but discarded during repair are appropriately treated. This program marks a shift in focus from simple disposal to the proper management and repair of products, helping Sony fulfill its responsibility to reduce the environmental impact of its products after they are sold and respond to the expectations of customers. In 2013, 225 tons of scrap were collected and processed appropriately. Going forward, the companies will continue to implement the Green Service Program.

Joint Program by Sony and the Colombian Government for Free-of-Charge Collection

(Updated on August 22, 2014)

Since fiscal year 2011, Sony Colombia implements the country's first free-of-charge collection program in the electronics field for end-of-life products and batteries. Named "Proyecto Ambiente," the program applies to audio and video equipment, televisions, cellular phones and all other Sony-branded products. End-of-life products and batteries are collected through collection boxes set up by Sony Colombia at six Sony Style stores. Bigger electronics are collected at four authorized service centers. Sony passes on the products and batteries collected from customers to the authorized recycling company LITO, which carries out environmentally conscious recycling or disposal.

The merits of the program have been recognized by the Colombian Ministry of the Environment, which provides support. At a press event in April 2011, held to mark the beginning of the free-of-charge collection program, the Colombian Deputy Minister of the Environment, Marcela Bonilla, attended, along with representatives of Sony Colombia and LITO, and many members of the press. David Tezna of Sony Colombia stated, "I think you will see how we are working through this program to contribute to the maintenance of a greener world for the sake of future generations."



Press event announcing the launch of Colombia's voluntary collection program (center: Advisor, Ministry of the Environment of Colombia)

[Click here for more details on Sony Colombia's website \(Spanish only\).](#)

Recycling Used Mobile Phones

(Updated on August 22, 2014)

Sony Mobile Communications AB (SOMC) has promoted the recycling of used mobile phones worldwide since the autumn of 2008. To this end, SOMC distributes detailed information on the collection and recycling of used mobile phones in 49 countries. In 23 of these countries, SOMC has set up its own voluntary collection system.

SOMC has recently rolled out, and operates a used mobile phone collection program in Latin America and has placed collection boxes in 109 service centers or stores in nine countries in the region. Going forward, SOMC intends to increase the number of participating countries. Similar programs are in place in other areas, including Russia, which uses collection boxes at service centers, and India, which asks customers to return used mobile phones in person. In the United States, France, Germany, Sweden and the UK, SOMC offers freepost collection for used mobile phones.

- [For more information visit SOMC's website, which features detailed information on recycling initiatives taken worldwide.](#)

Environment

Recycling Activities in China

Compliance with Regulations on Recovery Processing of Waste Electrical and Electronic Products (China WEEE)

(Updated on August 22, 2014)

In January 2011, China enacted the Regulations on Recovery Processing Waste Electrical and Electronic Products. Popularly known as "China WEEE," the regulations that mandate the recycling of five types of products: televisions, refrigerators, washing machines, air conditioners and PCs. As a manufacturer of two of the products-televisions and PCs-Sony is affected by these regulations, which oblige manufacturers and importers to contribute to a fund that is used to cover the cost of processing of waste electrical and electronic products. In compliance with the regulations, Sony (China) Limited makes regular contributions to the fund.

Sony (China) Spearheads Project to Recover and Recycle End-of-Life Broadcasting Equipment

(Updated on August 22, 2014)

Since August 2009, Sony (China) has promoted a project aimed at recovering and recycling end-of-life broadcasting equipment. Since the 1990s, Sony has sold broadcasting equipment in China, including U-matic video recording systems. Sony (China) collects end-of-life equipment directly from broadcasters free-of-charge and delivers them to a recycling company that specializes in commercial equipment, ensures they are dismantled and recycled appropriately. Sony (China) also submits a report on the recycling of these products to broadcasters. In addition, Sony (China) gives broadcasters free pass to attend lectures on HD technology at Sony HD Academy according to the number of end-of-life broadcasting equipment it collects from them.

Through this project, Sony (China) aims to build a cooperative industry-wide circle of cooperation by getting individuals from across the broadcasting industry involved in environmental activities.

Environment

Links for Product Recycling Information in Each Region

Please refer to the following websites for information on the recycling of Sony products in each region. This list includes links to third parties' websites.

(Updated on August 22, 2014)

Japan

- [PC and Display Recycling in Japan \(Japanese only\)](#)
- [TV Recycling in Japan \(Japanese only\)](#)

Europe

Austria, Denmark, Finland, France, Germany, Ireland, Italy, Norway, Poland, Portugal, Slovakia, Spain, United Kingdom

- [ERP](#)

Belgium

- [Recupel](#)

Bulgaria

- [Eltechresource](#)

Czech Republic

- [Asekol](#)

Greece

- [Appliances Recycling SA](#)

Hungary

- [Országos Hulladékgazdálkodási Ügynökség](#)

Netherlands

- [ICT Milieu \(IT\)](#)

- [Wecycle/NVMP](#)

Romania

- [Environ](#)

Slovenia

• [Interseroh](#)

Sweden

• [El Kretsen](#)

Switzerland

• [SWICO](#)

North America

United States

• [Take back Recycling Program](#)

• [Call2Recycle](#)

Canada

• [Take Back and Recycling](#)

Latin America

Argentina, Chile, Colombia, Ecuador, Mexico, Panama, Peru, Puerto Rico

• [Vive el Cambio](#)

Brazil

• [Sony Brazil Batteries recycling plan](#)

Colombia

• [EcoComputo](#)

Costa Rica

• [ASEGIRE](#)

Pan Asia

India

• [E-Waste Management](#)

Environment

Environmental Communication

Sony provides a wide variety of stakeholders with environmental information in an accurate, timely and continuous manner. Sony also holds events and participates in exhibitions with environmental themes and actively promotes environmental education with the aim of encouraging greater general awareness of environmental issues.

Management of Risks Related to Chemical Substances

(Updated on August 22, 2014)

As a company that uses chemical substances, Sony discloses information on emissions of such substances and exchanges views on safety and environment issues with residents in the vicinity of its sites, as well as with local authorities, with the aim of reinforcing mutual understanding. For example, in its efforts to promote such communication, Sony Semiconductor Corporation holds presentations at all of its sites and events tailored to local needs. Sony Semiconductor also offers tours of its sites which enable visitors to see various environment-related facilities. During these tours, visitors can learn about the current status of wastewater treatment, for instance.

Raising the Environmental Awareness of Employees

(Updated on August 22, 2014)

Sony shares information on environmental issues with employees of the global Sony Group via a dedicated environmental website. Environmental education via e-learning is mandatory for all Group employees in Japan. E-learning has also been introduced at overseas sites.

Sony stages exhibitions and events introducing Group environmental initiatives for employees at Group sites across Japan. Sony Corporation holds a regular Environmental Management Meeting, which is attended by top management, including Sony's president, and enables Sony executives to share information about environmental issues of importance to the entire Sony Group.

Environmental Initiatives in the Office

Sony Electronics Inc., in the United States, has introduced an in-house environmental program called Green Workspace Certification. Under this program, employees are evaluated based on their diligence in performing everyday environmentally conscious actions in the office—such as unplugging ones PCs when its not in use—and their performance are rated, in ascending order, as Seed, Leaf, Tree or Forest. The Green Workspace status of each employee is indicated on a nameplate on the side of his or her desk with the aim of reinforcing awareness and encouraging ongoing efforts to improve. Sony Electronics plants 50 trees in the name of each employee who earns Tree status.



Nameplate indicating employees' Green Workspace status

Environmental Awareness by Use of Entertainment

(Updated on August 22, 2014)

Sony delivers environmental messages through its entertainment media, especially in the marketing of films. In March 2014, Sony Pictures Entertainment Inc. (SPE) joined with Earth Hour, a global movement organized by the World Wide Fund for Nature (WWF). SPE movie character Spider-Man was named the first Super Hero ambassador for Earth Hour, launching the signature "lights off" event with Earth Hour Global and WWF in Singapore and spreading the message of environmental protection around the world.

[Click here for Sony and the Environment, which features detailed information on environmental initiatives.](#)

[Spider-Man is the first Super Hero ambassador for Earth Hour.](#)

Environment

Environmental Data

Introduction to the Environmental data of the entire Sony Group

[Environmental Data Collection Methods and Rationale](#)

[ISO14001 Certified Sites](#)

[Sony's Environmental Performance](#)

[Greenhouse Gas Emissions](#)

[Environmental Data for Sites](#)

[Emissions of Air and Water Pollutant \(Worldwide\)](#)

[Handling Volume of Chemical Substances](#)

[Environmental Data for Products](#)

[Product Recycling Data](#)

[Examples of Polyvinyl chloride \(PVC\) -free Products
and Brominated Flame Retardant \(BFR\) -free Products](#)

[Environmental Cost](#)

[Independent Verification Report](#)

[History of Environmental Activities at Sony](#)

[Response to CDP\(Carbon Disclosure Project\) Investor by Sony Corporation](#)

Environment

Environmental Data Collection Methods and Rationale

- [Worldwide Data Collection System](#)
- [Scope, Collection Period, and Accuracy of Compiled Data](#)
- [Greenhouse Gas Index Data Collection Methods and Rationale](#)
- [Resource Index Data Collection Methods and Rationale](#)
- [Other Data Collection Methods and Rationale](#)

Environment

Worldwide Data Collection System

(Updated on August 22, 2014)

Sony uses a cloud-based data collection system to monitor and manage the progress of the environmental impact of all sites in the Sony Group. This system permits headquarters to collect data monthly from sites around the world.

Persons in charge at each site use the data collection system to input data concerning energy, water, waste, chemical substances and environmental costs, which is then checked and approved by supervisors. Regional data administrators for Japan/East Asia, North America, Latin America, Europe, Pan Asia and China regions also check the data. To ensure efficient collection and tabulation, in addition to checks at several points during the process, data checks are executed by the system at data input, thereby reducing the possibility of errors.

Environment

Scope, Collection Period, and Accuracy of Compiled Data

(Updated on August 22, 2014)

Collection period: April 1, 2013-March 31, 2014

Data from some business sites includes estimates.

Scope of data collection

Site data: All ISO 14001-certified sites as of March 31, 2014

In principal, all manufacturing sites, distribution sites with 100 or more employees and non-manufacturing sites with 1,000 or more employees are subject to ISO 14001 certification for Sony Group consolidated sites.

Product data:

Data covers all products manufactured by the Sony Group and sold outside the Group. Accessories, semi-manufactured products and components are included. Weight data includes the weight of packaging materials.

Data accuracy

Site data:

Chemical substance data and environmental cost data collected from certain sites may be slightly less accurate than other data.

Product data:

Data for some semi-manufactured products, components, and some products produced and sold overseas may be slightly less accurate than other data.

Environment

Greenhouse Gas Index Data Collection Methods and Rationale

(Updated on August 22, 2014)

The greenhouse gas index is calculated as follows.

Greenhouse gas index

(1) Total greenhouse gas emissions from sites (calculated in terms of CO₂) + (2) Total CO₂ emissions from product use + (3) Total CO₂ emissions from logistics - (4) Greenhouse gas emissions offset by greenhouse gas reduction activities

(1) Total greenhouse gas emissions from sites

Quantity of power, heat, and fuel usage and quantity of green house gases used for manufacturing process and within facility are collected.

< CO₂ emissions from energy consumption >

CO₂ emissions from energy consumption are calculated by multiplying the quantity of electrical power, heat and fuel (including fuel for motor vehicles, etc.) used at sites by the CO₂ conversion rate.

< Emissions of PFCs and other greenhouse gases >

Emissions of PFCs and other greenhouse gases are converted to CO₂ by multiplying greenhouse gas emissions from each site by global warming potentials.

Global warming potentials are based on the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

< CO₂ Conversion Rates >

- Electricity

CO₂ conversion rates of each country in fiscal year 2000 are used.

Japan: Rates provided by the Federation of Electric Power Companies in Japan

Countries other than Japan: Rates provided by the GHG Protocol*

- Fuel and Heat

Worldwide: Rates based on Japan's Law concerning the Promotion of the Measures to cope with Global Warming

* Internationally accepted accounting and reporting standards for companies and other entities to report their greenhouse gas emissions, operated under the umbrella of the World Business Council for Sustainable Development (WBCSD) and the World Resource Institute (WRI)

● **Systems for Calculation, Reporting and Public Disclosure of Greenhouse Gas Emissions(Japanese only)**

● **GHG Protocol**

(2) Total CO2 emissions from product use

CO2 emissions from product use are calculated by multiplying the quantity of electrical power consumed throughout the lifetime of products sold in the current fiscal year by the CO2 conversion rates. (In other words, it is not the actual quantity of CO2 emitted in the current fiscal year.) CO2 emissions from product use are calculated by the following equation.

Sales x (Operating power consumption x Hours of operation per year + Power consumption during standby time x Standby time per year) x Years of product use x CO2 conversion rate

In theory, emissions during product use in the current fiscal year should be calculated from the total quantity of electrical power consumed by previously sold Sony products that are still in use by consumers in the current fiscal year. However, given the difficulty of determining how many previously sold Sony products are still in use by consumers of the total number of Sony products sold to date, Sony uses the total quantity of electrical power consumed while in use over the lifetime of Sony products sold in the current fiscal year as an indicator for CO2 emissions during use.

The hours of operation per year, standby time per year, and years of product use are calculated based on data obtained by various surveys. The same conversion rates as CO2 emissions from sites for each country in fiscal year 2000 are used. However, as for the data up to fiscal year 2003 outside of Japan, the factors of the following countries are used according to the destination of the products. North America: United States Europe: Germany Other regions: Singapore

(3) Total CO2 emissions from logistics

Total CO2 emissions from logistics include emissions arising from international logistics and logistics within over 40 countries and regions such as Japan, the United States, Europe, and Asia associated with Sony Group's electronics products except Sony Mobile Communications Inc. For logistics within Japan, CO2 emissions from parts logistics are partially included.

CO2 emissions from logistics are primarily calculated by multiplying ton-kilometers transported (weight of goods transported x distance traveled) by the CO2 conversion rate. In certain instances, CO2 emissions arising from transport by truck are calculated by multiplying the amount of fuel used (fuel consumption per kilometer x number of kilometers traveled) by the CO2 conversion rate.

For Japanese domestic transport by truck, CO2 emissions calculations multiply the weight of freight transported by two factors: the amount of fuel used per unit of freight transported, as defined in the Law concerning the Rational Use of Energy, and the emissions factor of fuel type used, as defined by the Law concerning the Promotion of Measures to Cope with Global Warming. In the United States, calculations incorporate factors set forth by the U.S. Environmental Protection Agency (EPA) in the SmartWay Transport Partnership, while in Europe calculations incorporate factors set forth by the U.K. Department for Environment, Food and Rural Affairs (DEFRA).

For international logistics, CO2 emissions are calculated by multiplying ton-kilometers transported (weight of goods transported x distance traveled) by CO2 emissions per unit of production as proposed by the Greenhouse Gas Protocol (GHG Protocol). For international logistics involving transport by ship, the calculation uses the weight of goods transported including the weight of shipping containers.

CO2 Emissions from Employee Business Trips

Emissions are calculated for business trips undertaken by employees in central departments, which account for the largest share of business trips taken by employees of Sony Corporation and Sony Group Electronics Business companies in Japan, Europe and North America and for business trips taken by employees from electronics-related companies in China. (In the case of Japan and North America, some music-related companies are included. Trips taken by employees from Sony Mobile Communications Inc. are excluded.)

CO2 emissions are calculated by multiplying the distance traveled by the number of employees traveling using the basic unit of output proposed by the GHG Protocol.

(4) Greenhouse gas emissions offset by greenhouse gas reduction activities

Greenhouse gas emissions offset by greenhouse gas reduction activities primarily include electrical power produced from renewable energy sources, purchases of electrical power produced from renewable energy sources and CO₂ emission reductions realized through the purchase of power under the Green Power Certification System.

Environment

Resource Index Data Collection Methods and Rationale

(Updated on August 22, 2014)

The resource index is calculated as follows:

(1) Volume of waste landfilled from sites + (2) Product resource input – (3) Volume of reused/recycled materials – (4) Volume of resource recovery from end-of-life products

(1) Volume of waste landfilled from sites

Of the waste generated at sites, the weight sent to landfill.

(2) Product resource input

Total volume of resources used in products, accessories, manuals and packaging materials.
Total weight of products shipped is used as a substitute.

(3) Volume of reused/recycled materials

Total volume of reused/recycled materials and vegetable-based plastics used for products, accessories, manuals and packaging

(4) Volume of resource recovery from end-of-life products

Volume of products collected from recycling multiplied by the reused/recycled ratio.
Volume of products collected from recycling is the weight of recycled products in Japan/East Asia, Europe, North America, Pan Asia, and Latin America.
Some amounts calculated based on the recycling expenses are included.
The reused/recycled ratio is the volume reused/recycled compared with the total volume collected. The amount of collected end-of-life products is substituted under the current situation.

Environment

Other Data Collection Methods and Rationale

(Updated on August 22, 2014)

(1) Volume of waste generated at sites

Total volume of industrial waste, non-industrial waste, valuables and materials sent for outsourced purification treatments at sites

(2) Substances to be treated by outsourcing purification

Materials generated as site waste and sent to an off-site contractor for elimination of contaminants for the purpose of reuse.

(3) Volume of chemical substances handled/emitted

Class 3 and Class 4 chemical substances for which the amount handled annually is 100kg(Class3)/1,000kg(Class4) or more are subject to reporting.

- The volume of chemical substances handled represents the volume of chemical substances used at sites; purchase volume is substituted when exact volume of usage cannot be determined.
- Volume of chemical substances released from sites in relation to their operation; calculations are based on purchase volume x distribution coefficient.

(4) Volume of water consumption/discharged

- The volume of water consumption represents the total volume of water used at sites (public water, industrial water, groundwater); for public water and industrial water, purchase volume is substituted for the purpose of calculation.
- The volume of water discharged represents the sum of discharges of water to waterways and to sewers. For Sony sites where it is not possible to accurately grasp actual discharge volume, a calculation based on the volume of water used x average per-site rate for volume of water discharged is substituted.

(5) Emissions of water pollutants (BOD, COD)

Concentrations in water emitted x volume of water emitted. Sites that are requested by law and/or by other demands such as contracts are subjected to this data collection.

(6) Emissions of air pollutants (NOx, SOx)

Volume calculated by multiplying emission volume by emission concentration, or by multiplying volume of fuel use by a coefficient. Sites that are requested by law and/or by other demands such as contracts are subjected to this data collection.

Environment

ISO14001 Certified Sites

Since the early 1990s, Sony sites throughout the world have sought certification under ISO14001 and this was achieved in early fiscal year 2002. In fiscal year 2003, Sony further developed this activity by implementing a Group-wide, globally integrated environmental management system. In fiscal year 2005, all Sony Group sites, including the Sony Group's headquarters, which represents the core of this management system, acquired integrated ISO14001* certification in accordance with the fundamental requirements of this integrated management system.

* ISO certification covers all Sony Group manufacturing sites, distribution sites with 100 or more employees and non-manufacturing sites with 1,000 or more employees.

ISO14001 Certification Status

(Updated on August 22, 2014)

- [List of ISO14001 Certification - Japan/East Asia Region](#)

(As of March 31, 2014)

- [List of ISO14001 Certification - Europe Region](#)

(As of March 31, 2014)

- [List of ISO14001 Certification - North America Region](#)

(As of March 31, 2014)

- [List of ISO14001 Certification - Latin America Region](#)

(As of March 31, 2014)

- [List of ISO14001 Certification - Pan Asia Region](#)

(As of March 31, 2014)

- [List of ISO14001 Certification - China Region](#)

(As of March 31, 2014)

Environment

List of ISO14001 Certification - Japan/East Asia Region (As of March 31, 2014)

ISO14001 Global Environmental Management System (GEMS) Certification

(Updated on August 22, 2014)

Headquarters/Business Unit

Name of Organization	Acquired (Global EMS)
Sony Corporation HQ Environmental Office	2004/06
Sony Corporation Professional Solutions Business Group	2004/09
Sony Corporation Devices Solutions Business Group	2004/10
Sony Corporation Digital Imaging Business Group	2005/01
Sony Corporation VAIO & Mobile Business Group	2005/01
Sony Computer Entertainment Inc.	2004/06
Sony Mobile Communications Japan, Inc.	2005/01

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony EMCS Corporation	2004/07	4
Sony Corporation Sendai Technology Center	2004/08	1
Sony Storage Media And Devices Corporation	2004/08	2
Sony Semiconductor Corporation	2004/10	6
Sony DADC Japan Inc.	2004/10	3
Sony Energy Devices Corporation	2004/10	4
Sony/Taiyo Corporation	2005/01	1

Sony Storage Media And Devices Corporation Toyosato Site	2005/02	1
Sony Electronics of Korea Corporation	2005/04	2
Sony EMCS Corporation Nagano Technology Site	2005/07	1
Green Cycle Corporation	2013/02	1

Non-Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Corporation Technology Center	2004/07	13
Sony PCL Inc.	2004/07	3
Sony DADC Japan Inc.	2004/10	1
Sony LSI Design Inc.	2004/11	2
Sony Assurance Inc.	2004/12	1
Sony Music Group	2004/12	3
Sony EMCS Corporation Tougane Technology Site	2004/12	1
Sony Supply Chain Solutions, Inc.	2005/01	5
Sony Business Solutions Corporation	2005/02	8
Sony Life Insurance Co., Ltd	2005/05	4
Jared Inc.	2005/07	7
Sony Taiwan Ltd	2005/09	8
Sony Korea Corporation	2006/01	1
Frontage Inc.	2006/02	2
Sony Bank Inc.	2008/03	2

• ISO14001 Certified Sites

Environment

List of ISO14001 Certification - Europe Region (As of March 31, 2014)

ISO14001 Global Environmental Management System (GEMS) Certification

(Updated on August 22, 2014)

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony DADC Austria AG	2004/10	2
Sony UK Technology Center	2005/06	1
Sony DADC UK Ltd, Southwater	2009/01	1

Non-Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Computer Entertainment Europe	2005/02	1
Sony Deutschland GmbH, Stuttgart Technology Center	2005/04	1
Sony Electronics Closed Joint Stock Company	2009/07	1
Sony DADC Germany GmbH (Distribution Centre)	2011/05	2
Columbia Pictures Corporation Limited	2011/09	1
Sony DADC Entertainment Network Scandinavia AB	2011/10	1
Sony DADC France	2011/11	1
Sony DADC IBERIA S.L. (Distribution Centre)	2012/01	1
Sony Music Entertainment UK Limited	2012/03	1
Sony Pictures Global Business Services sp z o.o.	2012/11	1
Sony DADC Czech Republic, s.r.o.	2013/06	1
AXN Magyarország Kft.	2014/01	1

Environment

List of ISO14001 Certification - North America Region (As of March 31, 2014)

ISO14001 Global Environmental Management System (GEMS) Certification

(Updated on August 22, 2014)

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Digital Audio Disc Corporation - Mexico S.A. de C.V.	2004/08	1
Sony Digital Audio Disc Corporation - Terre Haute	2005/03	1
Sony Service and Operations of America	2005/04	1
Sony Digital Audio Disc Corporation Brasil	2005/12	1

Non-Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Service and Operations of America (Distribution)	2005/04	1
Sony Digital Audio Disc Corporation Brasil (Distribution)	2005/12	1
Sony American Zone	2006/01	9

• ISO14001 Certified Sites

Environment

List of ISO14001 Certification - Latin America Region

(As of March 31, 2014)

ISO14001 Global Environmental Management System (GEMS) Certification

(Updated on August 22, 2014)

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Brasil Ltda.	2004/09	2

• [ISO14001 Certified Sites](#)

Environment

List of ISO14001 Certification - Pan Asia Region (As of March 31, 2014)

ISO14001 Global Environmental Management System (GEMS) Certification

(Updated on August 22, 2014)

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Technology (Thailand) Co., Ltd.	2004/10	1
Sony Electronics (Singapore) Pte. Ltd., Energy Technology Singapore (fka SDS)	2004/11	1
Sony DADC Australia Pty Limited	2004/12	1
Sony Device Technology (Thailand) Co., Ltd	2005/06	1
Sony EMCS (Malaysia) Sdn. Bhd. (KL Tec, PG Tec)	2005/09	3
Sony DADC (India) Pvt. Ltd.	2006/01	1

Non-Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Supply Chain Solutions (Thailand) Ltd.	2005/06	6
Sony Supply Chain Solutions (Malaysia) Sdn. Bhd.	2006/01	1
PT Sony Indonesia	2006/01	2

Sony Electronics Asia Pacific Pte. Ltd.	2006/01	4
Sony Electronics Singapore Pte Ltd Non-manufacturing Division Companies (ADMS, SOSIN, GISSAP, SRL, SSCSS)	2006/01	
Sony Global Treasury Services, Plc; Singapore Branch	2006/01	
SPE Networks - Asia Pte Ltd	2012/06	
Sony India Pvt. Ltd.	2006/01	1
Sony India Software Centre Private Limited	2012/03	1
Sony Pictures Imageworks India Private Limited	2013/01	1

• **ISO14001 Certified Sites**

Environment

List of ISO14001 Certification - China Region (As of March 31, 2014)

ISO14001 Global Environmental Management System (GEMS) Certification

(Updated on August 22, 2014)

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Shanghai Suoguang Visual Products Co., Ltd.	2005/02	1
Sony Precision Devices (Huizhou) Co., Ltd.	2005/02	1
Sony Electronics (Wuxi) Co., Pte. Ltd.	2005/03	1
Shanghai Suoguang Electronics Co., Ltd.	2005/04	1
Sony DADC Hong Kong Limited	2006/01	1
Sony Electronics Huanan Co., Pte. Ltd.	2009/11	1
Shanghai Epic Music Entertainment Co., Ltd. Sony DADC China Co., Ltd.	2010/04	1
Beijing SE Potevio Mobile Communications Co., Ltd(*)	-	1

* Stand alone certificate

Non-Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony (China) Limited. Sony Supply Chain Solutions (China) Ltd. Sony Global Information System (Dalian) Co., Ltd.	2005/03	9

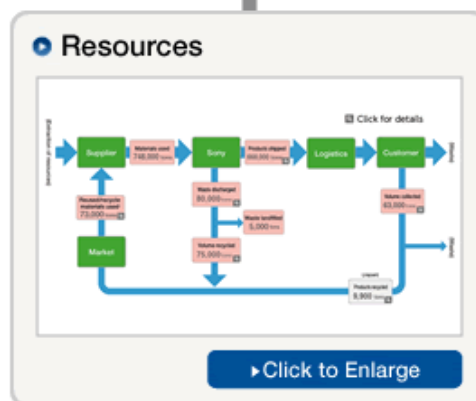
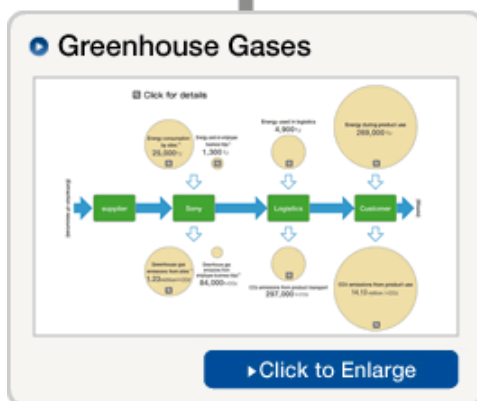
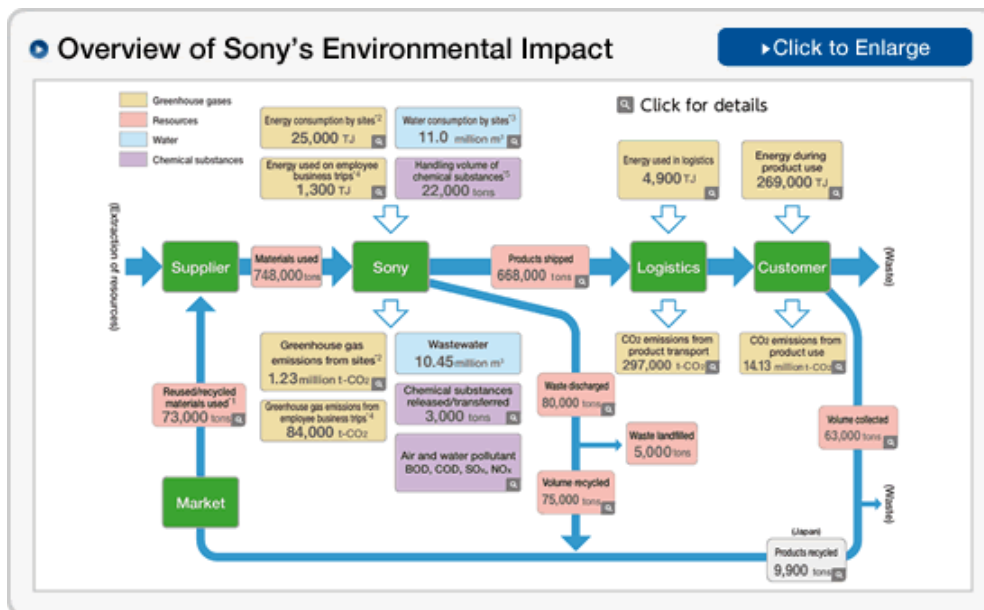
ISO14001 Certified Sites

Environment

Sony's Environmental Performance

Overview of Environmental Impact

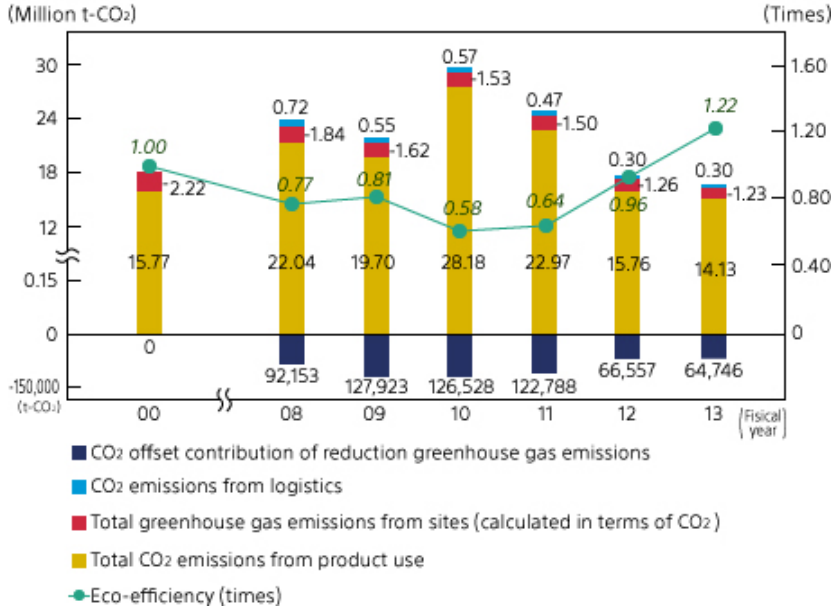
(Updated on August 22, 2014)



Eco-Efficiency

(Updated on August 22, 2014)

Greenhouse Gas Efficiency



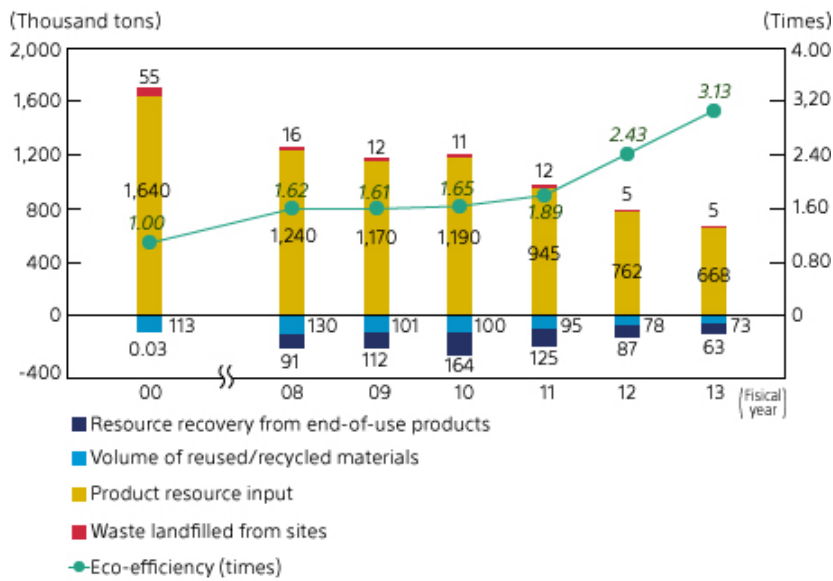
Greenhouse Gas Efficiency

[Million t-CO₂]

	Total greenhouse gas emissions from sites (Calculated in terms of CO ₂)	Total CO ₂ emissions from product use	Total CO ₂ emissions from logistics	Greenhouse gas emissions offset	Eco-Efficiency (times)
FY2000	2.22	15.77		0	1.00
FY2001	2.13	15.09		0.00075	1.08
FY2002	2.10	15.30		0.0026	1.06
FY2003	2.11	15.11		0.0068	1.07
FY2004	2.15	16.48		0.0065	0.95
FY2005	2.18	15.32		0.016	1.05
FY2006	2.03	17.83		0.013	0.97
FY2007	2.07	19.34		0.020	0.97

FY2008	1.84	22.04	0.72	0.092	0.77
FY2009	1.62	19.70	0.55	0.128	0.81
FY2010	1.53	28.18	0.57	0.127	0.58
FY2011	1.50	22.97	0.47	0.123	0.64
FY2012	1.26	15.76	0.38	0.067	0.96
FY2013	1.23	14.13	0.30	0.065	1.22

Resource Efficiency



Resource Efficiency

[Thousand ton]

	Waste landfilled from sites	Volume of product resource input	Volume of reused/recycled materials	Resource recovery from end-of-life products	Resource macro indicator	Eco-Efficiency (times)
FY2000	55	1,640	113	0	1,581	1.00
FY2001	45	1,500	97	10	1,443	1.14
FY2002	37	1,460	114	14	1,367	1.18
FY2003	18	1,450	110	15	1,338	1.21

FY2004	26	1,430	162	17	1,280	1.21
FY2005	23	1,250	134	30	1,113	1.45
FY2006	20	1,230	129	36	1,087	1.65
FY2007	17	1,230	131	68	1,084	1.77
FY2008	16	1,240	130	91	1,034	1.62
FY2009	12	1,170	101	112	967	1.61
FY2010	11	1,190	100	164	940	1.65
FY2011	12	945	95	125	736	1.91
FY2012	5	762	78	87	603	2.44
FY2013	5	668	73	63	537	3.13

Environment

Greenhouse Gas Emissions

(Updated on August 22, 2014)

Greenhouse Gas Emissions from Sites

	(Unit: t-CO ₂)	(Unit: t-CO ₂)	(Unit: t-CO ₂)	(Unit: t-CO ₂ /million yen)
	total greenhouse gas emissions	greenhouse gas emissions offset*	the emissions from which greenhouse gas emissions offset is subtracted	Emissions divided by consolidated sales(Emission Intensity)
Fiscal 2000	2,218,026	0	2,218,026	0.303
Fiscal 2001	2,127,425	748	2,126,677	0.281
Fiscal 2002	2,101,783	2,570	2,099,213	0.280
Fiscal 2003	2,120,414	6,837	2,113,577	0.281
Fiscal 2004	2,151,875	6,469	2,145,406	0.298
Fiscal 2005	2,195,959	15,715	2,180,244	0.290
Fiscal 2006	2,041,080	12,984	2,028,096	0.244
Fiscal 2007	2,091,963	20,008	2,071,955	0.234

Fiscal 2008	1,928,847	92,153	1,836,694	0.238
Fiscal 2009	1,745,217	127,923	1,617,294	0.224
Fiscal 2010	1,653,011	126,528	1,526,483	0.213
Fiscal 2011	1,623,664	122,746	1,500,918	0.231
Fiscal 2012	1,328,193	66,548	1,261,645	0.186
Fiscal 2013	1,295,817	64,746	1,231,071	0.158

* CO₂ emissions offset by means that include power generation by renewable energy, purchasing of electricity generated by renewable energy, and purchasing of renewable energy certificates. Figures are calculated by multiplying CO₂ conversion rate by power generation (kWh) or quantity of purchase (kWh).

Emissions by Business Category in Fiscal 2013

(Unit: t-CO₂)

Electronics	Other than Electronics			
	Music	Movie	Finance	Others
1,170,647	5,282	43,082	1,134	10,925

Scope 1 (Direct Emissions from Sites)

(Unit: t-CO₂)

	Greenhouse Gas Emissions						CO ₂ Emissions from Energy Use	Total
	HFCs	PFCs	SF ₆	NF ₃	Other	Total		
Fiscal 2000	7,823	242,580	51,947	2,780	235	305,365	586,121	891,486
Fiscal 2001	6,553	206,780	43,118	8,669	443	265,563	542,291	807,854
Fiscal 2002	6,754	150,996	39,351	5,988	1,131	204,220	532,942	737,162
Fiscal 2003	4,275	130,464	45,481	7,833	6,634	194,687	522,212	716,899
Fiscal 2004	5,619	150,298	58,163	15,637	6,931	236,648	480,397	717,045
Fiscal 2005	4,492	150,928	62,099	11,490	8,864	237,873	439,993	677,866
Fiscal 2006	4,915	121,073	53,725	14,025	16,381	210,119	334,938	545,057
Fiscal 2007	4,872	127,328	49,053	15,221	52,469	248,943	276,848	525,791
Fiscal 2008	7,898	119,596	47,117	14,971	20,793	210,374	254,379	464,753
Fiscal 2009	6,817	64,063	30,210	12,049	10,831	123,970	246,080	370,050
Fiscal 2010	3,470	70,364	47,896	15,025	13,640	150,396	212,233	362,629
Fiscal 2011	3,412	49,489	43,989	19,049	23,453	139,392	214,067	353,459

Fiscal 2012	2,861	45,300	36,778	16,021	27,715	128,674	172,547	301,221
Fiscal 2013	5,692	43,025	43,838	20,144	26,811	139,510	164,734	304,244

Scope 2 (Indirect Emissions from Sites)

(Unit: t-CO₂)

	Purchased Electricity		Purchased Heat	Total	
	total greenhouse gas emissions	the emissions from which greenhouse gas emissions offset is subtracted		total greenhouse gas emissions	the emissions from which greenhouse gas emissions offset is subtracted
FY2000		1,325,478	1,061	1,061	1,326,539
FY2001		1,317,742	1,081		1,318,823
FY2002		1,360,856	1,195		1,362,051
FY2003		1,393,452	3,226		1,396,678
FY2004		1,423,706	4,656		1,428,362
FY2005		1,496,083	6,295		1,502,378
FY2006		1,467,183	22,173		1,489,356
FY2007		1,515,172	30,991		1,546,163
FY2008		1,342,423	29,518		1,371,941
FY2009		1,221,392	25,853		1,247,245
FY2010	1,267,240	1,141,048	23,143	1,290,383	1,164,191
FY2011	1,240,416	1,118,110	29,789	1,270,205	1,147,899
FY2012	980,626	914,350	46,347	1,026,973	960,697
FY2013	958,647	894,154	32,926	991,574	927,081

Scope 3 Emissions in Fiscal 2013 (Other Emissions)

Category		Emissions (t-CO ₂)	Overview of calculation
1	Purchased goods and services	6,122,000	Emissions associated with raw materials and parts for use in electronics products sold by and the goods purchased by the Sony Group, from the extraction of resources through to production, as well as emissions related to certain data center use.
2	Capital goods	551,000	Emissions associated with the production of capital goods invested in by the Sony Group.
3	Fuel- and energy-related activities (not included in scope 1 or scope 2)	106,000	Emissions associated with procurement of fuels and energy consumed by Sony Group sites.
4	Upstream transportation and distribution	330,000	Emissions associated with the transportation and storage of electronics products sold by the Sony Group and purchased parts.(excluding Sony Mobile Communications)
5	Waste generated in operations	47,000	Emissions associated with the treatment and disposal of waste generated by Sony Group sites.
6	Business travel	84,000	Emissions associated with travel (by air) for business purposes by Sony Group electronics group companies employees in Japan, Europe, North America and China.(excluding Sony Mobile Communications)
7	Employee commuting	121,000	Emissions associated with employees' commutes from their homes to their workplace.
8	Upstream leased assets	-	Not applicable (accounted for in other categories)
9	Downstream transportation and distribution	3,000	Emissions associated with the distribution of electronics products sold by the Sony Group from retailers to consumers.

10	Processing of sold products	2,000	Emissions associated with the assumed post-sale third-party processing of electronics products sold by the Sony Group.
11	Use of sold products	14,134,000	Emissions associated with the consumption of electricity over their lifetime by electronics products sold by the Sony Group.
12	End-of-life treatment of sold products	329,000	Emissions associated with the assumed end-of-life recycling or disposal of electronics products sold by the Sony Group.
13	Downstream leased assets	-	Not applicable
14	Franchises	-	Not applicable
15	Investments	20,000	Emissions associated with the business activities of companies in which the Sony Group has invested.

Environment

Environmental Data for Sites

(Updated on August 22, 2014)

- [Environmental Data for Sites \(Worldwide\)](#)
- [Environmental Data for Sites \(Japan / East Asia region\)](#)
- [Environmental Data for Sites \(North America region\)](#)
- [Environmental Data for Sites \(Latin America region\)](#)
- [Environmental Data for Sites \(Europe region\)](#)
- [Environmental Data for Sites \(Pan Asia region\)](#)
- [Environmental Data for Sites \(China region\)](#)

Environment

Environmental Data for Sites (Worldwide)

(Updated on August 22, 2014)

Energy (Unit:t-CO₂)

	Electricity consumption	Gas consumption	Oil consumption	Vehicle fuel	Total
Fiscal 2000	1,325,478	312,151	240,770	34,261	1,912,660
Fiscal 2001	1,317,742	275,016	234,095	34,261	1,861,114
Fiscal 2002	1,360,856	334,793	165,083	34,261	1,894,993
Fiscal 2003	1,393,452	326,985	161,859	36,594	1,918,889
Fiscal 2004	1,423,706	301,464	149,299	34,290	1,908,759
Fiscal 2005	1,496,083	285,848	125,247	35,193	1,942,371
Fiscal 2006	1,467,183	238,798	83,466	34,847	1,824,295
Fiscal 2007	1,515,172	209,680	56,823	41,336	1,823,011
Fiscal 2008	1,342,423	189,150	56,057	38,690	1,626,320
Fiscal 2009	1,221,392	185,514	44,167	42,252	1,493,325
Fiscal 2010	1,141,048	171,358	31,086	32,932	1,376,424
Fiscal 2011	1,118,110	167,044	42,333	34,479	1,361,966

Fiscal 2012	914,350	111,189	36,023	25,334	1,086,897
Fiscal 2013	894,154	111,319	28,660	24,755	1,058,888

* Electricity consumption is calculated based on the CO₂ conversion rate used in the countries in which Sony sites are located in fiscal 2000.

* Figures for vehicle fuel in fiscal 2000 and 2001 are not available and have been substituted by figure in fiscal 2002.

Water (Unit: m³)

	Water consumption	Water discharge
Fiscal 2000	26,883,710	
Fiscal 2001	24,381,288	
Fiscal 2002	24,627,784	
Fiscal 2003	21,438,431	
Fiscal 2004	22,943,862	
Fiscal 2005	23,705,314	
Fiscal 2006	22,345,200	15,287,388
Fiscal 2007	21,287,613	16,501,885
Fiscal 2008	18,186,286	16,817,247
Fiscal 2009	15,204,523	14,285,398
Fiscal 2010	15,726,486	13,631,873

Fiscal 2011	16,728,666	15,157,421
Fiscal 2012	12,073,829	11,418,107
Fiscal 2013	11,001,944	10,451,845

- * Effective from fiscal 2003, water used represents the volume of water used less contribution to water conservation (water cultivation).
- * Amount of water used is subtracted from amount of water consumed after fiscal 2000 and onward. Amount of water used is of water directly taken from the source for the purpose of heat exchange and is returned to the same source. The amount of such water used is subtracted from the "amount of water consumed" since water is not polluted and amount of water neither increases nor decreases from this process.

Waste* (Unit: tons)

	Waste generated	Waste reused/recycled	Waste landfilled	Waste weight reduced
Fiscal 2000	281,450	226,046	55,404	
Fiscal 2001	257,769	212,630	45,141	
Fiscal 2002	223,726	186,528	37,198	
Fiscal 2003	224,166	195,156	29,010	
Fiscal 2004	214,807	189,197	25,610	
Fiscal 2005	213,120	189,893	23,377	
Fiscal 2006	193,120	173,066	20,055	
Fiscal 2007	191,582	174,768	16,814	

Fiscal 2008	168,160	152,454	15,706	
Fiscal 2009	147,371	134,909	12,461	
Fiscal 2010	128,124	117,175	10,949	
Fiscal 2011	115,596	104,073	11,523	
Fiscal 2012	84,586	78,933	5,455	199
Fiscal 2013	79,871	75,069	4,695	106

* "Waste" includes valuables, substances to be treated by outsourcing, and non-industrial waste.

* Since FY2012, waste weight reduced due to measures including incineration is subtracted from the amount of waste landfilled.

Chemical substances (Unit: tons)

	Class 1 substances used	Class 2 substances used	Class 3 substances used	Class 4 substances used	Total
Fiscal 2000	3.9	703	17,042	27,490	45,239
Fiscal 2001	0.35	468	19,221	26,627	46,315
Fiscal 2002	0.37	203	16,292	43,408	59,904
Fiscal 2003	0.71	177	14,412	36,013	50,604
Fiscal 2004	0.67	85	15,594	28,460	44,140
Fiscal 2005	0.61	20	16,083	28,895	44,998

Fiscal 2006	1.91	0	10,215	37,674	47,891
Fiscal 2007	1.84	0	24,932	37,279	62,213
Fiscal 2008	1.60	0	9,163	30,995	40,159
Fiscal 2009	1.20	0	7,370	41,839	49,210
Fiscal 2010	5.25	0	8,019	59,949	67,973
Fiscal 2011	0.71	1,003	17,691	65,580	84,275
Fiscal 2012	1.23	913	12,462	33,778	47,154
Fiscal 2013	1.39	964	12,685	30,071	43,720

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since FY2011.

Environmental Data for Sites

Environment

Environmental Data for Sites (Japan / East Asia region)

(Updated on August 22, 2014)

Energy (Unit: t-CO₂)

	Electricity consumption	Gas consumption	Oil consumption	Vehicle fuel	Total
Fiscal 2000	596,848	139,828	190,680	7,556	927,355
Fiscal 2001	628,628	130,598	176,099	7,556	935,324
Fiscal 2002	661,642	134,177	137,168	7,556	940,543
Fiscal 2003	696,061	129,054	148,726	7,952	981,793
Fiscal 2004	717,417	92,605	138,267	7,819	956,108
Fiscal 2005	772,465	98,398	116,936	6,062	993,861
Fiscal 2006	828,487	119,805	78,447	2,501	1,029,240
Fiscal 2007	865,003	129,068	52,068	7,503	1,053,642
Fiscal 2008	805,517	121,779	51,586	7,860	986,742
Fiscal 2009	729,831	117,166	42,786	7,119	896,903
Fiscal 2010	707,116	111,316	30,567	6,918	855,917
Fiscal 2011	726,178	110,214	38,063	6,487	880,943

Fiscal 2012	582,073	77,965	35,078	4,140	699,256
Fiscal 2013	547,206	73,487	27,260	3,651	651,604

* Electricity consumption is calculated based on the CO₂ conversion rate used in the countries in which Sony sites are located in fiscal 2000.

* Figures for vehicle fuel in fiscal 2000 and 2001 are not available and have been substituted by figure in fiscal 2002.

Water (Unit: m³)

	Water consumption	Water discharge
Fiscal 2000	14,117,409	
Fiscal 2001	14,257,885	
Fiscal 2002	14,279,835	
Fiscal 2003	13,027,101	
Fiscal 2004	14,880,167	
Fiscal 2005	16,175,227	
Fiscal 2006	14,709,548	11,398,578
Fiscal 2007	14,484,305	12,649,224
Fiscal 2008	12,749,799	12,095,146
Fiscal 2009	11,030,734	10,844,237
Fiscal 2010	12,031,106	10,654,861

Fiscal 2011	12,499,642	11,623,179
Fiscal 2012	9,154,454	9,022,644
Fiscal 2013	8,125,495	8,200,485

* Effective from fiscal 2003, water used represents the volume of water used less contribution to water conservation (water cultivation).

Waste* (Unit: tons)

	Waste generated	Waste reused/recycled	Waste landfilled	Waste weight reduced
Fiscal 2000	116,815	108,399	8,416	
Fiscal 2001	116,305	112,215	4,090	
Fiscal 2002	91,055	88,041	3,014	
Fiscal 2003	92,554	89,916	2,638	
Fiscal 2004	82,269	80,584	1,685	
Fiscal 2005	80,449	78,502	1,947	
Fiscal 2006	72,759	70,827	1,933	
Fiscal 2007	74,596	73,404	1,192	
Fiscal 2008	64,055	62,892	1,163	
Fiscal 2009	54,382	53,456	926	

Fiscal 2010	53,337	52,406	932	
Fiscal 2011	51,472	50,495	977	
Fiscal 2012	36,096	35,759	139	199
Fiscal 2013	35,712	35,541	65	106

* "Waste" includes valuables, substances to be treated by outsourcing, and non-industrial waste.

* Since FY2012, waste weight reduced due to measures including incineration is subtracted from the amount of waste landfilled.

Chemical substances (Unit: tons)

	Class 1 substances used	Class 2 substances used	Class 3 substances used	Class 4 substances used	Total
Fiscal 2000	3.85	146	6,832	13,924	20,906
Fiscal 2001	0.26	66	7,116	17,663	24,845
Fiscal 2002	0.35	61	6,078	27,446	33,584
Fiscal 2003	0.70	37	6,745	28,928	35,711
Fiscal 2004	0.67	27	6,780	21,460	28,267
Fiscal 2005	0.61	17	7,629	23,788	31,435
Fiscal 2006	1.88	0	7,414	32,650	40,066
Fiscal 2007	1.79	0	21,211	33,403	54,616

Fiscal 2008	1.60	0	7,250	28,265	35,517
Fiscal 2009	1.20	0	5,465	39,463	44,930
Fiscal 2010	5.25	0	6,219	57,530	63,754
Fiscal 2011	0.58	859	14,538	53,115	68,513
Fiscal 2012	0.23	729	10,557	22,938	34,224
Fiscal 2013	0.10	668	10,283	19,683	30,634

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since FY2011.

* Japan / East Asia region: Japan, Taiwan and South Korea

Environmental Data for Sites

Environment

Environmental Data for Sites (North America region)

(Updated on August 22, 2014)

Since fiscal year 2009, North America and Latin America, which are part of the Americas region, have been managed separately. Data prior to fiscal 2009 show the sum of North America's and Latin America's data.

Energy (Unit: t-CO₂)

	Electricity consumption	Gas consumption	Oil consumption	Vehicle fuel	Total
Fiscal 2000	403,204	108,780	407	4,274	512,391
Fiscal 2001	377,713	84,722	4,160	4,274	466,596
Fiscal 2002	402,200	130,579	16	4,274	537,069
Fiscal 2003	373,939	131,959	1,392	1,731	509,021
Fiscal 2004	360,260	131,316	2,164	1,379	495,119
Fiscal 2005	372,722	133,029	1,224	1,520	508,495
Fiscal 2006	278,572	40,478	77	3,018	322,145
Fiscal 2007	269,101	31,169	50	5,975	306,295
Fiscal 2008	244,326	28,854	58	4,553	277,791
Fiscal 2009	193,316	30,750	167	9,784	234,018
Fiscal 2010	137,496	20,312	182	5,865	163,855

Fiscal 2011	100,399	18,872	352	8,237	127,860
Fiscal 2012	99,374	21,853	20	7,786	129,033
Fiscal 2013	98,170	23,658	20	8,217	130,065

- * Electricity consumption is calculated based on the CO2 conversion rate used in the countries in which Sony sites are located in fiscal 2000.
- * Figures for vehicle fuel in fiscal 2000 and 2001 are not available and have been substituted by figure in fiscal 2002.

Water (Unit: m³)

	Water consumption	Water discharge
Fiscal 2000	5,786,088	
Fiscal 2001	5,275,979	
Fiscal 2002	5,549,278	
Fiscal 2003	4,301,028	
Fiscal 2004	3,587,359	
Fiscal 2005	3,347,347	
Fiscal 2006	2,687,557	580,313
Fiscal 2007	2,609,021	501,570
Fiscal 2008	1,588,178	1,336,592
Fiscal 2009	1,144,837	890,192

Fiscal 2010	888,375	713,410
Fiscal 2011	772,107	704,393
Fiscal 2012	720,029	653,663
Fiscal 2013	688,257	602,098

Waste* (Unit: tons)

	Waste generated	Waste reused/recycled	Waste landfilled
Fiscal 2000	97,958	71,042	26,916
Fiscal 2001	83,125	58,517	24,608
Fiscal 2002	77,430	57,355	20,075
Fiscal 2003	75,841	62,101	13,740
Fiscal 2004	75,593	64,508	11,085
Fiscal 2005	79,881	67,783	12,256
Fiscal 2006	66,268	54,688	11,580
Fiscal 2007	52,964	44,464	8,500
Fiscal 2008	42,655	36,310	6,345
Fiscal 2009	35,804	31,078	4,726

Fiscal 2010	23,642	20,608	3,034
Fiscal 2011	19,872	17,904	1,968
Fiscal 2012	14,740	13,500	1,241
Fiscal 2013	11,616	10,751	865

* "Waste" includes valuables, substances to be treated by outsourcing, and non-industrial waste.

Chemical substances (Unit: tons)

	Class 1 substances used	Class 2 substances used	Class 3 substances used	Class 4 substances used	Total
Fiscal 2000	0.05	112	8,875	10,375	19,362
Fiscal 2001	0.09	36	10,760	6,041	16,837
Fiscal 2002	0.01	67	9,136	14,552	23,755
Fiscal 2003	0.01	74	6,856	5,556	12,486
Fiscal 2004	0	46	7,975	4,510	12,531
Fiscal 2005	0	0	7,477	2,779	10,256
Fiscal 2006	0	0	2,561	2,287	4,847
Fiscal 2007	0	0	2,865	688	3,552
Fiscal 2008	0	0	1,101	384	1,485

Fiscal 2009	0	0	364	311	675
Fiscal 2010	0	0	145	400	545
Fiscal 2011	0	19	124	268	412
Fiscal 2012	0	12	115	204	331
Fiscal 2013	0	10	115	199	324

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since FY2011.

[Environmental Data for Sites](#)

Environment

Environmental Data for Sites (Latin America region)

(Updated on August 22, 2014)

Since fiscal year 2009, North America and Latin America, which are part of the Americas region, have been managed separately. This page shows data for Latin American region since fiscal 2009.

Energy (Unit: t-CO₂)

	Electricity consumption	Gas consumption	Oil consumption	Vehicle fuel	Total
Fiscal 2009	2,080	247	0	85	2,411
Fiscal 2010	2,540	362	69	190	3,161
Fiscal 2011	2,805	333	79	729	3,946
Fiscal 2012	1,451	61	48	40	1,599
Fiscal 2013	1,408	0	39	33	1,481

* Electricity consumption is calculated based on the CO₂ conversion rate used in the countries in which Sony sites are located in fiscal 2000.

Water (Unit: m³)

	Water consumption	Water discharge
Fiscal 2009	54,310	46,164
Fiscal 2010	97,163	82,589
Fiscal 2011	64,392	54,733
Fiscal 2012	45,036	38,281
Fiscal 2013	46,197	36,958

Waste* (Unit: tons)

	Waste generated	Waste reused/recycled	Waste landfilled
Fiscal 2009	2,442	2,171	271
Fiscal 2010	5,555	3,716	1,839
Fiscal 2011	7,549	4,684	2,864
Fiscal 2012	6,057	5,311	746
Fiscal 2013	4,949	4,916	33

* "Waste" includes valuables, substances to be treated by outsourcing, and non-industrial waste.

Chemical substances (Unit: tons)

	Class 1 substances used	Class 2 substances used	Class 3 substances used	Class 4 substances used	Total
Fiscal 2009	0	0	0	0	0
Fiscal 2010	0	0	11	0	11
Fiscal 2011	0	0	9	0	9
Fiscal 2012	0	43	23	0	67
Fiscal 2013	0	24	6	0.02	29

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since FY2011.

 **Environmental Data for Sites**

Environment

Environmental Data for Sites (Europe region)

(Updated on August 22, 2014)

Energy (Unit: t-CO₂)

	Electricity consumption	Gas consumption	Oil consumption	Vehicle fuel	Total
Fiscal 2000	92,008	32,954	7,633	8,313	132,595
Fiscal 2001	82,186	35,175	4,619	8,313	121,981
Fiscal 2002	78,154	46,644	6,048	8,313	139,160
Fiscal 2003	85,687	39,217	5,760	11,041	141,705
Fiscal 2004	79,368	50,758	5,944	12,079	148,149
Fiscal 2005	54,672	30,640	5,299	10,739	101,350
Fiscal 2006	37,473	12,212	4,805	9,228	63,718
Fiscal 2007	35,039	11,729	4,653	9,906	61,327
Fiscal 2008	117	9,212	4,386	9,434	23,149
Fiscal 2009	0	8,720	13	8,787	17,519
Fiscal 2010	0	7,475	137	7,150	14,762
Fiscal 2011	0	6,019	260	6,570	12,849

Fiscal 2012	0	1,752	501	689	2,942
Fiscal 2013	0	1,533	481	615	2,629

* Electricity consumption is calculated based on the CO₂ conversion rate used in the countries in which Sony sites are located in fiscal 2000.

* Figures for vehicle fuel in fiscal 2000 and 2001 are not available and have been substituted by figure in fiscal 2002.

Water (Unit: m³)

	Water consumption	Water discharg
Fiscal 2000	2,052,375	
Fiscal 2001	1,161,808	
Fiscal 2002	1,010,868	
Fiscal 2003	1,159,588	
Fiscal 2004	1,075,356	
Fiscal 2005	574,234	
Fiscal 2006	311,957	133,828
Fiscal 2007	305,479	130,326
Fiscal 2008	292,069	260,126
Fiscal 2009	233,650	187,703
Fiscal 2010	163,140	130,515

Fiscal 2011	132,005	120,352
Fiscal 2012	73,829	68,085
Fiscal 2013	61,438	48,850

- * Amount of water used is subtracted from amount of water consumed after fiscal 2000 and onward.
- * Amount of water used is of water directly taken from the source for the purpose of heat exchange and is returned to the same source. The amount of such water used is subtracted from the "amount of water consumed" since water is not polluted and amount of water neither increases nor decreases from this process.

Waste* (Unit: tons)

	Waste generated	Waste reused/recycled	Waste landfilled
Fiscal 2000	32,176	24,327	7,849
Fiscal 2001	26,558	19,983	6,575
Fiscal 2002	30,360	23,007	7,353
Fiscal 2003	29,415	24,004	5,411
Fiscal 2004	30,957	26,079	4,878
Fiscal 2005	27,938	23,851	4,087
Fiscal 2006	30,579	28,287	2,291
Fiscal 2007	34,381	32,964	1,416
Fiscal 2008	36,679	35,663	1,016

Fiscal 2009	25,630	24,943	688
Fiscal 2010	15,994	15,639	355
Fiscal 2011	7,004	6,792	213
Fiscal 2012	5,163	5,074	90
Fiscal 2013	5,501	5,354	146

* "Waste" includes valuables, substances to be treated by outsourcing, and non-industrial waste.

Chemical substances (Unit: tons)

	Class 1 substances used	Class 2 substances used	Class 3 substances used	Class 4 substances used	Total
Fiscal 2000	0	127	699	490	1,317
Fiscal 2001	0	48	689	253	990
Fiscal 2002	0	27	466	745	1,238
Fiscal 2003	0	4	360	872	1,236
Fiscal 2004	0	1	304	1,162	1,467
Fiscal 2005	0	1	383	620	1,004
Fiscal 2006	0	0	80	241	320
Fiscal 2007	0	0	86	312	398

Fiscal 2008	0.01	0	65	294	359
Fiscal 2009	0	0	40	318	358
Fiscal 2010	0	0	38	259	297
Fiscal 2011	0	10	1,156	10,033	11,199
Fiscal 2012	0.001	7	107	8,958	9,071
Fiscal 2013	0.08	4	120	7,974	8,098

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since FY2011.

● Environmental Data for Sites

Environment

Environmental Data for Sites (Pan Asia region)

(Updated on August 22, 2014)

Energy (Unit: t-CO₂)

	Electricity consumption	Gas consumption	Oil consumption	Vehicle fuel	Total
Fiscal 2000	197,365	24,842	30,336	13,267	252,542
Fiscal 2001	194,095	20,406	39,855	13,267	254,356
Fiscal 2002	179,725	17,287	10,573	13,267	220,852
Fiscal 2003	183,478	16,101	3,438	13,580	216,598
Fiscal 2004	181,220	16,102	2,788	11,634	211,744
Fiscal 2005	189,803	14,580	1,171	15,322	220,877
Fiscal 2006	190,365	13,771	131	15,352	219,619
Fiscal 2007	192,352	9,449	46	16,644	218,491
Fiscal 2008	149,340	3,107	15	13,720	166,183
Fiscal 2009	145,457	3,218	1,196	13,528	163,398
Fiscal 2010	137,726	3,152	121	10,093	151,093
Fiscal 2011	110,793	3,200	1,259	9,872	125,124

Fiscal 2012	81,483	3,422	82	9,505	94,491
Fiscal 2013	84,972	3,740	68	9,106	97,886

* Electricity consumption is calculated based on the CO₂ conversion rate used in the countries in which Sony sites are located in fiscal 2000.

* Figures for vehicle fuel in fiscal 2000 and 2001 are not available and have been substituted by figure in fiscal 2002.

Water (Unit: m³)

	Water consumption	Water discharge
Fiscal 2000	4,927,838	
Fiscal 2001	2,317,156	
Fiscal 2002	1,883,386	
Fiscal 2003	1,544,897	
Fiscal 2004	1,647,736	
Fiscal 2005	1,706,043	
Fiscal 2006	1,749,326	1,417,563
Fiscal 2007	1,868,089	1,403,573
Fiscal 2008	1,592,292	1,328,884
Fiscal 2009	1,455,200	1,212,427
Fiscal 2010	1,448,098	1,190,619

Fiscal 2011	1,258,339	1,055,108
Fiscal 2012	1,016,419	844,036
Fiscal 2013	961,082	777,482

* Fiscal 2000 data includes China region's data.

Waste* (Unit: tons)

	Waste generated	Waste reused/recycled	Waste landfilled
Fiscal 2000	34,502	22,279	12,222
Fiscal 2001	27,830	18,467	9,364
Fiscal 2002	20,744	14,868	5,877
Fiscal 2003	21,640	17,023	4,617
Fiscal 2004	18,973	15,007	3,965
Fiscal 2005	17,328	14,597	2,730
Fiscal 2006	15,668	12,420	3,248
Fiscal 2007	19,539	15,970	3,569
Fiscal 2008	14,613	10,692	3,920
Fiscal 2009	19,610	16,223	3,387
Fiscal 2010	20,564	16,276	4,288

Fiscal 2011	17,974	14,446	3,528
Fiscal 2012	12,901	10,732	2,169
Fiscal 2013	11,926	9,871	2,055

* Fiscal 2000 data includes China region's data.

* "Waste" includes valuables, substances to be treated by outsourcing, and non-industrial waste.

Chemical substances (Unit: tons)

	Class 1 substances used	Class 2 substances used	Class 3 substances used	Class 4 substances used	Total
Fiscal 2000	0	318	636	2,701	3,655
Fiscal 2001	0	276	619	1,435	2,330
Fiscal 2002	0	29	577	311	917
Fiscal 2003	0	25	424	249	698
Fiscal 2004	0	8	457	232	697
Fiscal 2005	0	2	439	166	607
Fiscal 2006	0	0	150	388	538
Fiscal 2007	0	0	157	244	401
Fiscal 2008	0	0	119	130	250
Fiscal 2009	0	0	111	37	148

Fiscal 2010	0	0	106	35	141
Fiscal 2011	0	2	324	13	339
Fiscal 2012	1	11	536	14	563
Fiscal 2013	1	106	566	83	756

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since FY2011.

* Pan asia region: Southeast Asia, Middle East, Africa and Oceania

[Environmental Data for Sites](#)

Environment

Environmental Data for Sites (China region)

(Updated on August 22, 2014)

Energy (Unit: t-CO₂)

	Electricity consumption	Gas consumption	Oil consumption	Vehicle fuel	Total
Fiscal 2000	36,054	5,748	11,714	850	53,517
Fiscal 2001	35,120	4,116	9,361	850	48,598
Fiscal 2002	39,136	6,106	11,278	850	57,369
Fiscal 2003	54,286	10,654	2,543	2,290	69,772
Fiscal 2004	85,442	10,681	135	1,380	97,638
Fiscal 2005	106,420	9,201	616	1,551	117,788
Fiscal 2006	132,285	52,533	6	4,749	189,572
Fiscal 2007	153,677	28,265	7	1,308	183,256
Fiscal 2008	143,123	26,198	12	3,122	172,456
Fiscal 2009	150,707	25,414	5	2,949	179,075
Fiscal 2010	156,170	28,740	9	2,715	187,634
Fiscal 2011	177,934	28,407	2,320	2,583	211,245

Fiscal 2012	149,971	6,137	296	3,173	159,577
Fiscal 2013	162,398	8,901	791	3,134	175,224

- * Electricity consumption is calculated based on the CO₂ conversion rate used in the countries in which Sony sites are located in fiscal 2000.
- * Figures for vehicle fuel in fiscal 2000 and 2001 are not available and have been substituted by figure in fiscal 2002.

Water (Unit: m³)

	Water consumption	Water discharge
Fiscal 2000		
Fiscal 2001	1,368,460	
Fiscal 2002	1,904,418	
Fiscal 2003	1,405,816	
Fiscal 2004	1,753,245	
Fiscal 2005	1,902,463	
Fiscal 2006	2,886,812	1,757,106
Fiscal 2007	2,020,718	1,817,192
Fiscal 2008	1,963,949	1,796,498
Fiscal 2009	1,285,793	1,104,676

Fiscal 2010	1,098,603	859,880
Fiscal 2011	2,002,182	1,599,657
Fiscal 2012	1,064,062	791,398
Fiscal 2013	1,119,475	785,972

* Fiscal 2000 data is included in Pan Asia region's data.

Waste* (Unit: tons)

	Waste generated	Waste reused/recycled	Waste landfilled
Fiscal 2000			
Fiscal 2001	3,951	3,448	504
Fiscal 2002	4,137	3,257	880
Fiscal 2003	4,716	2,111	2,605
Fiscal 2004	7,015	3,019	3,996
Fiscal 2005	7,524	5,160	2,356
Fiscal 2006	7,847	6,844	1,003
Fiscal 2007	10,102	7,965	2,136
Fiscal 2008	10,159	6,896	3,262
Fiscal 2009	9,503	7,039	2,464

Fiscal 2010	9,031	8,530	501
Fiscal 2011	11,725	9,753	1,972
Fiscal 2012	9,629	8,558	1,071
Fiscal 2013	10,167	8,636	1,531

* Fiscal 2000 data is included in Pan Asia region's data.

* "Waste" includes valuables, substances to be treated by outsourcing, and non-industrial waste.

Chemical substances (Unit: tons)

	Class 1 substances used	Class 2 substances used	Class 3 substances used	Class 4 substances used	Total
Fiscal 2000					0
Fiscal 2001	0	42	37	1,234	1,313
Fiscal 2002	0	19	36	355	410
Fiscal 2003	0	38	27	409	473
Fiscal 2004	0	3	78	1,096	1,178
Fiscal 2005	0	0	154	1,542	1,696
Fiscal 2006	0	0	10	2,109	2,119
Fiscal 2007	0	0	613	2,633	3,246
Fiscal 2008	0	0	627	1,921	2,549

Fiscal 2009	0	0	1,390	1,710	3,099
Fiscal 2010	0	0	1,511	1,725	3,236
Fiscal 2011	0	113	1,540	2,151	3,803
Fiscal 2012	0.04	110	1,124	1,664	2,898
Fiscal 2013	0.08	151	1,596	2,132	3,879

* Fiscal 2000 data is included in Pan Asia region's data.

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since FY2011.

* China region: mainland China, Hong Kong

● Environmental Data for Sites

Environment

Emissions of Air and Water Pollutant (Worldwide)

(Updated on August 22, 2014)

(Unit: Tons)

	NOx	SOx	BOD	COD
Fiscal 2002	457	156	140	420
Fiscal 2003	351	52	142	337
Fiscal 2004	288	64	135	311
Fiscal 2005	274	59	142	158
Fiscal 2006	167	48	280	279
Fiscal 2007	182	35	205	113
Fiscal 2008	176	8	133	73
Fiscal 2009	174	11	141	39
Fiscal 2010	187	9	254	96
Fiscal 2011	163	9	252	62
Fiscal 2012	110	8	214	20
Fiscal 2013	132	10	210	15

Environment

Handling Volume of Chemical Substances

(Updated on August 22, 2014)

	(Unit: tons)	(Unit: tons)	(Unit: tons)	(Unit: tons)	(Unit: tons/million yen)
	Class 1 substances	Class 2 substances	Class 3 substances	Total handling volume	Handling volume divided by consolidated sales (Volume Intensity)
Fiscal 2006	2.25	0	17,672	17,674	0.0021
Fiscal 2007	1.91	0	35,077	35,079	0.0040
Fiscal 2008	2.12	0	18,179	18,181	0.0024
Fiscal 2009	1.41	0	16,236	16,238	0.0023
Fiscal 2010	5.25	0	15,914	15,920	0.0022
Fiscal 2011	0.83	1,023	28,738	29,762	0.0046
Fiscal 2012	1.31	934	21,477	22,413	0.0033
Fiscal 2013	1.52	985	21,327	22,314	0.0029

* Classification of some substances has changed since FY2011.

Environment

Environmental Data for Products

(Updated on August 22, 2014)

Greenhouse Gas Emissions from Product Use (Unit: t-CO₂)

	Television	Video	Audio	IT	Professional use	Game	Total
Fiscal 2000	12,067,418	407,618	1,964,006	67,893	1,008,853	256,561	15,772,350
Fiscal 2001	10,818,776	280,299	2,461,309	132,360	871,437	529,577	15,093,758
Fiscal 2002	11,961,737	197,346	1,365,062	143,076	538,146	1,095,122	15,300,489
Fiscal 2003	11,738,773	228,719	2,055,160	207,479	432,057	447,826	15,110,014
Fiscal 2004	12,908,566	527,432	2,043,388	161,243	511,678	331,595	16,483,902
Fiscal 2005	12,393,225	322,432	1,586,781	109,593	616,053	295,299	15,323,383
Fiscal 2006	13,599,236	372,547	1,609,150	73,821	1,369,409	810,242	17,834,405
Fiscal 2007	14,978,341	341,573	1,689,645	90,784	1,135,557	1,105,117	19,341,017
Fiscal 2008	18,098,177	269,676	1,531,332	89,710	1,242,233	813,700	22,044,828
Fiscal 2009	16,156,097	242,823	1,185,915	92,017	1,242,459	782,127	19,701,438
Fiscal 2010	21,421,269	809,914	1,720,336	164,365	1,000,725	3,063,777	28,180,386
Fiscal 2011	17,067,704	745,164	1,422,973	104,891	1,274,451	2,351,648	22,966,831

Fiscal 2012	10,794,851	493,583	1,254,898	82,966	964,387	2,166,091	15,756,776
Fiscal 2013	9,418,343	434,038	884,063	51,772	615,255	2,730,839	14,134,310

Rationale

Production volume × (Operating power consumption × Estimated hours of operation per year + Standby power consumption × Estimated standby time per year) × Years used × CO₂ conversion rate

Total Volume of Resources Used in Products (total products shipped)* (Unit: tons)

	Television	Video	Audio	IT	Professional use	Devices/ Others	Game	Music	Total
Fiscal 2000	735,844	59,731	444,736	40,874	9,815	185,804	27,614	134,688	1,639,105
Fiscal 2001	638,865	64,135	378,147	57,007	6,825	174,675	51,016	134,112	1,504,783
Fiscal 2002	629,294	105,203	259,564	44,127	5,628	204,956	57,784	150,144	1,456,701
Fiscal 2003	575,353	137,931	280,320	40,636	6,121	208,271	39,990	156,480	1,445,103
Fiscal 2004	611,575	96,428	287,155	32,300	9,915	206,549	18,630	170,430	1,432,982
Fiscal 2005	469,549	81,746	251,249	34,278	9,280	222,058	17,196	168,258	1,253,614
Fiscal 2006	432,164	80,537	250,927	26,194	13,526	184,202	65,256	179,510	1,232,316
Fiscal 2007	421,231	81,721	261,180	36,343	15,883	163,821	95,713	190,585	1,266,477
Fiscal 2008	450,545	83,481	235,509	41,290	15,291	150,097	85,038	178,501	1,239,752
Fiscal 2009	401,334	79,621	186,951	49,840	13,679	165,899	74,406	195,629	1,167,359
Fiscal 2010	443,085	73,834	193,716	59,348	14,855	130,739	75,936	200,740	1,192,253

Fiscal 2011	335,685	61,407	176,900	37,126	10,707	69,614	68,411	185,147	944,997
Fiscal 2012	222,532	44,674	175,548	29,707	10,889	61,791	55,053	162,191	762,385
Fiscal 2013	196,920	34,832	140,554	19,799	10,754	58,371	62,010	144,843	668,083

* Total weight of resources used in products, accessories, instruction manuals and packaging.
The weight of total products shipped is substituted for this value.

Environment

Product Recycling Data

Weight of End-of-Life Products Collected

(Updated on August 22, 2014)

(Unit:ton)

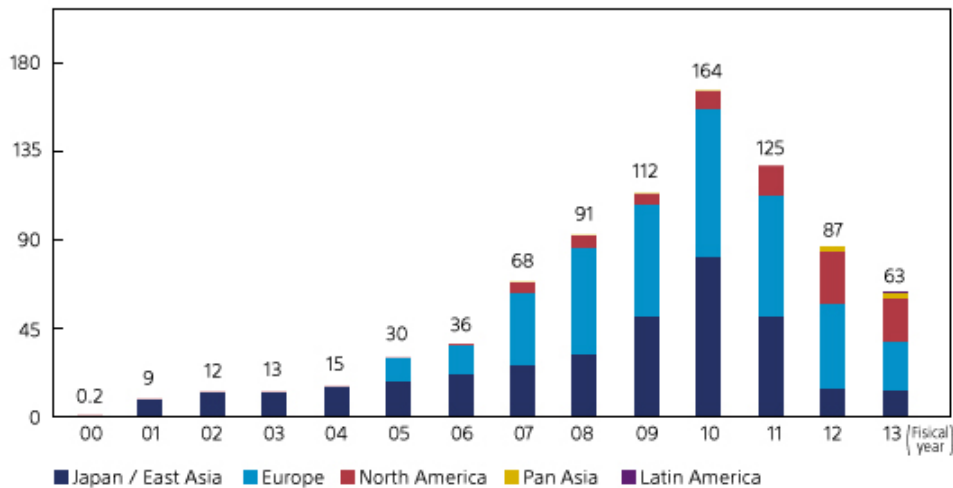
	Japan/East Asia	Europe	North America	Pan Asia	Latin America	Total
Fiscal 2000	0	0	253	0	0	253
Fiscal 2001	8,851	0	46	0	0	8,898
Fiscal 2002	12,026	0	117	0	0	12,143
Fiscal 2003	12,931	0	126	0	0	13,057
Fiscal 2004	15,407	0	73	0	0	15,480
Fiscal 2005	17,906	12,087	53	0	0	30,046
Fiscal 2006	21,574	14,726	55	0	0	36,355
Fiscal 2007	26,282	36,090	5,761	0	0	68,133
Fiscal 2008	31,619	52,980	6,589	0	0	91,188
Fiscal 2009	50,766	56,300	5,221	0	0	112,287

Fiscal 2010	80,000	74,000	9,572	0	0	163,572
Fiscal 2011	50,560	61,215	13,620	0	0	125,396
Fiscal 2012	13,878	45,425	26,684	1,269	0.018	87,256
Fiscal 2013	12,124	28,430	20,338	2,190	227	63,309

* The figure for Europe does not include Switzerland for FY2013.

Weight of End-of-Life Products Collected

(Thousand tons)



* The figure for Europe does not include Switzerland for FY2013.

Environment

Examples of Polyvinyl chloride (PVC)-free Products and Brominated Flame Retardant (BFR)-free Products

(Updated on August 22, 2014)

Examples of PVC-free Products and BFR-free Products: Model Name (As of July 2014)

Product Category	Polyvinyl chloride(PVC)	Brominated Flame Retardant(BFR)
	Examples of PVC-free Products Model Name (*1)	Examples of BFR-free Products Model Name (*2)
Xperia™ Smartphone	All models	All models
Xperia™ Tablet	All models	All models
MP3 players WALKMAN®	NW-F880 series	NW-F880 series
	NWZ-F880 series	NWZ-F880 series
	NW-S780 series	NW-S780 series
	NW-E080 series	NW-E080 series
	NWZ-E580 series	NWZ-E580 series
	NWZ-E380 series	NWZ-E380 series
	NWZ-B180 series	NWZ-B180 series
	NW-M505	NWZ-W270S series
		NW-W273S
		NW-WH303
		NWZ-WH303
		NWZ-WH505
		NW-ZX1
	NWZ-ZX1	
	NW-M505	

IC recorder	ICD-UX533 / UX533F / UX543 / UX543F / UX544F	ICD-UX533 / UX533F / UX543 / UX543F / UX544F
	ICD-SX733 / SX734 / SX1000	ICD-SX733 / SX734 / SX1000
	ICD-TX50	ICD-TX50
	ICD-FX88	ICD-FX88
	ICD-PX333 / PX333F / PX333M	ICD-PX333 / PX333F / PX333M
	ICD-PX440	ICD-PX440
	ICD-PX240	ICD-PX240
	ICD-BX122	ICD-BX122
	ICD-BX140	ICD-BX140
Memory Card Recorder		ICD-LX30 / LX31
Portable Radio Recorder	ICZ-R51	ICZ-R51
	ICZ-R100	ICZ-R100
Linear PCM Recorder		PCM-M10 PCM-D100

Video Camera Handycam®	NEX-VG30	NEX-VG30
	NEX-VG30H	NEX-VG30H
	NEX-VG30EM	NEX-VG30EM
	NEX-VG900	NEX-VG900
	FDR-AX1	FDR-AX1
	HDR-CX240	HDR-CX240
	HDR-PJ240	HDR-PJ240
	HDR-PJ270/275	HDR-PJ270/275
	HDR-CX330	HDR-CX330
	HDR-PJ330	HDR-PJ330
	HDR-PJ340	HDR-PJ340
	HDR-PJ350	HDR-PJ350
	HDR-CX420	HDR-CX420
	HDR-CX530	HDR-CX530
	HDR-CX535	HDR-CX535
	HDR-CX610	HDR-CX610
	HDR-PJ540	HDR-PJ540
	HDR-PJ530	HDR-PJ530
	HDR-PJ610	HDR-PJ610
	HDR-PJ800	HDR-PJ800
HDR-PJ810	HDR-PJ810	
HDR-PJ820	HDR-PJ820	
FDR-AX100	FDR-AX100	
HDR-CX900	HDR-CX900	
Video Camera Action Cam	HDR-AS15	HDR-AS15
	HDR-AS30V	HDR-AS30V
	HDR-AS100V	HDR-AS100V
	HDR-AS20V	HDR-AS20V

Digital Still Camera Cyber-shot™	DSC-RX100	DSC-RX1
	DSC-RX100M2	DSC-RX1R
	DSC-RX100M3	DSC-RX10
	DSC-HX400	DSC-RX100
	DSC-HX300	DSC-RX100M2
	DSC-HX60	DSC-RX100M3
	DSC-HX50	DSC-HX400
	DSC-H400	DSC-HX300
	DSC-H300	DSC-HX60
	DSC-TX30	DSC-HX50
	DSC-WX350	DSC-H400
	DSC-WX220	DSC-H300
	DSC-WX80	DSC-TX30
	DSC-W830	DSC-WX350
	DSC-W810	DSC-WX220
	DSC-W800	DSC-WX80
		DSC-W830
		DSC-W810
	DSC-W800	

Digital Photo Frame S-Frame™	DPF-XR100 / XR80	DPF-XR100 / XR80
	DPF-A710	
	DPF-C1000 / C800 / C700 / C70A	
	DPF-HD1000 / HD800 / HD700	
	DPF-W700	
	DPF-WA700	
	DPP-F800	
	DPF-C1000 / C800 / C700 / C70A	
	DPF-HD1000 / HD800	
	DPF-WA700	
Interchangeable lens digital camera α™	α 3000	α 3000
	α 3500	α 3500
	α 5000	α 5000
	NEX-5T	NEX-5T
	α 6000	α 6000
	α 58	α 7
	α 65	α 7R
	α 77 II	α 7S
		α 58
		α 65
	α 77 II	
	α 99	
PSP® (PlayStation®Portable)	PSP-3000 series	PSP-3000 series
	PSP-E1000 series	PSP-E1000 series
PlayStation®Vita	PCH-1000 series	PCH-1000 series
	PCH-1100 series	PCH-1100 series
	PCH-2000 series	PCH-2000 series
Digital Book Reader Reader™	PRS-350 / 650 /T1 / G1 / T2 / T3 / T3S	PRS-350 / 650 /T1 / G1 / T2 / T3 / T3S
Portable DVD Player	DVP-FX780	DVP-FX780
	DVP-FX980	DVP-FX980

Portable Blu-ray Disc™/DVD Player	BDP-SX1, BDP-SX910, BDP-Z1	BDP-SX1, BDP-SX910, BDP-Z1
Memory Stick™	MS-HX32B, MS-HX16B, MS-HX8B	MS-HX32B, MS-HX16B, MS-HX8B
	MS-MT16G, MS-MT8G, MS-MT4G, MS-MT2G	MS-MT16G, MS-MT8G, MS-MT4G, MS-MT2G
	MS-M16, MS-M8, MS-M4	MS-M16, MS-M8, MS-M4
SxS™ memory card	SBP-64B, SBP-128B	SBP-64B, SBP-128B
	SBS-16G1B, SBS-32G1A, SBS-64G1A	SBS-16G1B, SBS-32G1A, SBS-64G1A
	<p>*1 Parts in which PVC is eliminated are as below (excluding accessories): Xperia™ Smartphones: in all plastic components. Products other than Xperia™ Smartphones: in casings and internal wiring.</p>	<p>*2 Parts in which BFRs are eliminated are as below (excluding accessories): Xperia™ Smartphones: in PWBs, casings and cables. Products other than Xperia™ Smartphones: in casings and main PWBs.</p>

Environment

Environmental Cost

(Updated on August 22, 2014)

Environmental Cost*1

	Cost for environmental activities at sites	Cost for environmental technology development*2
Fiscal 2010	1.1 billion yen	32.6 billion yen
Fiscal 2011	0.9 billion yen	32.1 billion yen
Fiscal 2012	0.2 billion yen	21.9 billion yen
Fiscal 2013	0.2 billion yen	19.9 billion yen

*1 Total cost of Sony Corporation and its subsidiaries related to electronics businesses.

*2 Environmental technology development costs incurred at Sony Group companies (including Sony Corporation) and corporate research labs.

Environment

Independent Verification Report

Purpose and Scope of Verification

(Updated on August 22, 2014)

Sony has obtained third-party verification since fiscal 2001 to ensure the credibility of data reported and facilitate the ongoing improvement of its environmental management. Since fiscal 2003, Sony has sought independent verification from the Bureau Veritas (BV) Group, the external auditing organization for the Sony Group's global environmental management system. In fiscal 2013, Sony asked the BV Group to undertake independent verification of the reliability of data collection and reporting processes, as well as the accuracy and the appropriateness of conclusions drawn from such data, at production sites, non-manufacturing sites, design sites and Sony's headquarters. Furthermore, amount of greenhouse gas emissions is verified in accordance with ISO14064-3 since fiscal 2011.

Independent Verification Report

(Updated on August 22, 2014)

 [Click to enlarge \(PDF\)](#)**CSR Reporting
Independent Verification Report**

To: Sony Corporation

31st July 2014Bureau Veritas Japan Co., Ltd.
System Certification Services Headquarter**Objective of Verification**

Bureau Veritas Japan Co., Ltd. (Bureau Veritas) verified the FY2013 environmental data selected by the Sony Corporation (Sony) for inclusion in the Sony CSR Report (the Report), issued under the responsibility of Sony's management. The aim of the verification is to assess the reliability and accuracy of environmental performance data detailed in the Report and to provide a verification opinion based on objective evidence.

Sites visited for verification

Bureau Veritas visited the following sites, business sections and Sony's headquarters where all of the target data were aggregated.

- Sony Semiconductor Corporation Nagasaki Technology Center
- Sony Corporation Professional Solution Section

Bureau Veritas also assessed the reliability of environmental performance data management across other sites and business sections by testing the implementation and effectiveness of the Sony Global Environmental Management System (GEMS).

Data Item**Site environmental data**

- Energy consumption(including fuel for motor vehicles) and associated CO₂ emissions
- Emissions of PFCs and other greenhouse gases
- Water consumption and discharge
- Water pollutant (BOD/COD) emissions

Product environmental data

- CO₂ emissions from product use

Logistics environmental data

- CO₂ emissions from logistics

Other

- CO₂ Emissions from employee business trips

Verification Methodology

Bureau Veritas has conducted its verification activities to determine the following:

Sony Headquarters

1. The reliability and adequacy of data collection and aggregation systems and related processes
2. The effectiveness of internal verification processes
3. The resulting data accuracy (April 2013 to March 2014)
4. The validity of conclusions drawn from and reported on the basis of aggregated data

Sites

1. The relevance of the scope of data selected for inclusion in the report
2. The effectiveness of data measurement, collection, and aggregation methods, and of internal verification processes
3. The reliability and adequacy of data monitoring and collection and the accuracy of final aggregated

Bureau Veritas has implemented a code of ethics across its business which is intended to ensure that all our staff maintain high standards in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest. Bureau Veritas activities for Sony Corporation are for environmental and social reporting verification only and we believe our verification assignment did not raise any conflicts of interest.

data

This verification was conducted using Bureau Veritas' standard procedures and guidelines for external verification of non-financial reporting, based on current best practice. Bureau Veritas refers to the International Standard on Assurance Engagements (ISAE) 3000 in providing a limited assurance for the scope of work stated herein.

Opinion

As a result of the above scope of work Bureau Veritas is of the opinion that:

- The environmental data reported at sites' level is measured, collected and aggregated based on established and effective internal systems and processes.
- All errors in reported data identified during the verification process have been duly corrected.
- Product related environmental impact data are subject to an effective aggregation process, resulting in clear and unambiguous results.
- Therefore, nothing comes to our attention to suggest that there are any data that are not reliable or free from significant error or bias.

Bureau Veritas has implemented a code of ethics across its business which is intended to ensure that all our staff maintain high standards in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest. Bureau Veritas activities for Sony Corporation are for environmental and social reporting verification only and we believe our verification assignment did not raise any conflicts of interest.



Greenhouse Gas Emissions Verification Statement

(Updated on August 22, 2014)

 [Click to enlarge \(PDF\)](#)

GREENHOUSE GAS EMISSIONS VERIFICATION STATEMENT

To: Sony Corporation

July 31, 2014
Bureau Veritas Japan Co., Ltd.
System Certification Services Headquarters

Bureau Veritas Japan Co., Ltd. (Bureau Veritas) was engaged by the Sony Corporation (Sony) to conduct verification to a limited level of assurance of the greenhouse gas (GHG) emissions reported by Sony in its CSR Reporting for the period of April 1, 2013 through March 31, 2014.

1. Scope of Verification
Sony requested Bureau Veritas to verify the accuracy of the following GHG information, to a limited level of assurance:

- 1) Scope 1 and Scope 2 GHG emissions:
 - GHG emissions through business operations of all ISO 14001-certified sites as of March 31, 2014 in Sony Group
- 2) Scope 3 GHG emissions:
 - CO₂ emissions from the electricity consumption during product use
 - CO₂ emissions from logistics (*1)
 - CO₂ emissions from employee business trips (*2)

(*1) Total CO₂ emissions from logistics include emissions arising from transportation of electronics products handled by the Sony Group except Sony Mobile Communications Inc. over 40 countries around the world including Japan, the United States, Europe, and Asia. GHG emissions from logistics within Japan also include those from components transportation.

(*2) Emissions are calculated for business trips undertaken by employees from central departments, which account for the largest share of business trips taken by employees of the Sony Corporation and Sony Group Electronics Business companies in Japan, Europe and North America and for business trips taken by employees from some electronics-related companies in China. (In the case of Japan and North America, trips taken by employees from some music-related companies are included. Trips taken by employees from Sony Mobile Communications Inc. are excluded.)

2. Methodology
Bureau Veritas conducted the verification in accordance with the requirements of the international standard 'ISO 14064-3(2006): Greenhouse gases - Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions'.

As part of Bureau Veritas' assurance, the following activities were undertaken:

- Interviews with relevant personnel of Sony responsible for the identification and calculation of GHG emissions;
- Review of Sony's information systems and methodology for collection, aggregation, analysis and review of information used to determine GHG emissions; and
- Audit of a sample of source data to check accuracy of quantified GHG emissions.

3. Conclusion
Based on the verification work and processes followed, there is no evidence to suggest that the GHG emissions assertions shown below:

- are not materially correct and are not a fair representation of the GHG emissions from activities within scope of work.
- are not prepared in accordance with the methodology for calculating GHG emissions established and implemented by Sony.

Verified greenhouse gas emissions		
Scope 1	Scope 2	Scope 3
304,000 t-CO ₂ e	927,000 t-CO ₂ e	14,518,000 t-CO ₂ e

The breakdown of Scope 3 emissions are as follows:
 CO₂ emissions from the electricity during product use: 14,134,000 t-CO₂e
 CO₂ emissions from logistics: 297,000 t-CO₂e
 CO₂ emissions from employee business trips: 64,000 t-CO₂e

[Statement of Independence, impartiality and competence]
 Bureau Veritas is an independent professional services company that specializes in Quality, Health, Safety, Social and Environmental management with over 160 years history in providing independent assurance services. No member of the verification team has a business relationship with Sony, its Directors or Managers beyond that required of this assignment. We conducted this verification independently and to our knowledge there has been no conflict of interest. Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities. The verification team has extensive experience in conducting assurance over environmental, social, ethical and health and safety information, systems and processes, has an excellent understanding of Bureau Veritas standard methodology for the verification of greenhouse gas emissions data.

Environment

History of Environmental Activities at Sony

(Updated on August 22, 2014)

		Principles and Organization	Action
1976	April	Establishes Environmental Conference, chaired by the President	Promotes prevention of hazardous materials use and occupational health and safety in Sony Group operations in Japan
	May	Establishes Environmental Science Center	Hazardous waste materials and working environments of Group operations in Japan are evaluated
1985	April		Sony Corporation of America begins environmental audits
1989	March	Convenes special committee to study measures to eliminate CFC use	
1990	August	President's Policy on the Environment is disseminated among Sony Corporation staff	
	October	Organizes Sony Environmental Conservation Committee	
1991	October	Formulates policy for product assessment	
	November		Signs business charter for sustainable development of the international chamber of commerce
1992	December		Policy on environmental management is established

1993	January		Inaugurates Environmental Fund System, a program supporting development of environmental protection technologies,
	March	Sony Global Environmental Policy and Environmental Action Program is formulated	
	April		Center for Environmental Technologies (CET) is established at the Sony Research Center
1994	February		Launches Sony Environmental Award program
	April	Establishes Corporate Environmental Affairs Department Center for Environmental Technologies (CET) is established at the Sony Research Center (ongoing until 1999)	
	May		Launches Greenplus Project to promote environmental consideration with respect to products
	July	Guidelines for acquiring ISO environmental certification are established and introduced	
1995	May		Sony Kohda Corporation becomes the first Sony company in Japan to acquire ISO 14001 certification
1996	July		Sony Deutschland's Service Division becomes the first nonmanufacturing site in the Sony Group to acquire ISO 14001 certification
	October	Revises Sony Environmental Action Program and formulates Green Management 2000	

1997	October	Initiates operations at Recycle Research Center in Ichinomiya (ongoing until 2005)	
	December		Four sites in Singapore become the first nonmanufacturing sites in Asia to acquire ISO 14001 certification
1998	April	Composition of Sony Environmental Conservation Committee is revised to give each member a specific responsibility	
	September	Environmental R&D laboratory is established in the Environmental Center Europe, Germany	
	November	Implements Sony Environmental Action Program uniformly across the Sony Group worldwide and introduces Green Management 2002	
1999	February		Completes the process of acquiring ISO 14001 certification at all 38 manufacturing sites in Japan
	May		Sony Eco Plaza environmental exhibition room opens Sony Headquarters
2000	April		Environmental factors are incorporated into Network Companies' evaluations; Guideline for the Environmental Risk Management is formulated; Fire risk survey program is launched for European and Asian operations
	September	Sony China Environmental Conservation Committee is established	
	October	Introduces periodic environmental information disclosure involving advertising and publicity; Launches "eco info" mark	
	December		Introduces periodic environmental information disclosure involving advertising and publicity; Launches "eco info" mark

2001	March	Revises Sony Mid-Term Environmental Action Program; Formulates Green Management 2005	
	April		Japan's Home Appliance Recycling Law becomes effective and the 14-plant recycling network of Green Cycle Corporation, where Sony is the principal shareholder, begins processing four types of appliances; Environmental evaluation standards are extended from Electronics to Game, Music and Pictures businesses
	September		Sony begins using the Green Power Certification System
	October		PS one game console shipments temporarily are halted in the Netherlands due to containing cadmium above the legal limit
2002	March	Sony Technical Standards, SS-00259 "Management Regulations for the Environment-related Substances to be Controlled which are included in Parts and Materials" is formulated	
	April		Completes ISO 14001 certification process at all manufacturing sites worldwide
	June		Initiates first "Sony Group Environmental Month"
	July		Introduces Green Partner Environmental Quality Approval Program

2003	March	Introduces new system to increase the efficiency of environmental management through a high level of expertise in environmental issues concerning products and sites; Establishes Institute for Environmental Research to develop medium- and long-term environmental management visions	
	July	Revises Sony Mid-Term Environmental Targets (Green Management 2005)	
	November	Revises Sony Environmental Vision and renames it "Sony Group Environmental Vision"	
2004	June		Acquires ISO 14001 for the headquarters functions of Sony Group environmental management; commencement of a globally integrated environmental management system
2006	March		Completes shift to a globally integrated environmental management system, based on ISO 14001
	April	Establishes Green Management 2010	
	July		Begins participation in World Wide Fund for Nature (WWF)'s Climate Savers Programme
2007	November	Resources Recycling Office is established	Use of renewable energy at Sony DADC Austria's Anif Plant reaches 100%

2008	February		Provides venue for the annual conference of the WWF's Climate Savers Programme and co-hosts (with the WWF) Climate Savers Tokyo Summit 2008, which welcomes representatives of industry, government and the media
	April		Launches a scheme to support forest conservation efforts in Noshiro, Akita prefecture using a Green Power Certification system purchase contract
	June		Announces the energy-saving KDL-32JE1 LCD television
	September		Commences pilot program to collect small e- waste in the city of Kita-Kyushu
2009	January		Announces new V5/VE5/WE5 series of BRAVIA™ LCD televisions with energy-saving features, including a "Presence Sensor" and "Energy Saving Switch," that facilitate a substantial reduction in energy consumption
	June		Releases mercury-free alkaline button battery (LR)
	July		Achieves using 100% renewable energy at European sites; percentage of total energy used by Tokyo headquarters building accounted for by renewable energy reaches 50%
	October		Sony Chemical & Information Device Corporation's Kanuma Plant wins Minister of Economy, Trade and Industry Award for "Resource Recycling Techniques and Systems"
	November	Announces at presentation to the media that it has positioned "the environment" as one of four key strategic priorities	

2010	February		Announces VAIO W series of "eco body model" PCs with features that evoke Sony's commitment to environmental conservation, including components that are 80% made with recycled plastic and carrying case made from 100% recycled PET materials
	April	Announces new "Road to Zero" global environmental plan, revises Sony Group Environmental Vision and formulates "Green Management 2015," a new set of mid-term environmental targets for the Sony Group	
	October		Presentation on groundwater recharge for idle rice paddies (project undertaken by Sony Semiconductor Kyushu Corporation's Kumamoto Technology Center) given at COP10 Biodiversity Conference.
2011	February		Develops SORPLAS™, plastic made 99% from recycled materials, for use in the bezel (screen rim) components of BRAVIA™ LCD televisions
	March		Sony Forest, maintained by Sony EMCS Corporation's Kohda Site, earns Superlative Stage (top rank) certification under the Social and Environmental Green Evaluation System (SEGES) in Japan
	April		Launches 1.2 kWh-capacity energy storage modules containing rechargeable lithium-ion batteries made with olivine-type lithium-ion iron phosphate
	June	Begins implementation of "Green Star Program" which assesses the environmental performance at each site	

2012	February		Developed "authentication outlets" that let a user proactively manage his/her use of electric power
	September		Xperia™ P smartphone receives European Green Smart Phone award from the European Imaging and Sound Association
	December		The DSC-HX30/20 series of Cyber-shot™ digital still cameras and BDV-N790W Blu-ray Home Theater System are honorees Eco-Design and Sustainable Technologies category at the CES Innovation Awards 2013.
2013	March		Sony Electronics Asia Pacific Pte Ltd. is presented with the 2013 Green Luminary award by Channel NewsAsia, which praised Sony's medium- to long-term commitment to sustainability under the Road to Zero initiative, innovative environmentally conscious materials such as SORPLAS™ and local CSR activities involving both employees and the community.
			Sony Semiconductor Corporation's Oita Technology Center earns top-rank Superlative Status certification under Japan's Social and Environmental Green Evaluation System (SEGES).
	November		Sony Service and Operations of Americas receives Mexico's Index National Environmental Award 2013 for its environmental activities and performance.

2014	January		Sony EMCS Malaysia KL Tec's environmental management system and activities to reduce environmental footprint receive two Prime Minister's Hibiscus Awards from the Malaysian Ministry of Natural Resources and Environment (MNRE)
	February		The television advertisement "Water Rock"—showcasing one of Sony's environmental initiatives—receives the Grand Prix award at the 17th Environmental Communication Awards in Japan in the environmental television advertisement category

* Organization names appear as they were at the respective dates; some may not be current.



Community



Sony is committed to pursuing sustainable business practices while working to realize a better future for society. Sony also undertakes community engagement activities in fields where it is best able to do so to help address the needs of the communities.

Vision of Sony's Founder

In Sony's Founding Prospectus, co-founder Masaru Ibuka set "the promotion of education in science among the general public" as a primary goal.



Policy, Main Scope and Structure

Policy

In line with the vision of its co-founder and the spirit behind its "For the Next Generation" phrase, Sony undertakes a variety of activities that capitalize on its unique capabilities.



Main Scope

Sony undertakes community engagement around the world in pursuit of solutions to global issues, including support for Science education for children, environmental conservation, realization of the Millennium Development Goals (MDGs) and the provision of assistance to those in need in the aftermath of major disasters.



Resources

Sony leverages its products, services, content, technology, innovations and the capabilities of its employees in its community engagement initiatives. Sony also builds partnerships for community engagement programs with such external stakeholders as international institutions, NGOs and other organizations possessing expertise.



Structure

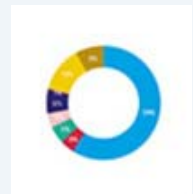
In addition to Sony’s global program, which is spearheaded by its headquarters in Tokyo, Sony Group companies worldwide, as well as six foundations, promote initiatives tailored to local needs while cooperating with various external stakeholders. Additionally, employees are encouraged to play an active role in their communities.



[● Related Link : Volunteer Systems for Employees](#)

Expenditures

In fiscal year 2013, the Sony Group spent approximately 3.5 billion yen on community engagement initiatives. These initiatives focused on education, particularly science education. Expenses for programs undertaken by Sony—which leverage Sony’s particular strengths—accounted for 63% of this expenditure.



Activities

Taking into account issues of concern to external stakeholders, Sony undertakes a broad range of programs that aim to address social and environmental issues that represent risks or opportunities for Sony.



Introduction to Sony's Community Engagement Programs (Project List)

Sony Science Program

One example is the Sony Science Program,* through which Sony has provided support for science education for children—one of its core community engagement initiatives—for more than five decades. Below is an introduction to the program. Contact with science and technology encourages children to develop curiosity toward science. Guided by the philosophy of its co-founder, Sony acts on the belief that providing such opportunities will contribute to the betterment of society. Through the management of interactive science museums and by holding workshops, Sony keeps providing educational opportunities for children.

Up to the end of fiscal year 2013, Sony expanded its workshop program to 12 countries around the world. The workshops focused on learning about scientific principles and technology, and included creative activities and experiments utilizing Sony products and services. In 2013, some 5,500 children took part in these workshops. In addition, a total of 450 Sony employees acted as volunteer teachers at these workshops.

* The Sony Science Program name has been used since 2009.



Related Link

[Contributing to the International Community through Business Activities](#)

Guided by its founders' spirit of innovation, which emphasizes the provision of creative technologies, products and services, Sony promotes contributions to the international community through its business activities.



[Sony Museums and Foundations](#)

Sony organizes exhibitions of various kinds, including exhibitions at educational museums that are designed to stimulate interest in media, science, technology and entertainment.



Community

Vision of Sony's Founder

(Updated on August 12, 2014)

In Sony's Founding Prospectus, co-founder Masaru Ibuka set "the promotion of education in science among the general public" as a primary goal. He was convinced that enhancing scientific literacy would be critical for the recovery of post-war Japan and that science education for children was the key. In 1959, 13 years after Sony's establishment, he set up the Sony Fund for the Promotion of Science Education to support elementary schools in the pursuit of science education excellence.



Masaru Ibuka



Research presentation by schools assisted under the Sony Fund for the Promotion of Science Education

Community

Community Engagement Policy, Main Scope and Structure

Sony's Community Engagement Policy

(Updated on August 12, 2014)

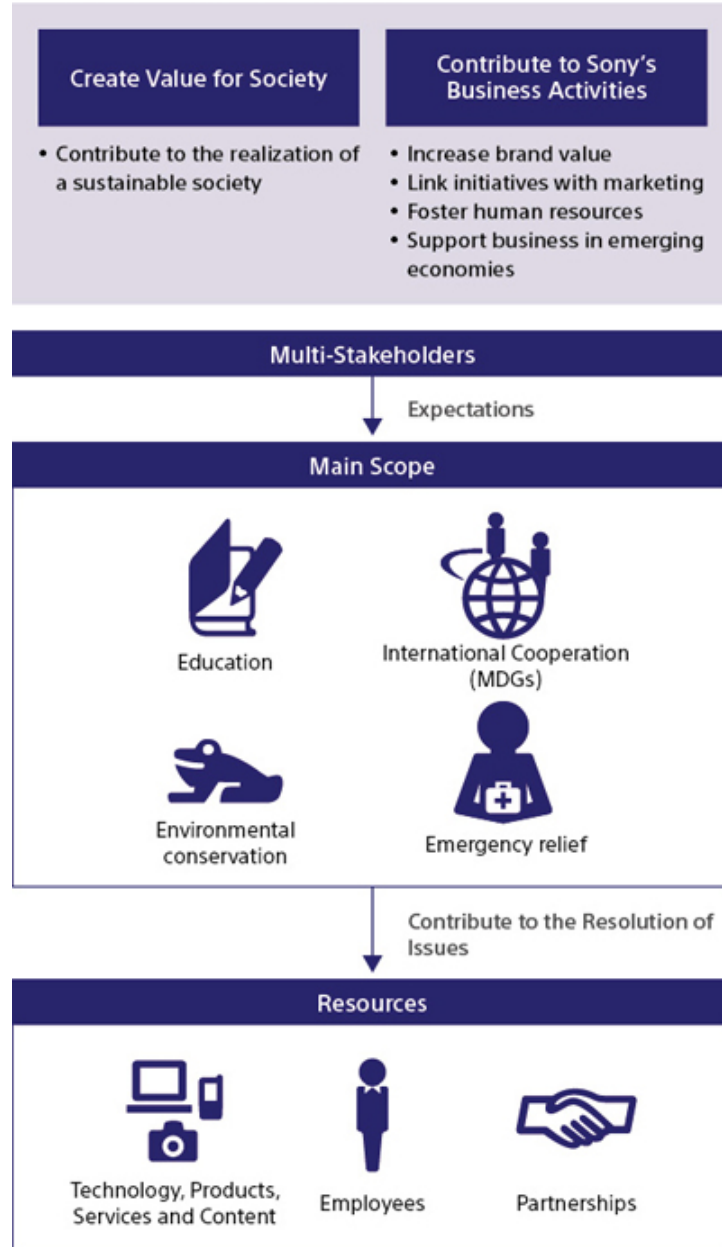
Following in Ibuka's footsteps, and guided by its "For the Next Generation" CSR philosophy, Sony continues to support science education for children and

undertakes community engagement around the world in pursuit of solutions to global issues, including environmental conservation, realization of the Millennium Development Goals (MDGs) and the provision of assistance to those in need in the aftermath of major disasters.

For the Next Generation

Sony leverages its products, services, content, technologies and innovation, as well as the talents of its employees, to facilitate community engagement activities. Sony also capitalizes on partnerships with external stakeholders. As a means of informing as many people as possible about these issues, Sony also undertakes educational campaigns linked to its marketing initiatives and incorporates its CSR goals into its internal human resource development. Hence, Sony not only seeks to contribute to the resolution of social and environmental issues but also to integrate community engagement into its business operations as a way of enhancing those operations.

Sony's Community Engagement



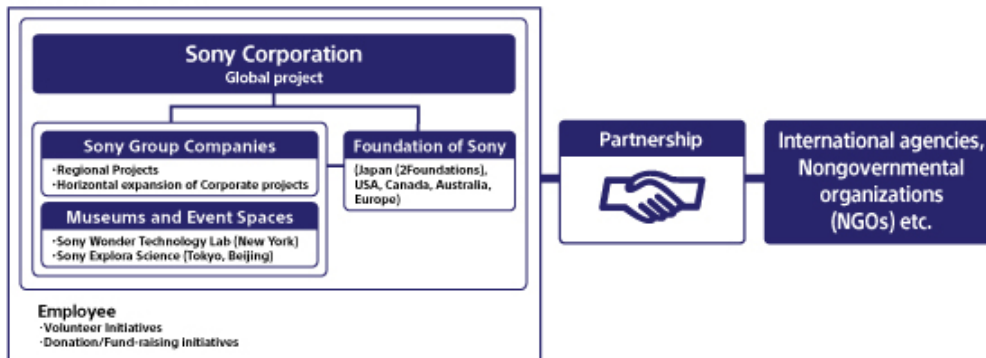
*1 MDGs : Millennium Development Goals

Framework for Community Engagement

(Updated on August 12, 2014)

In addition to Sony's global program, which is spearheaded by its headquarters in Tokyo, Sony Group companies worldwide, as well as six foundations, promote initiatives tailored to local needs in accordance with the Sony Group's community engagement policy, cooperating with various international organizations including NGOs. Additionally, employees are encouraged to play an active role in their communities through participation in, for example, volunteer and fundraising programs.

Organization chart



Community

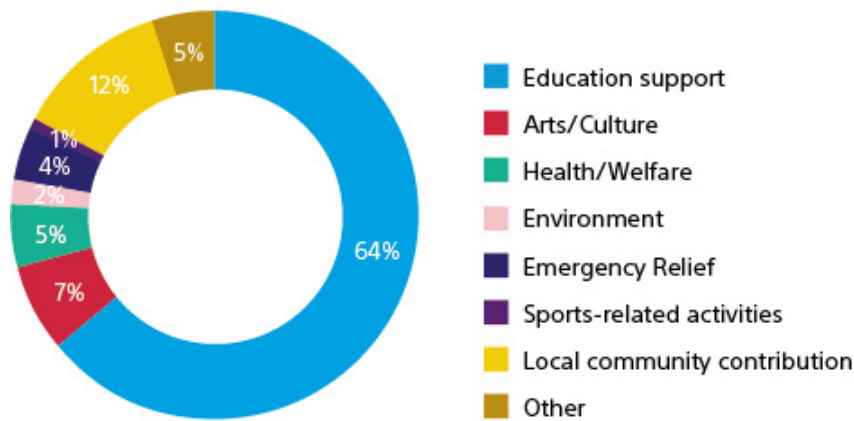
Expenditures for Community Engagement Initiatives in Fiscal Year 2013

(Updated on August 12, 2014)

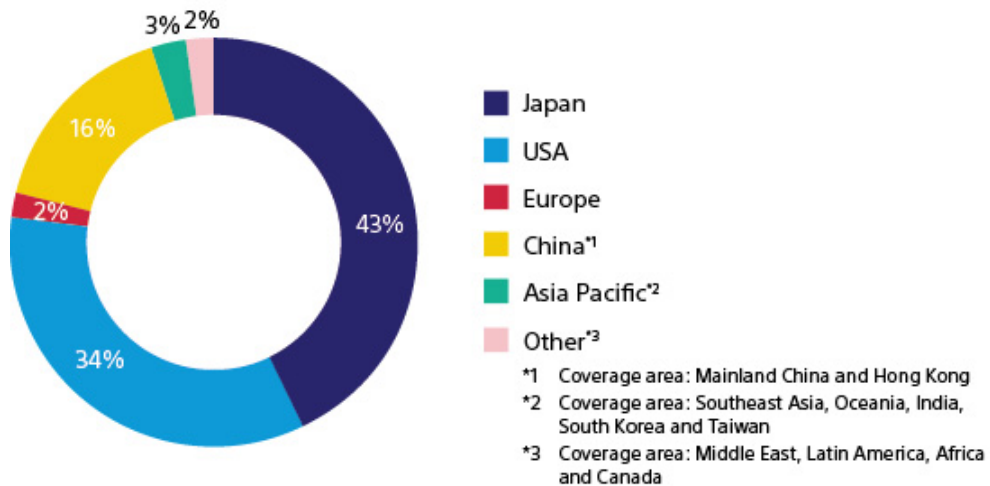
In fiscal year 2013, the Sony Group spent approximately 3.5 billion yen* on community engagement initiatives. These initiatives focused on education, particularly science education.

* Cumulative figure. In addition to donations, sponsorships and independent program expenses (including facility operation expenses), this amount includes the market prices of products donated.

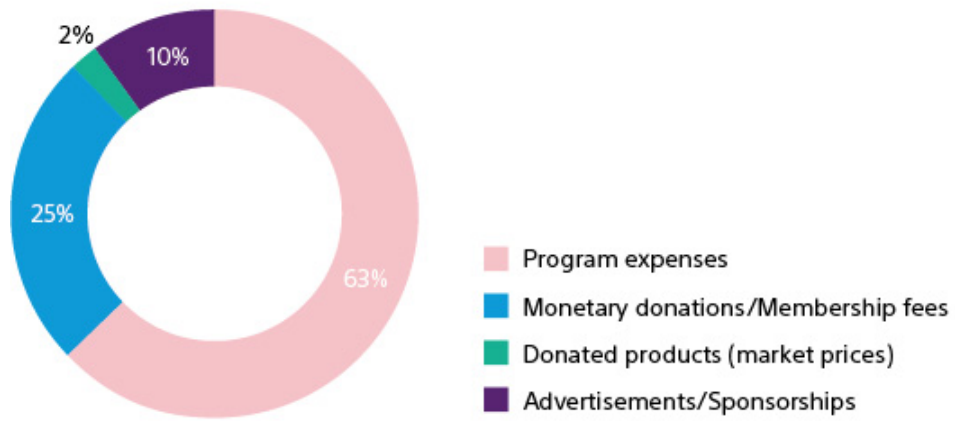
Community Activity Expenditures by Field (Fiscal Year 2013)



Community Activity Expenditures by Region (Fiscal Year 2013)



Community Activity Expenditures by Category (Fiscal Year 2013)



Community

Volunteer Systems for Employees

Employee volunteer promotion program: "SOMEONE NEEDS YOU"

(Updated on August 12, 2014)

Sony has a global in-house volunteer program known as SOMEONE NEEDS YOU (the name developed using the letters S, O, N and Y), the aim of which is to encourage employee involvement in efforts to help local communities. Under this program, Sony Group companies create volunteer programs tailored to local needs and encourage continued employee participation in the community. In fiscal year 2013, a total of 70,000 Sony Group employees* participated in volunteer initiatives.

* Cumulative participants in fundraising initiatives, blood drives and other activities.

Leave for volunteer purposes

(Updated on August 12, 2014)

To support employee participation in volunteer activity initiatives, Sony Corporation has an employee volunteer support system, making it easier for employees to participate in volunteer activities by allowing them to use accumulated holidays for initiatives requiring extended leaves of absence.

Matching gift programs, fundraising initiatives

(Updated on August 12, 2014)

Many Sony Group companies have "matching gift programs," whereby Sony matches charitable donations made by employees up to established limits to encourage employees' fundraising efforts.

Organizations recognized by Sony Group companies in Japan as being valid donation recipients include legal entities for social interest authorized by Japan's Ministry of Finance, foundations, aggregate corporations, authorized NGOs and social welfare corporations.

In addition to the matching gift programs, Sony has implemented several methods for donation to make it easier for employees to participate in efforts to raise funds for emergency humanitarian assistance. Donation by bank transfer became available with the cooperation of Sony Group financial services company, Sony Bank Inc. Also, donation by a prepaid electronic money service incorporating FeliCa™ is also possible.

Related information:

- [Activities to promote employee participation](#)

Community

Contributing to the International Community through Business Activities

Working to Address Social Development through the Utilization of Technology

(Updated on August 12, 2014)

I. Model Study of Community Electrification in Bangladesh Using a Long-life Storage Battery System

From August 2013 through February 2014, Sony undertook a study* in an unelectrified area of Bangladesh (Gaibandha district, Saghata sub-district) aimed at encouraging the effective use of renewable energy generation and improving living conditions and hygiene for local people using a long-life storage battery system** and photovoltaic (PV) panels. Based on the results of this study, Sony has begun considering the feasibility of building a new business model.

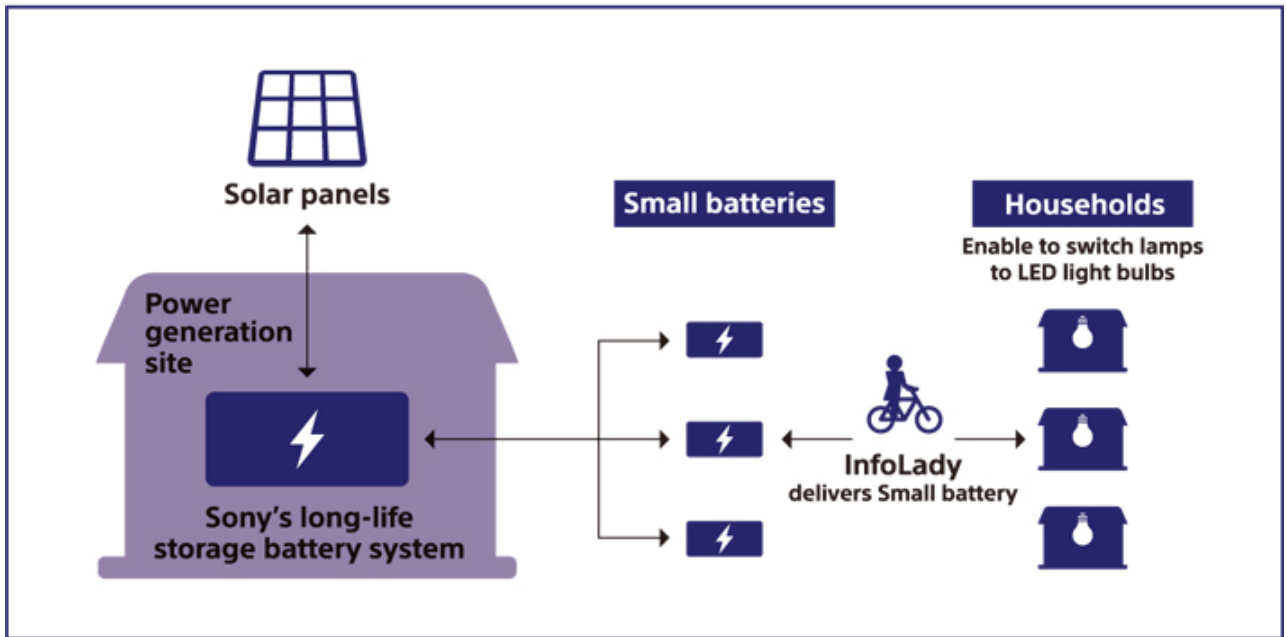
Project name:

Electrification of an unelectrified area using solar power generation and a long-life storage battery system

Objectives:

- To effectively utilize renewable energy generation and to promote the use of electricity
- To contribute to the reduction of greenhouse gas emissions
- To improve living conditions and hygiene through the electrification of an unelectrified area

Project Overview



Research Overview:

1. Store renewable energy generated by a solar PV system in Sony's long-life storage battery system.
2. Transfer the stored energy to portable batteries and deliver to 100 households in an unelectrified area to supply power.
3. This energy enables to replace kerosene lamps with LED light bulbs which consume lower energy. (A portable battery powers a 2-watt LED light bulb for approximately 15 hours.)
4. Residents can work and study indoors even after sunset. Indoor air contamination is also reduced, thereby enhancing living environments.



Benefits:

- Be able to charge the long-life storage battery system with solar power generation during daylight hours. The stored energy will be divided into portable batteries and are delivered to the village to supply power for use at night.
- Residents can work and study indoors even after sunset, which leads to an improvement in residents' quality of life.

- Inside the houses, air contamination by kerosene lamps is reduced.
- The power is also used to charge widely used mobile phones and enhances convenience.

Secondary benefits:

The project employed InfoLady***consultants to deliver portable batteries to each household and undertake programs to promote the uptake of the system. The InfoLady program is managed by a local NGO, and can be described as "a consultation-based assistance program carried out for women and by women." By utilizing the InfoLady program, the project promoted increased employment of local women and contributed to their empowerment.

Based on knowledge gained in the study conducted by Sony Energy Devices Corporation, Sony Corporation and cooperating organizations as outlined above, Sony has begun from May 2014 considering the feasibility of developing a new business in partnership with local companies.

* Details on this study are [here](#).

** Sony used an olivine-type lithium-ion iron phosphate battery, which boasts a very stable crystalline structure, and even at high temperatures the material exhibits excellent thermal stability. Sony also applied its proprietary powder-design and cell-structure technologies to realize high output and long battery life of over 10 years (in the case of a room temperature of 23 °C, and charging/discharging once per day).

● **Expanding from the Development of Olivine-Type Lithium-Ion Iron Phosphate Storage Batteries to Include Other Peripheral Devices**

*** This is an action program managed by local NGO D.Net. The program seeks to organize entrepreneurially minded women in rural areas. At present the program covers 12 areas from 13 offices, with approximately 80 women acting as InfoLady consultants. The participants use netbooks, digital still cameras and mobile phones while making rounds in their assigned coverage areas on bicycles. They provide information and knowledge necessary for life in rural areas (related to health and hygiene, legal matters affecting women and agricultural matters). This program is attracting significant worldwide attention as a successful case of ICT use in a developing country for poverty reduction and empowerment of women.



II. Solving Social Issues in Urban Bangladesh by Utilizing IC Card Technology

Sony is involved in activities that aim to solve social issues in urban Bangladesh by using Sony's FeliCa™ contactless IC card technology.

In the capital city of Dacca, majority of people use buses for their transportation, which causes traffic jams and were their social problem. Moreover, people have to purchase paper tickets by the roadside for every boarding, which made it inconvenient and easy to do fare dodging.



Commuter in Dacca, Bangladesh, pays his bus fare using a SPASS IC card

To help solve such problems, an IC card-based system using FeliCa technology was introduced in 2011 to replace paper tickets. In addition to improving convenience for passengers, it realized speedy boarding and alighting time, utilizing incoming and outgoing records to optimize bus operation management, and the system has also contributed to the alleviation of traffic jams and made fare collection more transparent.

Contributing to the International Community through Official Development Assistance (ODA)

(Updated on August 12, 2014)

Through Japan's Official Development Assistance (ODA) programs, Sony has provided equipment and technical training for state-run broadcasting organizations, airports, universities, museums, theaters and other facilities. These activities contribute to the sustainable social and economic development of developing countries. In the spirit of its founders, Sony has demonstrated an unwavering commitment to assist nation building and the cultivation of human resources in developing countries through its position as an electronics manufacturer. Since 1975 Sony has participated in support programs for more than 100 countries.

Community

Sony Museums and Foundations

(Updated on August 12, 2014)

Sony organizes exhibitions of various kinds, including exhibitions at educational museums that are designed to stimulate interest in media, science, technology and entertainment.

Sony Museums

(Updated on August 12, 2014)

Sony ExploraScience (Tokyo and Beijing)

In these science museums produced by Sony, visitors can actually see, touch and enjoy the principles and laws of science in action and the progress and fascination of digital technology.

- [Sony ExploraScience \(Tokyo\)](#)
- [Sony ExploraScience \(Beijing\)](#)

Sony Wonder Technology Lab (New York)

This interactive museum brings technology and creativity together to make learning experiential, entertaining and fun. The Lab's exhibits showcase the positive impact technology can have on virtually any discipline, from medicine to movie-making.

- [Sony Wonder Technology Lab \(New York\)](#)

Sony Archives (Tokyo)

Sony Archives showcases the pioneering products that Sony has given the world as well as a variety of documents.

- [Sony Archives \(Tokyo\)](#)

Sony Foundations

- [Sony Education Foundation \(Japan\)](#)
- [Sony Music Foundation \(Japan\)](#)
- [Sony USA Foundation Inc. \(USA\)](#)
- [Sony Foundation Australia Limited \(Australia\)](#)
- [Sony Canada Charitable Foundation \(Canada\)](#)

[Stichting Sony Europa Foundation \(Pan-Europe\)](#)

GRI Guidelines G4 Content Index

Global Reporting Initiative (GRI) Sustainability Reporting Guidelines G4 and its Content Index

(Updated on August 12, 2014)

Sony's CSR reporting refers to international standards and guidelines related to CSR activity reporting.

Sony has participated to GRI Sustainability Reporting Guidelines' planning and revision's multi-stakeholder processes.

Below GRI Sustainability Reporting Guidelines Content Index includes related information available on Sony websites.

Indicators		Related Website
Strategy and Analysis		
G4-1	Statement from the most senior decisionmaker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and the organization's strategy for addressing sustainability.	Management Message
G4-2	Description of key impacts, risks, and opportunities.	

Organizational Profile		
G4-3	Name of the organization.	Asset Securities Report (Japanese) Form 20-F
G4-4	Primary brands, products, and services.	
G4-5	Location of organization's headquarters.	
G4-6	Number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report.	
G4-7	Nature of ownership and legal form.	
G4-8	Markets served (including geographic breakdown, sectors served, and types of customers and beneficiaries).	
G4-9	Scale of the organization, including <ul style="list-style-type: none"> • Total number of employees • Total number of operations • Net sales(for private sector organizations) or net revenues(for public sector organizations) • Total capitalization broken down in terms of debt and equity (for private sector organizations) • Quantity of products or services provided 	
G4-10	<ul style="list-style-type: none"> • Total number of employees by employment contact and gender. • Total number of permanent employees by employment type and gender. • Total workforce by employees and supervised workers and by gender • Total workforce by region and gender • Whether a substantial portion of the organization's work is performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers, including employees and supervised employees of contractors. • Any significant variations in employment numbers (such as seasonal variations in employment in the tourism or agricultural industries) 	Asset Securities Report (Japanese) Human Resources > Employee Data

G4-11	Percentage of total employees covered by collective bargaining agreements.	Form 20-F
G4-12	Organization's supply chain	Asset Securities Report (Japanese)
G4-13	Any significant changes during the reporting period regarding the organization's size structure, ownership, or its supply chain, including; <ul style="list-style-type: none"> • Changes in the location of, or changes in, operations, including facility openings, closings, and expansions • Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations) • Changes in the location of suppliers, the structure of the supply chain, or in relationships with suppliers, including selection and termination" 	Asset Securities Report (Japanese) Form 20-F
G4-14	Whether and how the precautionary approach or principle is addressed by the organization.	Environment
G4-15	List externally developed economic, environmental and social charters, principles, or other initiatives of which the organization subscribes or which it endorses	Compliance Stakeholder Engagement and Partnership
G4-16	List membership of associations (such as industry associations) and natural or international advocacy organization in which the organization; <ul style="list-style-type: none"> • Holds a position on the governance body • Participates in projects or committees • Provides substantive funding beyond routine membership dues • Views membership as strategic 	Compliance Stakeholder Engagement and Partnership

Identified Material Aspects and Boundaries		
G4-17	<p>a. List all entities included in the organization's consolidated financial statements or equivalent documents</p> <p>b. Whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report</p>	Asset Securities Report (Japanese) Form 20-F
G4-18	<p>a. Process for defining the report content and the Aspects Boundaries.</p> <p>b. How the organization has implemented the Reporting Principles for Defining Report Content.</p>	About CSR Reporting CSR at Sony
G4-19	List all the material Aspects identified in the process for defining report content	CSR at Sony
G4-20	For each material Aspect, report the Aspect Boundary within the organizations	CSR at Sony CSR Organizational Structure Stakeholder Engagement and Partnership
G4-21	For each material Aspect, report the Aspect Boundary outside the organization	CSR at Sony CSR Organizational Structure Stakeholder Engagement and Partnership
G4-22	Effect of any restatements of information provided in previous reports, and the reasons for such restatements.	N/A
G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	N/A

Stakeholder Engagement		
G4-24	Basis for identification and selection of stakeholders with whom to engage.	Corporate Governance Compliance Stakeholder Engagement and Partnership Human Resources > Communication Quality and Services > Responsiveness and Customer Service
G4-25	Data measurement techniques and the bases of calculations, including assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report.	
G4-26	Organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder groups, and an indication of whether any of the engagements was undertaken specifically as part of the report preparation process	
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns	
Report Profile		
G4-28	Reporting period (such as fiscal or calendar year) for information provided.	About CSR Reporting
G4-29	Date of most recent previous report (if any)	
G4-30	Reporting cycle (such as annual, biennial).	
G4-31	Contact point for questions regarding the report or its contents	CSR Contacts
G4-32	a. 'In accordance' option the organization has chosen b. GRI Content Index for the chosen option c. Reference to the External Assurance Report, if the report has been externally assured.	About CSR Reporting
G4-33	a. Organization's policy and current practice with regard to seeking external assurance for the report. b. If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided. c. Relationship between the organization and the assurance provider d. Whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report.	Environment > Environmental Data

Governance		
G4-34	Governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts.	Corporate Governance
G4-35	Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees.	Corporate Governance
G4-36	Whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body	Corporate Governance
G4-37	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics. If consultation is delegated, describe to whom and any feedback processes to the highest governance body.	Corporate Governance
G4-38	Composition of the highest governance body and its committees	
G4-39	Whether the Chair of the highest governance body is also an executive officer (and, if so, his or her function within the organization's management and the reasons for this arrangement).	
G4-40	Nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members	Charter of the Board of Directors
G4-41	Processes for the highest governance body to ensure conflicts of interest are avoided and managed. Report whether conflicts of interest are disclosed to stakeholders	Corporate Governance Compliance Sony Group Code of Conduct
G4-42	The highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value of mission statements, strategies, policies, and goals related to economic, environmental and social impacts	Corporate Governance
G4-43	Measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics	N/D

G4-44	<p>a. Processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics. Whether such evaluation is independent or not, and its frequency. Whether such evaluation is a self-assessment.</p> <p>b. Actions taken in response to evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics, including, as a minimum, changes in membership and organizational practice</p>	N/D
G4-45	<p>a. The highest governance body's role in the identification and management of economic, environmental and social impacts, risk, and opportunities. Include the highest governance body's role in the implementation of due diligence processes.</p> <p>b. Whether stake holder consultation is used to support the highest governance body's identification and management of economic, environmental and social impacts, risks, and opportunities.</p>	Corporate Governance Sony Group Code of Conduct
G4-46	The highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics.	Corporate Governance
G4-47	Frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities	Compliance Sony Group Code of Conduct
G4-48	The highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered.	CSR at Sony
G4-49	Process for communicating critical concerns to the highest governance body.	Corporate Governance
G4-50	Nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them.	N/D
G4-51	<p>a. Remuneration policies for the highest governance body and senior executives</p> <p>b. How performance criteria in the remuneration policy relate to the highest governance body's and senior executives' economic, environmental and social objectives.</p>	Asset Securities Report (Japanese)

G4-52	Process for determining remuneration. Whether remuneration consultants are involved in determining remuneration and whether they are independent of management. Any other relationships which the remuneration consultants have with the organization.	Asset Securities Report (Japanese)
G4-53	How stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable.	Corporate Governance About CSR Reporting
G4-54	Ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country.	N/D
G4-55	Ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country	N/D
Ethics and Integrity		
G4-56	Organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics.	Compliance Sony Group Code of Conduct
G4-57	Internal and External mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity, such as helplines or advice lines.	Compliance
G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines.	Compliance

Disclosures on Management Approach		
G4-DMA	<p>a. Why the Aspect is material. The impacts that make this Aspect material.</p> <p>b. How the organization manages the material Aspect or its impacts.</p> <p>c. The evaluation of the management approach including;</p> <ul style="list-style-type: none"> • The mechanisms for evaluating the effectiveness of the management approach • The results of the evaluation of the management approach • Any related adjustments to the management approach" 	<p>Corporate Governance</p> <p>Compliance</p> <p>Human Resources</p> <p>Responsible Sourcing</p> <p>Quality and Services</p> <p>Environment</p> <p>Community</p>

Economic		
Economic Performance		
G4-EC1	Direct economic value generated and distributed	Asset Securities Report (Japanese) Form 20-F
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	Environment > Climate Change
G4-EC3	Coverage of the organization's defined benefit plan obligations	Form 20-F
G4-EC4	Financial assistance receive from government	N/A
Market Presence		
G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	Careers
G4-EC6	Proportion of senior management hired from the local community at significant locations of operation	Human Resources > Recruitment
Indirect Economic Impacts		
G4-EC7	Development and impact of infrastructure investments and services supported	Community
G4-EC8	Significant indirect economic impacts, including the extent of impacts	Form 20-F Community

Procurement Practices		
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	Responsible Sourcing

Environmental		
Materials		
G4-EN1	Materials used by weight or volume	Environment > Resource Conservation
G4-EN2	Percentage of materials used that are recycled input materials	Environment > Resource Conservation
Energy		
G4-EN3	Energy consumption within the organization	Environment > Environmental Data
G4-EN4	Energy consumption outside of the organization	Environment > Environmental Data
G4-EN5	Energy intensity	Environment > Environmental Data
G4-EN6	Reduction of energy consumption	Environment > Climate Change
G4-EN7	Reduction in energy requirements of products and services	Environment > Climate Change
Water		
G4-EN8	Total water withdrawal by source	N/D
G4-EN9	Water sources significantly affected by withdrawal of water	N/A
G4-EN10	Percentage and total volume of water recycled and reused	Environment > Environmental Data

Biodiversity		
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Environment > Biodiversity Conservation
G4-EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	N/A
G4-EN13	Habitats protected or restored	Environment > Biodiversity Conservation
G4-EN14	Total number of IUCN red list species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	N/A
Emissions		
G4-EN15	Direct greenhouse gas(GHG) emissions (SCOPE1)	Environment > Environmental Data Environment > Climate Change
G4-EN16	Energy indirect greenhouse gas(GHG) emissions(SCOPE2)	Environment > Environmental Data Environment > Climate Change
G4-EN17	Other indirect greenhouse gas(GHG) emissions(SCOPE3)	Environment > Environmental Data Environment > Climate Change
G4-EN18	Greenhouse gas(GHG) emissions intensity	Environment > Environmental Data

G4-EN19	Reduction of greenhouse gas (GHG) emissions	Environment > Environmental Data Environment > Climate Change
G4-EN20	Emissions of Ozone-depleting substances(ODS)	Environment > Managing Use of Chemical Substances
G4-EN21	NOx,SOx,and other significant air emissions	Environment > Environmental Data
Effluents and Waste		
G4-EN22	Total water discharge by quality and destination	Environment > Environmental Data
G4-EN23	Total weight of waste by type and disposal method	Environment > Environmental Data
G4-EN24	Total number and volume of significant spills	Environment > Managing Use of Chemical Substances
G4-EN25	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel convention annex I, II, III and VIII, and percentage of transported waste shipped internationally	N/A
G4-EN26	Identity, size, protected status and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	N/A

Products and Services		
G4-EN27	Extent of impact mitigation of environmental impacts of products and services	Environment > Products and Services
G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category	Environment > Resource Conservation
Compliance		
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Environment > Managing Use of Chemical Substances
Transport		
G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	Environment > Logistics
Overall		
G4-EN31	Total environmental protection expenditures and investments by type	Environment > Environmental Data
Supplier Environmental Assessment		
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	Responsible Sourcing
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	N/D
Environmental Grievance Mechanisms		
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	N/D

Social		
SUB: Labor practices and decent work		
Employment		
G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region	Asset Securities Report (Japanese) Human Resources > Employee Data
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	N/D
G4-LA3	Return to work and retention rates after parental leave, by gender	Human Resources > Diversity
Labor/Management Relations		
G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	N/D
Occupational Health and Safety		
G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	Human Resources > Occupational health and safety
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number or work-related fatalities, by region and by gender	Human Resources > Occupational health and safety
G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	Human Resources > Occupational health and safety
G4-LA8	Health and safety topics covered in formal agreements with trade unions	Human Resources > Occupational health and safety

Training and Education		
G4-LA9	Average hours of training per year per employee by gender, and by employee category	Human Resources > Training & Talent Development
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	Human Resources > Training & Talent Development
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	Human Resources > Training & Talent Development
Diversity and Equal Opportunity		
G4-LA12	Composition of Governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	Human Resources > Employee Data Human Resources > Diversity Human Resources > Training & Talent Development
Equal Remuneration for Women and Men		
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	Asset Securities Report (Japanese)
Supplier Assessment for Labor Practices		
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	Responsible Sourcing
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	N/A
Labor Practices Grievance Mechanisms		
G4-LA16	Number of grievances about labor practices filed, addressed, and resolved through formal grievance mechanisms	N/A

SUB:Human rights		
Investment		
G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	N/D
G4-HR2	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	Compliance Human Resources > Diversity Human Resources > Training & Talent Development
Non-discrimination		
G4-HR3	Total number of incidents of discrimination and corrective actions taken	N/A
Freedom of Association and Collective Bargaining		
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	Responsible Sourcing
Child Labor		
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	Responsible Sourcing
Forced or Compulsory Labor		
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	Responsible Sourcing
Security Practices		
G4-HR7	Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations	N/A
Indigenous Rights		
G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	N/A

Assessment		
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	N/A
Supplier Human Rights Assessment		
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	Responsible Sourcing
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	N/A
Human Rights Grievance Mechanisms		
G4-HR12	Number of Grievances about human rights impacts filed, addressed and resolved through formal grievance mechanisms	N/A

SUB:Society		
Local Communities		
G4-S01	Percentage of operations with implemented local community engagement, impact assessments, and development programs	Community > Contributing to the International Community through Business Activities
G4-S02	Operations with significant actual and potential negative impacts on local communities	Asset Securities Report (Japanese) Form 20-F
Anti-corruption		
G4-S03	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	Compliance
G4-S04	Communication and training on anti-corruption policies and procedures	Compliance
G4-S05	Confirmed incidents of corruption and actions taken	N/A

Public Policy		
G4-SO6	Total value of political contributions by country and recipient/beneficiary	N/D
Anti-competitive behavior		
G4-SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	N/A
Compliance		
G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	N/A
Supplier Assessment for Impacts on Society		
G4-SO9	Percentage of new suppliers that were screened using criteria for impact on society	Responsible Sourcing
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	N/A
Grievance Mechanisms for Impacts on Society		
G4-SO11	Number of grievances about impacts on society on society filed, addressed, and resolved through formal grievance mechanisms	N/A

SUB:Product Responsibility		
Customer Health and Safety		
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	Quality and Services > Product Quality and Quality Management
G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	Quality and Services > Product Quality and Quality Management

Product and Service Labeling		
G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	Responsible Sourcing
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and services information and labeling, by type of outcomes	N/A
G4-PR5	Results of surveys measuring customer satisfaction	Quality and Services > Responsiveness and Customer Service
Marketing Communications		
G4-PR6	Sale of banned or disputed products	Support Important Notice
G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship, by type of outcomes	N/A
Customer Privacy		
G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	Compliance
Compliance		
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	N/A

N/A No related activities or no significant issues to be reported

N/D Not disclosed