



SONY

CSR REPORT

2017

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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 Annual Report including its financial and CSR information.

In order to update disclosure information accompanying changes in Sony's scope of business and circumstances, Sony has been disclosing its CSR activities mainly on this website since 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 2016 (which began on April 1, 2016 and ended on March 31, 2017). It also includes reporting on some material activities, such as major organizational changes, up to the end of July 2017. 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 Group" refer to the Sony Group. For consolidated subsidiaries, please see "Affiliated Companies (Japan)" and "Affiliated Companies (Outside Japan)."
- Sony discloses its operating and financial results on its "[Investor Relations](#)" website and information on its CSR activities on its CSR website.
- This report contains Standard Disclosures from the GRI Standards and the Environmental Reporting Guidelines (Fiscal year 2012 version) published by Japan's Ministry of the Environment. For comparative tables charting content covered in accordance with the GRI Sustainability Reporting Guidelines, please see below.

[GRI Standards and Content Index](#)

- Materiality for defining content has been identified by two axes (materiality matrix): Sony views CSR materiality assessment as a process for understanding issues of importance to its various stakeholders as well as its business and for validating its CSR material aspects in a manner which will help to prioritize its CSR initiatives.

[CSR at Sony](#)

- A third-party report on verification of environmental data is available below.

[Independent Verification Report](#)

Management Message



Updated on August 23, 2017

At Sony, our mission is to be a company that inspires and fulfills your curiosity. Everything about our business is designed to deliver new social value and offer highly useful innovations – that's how we earn a sustainable profit. All of Sony's businesses, whether in electronics, entertainment, or finance, are united by the passion our people have for inventing new ways to provide value. Our passion today is animated by the same spirit of innovation and challenge that our founders laid out in the company's Founding Prospectus.

Let me give you some examples. We are excited about the ways we are finding to incorporate our unique products and services into STEM education* for children in the classroom and in scientific institutions. Meanwhile, we are globalizing the utilization of our educational content in order to build new infrastructure that helps to make quality education accessible to all. In the entertainment business, we are leveraging our resources – for instance famous characters from Sony films – in international campaigns to raise awareness and engage the public in tackling social issues.

With these efforts and many more, Sony is working hard to do its part in building a more sustainable world; specifically, to support the international community to

achieve the Sustainable Development Goals (SDGs). The key to our effort in this area is innovation that makes the most of both technology and content for the public good. To build a more sustainable world, environmental considerations must be an integral aspect of business. The Sony Group has declared the long-term vision of achieving a zero environmental footprint for all of our business activities and the entire lifecycle of our products by the year 2050. Accordingly, we strive to deliver environmentally-conscious products and services and to reduce environmental impact throughout the entire value chain. Sony has earned particular recognition from various stakeholders for its progressive environmental programs in the areas of climate change and water resource management.

The devastating April 2016 earthquake that struck Kumamoto, Japan gravely affected a great many people. We did everything possible to restore our damaged plants as quickly as possible, and employees from across the Sony Group participated to help the local recovery effort. Aware of the particular vulnerability of children in times of emergency and recovery, Sony partnered in October 2016 with the NGO Save the Children Japan to establish an emergency disaster and recovery fund focused specifically on support for children affected by natural disasters and humanitarian crises.

At Sony, we remain committed to engaging in continuous dialogue with our stakeholders as we strive to do our part in building a more sustainable world.



Kazuo Hirai
President and Chief Executive Officer
Representative Corporate Executive Officer
Sony Corporation

* STEM education emphasizes science, technology, engineering, and math.

CSR at Sony

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)



Companies today are expected to engage in responsible business conduct. Sony's corporate social responsibility (CSR) activities reflect its philosophy of implementing sound business practices, and innovating to realize products, services and content that inspire and excite. In order to help build a more sustainable world, Sony employs its CSR initiatives as a measure of the social impact of its business operations. At the same time, Sony is engaged in ongoing efforts to contribute to society while enhancing corporate value.

Identifying CSR Key Areas of Focus and CSR Material Aspects

CSR Key Areas of Focus

Sony currently promotes CSR initiatives in line with its CSR agenda, which sets seven key areas of focus-corporate governance, ethics and compliance, human resources, responsible supply chain, quality and services, environment and community engagement-with the aim of strengthening its operating foundation and continuously enhancing its corporate value. Stakeholder input on CSR-related issues and suggestions are 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](#)

Identifying CSR Material Aspects

To align and respond effectively to evolving social imperatives and changes in the business environment, Sony recently conducted a CSR materiality assessment with BSR, an independent organization with expertise in global CSR trends and international standards, with the aim of validating its CSR key area of focus 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 the expectations of multi-stakeholders as well as business and validating its key CSR area of focus, 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. We then looked at those issues that are most significant today as well as emerging those 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 mid- to long-term business strategies and identified topics that are material from both a stakeholder and a business perspective.

Steps of the CSR Materiality Assessment



Step 1: Identify and classify global CSR issues

Using both internally and externally sourced information, Sony compiled a list of all identified topics it could conceive of as potential items of relevance, categorized related items into groups, and then narrowed the list down to about 40 final items. To identify global CSR issues, Sony referred to relevant sources such as the Sustainability Reporting Guidelines issued by the Global Reporting Initiative (GRI), and the Sustainable Development Goals set by the United Nations.

See "Contributing to Sustainable Development Goals" for information about Sony's contribution to the goals.



Step 2: Assess the topics from the perspective of Sony and its stakeholders

The global CSR issues identified and classified in the Step 1 were assessed from Sony's perspective by taking into account the following viewpoints:

- Persons at Sony in charge of each topic were interviewed to assess the importance of the topics and their relevance for Sony's business
- The knowledge of external experts was obtained to assess the relevance of the topics for Sony's business

The same issues were assessed from the perspective of stakeholders by taking into account the following viewpoints:

- External experts specializing in areas related to Sony's business, including entertainment, media, ICT, and finance, were interviewed to assess the importance of the topics
- Opinions of external experts were obtained to assess the relevance of the topics for key stakeholders, such as NGOs, civil society and community organizations, consumers, and socially responsible investment rating organizations

In addition, Sony also considered issues and concerns expressed by stakeholders during the course of its business activities.

[Stakeholder Engagement and Partnership](#)

Step 3: Finalize relevant topics as CSR material aspects

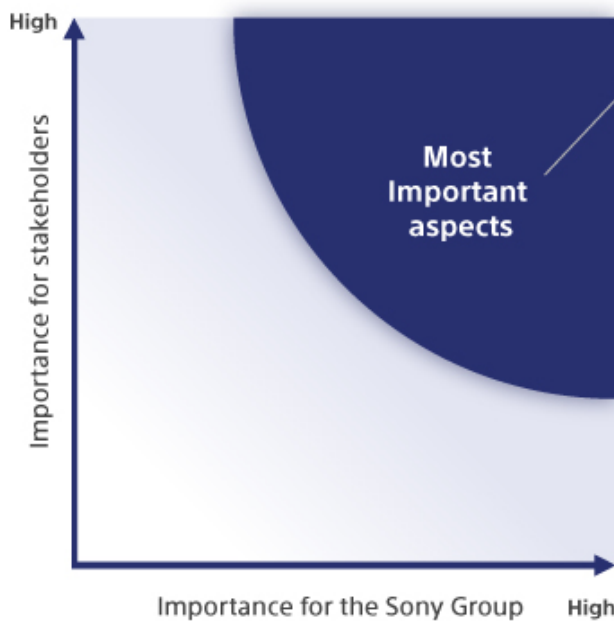
A presentation of the results of the Step 2 assessment was created, and then reviewed by relevant departments and approved by management. Topics deemed particularly important were finally specified as CSR material aspects.

Key Findings

Based on the results of its CSR materiality assessment, 25 topics listed below have been specified as CSR material aspects. In addition to the aspects Sony has been engaged in seven key areas of focus, there were aspects such as Human Rights

that encompass multiple areas, as well as aspects such as Innovation and Data Security that has been of great importance for Sony but recognized the importance again from stakeholders' perspectives. Accordingly, while recognizing the importance of these CSR material aspects, the Sony Group intends to pursue initiatives addressing these aspects.

CSR material aspects at Sony Group



- Access to Information/Technology products
- Anti Bribery and Corruption
- Biodiversity
- Board Independence & Diversity
- Climate Change and Energy
- Consumer & Audience Engagement
- Data Security and Privacy
- Design for Emerging Market Needs
- Employee Dialogue
- Employee Health, Wellness, and Safety
- Ethical Business Practices
- Global Diversity and Inclusion
- Human Rights
- Innovation
- Local Community Impact
- Natural Disaster Risks
- Philanthropy and Volunteers
- Product Quality and Safety
- Raw Material Sourcing
- Social Application of Technology
- Supply Chain Management
- Sustainable Product Design
- Talent Recruitment, Retention & Development
- Waste Management, Effluents and Emissions
- Water Use and Management

Contributing to Sustainable Development Goals

The Sustainable Development Goals (SDGs) were adopted by the United Nations General Assembly in 2015. They were formulated based on the outcome of the Millennium Development Goals, which, being established in 2000 with the

intention of realizing a better international community, were supposed to be accomplished by 2015. The SDGs are comprised of 169 targets organized under 17 goals related to issues such as poverty, inequality, education, and the environment. The initiative is not only intended for developing nations, but applies to all countries, including advanced countries.

Sony has studied the relationship between the SDGs and its business activities, including its supply chain, and after discussion by top management, has identified the goals that Sony will contribute through its business activities.

All of the Sony Group's businesses are united in pursuing sustainable growth under the mission of being "A company that inspires and fulfills your curiosity." We believe that the Group's "reason for being" lies in its ability to contribute to society through innovation, and this is the mission the world expects us to achieve. This is directly related to SDG 9, "Industry, innovation and infrastructure." Sony seeks to also contribute to SDGs 3, "Good health and well-being," 5, "Gender equality," 8, "Decent work and economic growth," and 17, "Partnerships for the goals," by through business activities.

It is also important to consider the impact of Sony's business activities on SDGs 5, "Gender equality," 8, "Decent work and economic growth," 12, "Responsible consumption and production," and 13, "Climate action." In these areas, Sony conducts ongoing assessments of risks and impacts, and ensures proper information disclosure.

Furthermore, Sony is committed to making the most of its products, services, and applying its technologies to help accomplish SDGs 4, "Quality education," 5, "Gender equality," 9, "Industry, innovation and infrastructure," and 17, "Partnerships for the goals" – together with its business activities.

Relationship between Sony's business activities and the Sustainable Development Goals



Sony's Mission/Vision

Sony Global Education Promotes Innovation in the Field of Education

How Sony's Entertainment Business Is Raising Awareness of the Sustainable Development Goals

Seed Acceleration Program (SAP) Promotes Innovation

Community Engagement Policy, Main Scope and Structure

SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD



CSR at Sony

Updated on August 23, 2017

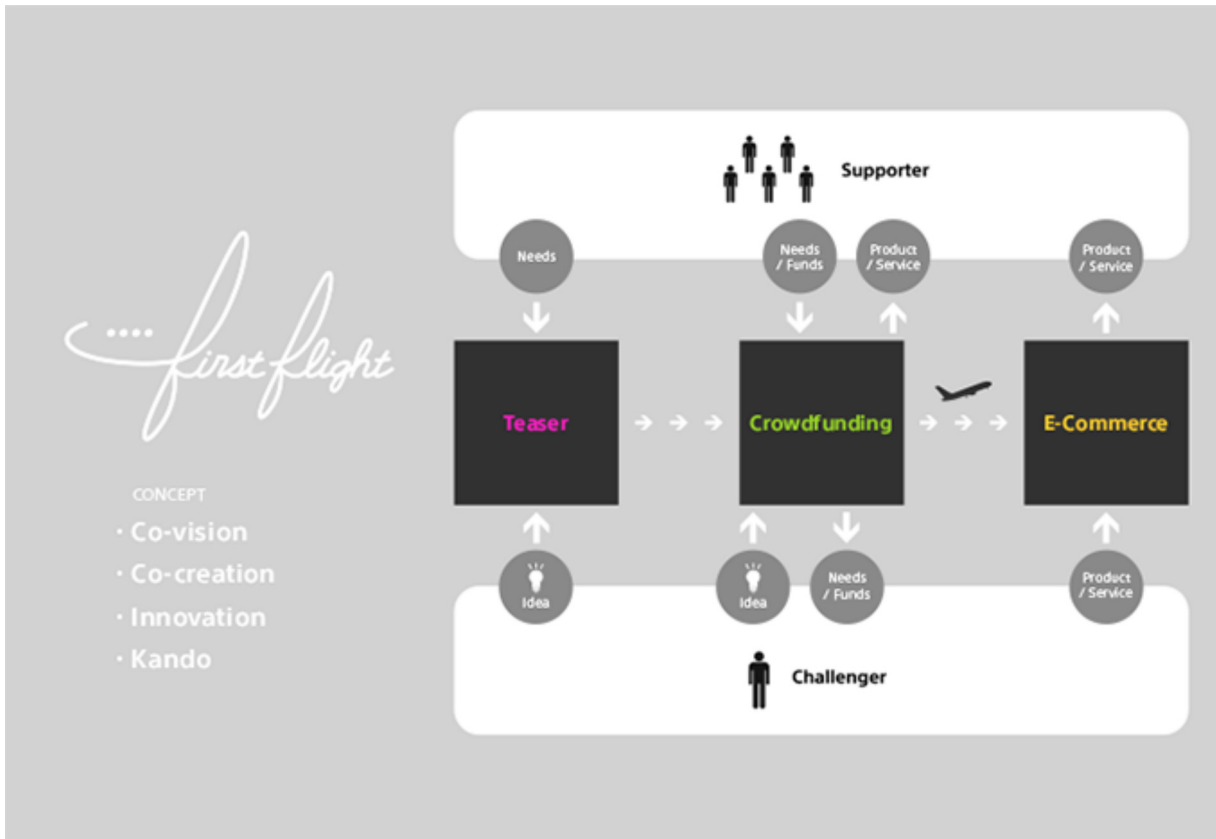
Seed Acceleration Program (SAP) Promotes Innovation

Sony's Seed Acceleration Program (SAP) was launched in April 2014 to collect ideas that are beyond existing business categories and develop them for commercialization. The Sony Group has a broad array of human and management resources in electronics, entertainment, financial services, and other fields. Sony seeks to launch new businesses and achieve innovative breakthroughs by leveraging collaboration involving technologies and talents that cut across the boundaries of existing specialties, and by accelerating the establishment of tie-ups with joint venture companies that are active in complementary fields.

SAP: Searching for New Ways for Creating Products

SAP is a new approach Sony uses to quickly launch new businesses by tapping into the manufacturing know-how it already possesses. One initiative that Sony has undertaken under SAP is "First Flight," a crowdfunding and e-commerce website set up in 2015 to provide a platform where Sony's new business projects can make connections with customers who are ahead of the curve and want to use new products and services and with customers who are interested in helping to turn those projects into vibrant businesses.

Under the First Flight crowdfunding model, a project undergoing evaluation for possible launch as a new business is announced to the public as quickly as possible to get more people involved in considering whether it meets real market needs and exploring whether it can be turned into a marketable product. In addition, business proposals and progress in the development process are reported on the website to elicit customer feedback that can then be incorporated into the development process.



In February 2017, Sony launched [Hatsuhiko](#), a test marketing platform for markets outside Japan. Using the Hatsuhiko platform, Sony provides opportunities for in-house startup projects born from the SAP program to assess the needs of markets outside Japan and engage in co-creative development and product improvement in direct dialogue with customers around the world. The Hatsuhiko platform accelerates collaboration with customers by facilitating "co-vision" and "co-creation" to boost the growth of each business.



In addition, Sony headquarters in Tokyo has set up a Creative Lounge with 3D printers and other machinery that people can use to test out ideas for new businesses. The Creative Lounge is also open to outside users, who can interact there with Sony employees, use the equipment to make and test prototypes, and try out Sony's prototypes. Working in direct contact with customers facilitates joint efforts to develop and improve products, and makes it possible to launch totally new types of business more quickly and with much greater assurance of success.



Making the Most of Employee Talent

Two of the things Sony envisions SAP accomplishing are the cultivation of a new generation of entrepreneurial talent and the training of teams of professionals who can accelerate the creation of new businesses. The startup projects that have emerged from SAP have been led by small teams of elite employees, to be sure, but these teams have also received a lot of in-house support from knowledgeable

people and professionals specializing in many different fields. It is also possible for people from outside Sony to take part in projects. Utilizing Sony's wide range of talent pool, combined with a system of communication and open innovation, affords opportunities to make the most of the abilities of Sony employees.

[First Flight](#)

CSR at Sony

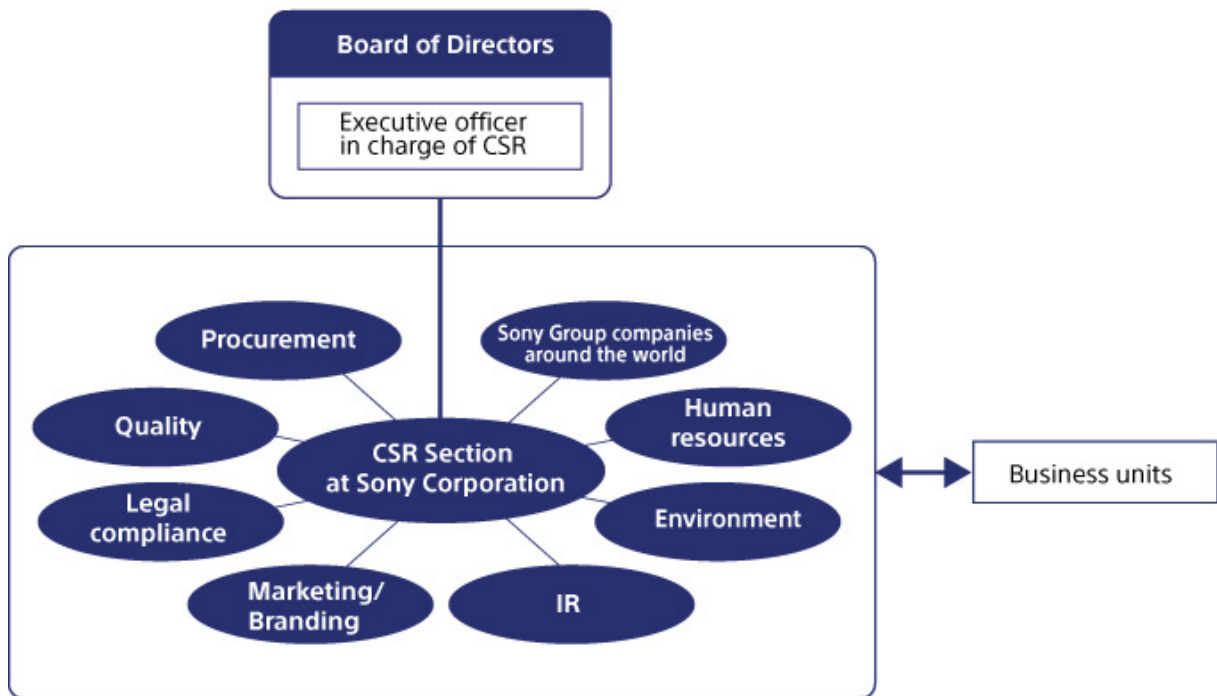
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CSR Organizational Structure

CSR Organizational Structure

Sony's organizational structure for CSR implementation is spearheaded by the CSR Section at Sony Corporation headquarters, which is overseen by the executive officer in charge of CSR. The CSR Section plans and sets objectives for CSR-related initiatives, makes these initiatives known throughout the Sony Group, and provides relevant information to the public.

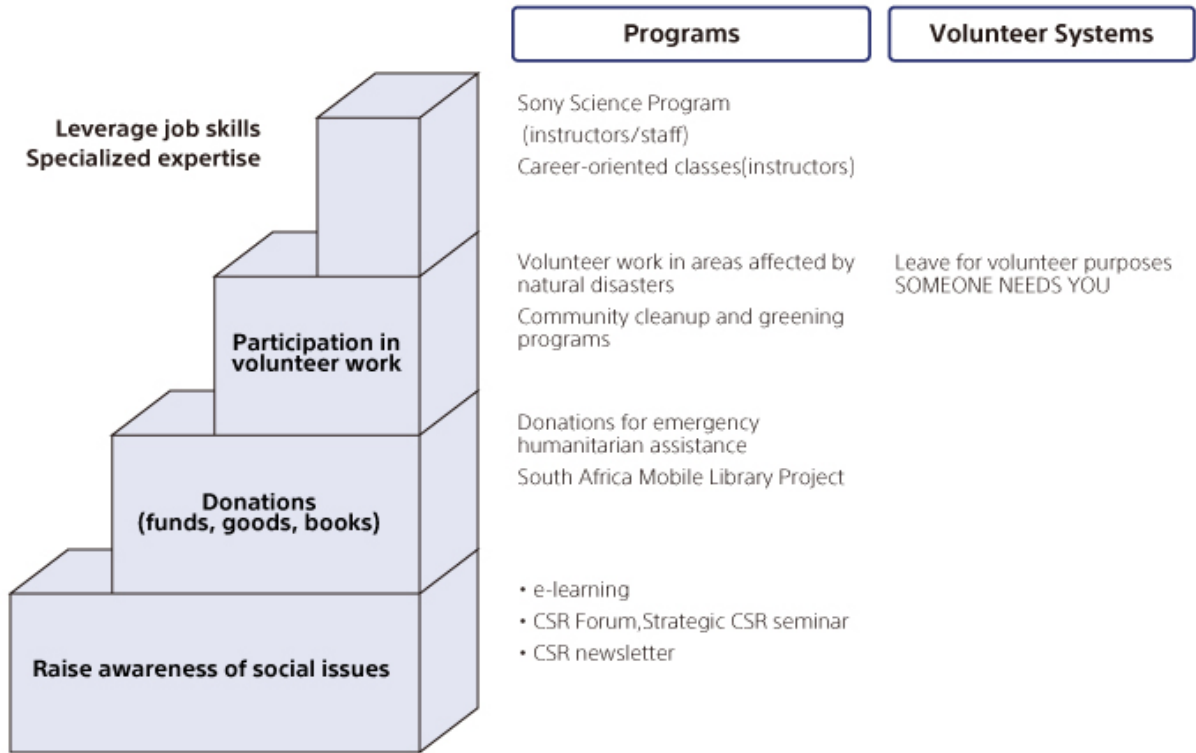
It also discloses CSR-related information to the public, promotes dialogue with stakeholders, reports on various external inputs to the CSR officer, and works to ensure that these external inputs reach pertinent managers and relevant departments at headquarters (including those in charge of legal affairs and compliance, the environment, product quality, procurement, investor relations, human resources, and marketing) and are incorporated into management's actions. The CSR Section and other relevant headquarters departments then implement CSR activities throughout the Group by ensuring Sony's policies and initiatives are conveyed to Group companies around the world.



Raising Awareness

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

Sony and some of its group companies offer e-learning training programs for all employees focused on instilling know-how and introducing Sony's CSR program as well as enhancing general understanding of CSR.

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 Group employees in Japan with the opportunity to increase their knowledge of CSR. This event features lectures by invited experts, film screenings, workshops where employees can develop new ideas, and other activities, and addresses a variety of themes, including emergency relief, the environment, human rights, poverty, international understanding, employment opportunities for persons with disabilities, 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 diverse social issues, strive constantly to deepen their understanding, and then participate in fundraising initiatives and 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

- Emergency humanitarian assistance (fundraising, material support, etc.)
- [South Africa Mobile Library Project](#)

Related information:

[Volunteer systems for employees](#)

CSR at Sony

Updated on August 23, 2017

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

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	Main Communication Methods
<p>Customers</p>	<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 	<ul style="list-style-type: none"> ● Information regarding products and services ● Customer Center (handles enquiries from customers) ● Important notices regarding products and services ● Purchaser's questionnaire ● Participation in trade shows and exhibitions ● Seminars ● Sony & Accessibility website ● First Flight website ● Various social media sites

<p>Shareholders</p>	<ul style="list-style-type: none"> ● Ensure swift and appropriate disclosure ● Achieve continued growth in corporate value 	<ul style="list-style-type: none"> ● General meetings of shareholders and presentations on financial results ● IR Day and meetings for individual investors ● Websites disclosing information for investors
<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 and Sony Supply Chain Code of Conduct ● Ensure that procurement practices are in harmony with the environment and society (including labor issues, human rights and conflict minerals) 	<ul style="list-style-type: none"> ● Explanatory meetings concerning the supply chain ● Audits and surveys related to CSR procurement ● Dedicated website for business partners and a department established for handling their enquiries ● Periodically held conferences for business partners ● Conflict Minerals Policy Hotline

<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 	<ul style="list-style-type: none"> ● Town hall meetings ● Career counseling ● Sony Ethics & Compliance Hotline ● Labor-management negotiations ● Occupational Health & Safety Committee ● In-house newsletters and intranet
<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 	<ul style="list-style-type: none"> ● Local volunteer activities ● Participation in events held by local organizations and governments ● Social contribution activities

<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 <ul style="list-style-type: none"> - - 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 	<ul style="list-style-type: none"> ● Activities for contributing to the community and reducing the environmental burden at each worksite ● Measures for considering the environment over the lifecycle of products and services ● Environmental information provided through communication with various stakeholders ● Information provided on the Sony Eco website
<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 	<ul style="list-style-type: none"> ● Activities held in collaboration with NGOs and NPOs

Partnership and Participation in Multi-stakeholder Frameworks

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 multi-stakeholder groups in the planning of those activities, thereby contributing to the creation of a global framework for social responsibility.

Partnering with an Environmental NGO

In July 2006, Sony joined the Climate Savers Programme, which is a partnership between the World Wide Fund for Nature (WWF), a leading environmental protection NGO, and various 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 April 2017, 21 corporations worldwide had signed on as Climate Savers Programme partners.

As a member of the programme, Sony is expanding the scope of substances subject to greenhouse gas emission reduction requirements in a step-by-step manner and has incorporated them into its environmental targets. In June 2015, Sony introduced the Green Management 2020 environmental mid-term targets for fiscal 2016-2020. In addition to the targets for absolute greenhouse gas emissions from Sony Group sites and energy consumption of products, Sony

has set new reduction targets for business partners, suppliers and logistics. These targets were reviewed and approved by the WWF as revised targets for Sony under the Climate Savers Programme.

[Learn more about the Green Management 2020 mid-term environmental targets](#)

Participation in CSR-Related Organizations and Projects

Sony is a member of numerous global CSR organizations, including BSR and the Council for Better Corporate Citizenship (CBCC). The CBCC was originally established in 1989* under an initiative of Nippon Keidanren (Japan Business Federation), with the purpose of promoting good relations between Japan-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. Sony intends to continue its active involvement in the CBCC going forward.

* The organization was founded as the Council for Better Investment in 1989, and its name was changed to CBCC in June 2010.



As a member of the Electronic Industry Citizenship Coalition (EICC), an alliance of companies dedicated to CSR in the electronics industry, Sony works to ensure responsible sourcing throughout the supply chain, encompassing consideration for human rights, maintenance of sound labor practices, and conservation of the environment.

[Responsible Supply Chain](#)



In addition, Sony is promoting diversity through its involvement in external organizations in countries and regions around the world.

[Collaboration with External Organizations Promoting Diversity](#)



Corporate Governance



Sony continuously strives to strengthen its corporate governance system, recognizing that sound corporate governance is extremely important in operating Sony effectively, efficiently, and in a way that increases corporate value over the mid- to long-term. Sony approaches its corporate governance through two basic precepts:

- (a) The Board of Directors, a majority of which is comprised of independent outside Directors, focuses on effective oversight of management's operation of the business, including through the activities of the Nominating, Audit and Compensation Committees, and maintaining a sound and transparent governance framework.
- (b) The Board determines the fundamental management policies of the Sony Group and other material matters and delegates to each of the Corporate Executive Officers decision-making authority to conduct the business operations of the Sony Group broadly in line with their respective responsibilities, as defined by the Board, with a view to promoting timely and efficient decision-making within the Sony Group.

In furtherance of these efforts, Sony has adopted the "Company with Three Committees" corporate governance system under the Companies Act of Japan. Under such system, in addition to 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; maintaining what the company believes is an appropriate Board size, which enables the members of the Board to actively contribute to discussion; and advancing the proper functioning of the statutory committees.

Corporate Strategy, Business Strategy and other policies

Governance Framework	Governance Framework Home	The Board of Directors
	The Nominating Committee	The Audit Committee
	The Compensation Committee	Support for Activities of Directors, the Board of Directors and the Committees
	Evaluation of the Board and the Committees	Corporate Executive Officers and Corporate Executives
Internal Control and Governance Framework	Internal Control and Governance Framework Home	Financial Reporting Framework
	Disclosure Framework	Ethics and Compliance Framework
	Risk Management System Framework	Crisis Management System Framework
	Framework on Business Continuity Planning	Structure of audit by the Audit Committee, Internal Audit and Accounting Audit, and Status Thereof

<p>Relationship with Shareholders and Other Stakeholders</p>	<p>Relationship with Shareholders and Other Stakeholders Home</p>	<p>Policy for Constructive Dialogue with Shareholders</p>
	<p>Administration of the General Shareholders Meeting</p>	<p>Shareholdings in Other Listed Companies</p>
	<p>Anti-Hostile-Takeover Measures</p>	<p>Related-Party Transactions</p>
	<p>Policy for Shareholder Returns</p>	

Corporate Governance

Updated on August 23, 2017

Corporate Strategy, Business Strategy and Other Policies

The Board sets and determines the fundamental management policy, including the mid-term plan and annual business plan pursuant to the Charter of the Board by fully examining various the thinking of management led by the CEO, from multiple perspectives. Please refer to the pages below for Sony's mission, the Mid-Term Corporate Strategy for the Sony Group, the business strategy for each business segment, and the vision of Sony's founder:

[About Sony](#)

[Corporate Strategy](#)

[Sony IR Day](#)

[Vision of Sony's Founder and Sony's basic policy for CSR](#)

[The Founding Prospectus](#)

For details on sustainability or diversity, please refer to the pages below.

[Sustainability](#)

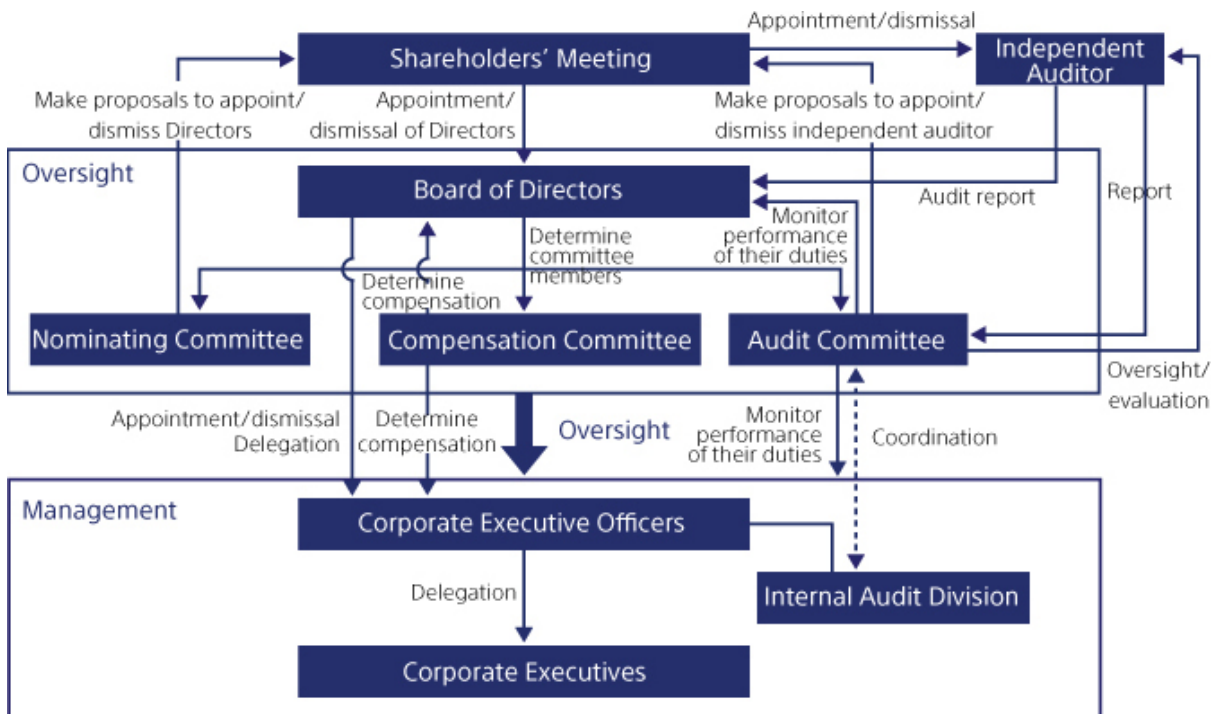
[Diversity](#)

Corporate Governance

Updated on October 3, 2017

Governance Framework

Sony Corporation is governed by its Board of Directors, which is elected 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. Corporate Executive Officers are appointed by resolution of the Board. In addition to these statutory bodies and positions, Sony has Corporate Executives who carry out business operations and corporate functions within designated areas. In line with its corporate strategy and in response to a changing environment, with an aim to maintain the most appropriate way to manage the Sony Group's business operation Sony continually works to enhance its governance functions.



Directors and Corporate Executive Officers who were elected in June, 2017

Supervision

Board of Directors

● **Chairman of the Board: Osamu Nagayama*1**

Representative Director, Chairman and Chief Executive Officer, Chugai Pharmaceutical Co., Ltd.

● **Kazuo Hirai**

Representative Corporate Executive Officer,
President and CEO, Sony Corporation

● **Kenichiro Yoshida**

Representative Corporate Executive Officer,
Executive Deputy President and CFO, Sony Corporation

● **Takaaki Nimura*1**

Certified Public Accountant

● **Eikoh Harada*1**

Former Chairman, President and CEO, Representative Director, McDonald's Holdings Company (Japan), Ltd.

● **Tim Schaaff**

Chief Product Officer, Intertrust Technologies Corporation
Independent Startup Advisor
Former President, Sony Network Entertainment International LLC

● **Kazuo Matsunaga*1**

Chairman of the Board, Mitsubishi Fuso Truck & Bus Corporation
Former Vice-Minister of Economy, Trade and Industry

● **Koichi Miyata*1**

Chairman of the Board, Sumitomo Mitsu Financial Group, Inc.
Chairman of the Board, Sumitomo Mitsui Banking Corporation

● **John V. Roos*1**

Former United States Ambassador to Japan
Founding Partner, Geodesic Capital

- **Eriko Sakurai*1**

Chairman and CEO, Dow Corning Toray Co., Ltd.

- **Kunihito Minakawa*1**

Former Audit and Supervisory Board Member (Full-time), Ricoh Company, Ltd.

- **Shuzo Sumi*1**

Chairman of the Board, Tokyo Marine Holdings, Inc.

Nominating Committee

Osamu Nagayama*1(Chair)

Koichi Miyata*1

John V. Roos*1

Shuzo Sumi*1

Kazuo Hirai

Audit Committee

Takaaki Nimura*1(Chair)

Kazuo Matsunaga*1

Kunihito Minakawa*1

Compensation

Committee

Eikoh Harada*1(Chair)

John V. Roos*1

Eriko Sakurai*1

Kenichiro Yoshida

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

Management

Corporate Executive Officers

- **Kazuo Hirai*2**

President and Chief Executive Officer

- **Kenichiro Yoshida*2**

Executive Deputy President and Chief Financial Officer

- **Tomoyuki Suzuki**

Executive Deputy President

Officer in charge of R&D Platform

In charge of Energy Business and Storage Media Business

- **Shiro Kambe**

Executive Vice President

Officer in charge of Legal, Compliance, Corporate Communications, CSR, External Relations and Information Security & Privacy

● **Masashi Imamura**

Executive Vice President

Officer in charge of Manufacturing, Logistics, Procurement, Quality & Environment

In charge of Engineering Platform

● **Shigeki Ishizuka**

Executive Vice President

Officer in charge of Imaging Products and Solution Business

Representative Director and President, Sony Imaging Products & Solutions Inc.

● **Ichiro Takagi**

Executive Vice President

Officer in charge of Home Entertainment & Sound Business and Consumer AV Sales & Marketing

Representative Director and President, Sony Visual Products Inc.

Representative Director and President, Sony Video & Sound Products Inc.

● **Hiroki Totoki**

EVP, Corporate Executive Officer, CSO

In charge of Mid-to-Long Term Business Strategy, New Business

Officer in charge of Mobile Communications Business

President & CEO, Sony Mobile Communications Inc.

President and Representative Director, Sony Network Communications Inc.

● **Kazushi Ambe**

Executive Vice President

Officer in charge of Human Resources and General Affairs

*2 Representative Corporate Executive Officer concurrently serving as Director

(Name and positions of Directors and Corporate Executive Officers as of August 1, 2017)



Board of Directors, Sony Corporation

Sony explains to its stakeholders, including its shareholders, the reasons for, and background of, the nomination and/or appointment of each individual. Please refer to the pages below for releases and convocation notices in respect of individual appointments or nominations.

[Recent news releases](#)

[Shareholder's meeting](#)

Meeting record

During the fiscal year ended March 31, 2017, the Board convened nine times. The Nominating Committee met six times, the Audit Committee met seven times and the Compensation Committee met seven times. All nine outside Directors, including Kanemitsu Anraku who retired in June 2016, participated in all meetings of the Board held during their tenure period in the fiscal year ended March 31, 2017 except for Joichi Ito (Joichi Ito participated in eight meetings out of nine). Also, all

eight outside Directors, including Kanemitsu Anraku who retired in June 2016, who are members of Committees participated in all of the meetings of each Committee held during the fiscal year ended March 31, 2017. The Board conducted outside Directors' meetings, Directors' corporate strategic workshops with management, site visits by outside Directors and meetings of the Chairman of the Board and the CEO. These activities were aimed at enhancing the oversight function of the Board, securing better understanding by outside Directors of Sony's business and management's initiatives and encouraging corporate strategic discussions among Directors.

Corporate Governance

Updated on August 23, 2017

The Board of Directors

Primary roles of the Board of Directors

- Determine Sony's fundamental management policies
- Oversee the management of Sony's business operations as an entity independent from the Chief Executive Officer ("CEO") and other Corporate Executive Officers
- Appoint and dismiss the statutory committee members
- Appoint and dismiss Representative Corporate Executive Officers and Corporate Executive Officers.

Please refer to the page below for Sony's Board Charter, which details the processes and policies for reporting by the Corporate Executive Officers to the Board and matters requiring Board approval.

 [The Board Charter](#)

Policy and procedure for the selection of Director candidates

With a view toward securing effective input and oversight by the Board, the Nominating Committee reviews and selects candidates for the Board with the aim of assuring that a substantial part of the Board is comprised of qualified outside Directors that satisfy the independence requirements established by Sony and by law. The Nominating Committee selects candidates that it views as well-suited to be Directors in light of the Board's purpose of enhancing Sony's corporate value.

The Nominating Committee broadly considers various relevant factors, including a candidate's capabilities (such as the candidate's experience, achievements, expertise and international fluency), availability, and independence, as well as diversity in the boardroom, the appropriate size of the Board, and the knowledge, experiences and talent needed for the role. Under the Charter of the Board (the "Board Charter"), Sony also requires that the Board consist of not fewer than 10 Directors and not more than 20 Directors. In addition, since 2005 the majority of the members of the Board have been outside Directors. Current members are shown on the following page:

[Governance Framework](#)

Independence of the Directors

Sony expects that each outside Director play an important role in ensuring proper business decisions by Sony and effective input and oversight by the Board through actively exchanging opinions and having discussions about Sony's business based on his or her various and broad experience, knowledge and expertise.

As of June 15, 2017, the Board has 12 Directors, nine of whom are outside Directors. The Nominating Committee has five Directors, four of whom are outside Directors; the Compensation Committee has four Directors, three of whom are outside Directors; and the Audit Committee's three members are all outside Directors.

The qualification of the Directors and the limitation on re-election

The qualifications for Directors of Sony are generally as summarized below. As of June 15, 2017, all Directors (as defined under the Companies Act of Japan) satisfy the qualifications of the Board Charter as set forth below, and all outside Directors are qualified and designated as Independent Directors under the Securities Listing

Regulations of the Tokyo Stock Exchange.

Director qualifications

- He/she shall not be a director, a statutory auditor, a corporate executive officer, a general manager or other employee of any company in competition with Sony in any of Sony's principal businesses (a "Competing Company") or own 3% or more of the shares of any Competing Company.
- He/she shall not be or have been a representative partner or partner of Sony's independent auditor the past three years before being nominated as a Director.
- He/she shall not have any connection with any matter that may cause a material conflict of interest in performing the duties of a Director.

Additional qualifications for the outside Directors

- He/she shall not have received directly from Sony, during any consecutive twelve-month period within the last three years, more than an amount equivalent to U.S. \$120,000, other than Director and committee fees and pension or other forms of deferred compensation for prior service (provided such compensation is not contingent in any way on continued service).
- He/she shall not be a director, a statutory auditor, corporate executive officer, general manager or other employee of any company whose aggregate amount of transactions with Sony, in any of the last three fiscal years, exceeds the greater of an amount equivalent to U.S. \$1,000,000, or two percent of the annual consolidated sales of such company.

Also, each outside Director may, by resolution of the Nominating Committee, be nominated as a Director candidate for re-election five times, and thereafter by resolution of the Nominating Committee and by consent of all of the Directors. Even with consent of all of the Directors, in no event may any outside Director be re-elected more than eight times.

Corporate Governance

Updated on August 23, 2017

The Nominating Committee

Primary roles of the Nominating Committee

- Determines the content of proposals regarding the appointment/dismissal of Directors
- Evaluates management succession plans

The Nominating Committee determines the content of proposals regarding the appointment/dismissal of Directors pursuant to our policy for the selection of Director candidates and Director qualification. Please refer to the page below for more details.

[The Board of Directors](#)

Policy for the composition of the Nominating Committee

Under the Companies Act, the Nominating Committee must consist of at least three Directors, the majority of whom must be outside Directors. In addition, under the Board Charter, at least one Director of the Nominating Committee shall be a Corporate Executive Officer and the chair is to be selected from among the outside Directors. In determining whether to appoint or remove a member of the Nominating Committee, continuity of the Nominating Committee shall be duly taken into account.

For a list of the latest members of the Nominating Committee, please refer to the page below.

[Governance Framework](#)

Corporate Governance

Updated on August 23, 2017

The Audit Committee

Primary Role of the Audit Committee

- Monitors the performance of duties by Directors and Corporate Executive Officers
- Oversees and evaluates the independent auditor

Composition of the Audit Committee

Under the Companies Act, the Audit Committee must consist of at least three Directors, the majority of whom must be outside Directors. In addition, under the Companies Act and the Board Charter, each member of the Audit Committee ("Audit Committee Member") must satisfy all of the following qualifications: (a) he/she shall not be a Director engaged in the business operations of Sony or any of its subsidiaries, a Corporate Executive Officer, an accounting counselor, a general manager or other employee of Sony and (b) he/she shall meet the independence requirements or such other equivalent requirements of the U.S. securities laws and regulations as may from time to time be applicable to Sony Corporation. The chair is to be selected from among the outside Directors. No Audit Committee Member shall become, as a general rule, a member of the Nominating Committee or the Compensation Committee. Moreover, at least one Audit Committee Member shall meet the audit committee financial expert requirements or such other equivalent requirements of the U.S. securities laws and regulations as may from time to time be applicable to Sony Corporation. The Board makes a determination on whether or not such Audit Committee Members meet these requirements. In determining whether to appoint or remove the Audit Committee Member, continuity of the Audit Committee shall be duly taken into account.

[Governance Framework](#)

The policy for appropriate selection of independent auditor candidates and proper evaluation of external auditors

With respect to the candidates for independent auditor nominated by the CEO and other Corporate Executive Officers, the Audit Committee evaluates the nomination, prior to making a decision on the candidates. The Audit Committee continues to evaluate the performance, the independence, the qualification and the reasonableness of the independent auditor so appointed. For more details on activities of the Audit Committee, please refer to the page below.

[Structure of audit by the Audit Committee, internal audit and accounting audit, and status thereof](#)

Systems to ensure effective audit by the Audit Committee

In addition to the usual monitoring activities by each Audit Committee Member or Audit Committee supporting personnel who assist the execution by the Audit Committee of its duties (the Audit Committee Aide), the Audit Committee works with the internal control department and each division responsible for the internal control of the Sony Group. These departments periodically provide reports to the Audit Committee Members, either at Audit Committee meetings or other meetings, and also provide reports on the status or result of investigations at the Audit Committee's request.

Corporate Governance

Updated on August 23, 2017

The Compensation Committee

Primary role

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

Composition of the Compensation Committee

Under the Companies Act, the Compensation Committee must consist of at least three Directors, the majority of whom must be outside Directors. In addition, under the Board Charter, as a general rule, at least one Director of the Compensation Committee must be a Corporate Executive Officer and the chair is to be selected from among the outside Directors; provided, however, that a Director who is a CEO or a Chief Operating Officer of Sony or who holds any equivalent position shall not be a member of the Compensation Committee. In determining whether to appoint or remove a member of the Compensation Committee, continuity of the Compensation Committee shall be duly taken into account. For a list of the latest members of the Compensation Committee, please refer to the page below.

[Governance Framework](#)

Basic policy for director remuneration

The primary duty of Directors is to supervise the performance of business operations of the Sony Group as a whole. In order to improve this supervisory function over the business operations of Sony, which is a global company, the following two elements have been established as the basic policy for the determination of remuneration of Directors. No Director remuneration is paid to those Directors who concurrently serve as Corporate Executive Officers.

- Attracting and retaining an adequate talent pool of Directors possessing the requisite abilities to excel in the global marketplace; and
- Ensuring the effectiveness of the supervisory function of the Directors.

Based upon the above, remuneration of Directors consists of the following two components:

- Fixed remuneration; and
- Phantom Restricted Stock Plan.

The schedule for the amount of each component and its percentage of total remuneration is determined in accordance with the basic policy above.

Remuneration of Directors shall be at an appropriate level determined based upon research made by a third party regarding remuneration of directors of both domestic and foreign companies. Regarding the Phantom Restricted Stock Plan, points determined every year by the Compensation Committee shall be granted to Directors every year during his/her tenure, and at the time of resignation, the remuneration amount shall be calculated by multiplying the Common Stock price by the individual's accumulated points. The resigning Director shall purchase shares of Common Stock with this remuneration.

Basic policy for Corporate Executive Officer remuneration

Corporate Executive Officers are key members of management responsible for

executing the business operations of Sony. In order to further improve the business results of the Corporation, the following two elements have been established as the basic policy for the determination of remuneration of Corporate Executive Officers.

- Attracting and retaining an adequate talent pool of Corporate Executive Officers possessing the requisite abilities to excel in the global marketplace; and
- Providing effective incentives to improve business results on a short, medium and long term basis.

Based upon the above, remuneration of Corporate Executive Officers shall consist of the following four components:

- Fixed remuneration;
- Remuneration linked to business results;
- Remuneration linked to share price; and
- Phantom Restricted Stock Plan.

The schedule for the amount of each component and its percentage of total remuneration shall be determined in accordance with the above basic policy with an emphasis on linking remuneration to business results and shareholder value. Remuneration of Corporate Executive Officers shall be at an appropriate level determined based upon research made by a third party regarding remuneration of management of both domestic and foreign companies.

The basis for the schedule for the amount of each component is below.

The amount of remuneration linked to business results shall be determined based upon 1) the consolidated financial results of the Corporation, such as ROE (return on equity), operating income, net income and cash flow, for the fiscal year for which remuneration is being given, and 2) the level of achievement of business results in the business area(s) for which the relevant Corporate Executive Officer is responsible. The amount paid shall fluctuate within a range from 0 percent to 200 percent, in principle, of the standard payout amount.

Remuneration linked to the share price, such as stock options and restricted stocks, will be used to incentivize executives to increase mid- to long term shareholder

value. Appropriate restrictions and conditions shall be set in order to enhance the effectiveness of this program.

Regarding the Phantom Restricted Stock Plan, points determined every year by the Compensation Committee shall be granted to Corporate Executive Officers every year during his/her tenure in office, and at the time of resignation, the remuneration amount shall be calculated by multiplying the Common Stock price by the individual's accumulated points. The resigning Corporate Executive Officer shall purchase the shares of Common Stock with this remuneration.

(For Reference)

(i) Remuneration linked to business results

The standard payout amount of remuneration linked to business results for the fiscal year ended March 31, 2017 shall be between 37.5 percent and 50.0 percent of cash compensation (fixed remuneration plus remuneration linked to business results) related to each individual's level of responsibility. The KPIs and the weighting of each KPI related to the performance of consolidated Sony shall be as follows:

KPI	Weight
ROE	40%
Operating Income	40%
Net Income	10%
Cash Flow	10%

(ii) Restricted Stock

The Compensation Committee decided to introduce a restricted stock plan starting from the fiscal year ending March 31, 2018. The purpose of the plan is to further reinforce management's alignment with shareholder value, and to incentivize management to improve mid- to long term performance and increase shareholder value.

The Corporation intends to grant shares of Common Stock to Corporate Executive Officers and key management as a partial replacement for stock options. The grantees will not be able to sell or transfer the stocks during the restricted period, and the Corporation will acquire free of charge the granted shares under certain conditions. Details of the plan such as vesting conditions, eligibility and the number of grants will be determined by the Compensation Committee.

Corporate Governance

Updated on August 23, 2017

Support for Activities of Directors, the Board of Directors and the Committees

Sony supports effective oversight by the Board of management's operation of Sony's business as follows.

● Outside Director initiative

The Chairman of the Board is elected from among those Directors other than the Representative Corporate Executive Officer. The Chairman of the Board leads the Board's activities and secures the appropriate cooperation, communication and arrangement among outside Directors and the Corporate Executive Officers. For example, outside directors' meetings are held in order to exchange and share information and knowledge among outside Directors.

● Secretariat offices for the Board and each Committee

The Company sets the secretariat offices of the Board and each committee to support the activities of the Board members and encourage constructive and proactive discussion at the Board. The Board secretariat endeavors to distribute materials for Board meetings and Committee meetings sufficiently in advance of each meeting date and to provide other information, as appropriate. The Board secretariat office also shares the annual schedule of Board meetings and anticipated agenda items in advance with the Board members, in order to set the number of agenda items and the frequency of Board meeting appropriately.

● The Audit Committee Aide

With the approval of the Board and with Audit Committee's consensus, the Company sets the Audit Committee Aide to support the activities of the Audit Committee Members with the approval of the Board and with the Audit Committee's consensus. The Audit Committee Aide does not concurrently hold positions related to the business operations of Sony Group and, upon instruction by the Audit Committee members, conducts investigations and analysis on auditing matters and engages in physical inspections or visiting audits (either by him/herself or by cooperating with relevant departments) in order to support the

Audit Committee.

● **Delivery of the necessary information**

When Directors, including outside Directors and Audit Committee Members, request the Company to provide additional information, the secretariat offices of the Board and other committees endeavors to provide such information promptly. Also, the secretariats of the Board and other committees verify appropriately whether information requested by Directors and the Audit Committee members is provided smoothly.

Directors and the Audit Committee members consult with external specialists, if appropriate. The costs and expenses in connection with the Board or each committee's activities are borne by the company in accordance with applicable internal rules.

● **Policy for training Directors**

Newly appointed Directors receive briefings by Corporate Executive Officers and outside experts in connection with their expected roles and responsibilities, including legal duties, as a Director or a member of a Committee and in addition, newly appointed outside Directors receive briefings about the business, financial status, organization and governance structure of the Sony Group. Also, throughout their tenure, each Director receives compliance-related training in accordance with internal protocols and briefings from Corporate Executive Officers in charge of, or outside experts on, matters relevant to each Director's fulfillment of his/her roles and responsibilities.

Corporate Governance

Updated on August 23, 2017

Evaluation of the Board and the Committees' Effectiveness

Policy for the Evaluation

Sony believes that it is important to endeavor to improve the effectiveness of the Board and each Committee in order to support Sony's business operations and enhance the corporate value of the Sony Group. To achieve this goal, Sony conducts evaluations of the effectiveness of the Board and of each Committee (the "Evaluation") at least annually.

Recent Evaluation

From February through April 2017, the Board conducted the Evaluation mainly in respect of Board and Committee activities in the fiscal year ended March 31, 2017 ("FY2016") after confirming that actions proposed in response to the results of the previous Evaluation were taken. The recent Evaluation was conducted with the support of a third-party evaluation by an outside counsel having expertise in Japanese and global corporate governance practices (the "Outside Counsel") in order to ensure transparency and objectivity and to obtain professional advice.

Procedures for the Recent Evaluation

First, the Board discussed and confirmed that the actions proposed to be taken in response to the results of previous Evaluation were taken, and discussed and confirmed the proposed procedures for the Evaluation for FY2016. Thereafter, the third-party evaluation was conducted by the Outside Counsel in accordance with

the following steps:

- Reviewed relevant materials, such as the minutes of Board meetings, and attended a Board meeting;
- Confirmed with the Board Secretariat how meetings of the Board and Committees are conducted;
- Gathered responses to a questionnaire from each Director about the current status and practices of the Board and each Committee, such as the composition of the Board, operation of the Board, commitments of each Director, activities of each Committee and procedures of the previous Evaluation;
- Interviewed the Chairman of the Board, Chair of each Committee, Chief Executive Officer and certain additional Directors about Board and Committee status and practices; and
- Researched other global companies' practices in Japan, the United States and Europe, and compared them with Sony's practices and conducted any necessary analysis.

The Board then received, reviewed and discussed the Outside Counsel's report on the results of its evaluation. The Board confirmed the effectiveness of the Board and the Committees. The Board also discussed and confirmed proposed actions to be taken in response to the results of the Evaluation.

Summary of the Results of the Recent Evaluation

The Outside Counsel reported that the Board is established and operated in a manner sufficient to be highly appreciated, based on various points, including the self-evaluation results of the Directors and comparison with benchmarked companies in Japan, the United States and Europe. Following discussion and analysis based on the Outside Counsel's report, the Board re-affirmed that the Board and each Committee were functioning effectively as of April 2017.

The Outside Counsel also provided examples of potential options, based on other

companies' practices, to help improve effectiveness of the Board and Committees. The examples include studying the feasibility of having special committees in addition to the Nominating, Compensation and Audit Committees, as well as the continuous review of matters to be discussed at, and the operations of, Board and Committee meetings.

Future actions

Sony will aim to use the results of the Evaluation, as well as various comments and opinions given by Directors and the Outside Counsel during the Evaluation process, to continue to improve the effectiveness of the Board and each Committee.

Corporate Governance

Updated on August 23, 2017

Corporate Executive Officers and Corporate Executives

Primary role

- **CEO and other Corporate Executive Officers:**

Make decisions regarding the execution of the Sony Group's 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

Policy and procedure for election of Corporate Executive Officer candidates

The appointment and dismissal of Corporate Executive Officers and the assignment of roles and responsibilities for Corporate Executive Officers are made by the Board. In making these decisions, the Board, especially outside Directors, considers whether candidates have the necessary skills, capabilities, experiences and achievements that correspond to the Corporate Executive Officers' expected roles and responsibilities in executing relevant business operations. For a list of the latest Corporate Executive Officers, please refer to the page below.

[Governance Framework](#)

The delegation of authority to the Corporate Executive Officers

The Board determines the fundamental management policies and other material matters related to the operation of Sony's business. The Board assigns the duties of Corporate Executive Officers by determining the areas over which each Corporate Executive Officer is in charge and delegating its decision-making authority to the Corporate Executive Officer accordingly, with a view to promoting timely and efficient decision-making within the Sony Group. Please refer to the page below for Sony's Board Charter, which details the processes and policies for reporting by the Corporate Executive Officers to the Board and matters requiring Board approval.

 [The Board Charter](#)

Corporate Governance

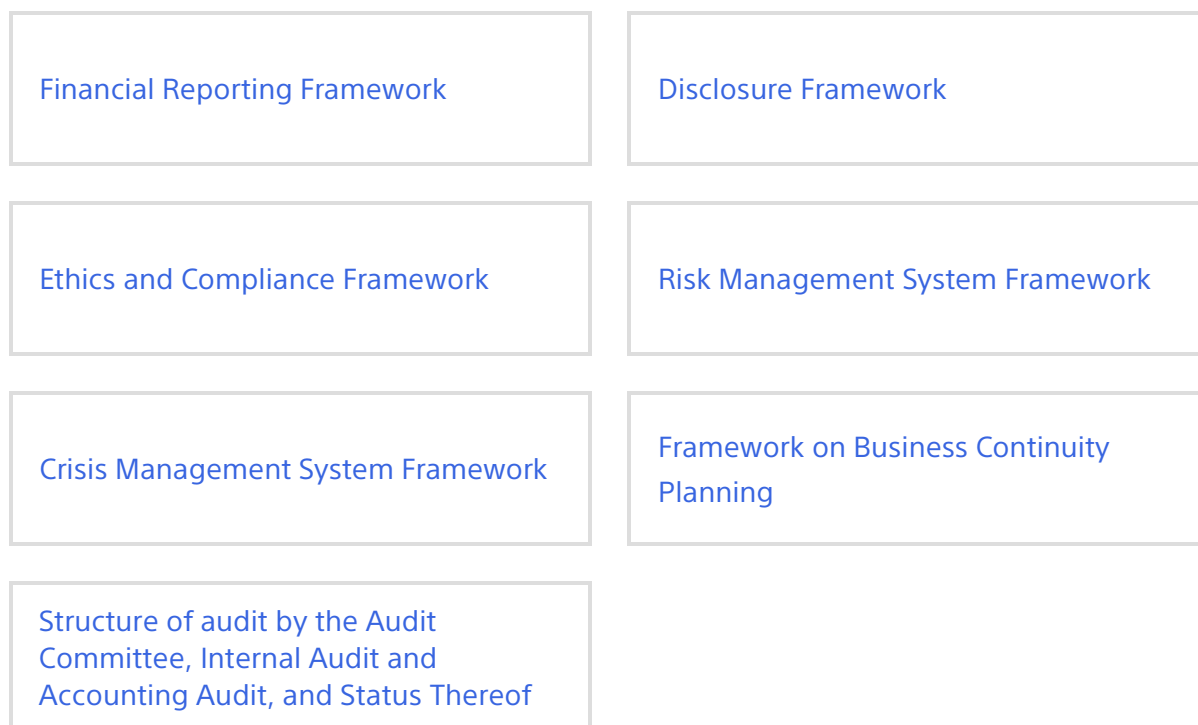
Updated on August 23, 2017

Internal Control and Governance Framework

At a Board meeting held on April 26, 2006, the Board of Directors reaffirmed the internal control and governance framework in effect as of the date of determination and resolved to continue to evaluate and improve such framework going forward, as appropriate. At Board meetings held on May 13, 2009 and April 30, 2015, the Board of Directors amended and updated the internal control and governance framework and resolved to continue to evaluate and improve such framework going forward, as appropriate. These determinations were required by and met the requirements of the Companies Act of Japan.

[Board of Directors' Determination Regarding Internal Control and Governance Framework Pursuant to the Japanese Companies Act and the outline of implementing the Internal Control and Governance Framework](#)

For more details of systems established and maintained based on the above determination, please refer to each pages below.



Corporate Governance

Updated on August 23, 2017

Financial Reporting Framework

Sony's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America.

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, 2017.

Corporate Governance

Updated on August 23, 2017

Disclosure Framework

The shares of Sony Corporation, the ultimate parent of all Sony Group companies, are listed for trading on exchanges in Japan and the U.S. As a result, the Sony Group is obligated to make various disclosures to the public in accordance with applicable securities laws and regulations in those countries. The Sony Group is committed to full compliance with all requirements applicable to its public disclosures. Sony's policy on investor relations activities is to aim to disclose accurate information in a timely and fair manner, as well as to endeavor to promote constructive dialogue with shareholders and investors, with a view to maximizing Sony's corporate value by building a relationship of trust with shareholders and investors. The Sony Group has in place disclosure controls and procedures in support of this policy. All personnel responsible for the preparation of submissions to and filings with the Tokyo Stock Exchange, the U.S. Securities and Exchange Commission and other regulatory entities, or for other public communication made on behalf of the Sony Group, or who provide information as part of that process, have a responsibility to ensure that such disclosures and information are full, fair, accurate, timely and understandable, and in compliance with the established disclosure controls and procedures.

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 the Disclosure Controls and Procedures and also in undertaking appropriate and timely disclosure.

Corporate Governance

Updated on August 23, 2017

Risk Management System Framework

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 its particular business area. 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. A corporate executive officer in charge of group-wide risk works together with relevant departments to enhance their management systems. Meanwhile, the Group Risk Office of Sony Corporation is responsible for promoting Group-level risk management initiatives, including the enhancement of business continuity plans (BCPs).

Corporate Governance

Updated on August 23, 2017

Crisis Management System Framework

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.

Corporate Governance

Updated on August 23, 2017

Framework on Business Continuity Planning

Sony places significant emphasis on the development and maintenance of 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. The BCPs function to try 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.

The electronics industry struggled to cope with the impact of the Great East Japan Earthquake and severe flooding in Thailand in fiscal 2012, and with the impact of the earthquakes in the Kumamoto region of Japan in 2016. 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.

Since 2012, Sony has been conducting ongoing reviews of the respective BCPs at its headquarters, each of its business units and subsidiaries, and has been working on updating and improving plans by identifying, analyzing, and evaluating risks based on new criteria. Moving forward, Sony will continue working to create even more effective BCPs that reflect the lessons learned in various previous disasters. 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.

Corporate Governance

Updated on August 23, 2017

Structure of audit by the Audit Committee, Internal Audit and Accounting Audit, and Status Thereof

Audit structure and status of the Audit Committee

The Audit Committee conducted the audit of the performance of duties by Directors and Corporate Executive Officers pursuant to laws and regulations, and the Audit Committee Rule established by the Board, through deliberation at Audit Committee meetings (held seven times during the fiscal year 2016, ending March 31, 2017), activities of members of the Audit Committee (for example, attending the Compensation Committee or Nominating Committee meetings or, reviewing reports relating to the execution of duties by the Corporate Executive Officers, employees of Sony or Directors, company auditors and employees of major subsidiaries of Sony etc.) and activities of the Audit Committee supporting personnel (i.e., the Audit Committee Aide). The Audit Committee also assesses the eligibility and the independence of the independent auditor and the adequacy of the audit by receiving the notice that the independent auditor provides regarding maintenance of systems to ensure the execution of its duties under the Quality Control Standard for Audit etc., pre-confirming the audit plan at the beginning of each fiscal year, pre-approving auditor compensation, and reviewing the report of the procedures, and the result of the audit, for the last fiscal year and interim periods including review of quarterly financial reports and evaluating their content, etc.

Internal audit structure and status

Sony Corporation established a department in charge of internal audit, the Risk &

Control department which coordinates closely with the internal audit departments of major subsidiaries around the world, and the Sony Group Internal Audit Charter, and endeavors to maintain and enhance the internal audit structure of the Sony Group in order to promote the Sony Group's internal audit activities on a global basis. The Risk & Control department and each internal audit department of major subsidiaries ("Internal Audit Department") play an important function in maintaining the Sony Group's governance in order to strengthen the Sony Group's management structure, promote efficiency of management, and maintain and avoid any loss of material assets, including Sony's brand image, by evaluating the effectiveness of the internal control system and risk management structure through independent and objective audit. The Risk & Control department and each Internal Audit Department conducts the internal audit of each department or subsidiary it supervises, guided by an the annual audit plan that is established based on the risk assessments conducted in the beginning of each fiscal year and any matters proposed by Sony's management or the Audit Committee. Each internal audit is conducted under a planned audit procedure. Afterward, each Internal Audit Department follows up until the completion of any improvement plan based on the audit result. In order to ensure its independence, fairness and objectiveness, the appointment and dismissal of the person in charge of the internal audit at the Risk & Control department is subject to the prior approval of the Audit Committee. The appointment and dismissal of the person in charge of each Internal Audit Department requires the prior approval of the person in charge of Risk & Control department. The Internal Audit Departments of major subsidiaries are required to provide the Risk & Control department with a report on the material items and a copy of the issued audit report, and the Risk & Control department makes periodic presentations to the Audit Committee, the CFO, and the Corporate Executive Officer in charge of Internal Audit on these reports. The Risk & Control department also makes periodic reports to the independent auditor on the status of the internal audit activities and the result of the audit. The audit report issued by the independent auditor is used for the planning of the internal audit and conducting internal audit.

Accounting audit status

Sony's accounting audit is conducted by PricewaterhouseCoopers Aarata under the au agreement. The certified public accountants who conducted the accounting audit of Sony for the fiscal year 2016, ending March 31, 2017 are as follows:

Koichiro Kimura, Hitoshi Kiuchi, Takaaki Ino and Masataka Kubota

The support staff of PricewaterhouseCoopers Aarata relating to Sony's accounting audit is composed of 92 certified public accountants, 79 assistant certified public accountants and 138 other staff members.

Corporate Governance

Updated on August 23, 2017

Relationship with Shareholders and Other Stakeholders

The Sony Group's core corporate responsibility to society is to strive to enhance its corporate value through innovation and sound business practice. The Sony Group recognizes that its business activities have direct and indirect impact on the societies in which Sony operates, and therefore sound business practice requires that Sony's business decisions give due consideration to the interests of Sony's stakeholders including shareholders, customers, employees, suppliers, business partners, local communities and other organizations. Personnel must endeavor to conduct the business of the Sony Group accordingly.

For the Letter to Stakeholders from the CEO, the Policy for Constructive Dialogue with Shareholders and other activity to secure shareholders' rights, please refer to the pages below.

[Letter to Stakeholders from the CEO](#)

[Policy for Constructive Dialogue with Shareholders](#)

[Administration of the General Shareholders Meeting](#)

[Policy for Shareholder Returns](#)

Corporate Governance

Updated on August 23, 2017

Policy for Constructive Dialogue with Shareholders

Sony's policy on investor relations is to make public disclosures which are timely and fair, which are accurate and easily understandable, and which provide a comprehensive picture, with the goal of maximizing Sony's enterprise value by building a relationship of trust with shareholders and investors. Pursuant to this policy, Sony engages in constructive dialogue with shareholders and investors.

The Board delegates IR duties to the Chief Financial Officer (the "CFO"), who in turn oversees the IR department. Under the CFO's supervision, the IR department works to promote constructive dialogue with Sony's shareholders and investors. As a part of these efforts, the IR department engages in various activities to enhance the manner and frequency of dialogue with shareholders and investors. These beyond one-on-one meetings to include investor briefings, corporate strategy meetings and business unit briefings like "IR Days." The IR department also coordinates internally to gather information necessary to augment the dialogue with shareholders and investors. Finally, the IR department evaluates the opinions and concerns expressed by shareholders and investors and conveys appropriate feedback regarding those opinions and concerns to the Corporate Executive Officers and the Board.

When holding dialogue with shareholders and investors, no insider information is to be disclosed. The IR department reviews the information to be disclosed in advance with other relevant departments and outside experts, as deemed appropriate.

Please refer to the page below, for the details on "Disclosure Controls and Procedures" and our IR activities.

[Disclosure Framework](#)
[Investor Relations](#)

Corporate Governance

Updated on August 23, 2017

Administration of the General Shareholders Meeting

Sony's policy for the general shareholders meeting is as follows.

Basic policy for the general shareholder meeting

Sony endeavors to develop an environment where each shareholder could participate based on the following two points as basic policy for the general shareholder meeting.

- Take necessary measures to encourage the shareholders who find it difficult to attend the shareholders' meeting to vote
- Encourage direct communications between the shareholders who attend the shareholders' meeting and Sony's executives.

Sony sets the date of the general shareholder meeting appropriately and prepares webcasting for the shareholders who cannot attend the shareholders' meeting by cooperating with relevant departments. Further, Sony provides the voting results gathered before the shareholders' meeting date on the screen of the meeting hall during the voting.

Activities to secure the rights of shareholders

Sony develops an environment in which shareholders can exercise their rights appropriately and effectively, secures equal treatment of shareholders, including institutional investors who hold shares in a street name and considers concerns of minority shareholders and foreign shareholders adequately, by confirming

shareholder composition, quarterly. As a part of these activities, Sony prepares the convocation notice considering the accuracy of the information provided there and the readability to facilitate voting judgment by shareholders, both in Japanese and English. Sony strives to send the convocation notice for the general shareholder meeting early enough to give shareholders sufficient time to consider the agenda and posts it at its website. Sony also uses an electronic voting platform to allow electronic voting through the internet via PC, smartphone or mobile phone. For more information of the general shareholder meeting, please refer to the page below.

[Shareholders' meeting](#)

Review of voting results

The voting results for each agenda item of the general shareholder meeting and its analysis are reported to and reviewed by the Board. The IR department then takes any appropriate follow-up measures, such as a dialogue with shareholders.

Corporate Governance

Updated on August 23, 2017

Shareholdings in Other Listed Companies

Sony Corporation and its subsidiaries may hold shares of other listed companies for the purpose of expanding Sony's business portfolio, promoting certain businesses within Sony and enhancing Sony's relationships with those companies. Sony's policy regarding shareholdings of listed companies, except for Sony's subsidiaries, and voting their shares is as follows:

Policy regarding shareholdings of listed companies

Sony makes the decision to hold shares of another listed company only if the shareholding furthers Sony's business purposes and has sufficient economic rationale, and only after duly conducting an appropriate examination of the investment.

Sony also periodically evaluates its existing shareholdings in listed companies by reviewing the importance of Sony's business relationships with each company, including the progress of, and outlook for, any anticipated business collaboration by Sony with the company, and any anticipated positive impact of Sony's shareholdings on Sony's business relationship with the company, as well as the company's financial position. The results of this evaluation about the major shareholdings are reported to the Board of Directors of Sony Corporation (the "Board"), as appropriate.

Policy for exercising voting rights

Sony believes that it is important to enhance the corporate value of the listed companies whose shares Sony holds, and Sony's corporate value in turn, through

the exercise of its voting rights. Accordingly, Sony assesses proposals and the purpose and economic rationale of the shareholdings and aims to exercise its voting rights with a view to increasing each company's mid- to long-term corporate value.

Corporate Governance

Updated on August 23, 2017

Anti-Hostile-Takeover Measures

Sony has not adopted any anti-hostile takeover measures. Sony will fully examine the necessity and rationale with respect to the adoption or implementation of anti-hostile takeover measures with the Board and/or the Audit Committee and provide sufficient explanation to shareholders.

Corporate Governance

Updated on August 23, 2017

Related-Party Transactions

As a part of the Sony Group Code of Conduct established by the Board, Sony's personnel are required to avoid any action that may involve, or appear to involve, a conflict of interest with the Sony Group. To help ensure compliance with these requirements, Sony regularly reviews the status of related-party transactions, whether financial or otherwise, between Sony Group companies and officers in the Sony Group or their close relatives. Furthermore, Sony requires Directors and officers of Sony Corporation to obtain approval of the Board in connection with transactions between Sony Corporation and the Director or officer in accordance with applicable laws and regulations, the Board Charter and any other applicable internal rules. The Board is expected to approve any such related-party transactions only after appropriate examination of the size and nature of the transaction, and the requirements of applicable laws and regulations, the Board Charter and any other applicable internal rules, and concluding that the interests of Sony and its shareholders are not adversely affected.

Corporate Governance

Updated on August 23, 2017

Policy for Shareholder Returns

Sony believes that continuously increasing corporate value and providing dividends are essential to rewarding shareholders. It is Sony's policy to utilize retained earnings, after ensuring the perpetuation of stable dividends, to carry out various investments that contribute to an increase in corporate value, such as those that ensure future growth and strengthen competitiveness. Going forward, Sony will determine the amount of dividends based on an overall consideration of its consolidated operating results, financial condition and future business expectations.



Ethics and Compliance



Management Approach

Our Approach

Sony has a strong and well-established commitment to ethical business conduct and compliance with applicable laws and regulations. Senior management sets the core values for the company, the expectations for ethical business conduct, and leads by example. The Sony Group Code of Conduct anchors our ethics and compliance program. Our Code sets out our standards for ethical conduct, our core values and our basic policies on important topics such as compliance with laws and regulations, fair competition in business dealings, anti-corruption, protection of confidential information and intellectual property, respect for human rights, safety of products and services, environmental conservation, and information disclosure.

Sony Group Ethics and Compliance Network

Sony has established a Global Compliance Network comprised of ethics and compliance personnel embedded in the local business units around the world who are accountable for risk-specific compliance while also implementing enterprise-wide compliance initiatives. These personnel implement Sony's commitment to ethics and compliance through a mix of messaging, policies, training and monitoring. Ethics and compliance functions work collaboratively with other functions to ensure more visibility for major risks and, by extension, their own activities.

Sony has many resources and reporting channels available to its personnel to ask

ethics questions or raise concerns without fear of retaliation, including the Sony Ethics & Compliance Hotline. The Hotline operates independently of ordinary internal reporting structures. Reports to the Hotline are administered by an independent third party with specially trained operators.

Looking to the Future

We continue to promote our corporate culture to help ensure that our personnel conduct our business activities ethically. Senior management will continue to allocate resources and set priorities to promote our compliance activities and will continue to send clear messages of the importance of business ethics and compliance. We will continue to enhance our group-wide compliance activities, including additional training to management on the importance of ethical business conduct and the proper way to handle employee reports of misconduct. We will also continue to promote awareness of the Sony Ethics & Compliance Hotline and continue to promote and enforce our policy against retaliation.

[Sony Group Ethics and Compliance Network](#)

[Sony Group Code of Conduct](#)

[Reporting Ethical Concerns](#)

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Ethics and Compliance Communication and Training

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Updated on August 23, 2017

Sony Group Ethics and Compliance Network

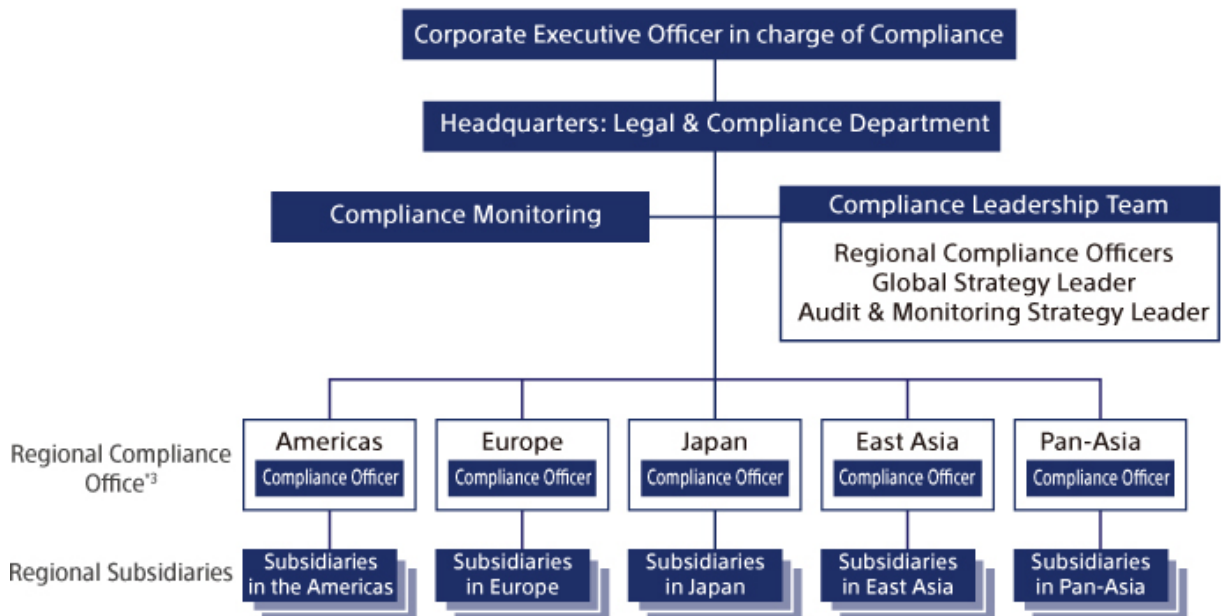
All Sony Group personnel have personal responsibility for ethical business conduct and compliance with the law. To support a culture of ethical decision making, Sony established a global ethics and compliance network. This network is comprised of the Sony Corporation Law & Compliance Department at headquarters, regional compliance networks for each geographic region, a global compliance leadership team and a compliance monitoring team. The Sony Corporation Law & Compliance Department establishes group-wide compliance policies and procedures to support ethical decision making and to manage legal/regulatory risks applicable to all Sony Group companies. The Compliance Leadership team assists the Legal & Compliance Department by identifying, developing and implementing best-practice compliance strategies and compliance-related measures and the Compliance Monitoring team monitors and evaluates program activities on an on-going basis.

A regional compliance network has also been established for each geographic region: the Americas, Europe, Japan, East Asia*1 and Pan-Asia*2. A Regional Compliance Officer ("RCO") leads each regional network to ensure that senior management and the legal/compliance personnel for the Sony Group companies in the Region have implemented Sony's global compliance programs as well as any additional policies and procedures necessary to comply with applicable local law. RCOs have authority to issue instructions concerning compliance activities in their respective regions and, by coordinating with one another, they help assure and maintain an effective global compliance program.

The Sony Corporation Audit Committee receives monthly reports and periodic in-person updates about the compliance program activities, including information regarding the Hotline, to ensure effective oversight of the program.

- *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

Global compliance network



- *3 The Americas Office is responsible for Sony Corporation of America, the Sony Interactive Entertainment Group, the Sony Pictures Entertainment Group, and the Sony Music Entertainment Group, as well as 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 and Sony Financial Holdings Group, in addition to the Electronics Group Companies in Japan.

Ethics and Compliance

Updated on August 23, 2017

Sony Group Code of Conduct

The Sony Group Code of Conduct sets forth our core values and establishes standards of ethical business conduct to be observed by all directors, officers and employees of Sony Group. It also establishes our basic policies on such topics as compliance with laws and rules, fair competition in business dealings, anti-corruption, protection of confidential information and intellectual property, respect for human rights, safety of products and services, environmental conservation and information disclosure.

 [Sony Group Code of Conduct \(PDF\):](#)

The 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 are reflected in the Sony Group Code of Conduct. Sony also participated in the formulation of and observes the standards outlined in the Charter of Corporate Behavior of 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](#)

Our Code of Conduct has been adopted and implemented by each Sony Group company and is the subject of frequent "tone from the top" messaging both from Sony Corporation top management and local management, as well as training. To

date, the Code has been translated into 26 languages. Localized codes of conduct and specialized policies designed to address key risks further support the Sony Group Code of Conduct.

Ethics and Compliance

Updated on August 23, 2017

Reporting Ethical Concerns

The company's group-wide ethics and compliance hotline system, the Sony Ethics & Compliance Hotline, is a confidential resource for employees to report concerns or seek guidance about possible violations of laws or internal policies. It allows Sony to respond swiftly to any potential violations.

The Hotline is available to all Sony Group personnel, worldwide, at all times, day or night, via the telephone (toll-free) or via the web. Reports to the Hotline are administered by an independent third party that provides specially trained operators with broad language capabilities. Anyone who reports issues in good faith is protected from retaliation for making the report.

Summaries of hotline reports, results of investigations and updates on the operation of the system are provided periodically to senior management and the Audit Committee.

During fiscal 2016, the Hotline received approximately 260 reports covering issues primarily relating to employment, labor, work environment, information management and possible conflicts of interest. Approximately 65% of the reports raised issues related to employment, labor and the work environment.

All reports are promptly investigated by Sony compliance personnel, who are supervised by the Corporate Executive in charge of Compliance. We take appropriate disciplinary and/or remedial action when warranted. Confirmed violations of Sony policies and procedures result in corrective actions which may

include training, disciplinary action and/or updating processes and controls.

In 2016, Sony found through the internal investigations triggered, among others, by a report to the Hotline, that some former executives and employees of Sony's affiliated company, Sony LSI Design Inc., paid out company money, and misappropriated a part of it for their own benefit, by placing fictitious orders. In response to the incident, Sony implemented preventive measures such as enhanced internal control and compliance trainings to their officers and employees.

Sony Group compliance hotline system



Ethics and Compliance

Updated on August 23, 2017

Conducting Business with Integrity and Fairness

Sony Group Antitrust/Competition Law Compliance Program

Antitrust and fair competition laws ("Antitrust Laws") are the foundation upon which a free and competitive market system is built. By guaranteeing free competition in markets, Antitrust Laws enable companies that provide superior products and services on the best terms ultimately to achieve success. Strict compliance with applicable Antitrust Laws is essential, and every individual officer and employee at the Sony Group is required to observe all applicable Antitrust Laws in the course of his or her business activity. Sony has adopted the Sony Group Global Policy on Antitrust/Competition Law Compliance to help assure compliance with these laws. This Policy provides personnel with a broad overview of Antitrust Laws as well as guidance for compliance.

In December 2016, Sony reached a settlement with the European Commission following an EU antitrust investigation of competition in the secondary batteries market. The settlement covers the period from February 2004 through October 2007. Sony agreed to pay a fine of approximately EUR 29.8 million in connection with the settlement. Sony is committed to compliance with all applicable competition rules, including EU antitrust rules.

Sony Group Anti-Bribery Program

Sony does not tolerate corrupt behavior under any circumstances. The company has adopted the Sony Group Anti-Bribery Policy, which builds on the anti-bribery and accurate record-keeping requirements in the our 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 ethics and, in particular, establishes procedures that must be followed to help ensure integrity in our dealings with government officials.

Basic Approach and Systems to Exclude Anti-Social Forces

Sony strongly opposes organized crime and other anti-social forces that threaten to disrupt the order and safety of our community. We will not have relationships with members of organized crime and/or other anti-social forces, and we will not give economic benefits to or accept illegal demands from them.

We provide "know your customer" screening policies, procedures and training, to help ensure that we do not do business with inappropriate individuals or entities. These policies and screening procedures help assure that we do not do business with members of anti-social forces.

Ethics and Compliance

Updated on August 23, 2017

Ethics and Compliance Communication and Training

Sony established a Compliance Education Protocol that sets forth minimum mandatory global communications and training requirements to help support ethical decision making and compliance with laws.

In accordance with this protocol, Sony Group personnel are required to complete comprehensive training at specified interval on the Sony Group Code of Conduct and on key risks including antitrust/fair competition laws, anti-bribery, and prevention of discrimination and harassment in the workplace. Booklets, wallet cards, posters, online training and in-person training (modified for local laws and/or culture), are also used to raise awareness of the Sony Group Code of Conduct, key risks and the Hotline. In addition, legal/compliance personnel provide guidance and in-person training on key local risks that include real-life examples. Sony continually strives to adapt and improve its ethics and compliance training and communications in light of evolving risks and changes in the business environment and the business.

Sony Corporation's CEO and other members of its senior management also remind employees of the importance of ethical conduct and the need to report ethical concerns through ongoing communications. Through these varied communication and training efforts, Sony continues to promote an understanding of the importance of its core values and ethical business conduct as set forth in the Sony Group Code of Conduct.



In addition, Sony Group executives and senior management are required to submit an annual certification acknowledging the need to comply with applicable laws, regulations and internal policies (including the Code of Conduct) and the need, in their roles as managers, to communicate the importance of acting ethically and in compliance with applicable laws, regulations and internal policies.

Ethics and Compliance

Updated on August 23, 2017

Compliance Monitoring Program

Sony's global Compliance Monitoring team helps to ensure adherence to the Code of Conduct, internal policies and relevant laws through the use of risk assessments, self-assessments, audits and reporting.

For example, Sony Group companies periodically undertake mandatory compliance self-assessments, which involve self-inspection and detailed reporting of enumerated compliance-related activities, accompanied by supporting documentation submitted for review through an automated Governance Risk and Compliance (GRC) system. The Compliance Monitoring team evaluates the responses and supporting documentation provided and reports the results to senior headquarters management, who in turn reports the information to the Audit Committee. The Compliance Monitoring team also works with the Regional Compliance Officers to perform compliance audits, address reported issues, monitor any necessary remediation and perform investigations as necessary.

Ethics and Compliance

Updated on August 23, 2017

Information Security and Privacy

Like many companies, Sony faces increasingly advanced threat environment, which presents challenges in the areas of information security and privacy. Third parties seeking to compromise the information of global companies continue to grow in number, capability, and persistence. To address this reality and ensure that we continue to earn our customers' trust, Sony maintains a robust information security and privacy program. Our approach to information security and privacy is grounded in a company-wide governance structure that enables the effective management of potential risks, incorporates security and privacy controls into our systems and products to safeguard information, and deploys monitoring and response capabilities to swiftly address the situation in the event of an attack.

Information Security and Privacy Governance

Sony has established a global information security and privacy organization headed by a chief information security officer (CISO). The CISO's organization is charged with developing and overseeing the implementation of information security and privacy policies and standards globally as well as monitoring compliance with these policies and standards. 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. The information security and privacy officers at Sony Group companies ensure effective implementation of policies and standards. Strong executive support for, and governance of, information security and privacy are essential. Accordingly, it is the responsibility of the executives at each Sony

Group company to take an active role in managing risks within their organizations and to instill a culture of awareness in all employees. Under the CISO's direction, Sony will continue to strengthen company policies and standards to further improve information security and data protection.

Sony's information security and privacy management is governed by a set of global policies and standards, which are based on internationally accepted industry best practices. These policies set forth Sony's commitment to information security and privacy and define practices and procedures to be followed by Sony executives and employees. Sony routinely reviews and revises these policies and standards to address changes in the risk landscape, threats, and the regulatory environment. For example, in 2016, we updated our internal Global Information Security Policy and Global Privacy Management Policy to further enhance our security and privacy governance practices and to further embed data protection into our operations.

Employee Training as a Key Component of Information Security and Privacy

Every employee has a critical role to play in protecting Sony's most sensitive information. To increase the education and awareness of our workforce, Sony requires all personnel to receive annual information security and privacy training, which teaches employees how to report incidents and what type of behavior to avoid in order to reduce risk. Sony employees also regularly receive phishing awareness training, which tests employees' knowledge of how to spot and avoid cyber attacks delivered through fraudulent emails.

Monitoring and Response Measures

Sony has established a 24x7 global security operations center equipped with advanced technical capabilities for the purpose of preventing and managing cyber security incidents. Our incident response team defends Sony's networks through

threat intelligence and analysis, monitoring and detection of malicious activity, rapid response and containment, and sophisticated forensics capabilities. Sony is committed to safeguarding the trust of our customers, employees, and business partners. We continuously look for ways to improve our practices, implement stronger controls, and provide more robust security to protect privacy and the information entrusted to our care.

Ethics and Compliance

Updated on August 23, 2017

Respect for Human Rights

Sony respects the human rights of all stakeholders in our business operations and supply chains. In response to the growing concern about the impact of increasing globalization on human rights, the United Nations (UN) Human Rights Council endorsed the UN Guiding Principles on Business and Human Rights in 2011. These Principles identify steps that global companies can take to prevent and mitigate the potential adverse human rights impact in their business operations and supply chains. Sony fully support these Principles and strive to respect human rights and ensure good labor practices in all of our business activities.

Sony's basic commitment to human rights is set forth in the Sony Group Code of Conduct, which is applicable to all directors, officers, and employees of the Sony Group. The Sony Group Code of Conduct requires all Sony Group companies to engage in ethical business conduct, including respect for human rights, and to adopt sound labor and employment practices for our employees in accordance with applicable laws.

[Sony Group Code of Conduct](#)

[Human Rights and Equal Opportunities](#)

[Occupational Health & Safety](#)

Analyzing and Monitoring Human Rights Risks

Sony is also committed to maintaining and improving risk-based systems and processes to help ensure that there are no human rights violations related to our own operations or our supply chains. Sony engaged BSR, an independent, non-profit, global organization devoted to building a just and sustainable world, to conduct an analysis of the potential human rights risks across Sony Group's various business operations and supply chains which encompasses electronics, entertainment, and finance since the salient human rights issues vary depending on the business segment. From this assessment by BSR, Sony identified that human rights in the electronics business supply chain, including materials procurement, is a consideration. To address this risk in our electronics segment, Sony adopted the Sony Supply Chain Code of Conduct and introduced an assessment and ongoing monitoring scheme for our electronics suppliers.

[Establishing and Promoting the Sony Supply Chain Code of Conduct](#)

 [Sony Group Statement on UK Modern Slavery Act](#)

Human Rights Education and Training

Sony Group regularly provides training to all of its employees across the globe, in order to familiarize them with the Sony Group Code of Conduct and encourage ethical business conduct, including respect for human rights. Relevant organizations within the Sony Group conduct additional specialized training to key personnel to help detect and address human rights risks.

[Ethics and Compliance Communication and Training](#)

[Human Rights and Equal Opportunities](#)

[Establishing and Promoting the Sony Supply Chain Code of Conduct](#)

Grievance Mechanisms

Sony operates multiple channels, including an ethics hotline, for employees to raise concerns or seek guidance about possible violations of laws or internal policies, including the Sony Group Code of Conduct. Additionally, Sony operates a supplier hotline for business partners, and a conflict minerals hotline for reporting violations of corporate policy on conflict minerals. These channels of communication help to raise awareness of and enable Sony to rapidly address human rights risks.

[Reporting Ethical Concerns](#)

[Supplier Hotline \(Establishment of the Conflict Minerals Policy Hotline\)](#)

[Human Rights and Equal Opportunities](#)



Human Resources



Management Approach

Materiality Rationale

Since its establishment, Sony has sought to remain at the forefront of technological development, building continuously on its achievements to suggest new lifestyle options for people everywhere. In these efforts, Sony recognizes its employees to be its most important resource. Sony understands how critical it is to leverage the unique traits of each employee, build a pleasant working environment, and provide opportunities for employees to improve and make the most of their skills and capabilities.

Basic Approach

Sony strives to build an environment in which employees accept each person's differences irrespective of nationality, culture, race, gender, or the presence or absence of physical limitations. Sony employees see such differences as a matter of "individual character," and the process of interaction among individuals leads to the creation of entirely new value. This all falls under the concept of diversity and inclusion, which Sony regards as critical to its success. While working to recruit and train employees from diverse backgrounds and promoting them to important positions, Sony works hard to build safe and healthy workplaces that give due consideration to the lifestyles and life stages of the people who work there.

Structure

Sony has established the Diversity Committee, which reports directly to the CEO, to ensure that diversity and inclusion are addressed as high-priority issues. The Committee is implementing related policies. Regarding recruiting and training employees and securing the promotion of diverse persons to important positions, a group-wide approach has been adopted that brings all divisions involved in human resource matters together to work as one. Based on the OHSAS 18001 occupational health and safety standards, and guided by its own Global Policy on OH&S, Sony has also established a proprietary OH&S management system for each of its sites around the world.

In addition to adopting systems and initiatives that enable employees to discuss matters they are concerned about, including human rights issues and human rights risks, work-life balance, childcare and nursing care, and LBGT rights, Sony has implemented a global employee survey that enables Sony to access and analyze the views of employees and address them promptly.

Main Achievements in Fiscal 2016

Here are the main results of fiscal 2016 initiatives:

- Sony took steps to ensure respect for diversity, and worked to create policies and an environment in which employees can work sustainably.
 - Sony Corporation revised its telework policy.
 - In the United States, Sony Pictures Entertainment Inc., Sony Electronics Inc. and Sony Corporation of America achieved top score 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 LGBT employees.
 - Sony UK run the Being Me campaign that provide valuable opportunities for all employees to hear and think about inspirational stories of individuals with

disabilities.

- Sony undertook various initiatives to help its employees advance their careers through skills development and growth.
 - Carried out Sony University global leadership programs.
 - Launched the Sony Outstanding Engineer Award, the most prestigious personal award for engineers in the Sony Group.
 - Sony North America started the Fast Forward Talent Strategy project to build its talent strategy for the future.
- Sony worked to energize more active communications
 - Took steps to facilitate communication between top management (including the CEO) and Sony employees.
 - Held Sony Family Day in multiple countries, inviting employees to bring their family members to the office.
 - Held events to celebrate the 70th anniversary of Sony's founding.



Looking to the Future

Sony will be working to promote diversity and inclusion, devoting especially close attention to the recruitment and education of key personnel and their promotion to important positions. In addition to building a pleasant working environment through the ongoing implementation of safety and health improvement activities, Sony will also work to establish systems that enable each employee to adopt a work style that meshes well with his or her lifestyle, and will seek to provide

opportunities for employees to improve and make the most of their character, skills and capabilities.

Activity Reports

Employee Data

Diversity	Diversity Home	Human Rights and Equal Opportunities
	Promoting Greater Opportunities for Women	Working Environment and Opportunities for LGBT Employees
	Fostering an Environment Conducive for Global Career	Creating Accessible Working Environments and Promoting Greater Opportunities for Individuals with Disabilities
	Providing Systems to Support a Healthy Work-Life Balance	Collaboration with External Organizations That Advocate Diversity
Recruitment	Recruitment Home	Recruiting Diverse Employees Worldwide
	Recruiting Practices	

Training & Talent Development	Training & Talent Development Home	Training Activities
	Developing and Deploying Core Human Resources Capable of Excelling Globally	Nurturing and Leveraging Engineering Talent
	Support for Career Building	
Communication	Communication Home	Facilitating Dynamic Communication
	Global Employee Survey	
Occupational Health & Safety	Occupational Health & Safety Home	Basic Policy and Management System
	Occupational Health & Safety Management System and Global Initiatives	Global Occupational Health & Safety Initiatives
	Global Workplace Injury Statistics	Helping Employees Stay Healthy
External Evaluation		

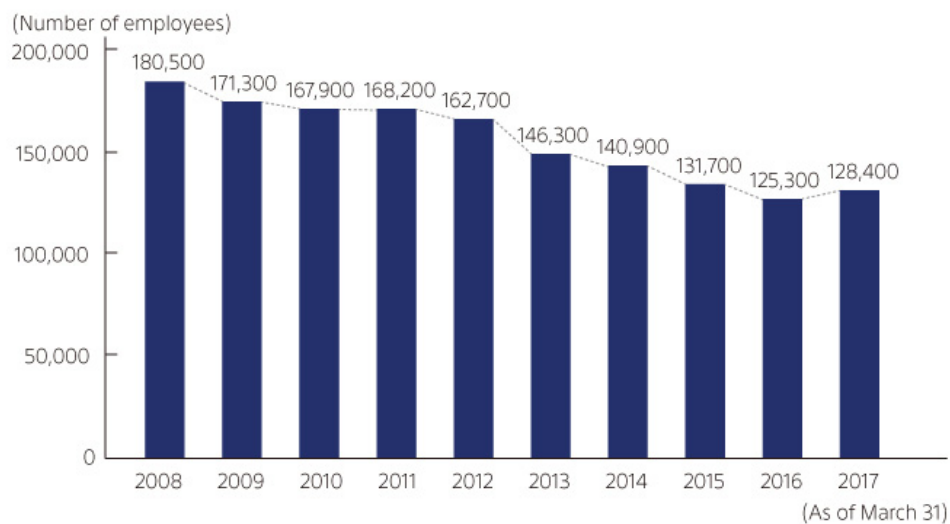
Human Resources

Updated on August 23, 2017

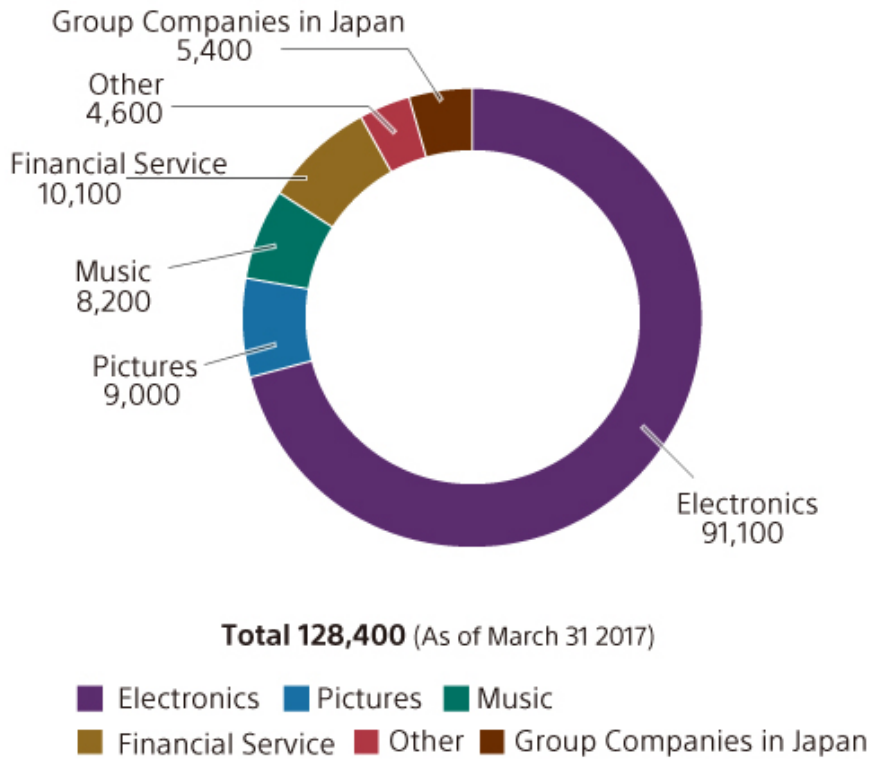
Employee Data

The total number of employees in the Sony Group as of March 31, 2017 was approximately 128,400, an increase of approximately 3,100 from March 31, 2016, as the result of increased employment primarily in the Electronics segment. This increase was due to the increase of employees at manufacturing facilities in Asia Pacific, and by Sony's acquisition of some of Toshiba's semiconductor fabrication facilities. As a result of the splitting out of business units in recent years, the number of employees at Sony Corporation was approximately 6,200 as of March 31, 2017,.

Total Number of Employees (Sony Group)

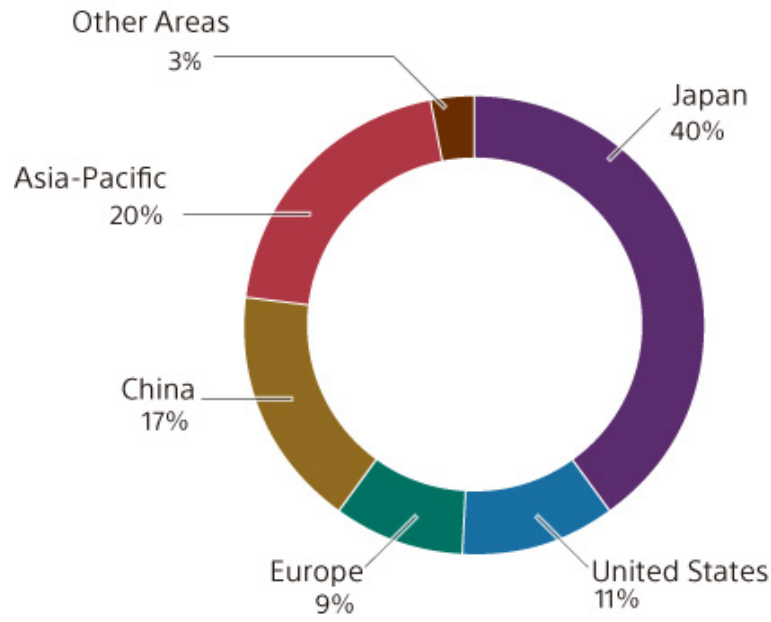


Personnel by Business Segment



Breaking down employee numbers by business segment, the numbers as of March 31, 2017 stood at roughly 91,100 in the Electronics segment (about 70% of all Group employees), 10,100 in the Financial Services segment, 9,000 in the Pictures segment, and 8,200 in the Music segment.

Personnel by Geographic Segment



Total 128,400 (As of March 31, 2017)

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

*1 Mainland China and Hong Kong

*2 Southeast Asia, India, Oceania, Taiwan and South Korea

*3 Middle East, Africa, Latin America and Canada

Breaking down employee numbers by geographical area, Japan accounted for roughly 40% of all Group employees as of March 31, 2017, while locations outside Japan accounted for the other 60%. The Asia-Pacific region accounted for 20%, followed by mainland China and Hong Kong (17%), the US (11%), Europe (9%), and other areas (3%).

Composition of Sony Corporation's Directors, Corporate Executive Officers and Business/Corporate Executives (As of June 15, 2017)

	Total	Female	Non-Japanese Nationals
Directors	12	1 (8.3%)	2 (16.7%)
Corporate Executive Officers	10*1	0	1 (10%)
Business Executives	21	0	4 (19%)
Corporate Executives	12	2 (16.7%)	0

*1 Of the ten Corporate Executive Officers, two serve concurrently as Directors.

* For further information on the Board of Directors, see the Board of Directors page.

[Board of Directors](#)

Human Resources

Updated on August 23, 2017

Diversity

As a company with a broad global business portfolio encompassing electronics, entertainment and financial services, Sony employs individuals of diverse backgrounds, including different nationalities and genders. With its wide range of different personnel and businesses, Sony acted in 2013 to promote diversity globally by adopting the Diversity Policy, a common diversity statement for the Sony Group. In accordance with this policy, top managers from each country and region worldwide are taking the lead in promoting a wide range of global diversity programs. In addition, Sony has established the Diversity Committee, which reports directly to the CEO, to ensure that diversity is addressed as a high-priority management issue. Sony organizes Diversity Week to further promote diversity by holding various events at its group companies in Japan and worldwide. These events are designed to encourage new perspectives and active communication as a platform for examining diversity in its many forms, from gender, race and nationality, to sexual orientation and disabilities.

[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

Working Environment and Opportunities for LGBT Employees

Fostering an Environment Conducive for Global Career Development

Creating Accessible Working Environments and Promoting Greater Opportunities for Individuals with Disabilities

Providing Systems to Support a Healthy Work-Life Balance

Collaboration with External Organizations That Advocate Diversity

Human Resources

Updated on August 23, 2017

Human Rights and Equal Opportunities

The Sony Group is committed to creating a workplace where human rights are respected and to providing equal employment opportunities that allow all individuals to make the most of their capabilities. In light of the increasing diversity of human rights issues facing corporations, Sony believes it is crucial to address these issues appropriately by building a common awareness among employees.

The Sony Group Code of Conduct, enacted in May 2003, contains articles related to respect for human rights and maps out global 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.

Sony's transactions with suppliers must comply with provisions in the Sony Group Code of Conduct. Sony has established the Sony Supplier Code of Conduct, which covers human rights issues that could potentially arise at production facilities operated by suppliers and outsourcing partners concerning labor conditions (e.g. discrimination, child labor, and work hours, and freedom of association).

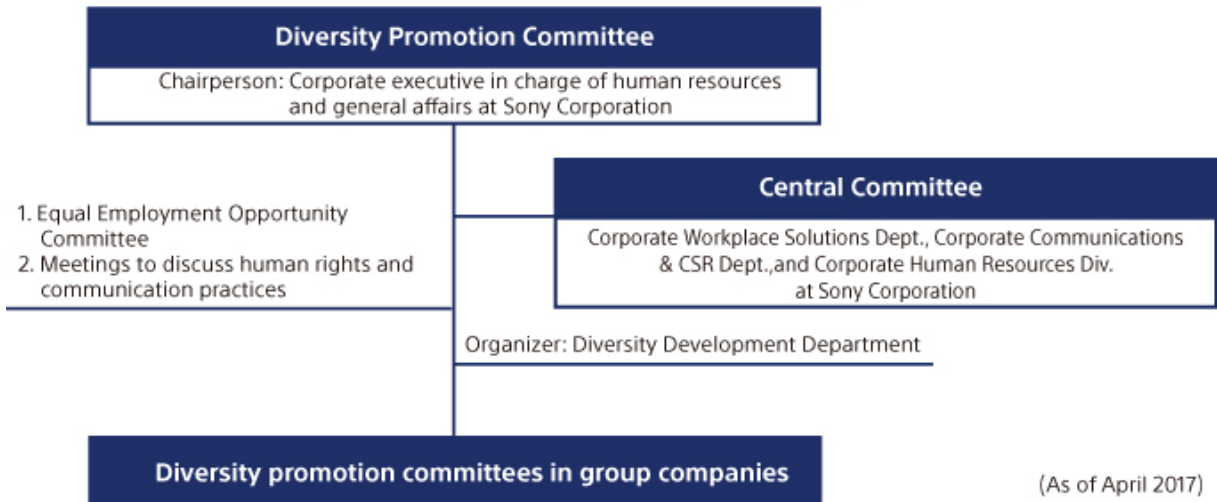
 [Sony Group Code of Conduct](#)

[Responsible Sourcing and CSR in Supply Chain Management](#)

Sony's Organization for Ensuring Respect for Human Rights

All Sony Group companies in Japan have a Diversity Committee, which discusses outstanding issues and conducts workshops on human rights, diversity, and other such matters.

Diversity Promotion Organization Chart (Sony Group in Japan)



Hotline Service for Employees

At each Sony Group company in Japan, an in-house equal employment opportunity hotline has been established to advise employees and to enable immediate action in cases of possible human rights issues, including various forms of harassment. Access to such services outside the Group has also been set up. Together, these approaches make consulting conveniently available to employees. Additionally, Sony provides counseling to address employee concerns regarding work-life balance, parenting, caregiving, LGBT issues, and broad access to equal opportunities. These counseling services work to respond quickly and appropriately while giving full consideration to personal privacy. Sony strictly enforces confidentiality and ensures that employees are not subject to reprisals after reporting through the services. To ensure that counselors fully understand

these matters, Sony provides manuals and holds seminars.

Education and Training

The Sony Group offers an e-learning course on compliance annually for all employees and provides programs for raising awareness of human rights, including training on human rights and harassment. In Japan, an e-learning course focusing on human rights is held for all employees of Sony Corporation and 26 group companies. In addition, a program on human rights and diversity for newly hired employees, and various programs on human rights for managers are regularly offered. Sony also addresses various human rights issues at the regional level by adhering to laws, regulations, and standards in the regions where it does business.



Diversity seminar open to all employees, aimed at raising awareness of human rights

Sharing of Activities

Coinciding with Human Rights Week in December every year, each Sony Group company in Japan holds an event to award public recognition of especially successful efforts within the Group to promote diversity. The purpose of this event is to share best practices in diversity promotion. Also, the Group shares information

on its global activities by holding workplace excellence awards ceremonies to reward production sites around the world that have done an especially good job of promoting human rights and diversity.

In addition, Sony Group in Japan has established a communication practices study group composed of Sony personnel working in advertising and communication practices. The study group meets regularly to share information, hold study sessions, and enhance people's knowledge of communication practices related to human rights.

Human Resources

Updated on August 23, 2017

Promoting Greater Opportunities for Women

Sony embraces diversity and the working contributions of women, who accounted for 29% of the workforce and held 24% of management positions at the Sony Group worldwide as of the end of fiscal 2016.

In Japan, Sony has set a target for women to hold 10% of management positions in the Sony Group and 15% of management positions at Sony Corporation, and pursues initiatives to actively hire, give active roles to, and promote women. For example, Sony operates a leadership program to develop leadership skills and attitudes among women and support their networking, by providing opportunities for career development and assisting the professional growth of women.

[In 2016, Sony Corporation acquired the top "Eruboshi" certification from the Minister of Health, Labour and Welfare in recognition of its excellence as a supporter of workplace participation and advancement among women.](#)

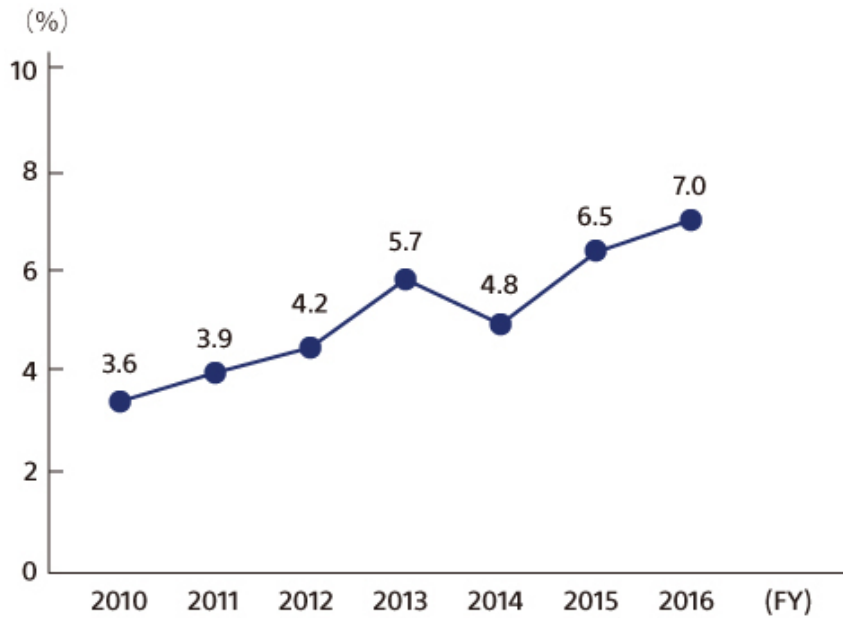
[The Act on Promotion of Women's Participation and Advancement in the Workplace
Sony Corporation's Action Plan*1](#)

*1 Sony carries out "disclosure of information" and "disclosure of action plans" in accordance with the provisions of the Act on Promotion of Women's Participation and Advancement in the Workplace, using the Ministry of Health, Labour and Welfare's "Database of Corporate Performance in the Area of Women's Participation and Advancement in the Workplace."

In fiscal 2016, Sony organized the Women Leaders Meeting as part of Diversity Week in Japan, bringing together women in management positions at the Sony Group and their superiors to discuss management strategies to achieve Sony's targets for women's participation by fiscal 2020. The participants gained career development tips and considered ways to develop younger members of their staff. Workshops and seminars for managers were also held to present strategies for

developing women's careers. Sony works to encourage diversity and inclusion in the workplace and change attitudes about promoting women into management.

Women in Management Positions at Sony Group in Japan



Women Employed and Women in Management Positions*2*3

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Percentage of women in the workforce (%)	31.7	20.5	28.6	27.2	29.5	29.3
Percentage of management positions held by women (%)	12.7	11.6	15.9	15.9	22.2	23.9

Women Employed and Women in Management Positions (Sony Group in Japan)*2*3

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Percentage of women in the workforce (%)	20.0	20.0	18.6	18.6	21.3	21.0
Percentage of management positions held by women (%)	3.9	4.2	5.7	4.8	6.5	7.0

Women Employed and Women in Management Positions (Sony Group in USA)

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Percentage of women in the workforce (%)	38.7	36.4	37.8	36.1	37.5	38.1
Percentage of management positions held by women (%)	36.1	32.7	33.3	31.3	33.0	35.5

Women Employed and Women in Management Positions (Sony Group in China)*4

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Percentage of women in the workforce (%)	63.9	59.2	55.5	44.6	43.8	55.5
Percentage of management positions held by women (%)	29.1	22.5	26.2	32.7	31.6	40.1

Women Employed and in Management Positions (Sony Group in Asia Pacific)*5

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Percentage of women in the workforce (%)	48.2	46.5	42.5	46.2	43.8	37.2
Percentage of management positions held by women (%)	20.5	20.6	26.4	31.1	33.7	34.5

Women Employed and in Management Positions (Sony Group in Europe)

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Percentage of women in the workforce (%)	38.0	33.3	34.3	36.0	34.5	36.9
Percentage of management positions held by women (%)	16.8	23.2	26.6	25.9	33.6	34.9

Women Employed and in Management Positions (Sony Group in Other Areas)*6

	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Percentage of women in the workforce (%)	—	—	37.4	38.1	41.4	41.5
Percentage of management positions held by women (%)	—	—	24.7	30.0	28.1	37.4

*2 Totals are based on data provided by Sony Group companies as of the end of each fiscal year (March 31). The definition of "manager" varies in different countries, regions and companies.

*3 Women in management positions at Sony Corporation: 8.0%

*4 Coverage area: Mainland China and Hong Kong

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

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

Key Activities to Promote Women's Career Development at Sony Group

<p>Electronics (Japan)</p>	<p>Sony runs a regular networking event for young women working at Sony Group companies. This event has the objective of helping these women to broaden their perspective on career design. Participants hear the views of women who are currently working at the management level, take part in follow-up discussions and share problems they face in the workforce. These activities are contributing to the expansion of women's career choices.</p>
<p>Sony Group (United States)</p>	<p>In 2016, Sony organized the Women's Forum in San Diego to support the careers of women working in the Sony Group's operations in the U.S. and provide a platform for networking. A networking group was established to address specific issues and improve work-life balance for women.</p>
<p>Electronics (Asia)</p>	<p>Sony adopted a system for maternity and childcare leave to allow for full and flexible work schedules, thereby providing a convenient working environment for women with children. Also, some of the Group's production facilities have set up nursing rooms.</p>

Human Resources

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Working Environment and Opportunities for LGBT Employees

The Sony Group is working globally to provide LGBT*1 employees with a working environment and opportunities that respect their individuality and leverage their individual talents, free of discrimination and prejudice.

In Japan, Sony has expanded certain personnel programs*2 to encompass same-sex spouses, and implements an e-learning course for all employees that covers LGBT issues, while also offering LGBT workshops.

Sony also supports the diversity of employees in other ways, such as enabling employees to use their preferred names at work, providing multipurpose restrooms, using gender-neutral uniforms, making it optional for job applicants to indicate their gender on applications, and providing private toilet and shower facilities in each room at corporate dormitories.

*1 LGBT stands for lesbian, gay, bisexual, and transgender. The expression is broadly used to refer to persons with diverse sexualities.

*2 Personnel programs that have been extended to same-sex spouses include monetary gifts and leave for bereavement, rent subsidies, and participation in employee family events.

LGBT Initiatives by Sony Group around the World**Electronics
(USA)**

In the United States, Sony Pictures Entertainment Inc., Sony Electronics Inc. and Sony Corporation of America achieved top score 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 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. Additionally, management and employees participate in LGBT pride parades to raise awareness.

Human Resources

Updated on August 23, 2017

Fostering an Environment Conducive for Global Career Development

As of March 31, 2017, Sony had approximately 1,400 employees working in countries other than their own. Of these, approximately 170 employees were transferred between Sony Group companies outside Japan. The purpose of this arrangement is to leverage personnel on a global scale, accomplish the transfer of technology and



Employees participating in Buddy Program

knowledge, and initiate new businesses. To enhance the ease and efficiency of moving human resources around the world, Sony has established and renewed a global mobility policy appropriate to a wide variety of overseas assignments.

With the rapid increase in opportunities for human resource mobility on a global basis, Sony Corporation has developed internal websites, HR & accounting-related systems and other bilingual applications to enable non-native speakers of Japanese to work effectively within the company using English. It is also taking other steps continuously via a specialized unit within the Human Resources Division set up to provide career support and other assistance. For example, Sony implements cross-cultural training for employees from outside Japan and their managers, to facilitate effective communication. To help these employees to develop interpersonal networks, Sony initiated the Buddy Program in 2013, in which employees from outside and inside Japan are grouped to teach their languages to each other. This program is meaningful to all participants since, in the course of the language exchange, they acquire a deeper understanding of one another's cultures.

Human Resources

Updated on August 23, 2017

Creating Accessible Working Environments and Promoting Greater Opportunities for Individuals with Disabilities

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. Sony is working to create an inclusive workplace environment where employees can build successful careers regardless of any disabilities they may have.

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 the special-purpose subsidiaries Sony Taiyo Corporation,*1 which has over 35 years of experience in this field, and Sony Kibou/Hikari Corporation, which specializes in providing employment opportunities for individuals with intellectual disabilities. These programs support employees with disabilities and undertake programs that leverage the advantages of the Sony Group. Specifically, at joint recruiting events (now in their ninth year) where about 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 to provide the perspective of employees with disabilities to their supervisors and colleagues and vice versa.

Even before the enforcement of Japan's Act on the Elimination of Discrimination against Persons with Disabilities, Sony has long taken reasonable accommodation

measures tailored to each individual and has also created Group Guidelines. In addition, Sony has set up a consultation system and holds study meetings and promotes the employment of persons with disabilities in a unique way to ensure they have access to important roles across the Group.

Sony also seeks to encourage students with disabilities and their supporters by communicating about its philosophy and programs for the employment of people with disabilities. The aim is to enhance social awareness of diversity and inclusion issues. For example, Sony Taiyo Corporation holds inclusion workshops aimed at providing opportunities for elementary and junior high school students to experience together the fun of science firsthand, regardless of their level of ability.

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 2016, employees with disabilities accounted for 2.73% of Sony Corporation's workforce, while the average for Sony Group companies in Japan (with over 201 employees) was 2.2% as of March 2016, 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.

Key Activities to Promote Career Development of Individuals with Disabilities at Sony Group

<p>Ties to various organizations (Japan)</p>	<p>Sony works with universities and other types of organizations to hold lectures targeting the interests of university students and parties involved in the employment of persons with disabilities. Moreover, Sony has been implementing seminars on job opportunities for university students with disabilities every year since 2004. These seminars are useful to the participants regardless of whether they end up working at Sony or not. Since fiscal 1996, Sony has successively established 16 therapeutic massage facilities throughout Japan and employed visually impaired workers as massage therapists. In addition, as a part of hands-on training for employees, visits to special-purpose subsidiaries of Sony Corporation are held with the aim of encouraging them to embrace diversity in business.</p>
<p>Sony Group (outside Japan)</p>	<p>In order to learn about the employment of persons with disabilities in Japan, and to apply this to local hiring, supervisors visit special-purpose subsidiaries and Sony Group affiliates throughout Japan and prepare manuals for use in their home countries. In the Asia region, Sony does more than just donate to organizations for persons with disabilities, or help deal with legal requirements; the Group actually makes use of know-how from within Japan to promote hiring of persons with disabilities.</p>
<p>Electronics (UK)</p>	<p>Sony UK is running a Being Me campaign that is open to all employees, where they can hear the inspirational stories of guest speakers who have overcome great personal difficulties. Speakers at Being Me sessions include, for example, a woman who had set up her own school and then college to ensure a proper education for her children with Autism/Asperger's Syndrome, and a person who had become a successful accountant despite being blind. Such events provide valuable opportunities for employees to hear and think about such matters.</p>

Human Resources

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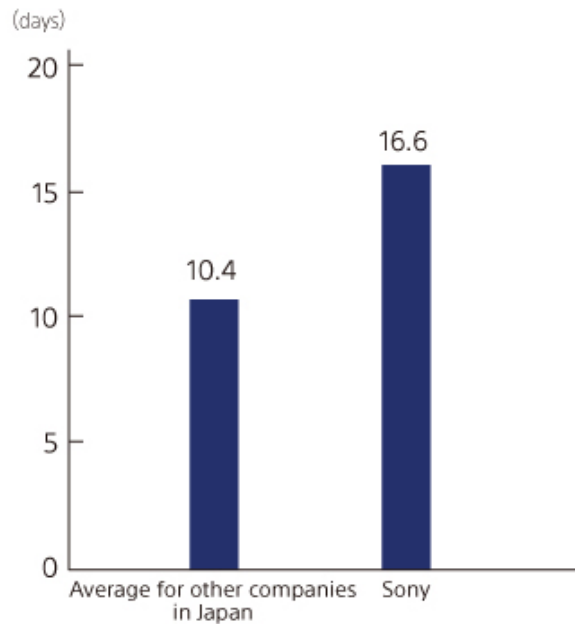
Providing Systems to Support a Healthy Work-Life Balance

Sony believes that strong revenues are sustained by providing a worker-friendly environment where each employee can perform to their full potential. Under this vision, Sony considers employee health and work-life balance as essential to creating innovation and sustaining strong revenues as a company. Sony offers flexible working provisions and work conditions for employees to realize this work-life balance, while adhering to the customs and laws in countries and regions where it does business.

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 a high percentage of their allotted annual paid days off. In fiscal 2016, employees of Sony Corporation took an average of 16.6 days off, compared with the national average of 10.4 days off at other companies.

* Source for average for other companies in Japan: Comprehensive Survey of Wage Conditions (Fiscal 2016), Ministry of Health, Labour and Welfare. Surveyed companies had a workforce of more than 1,000 employees.

Average Annual Paid Holidays for Sony Corporation Employees in Japan



*Source for average for other companies in Japan: Comprehensive Survey of Wage Conditions (Fiscal 2016), Ministry of Health, Labour and Welfare. Surveyed companies had a workforce of more than 1,000 employees.

Flexible Work Options for Diverse Lifestyles

Sony offers human resources programs that enable employees to make the most of their talents within their preferred lifestyles.

In 2015, Sony began offering a leave program that enables employees to take up to five years off to pursue studies or work on upgrading their language or communication skills, when accompanying a spouse who has been assigned abroad or embarks on international studies. Sony also began offering a Flexible Career Leave program that enables employees to take up to two years off to pursue studies at their own expense to further or expand their specialization.

In 2016, Sony revised the eligibility for its telework program, expanding it from parenting and caregiving situations to cover all employees. Sony will continue to

expand programs to provide employees with flexible and efficient work options, with the aim of enhancing the business efficiency of its organizations, fostering an organizational culture that generates ideas, and increasing the productivity and output of each employee.

Supporting Employees Doing Child Care or Nursing Care

Under a work-life balance initiative, Sony Corporation provides paid leave programs which can be used along with Child Care Leave such as Special Child Care Leave (up to 20 days) and Accumulated Leave used for pregnancy, childbirth, child rearing, fertility treatment, and nursing care purpose. These programs are widely used by employees.

For employees who have child care or nursing care responsibilities, Sony provides support by offering systems which give the option of reduced working hours for child care or nursing care and allow employees to work at home or take paid annual leave on an hourly basis.

In fiscal 2017, Sony introduced a Career Plus program that supports career development while employees take parenting or caregiving leave, by enabling employees to keep doing some work from home and also by subsidizing language courses. The program provides greater flexibility for employees to continue their career development.

Number of Employees Taking Child Care Leave at Sony Corporation in Fiscal 2016

Number of employees taking child care leave	195 employees (including 7 male employees)
Percentage of employees who took child care leave*	100%
Percentage of employees who returned to work	97.5%

* Calculated with employees who gave birth in fiscal 2016.

Number of Male Employees Taking Special Child Care Leave at Sony Corporation in Fiscal 2016

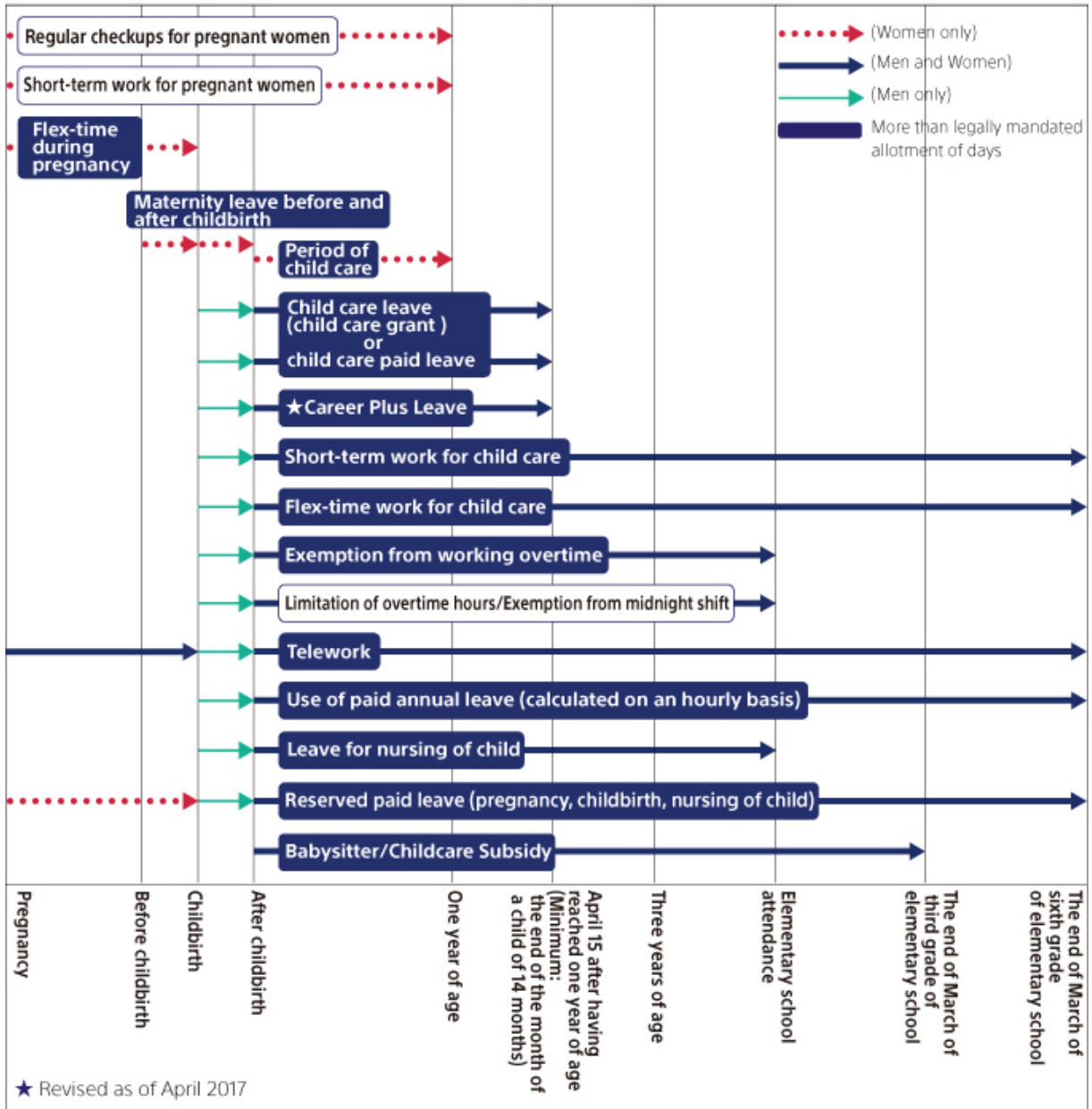
Number of male employees who took special child care leave	550
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Work-Life Balance Systems at Sony Corporation

System	Introduced (FY)	Description
Child Care Leave	1990	<ul style="list-style-type: none"> ● Up through April 15 of the year following the date on which the 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 the child is sixth 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
Telework	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 ● Eligibility was expanded in 2016. The purpose of this expanded eligibility is to promote diverse and efficient work styles that help employees tap into their creativity.
Use of Paid Annual Leave	2008	<ul style="list-style-type: none"> ● Can be used on an hourly basis, for child rearing or providing nursing care for a family member
Child Care Flex-Time	2013	<ul style="list-style-type: none"> ● Can be used until the child has graduated from elementary school
Babysitter / Child Care Subsidy	2015	<ul style="list-style-type: none"> ● Until the child is third grade of elementary school ● Babysitter / child care fee subsidy

Career Plus Leave	2017	<ul style="list-style-type: none"> ● Support continued career development by employees during child care leave, nursing care leave or flexible career leave (to accompany spouse) ● Allow some work from home while on leave ● Offer subsidies for education expenses while on leave
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Child Care Leave Systems at Sony Corporation



Promoting Work-life Balance

In addition to establishing systems that promote work-life balance, all Sony Group companies in Japan strive to create a corporate culture in which employees seeking to balance the demands of child care (or nursing care) and work can build careers. As part of Diversity Week in fiscal 2016, Sony organized workshops and seminars on parenting and caregiving. On balancing parenting and work, Sony conducted a Working Fathers Meeting and a Working Mothers Meeting, both with the involvement of managers of working parents. The participants heard from speakers and shared their thoughts and experiences with one another in a group setting.

Sony also conducted a seminar on caregiving, amid the growing reality of people having to balance caregiving and work. The seminar explored strategies for balancing caregiving and work, while providing essential information about caregiving. Through these initiatives, Sony is helping employees to continue developing their careers while balancing it with parenting and caregiving.

Diversity Week



Sharing with other employees at a Working Fathers Meeting

In 2007, 2010, 2013, and 2015, 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

[External Evaluation](#)

Main Sony Group Work-Life Balance Initiatives around the World

<p>Contribution to employee health</p>	<p>Some group companies provide services and take other steps designed to promote employee health, such as offering on-site fitness facilities and dental clinic, and holding in-house sports competitions.</p>
<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>

Human Resources

Updated on August 23, 2017

Collaboration with External Organizations That Advocate Diversity

Sony is taking a number of steps to help increase the number of women in engineering and science fields. One such measure is to collaborate with the Ministry of Education, Culture, Sports, Science and Technology's "Program to Support Research Activities for Female Researchers."

Sony is also a member of Japan Women's Innovative Network (J-Win), which supports the development of a network for the advancement of women's careers and also promotes diversity management. In addition, Sony is a participant in the Support Forum for Women in Business, a project of the Japan Institute for Women's Empowerment & Diversity Management. By establishing connections with other organizations like these, Sony seeks to learn about better ways to promote women's participation and advancement.

Since fiscal 2014, Sony has been participating in a special project which promotes managers' awareness of subordinates' work-life balance, which is sponsored by the NGO Fathering Japan. In order to create better working environments, Sony continues to provide employees with appropriate information and organize seminars related to work-life balance.

Human Resources

Recruitment

To further grow Sony's businesses, the most important thing of all is to secure highly skilled and motivated personnel from various fields and provide them with opportunities to make full use of their talents. Sony has always respected each person's experiences and values while hiring a diverse array of talent around the world. In order to attract personnel ready to flourish across regions and business fields, Sony works to recruit highly motivated and energetic people, irrespective of their nationality, cultural background, race, or gender, and without discrimination based on level of ability.

[Recruiting Diverse Employees
Worldwide](#)

[Recruiting Practices](#)

Human Resources

Updated on August 23, 2017

Recruiting Diverse Employees Worldwide

As a company with sales, manufacturing and R&D bases in many different countries and regions around the world, Sony promotes the localization of these operations by securing local talent that can meet national, regional and local needs. In Japan, Sony also recruits university graduates from a wide range of nationalities other than Japanese, aiming to secure talent to drive its global business.

Sony has expanded the range of countries from which it recruits students to work in Japan. In addition to Europe and North America, Sony also hires university graduate students from China and India. In both of these countries, Sony continues to secure top-level talent with the cooperation of local group companies.

Under its Global Internship Program, Sony welcomes university students from around the world to offices in its major business fields. Going forward, Sony will continue hiring new graduates as well as mid-career employees in Japan, while also conducting global recruitment and branding activities, seeking to attract a wide variety of top talent.

Human Resources

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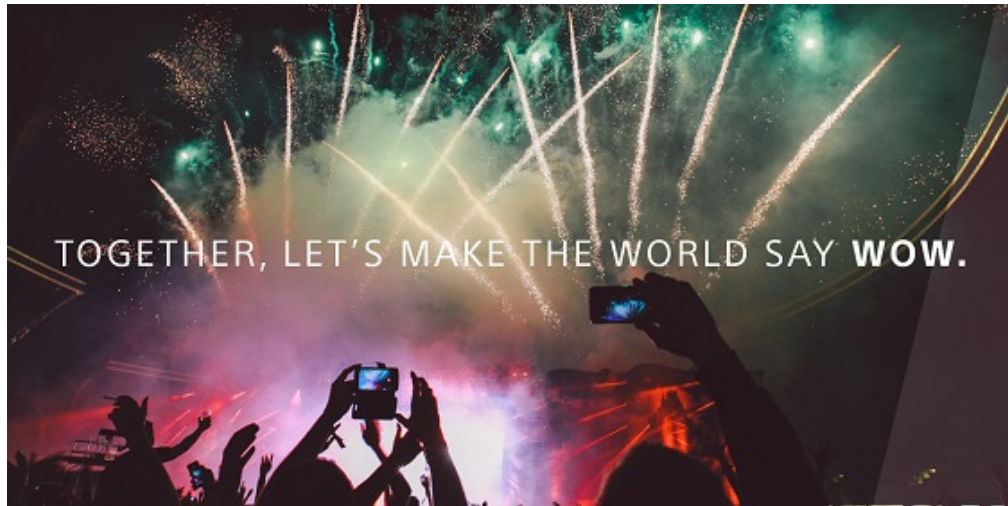
Recruiting Practices

As in the previous fiscal year, Sony provides a variety of job categories that new graduates can choose from to suit their own interests and skills at the time of application. As for recruitment of new graduates for fiscal 2018, Sony will stay in close touch with students via multiple channels as it carries out recruiting activities designed to facilitate mutual understanding with graduates, thereby minimizing employment mismatch.

To recruit engineers and researchers, Sony has set up a job matching system in which students can meet employees in positions similar to their desired jobs. By taking opportunities to meet with a diverse range of university students including those who have school referrals, Sony strives to hire outstanding talent.

To recruit administrative staff, in addition to welcoming interns, Sony has also set up a one-day workshop Business Master Program covering specialized knowledge, including marketing, product planning, accounting, finance, and law. Through this program, university students learn about Sony's business by attending employee lectures, participating in workshops, and giving presentations.

Sony launched its global Employee Value Proposition (EVP), which defines the value of working at Sony, both from a global and regional perspective for a blend of organizational cultural unity and local application. The EVP initiative includes "WOW Factors": what Sony offers its people and what is expected from people in return, creating a strong 'people' brand. The EVP strapline is "TOGETHER, LET'S MAKE THE WORLD SAY WOW". This is promoted both for talent acquisition and employer branding purposes, as well as internal communications, enhancing employee experience post-recruitment.



TOGETHER, LET'S MAKE THE WORLD SAY **WOW.**

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

Developing and Deploying Core Human Resources Capable of Excelling Globally

Nurturing and Leveraging Engineering Talent

Support for Career Building

Human Resources

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Training Activities

Sony offers various employee training programs – including general training, e-learning, and on-site training – all tailored to specific objectives. Mandatory multilevel job-specific training implemented across the entire Sony Group in Japan helps participants acquire crucial skills in a systematic effort to foster the development of the "human quotient." 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 2016, human resource development expenditure per employee at Sony Corporation was about 230,000 yen. Other efforts yielding good results are training program reviews and insourcing instructors from among employees, which both help to improve the efficiency and quality of each training program.

Participation in Companywide Training in Fiscal 2016 (Sony Group in Japan)

	Targeted	Mandatory	Elective (Technology- related)	Elective (Others)	Total
Number of programs	16	31	254	4	305
Number of times offered	24	273	368	14	679
Participants	332	50,820	11,276	2,311	64,739
Cumulative total training time (Hours)	13,058	74,756	40,084	9,727	137,625

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Developing and Deploying Core Human Resources Capable of Excelling Globally

Sony University was established in 2000 in the Shinagawa district of Tokyo. Its mission is to develop the people who will shape and lead management vision and strategy, carry on the Sony Spirit, and build strong personal networks that facilitate Group management. The University offers short-term and long-term programs for cross-border, cross-regional, and cross-organizational development of the global leaders who will drive Sony's business forward.

For instance, potential business leaders from around the world participate in a six-month program that promotes friendly competition. In Japan, Sony also strives to foster future business leaders, offering a seven-month module for prospective core leaders, as well as a program for more junior employees identified as future management candidates, both promoting active interaction and mutual learning.



Participants in a Sony University program

Sony Group Global Leadership Programs around the World

<p style="text-align: center;">Electronics (Japan)</p>	<p>Global Challenge Program</p> <p>Sony Global Manufacturing & Operations Corporation (SGMO) has established its Global Challenge Program to enable its employees who have worked abroad to apply what they have learned after returning to Japan, thereby contributing to the development of SGMO. Under the program, SGMO sends employees to work at offices in another country to allow them to experience a different culture and become directly familiar with the dynamics of a workplace outside Japan. Each year, five employees working for SGMO are selected for a three-month program in the U.K. or Brazil.</p>
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Sony appoints global talent directors to identify promising individuals for worldwide job rotations aimed at grooming future business leaders, regardless of their business specialty or region of the world. To date, almost 100 Sony employees, primarily executive managers and mid-tier managers, have been rotated in various job assignments.

Recently, Sony has begun debating the idea of linking its job rotation program with other initiatives aimed at fostering employees' talents 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 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 talented young people.</p>

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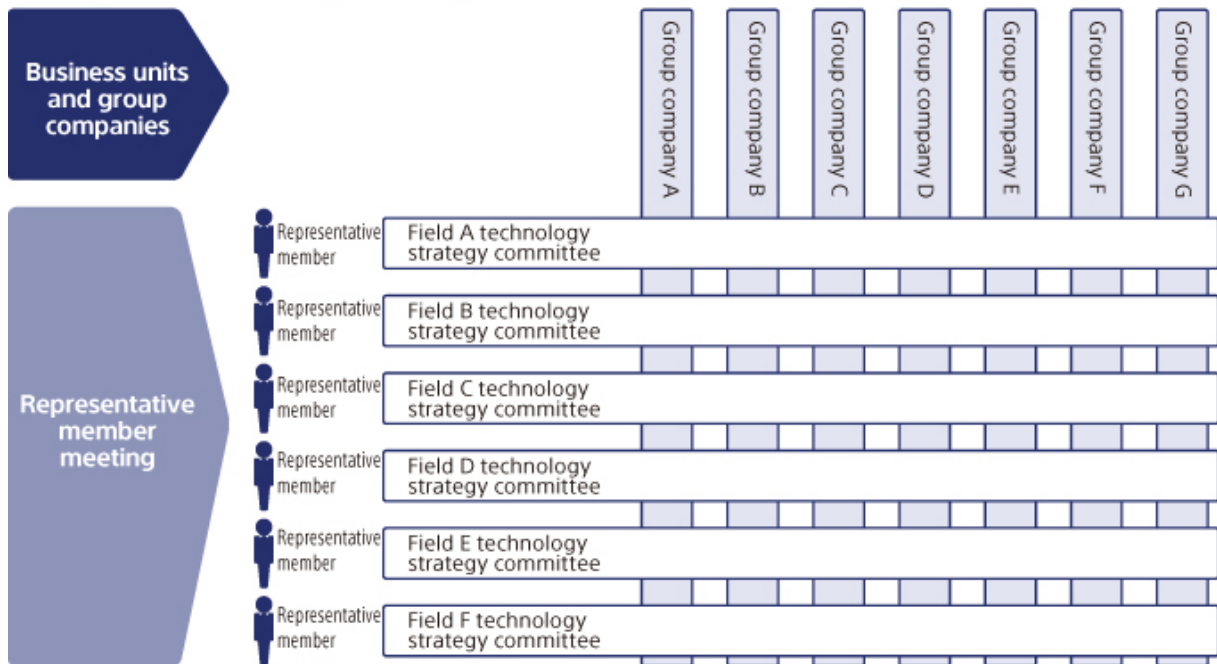
Nurturing and Leveraging Engineering Talent

To pursue its mission of "being a company that inspires and fulfills your curiosity," Sony must engage in innovation to win new customers. Sony continues creating new technologies so that its engineers can develop products that provide functional value while appealing to people's sensibilities and inspiring them.

Using Field-Specific Technology Strategy Committees to Achieve Inter-organizational Collaboration

Sony is technology-driven. To become even better at what Sony does, achieving overwhelming technological superiority is an absolute imperative. Toward that end, the entire group is pooling its efforts as part of the One Sony strategy. Strong inter-organizational ties accelerate technical progress, bring about technological integration, and yield new products and services unlike anything seen before anywhere. Business units have been spun off to operate as independent, autonomous subsidiaries. At the same time, Sony seeks to strengthen cohesiveness by creating arrangements that span the boundaries between Group companies. With that aim in mind Sony established field-specific technology strategy committees in fiscal 2015, and these committees are now in operation.

Field-Specific Technology Strategy Committees



A technology strategy committee is established for each field. Each one consists of specialists who are selected from across Group companies. These committees work to achieve technical innovation and roll out organization-specific technologies across the Group. Technology is developed by people, so technology strategy committees implement related human resource measures. Sony offers human resources development programs such as a key technology training course as well as personnel recruitment; this approach accounts for the special features of different technologies, and transcends the boundaries between different Sony Group companies. In addition, Sony has group-wide engineer certification systems – such as the Sony Outstanding Engineer Award*1 and the Distinguished Engineer system.*2 Discussion and judgement for these recognitions are done within the framework of the technology strategy committees.

- ※1 Sony has established a system to recognize Sony Group employees who have developed innovations that create new value for customers, and who have worked hard to solve advanced technical problems.
- ※2 The Distinguished Engineer (DE) designation is a group-wide system for providing recognition to employees who possess outstanding technical expertise and have made a significant contribution to Sony.

Technology Training Courses

At the Sony Group in Japan, approximately 200 Sony engineers with frontline expertise in key technological fields develop curricula and textbooks for use in technology training courses, aiming to enhance the expertise of engineers. These courses, which are designed to provide a basic understanding of technical matters, are attended by more than 5,000 employees every year. In addition, Sony provides a wide array of opportunities for employees to learn about cutting-edge technologies. Among other activities, outside experts are invited to deliver lectures and conduct training workshops, and internal open house events are often held.



Technology training course

Sony enhances the skills of its new recruits by offering them general technological training designed by leading Group engineering experts, as well as specialized training programs developed by each of Sony's business units, which are designed to familiarize the trainees with technologies specific to each business. Furthermore, under the guidance and advice of their supervisors and tutors, the recruits participate in theme-based training carried out at Sony Corporation and several group companies to address issues that they themselves had chosen to work on. While picking up technical skills and know-how, participants also develop a better understanding of the importance of communication and how business is conducted, thereby preparing them to take on challenges early in their careers.

Sony Outstanding Engineer Award

In fiscal 2003, Sony established the Sony Most Valuable Professional (MVP) Award to recognize Sony Group employees who have developed innovations that create new value for customers, and who have worked hard to solve advanced technical problems by applying specialized expertise and knowledge. A total of 263 employees have been honored with the MVP Award, which is the highest honor an engineer at the Sony Group can receive.

In 2016, however, the Group launched a successor to the MVP Award, called the Sony Outstanding Engineer Award. Sony's purpose in launching this new award is to pursue its mission of "being a company that inspires and fulfills your curiosity," and to seek future growth while encouraging engineers to accelerate efforts to take on new challenges.

In order to develop products and services that appeal to customers' sensibilities, there is a wide range of technologies that Sony will have to work on. In addition to elemental technologies, there is also a need to integrate creative new technologies, and to optimize complex systems. Intended to increase the motivation of engineers, such awards have encouraged employees to be proactive in addressing challenges and have also promoted a corporate culture that emphasizes value creation.



Sony Outstanding Engineer Award logo

Distinguished Engineer System

The Distinguished Engineer (DE) designation is a group-wide system for providing recognition to employees who possess outstanding technical expertise in Sony's key technological fields and have made a significant contribution to Sony. The DE system shows that "the face of Sony technology" is important to Sony because it plays a leading role in resolving problems and technology strategies. By publicizing this system group-wide, Sony enables its Distinguished Engineers to serve as role models for younger engineers. The group-wide launch of this system has helped to provide solutions for issues at their respective departments, while creating technology-based inter-organizational ties which can be expected to contribute in many different ways, including human resources development.



Participants of a Distinguished Engineer meeting

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Support for Career Building

Sony has always encouraged its employees to take on new challenges, aiming to develop in tandem with the career advancement of employees. Back in 1966, Sony became first in the Japanese industry to launch an internal recruitment program that has now been in place for 50 years. Encouraging the spirit of challenge among employees, the program 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 7,000 employees have qualified for this program and received internal transfers. The program has become firmly established as an indispensable human resources system.

In fiscal 2015, Sony launched two exciting new human resource systems. One of these is a "free agent" system, under which outstanding employees are allowed to declare themselves "in-house free agents." This gives them the right to take the initiative to seek transfer to new departments and work in new fields of their choosing. Under the other system, called Career Plus, an employee remains at his or her current position but can respond to in-house recruitment calls to take a concurrent position or take part in a project outside their current department. This affords employees opportunities with the chance to make broader use of their expertise and knowledge while expanding their in-house networking.

Sony will expand such initiatives to encourage employees to rise to new



The "Search" web portal at Sony Corporation provides support for human resources development and career building.

challenges, and keep offering employees opportunities to boost their careers by enhancing their experience within the Sony Group.

Moreover, seeking to support employees' growth through work experience, Sony Corporation operates a self-review system under which employees assess their own performance in relation to goals set at the start of each year. The system includes an interview between each employee and his or her supervisor. Since fiscal 2016, Sony has been identifying key behaviors for employees to focus on in their growth. Communication takes place throughout the year to increase employees' awareness and spur growth. This approach is now being adopted by the electronics companies, and Sony Corporation in particular is leading the way.

Sony Corporation designates a Career Month every autumn, 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 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 in thinking about their own career development. This includes information that will be helpful in 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 at Sony Group Companies

<p>Electronics (Japan)</p>	<p>With the goal of developing human resources that can handle a broader range of marketing activities, Sony Marketing (Japan) Inc. has a program for recruiting staff involved in sales and marketing for Sony Interactive Entertainment Inc. and Sony Mobile Communications Inc.</p>
<p>Electronics (USA/Canada)</p>	<p>The Fast Forward Talent Strategy project was started in fiscal 2016 to build North America's talent strategy for the future. The project team was made up of 120 volunteers from the business and was broken down into 3 tracks, each with specific focus: LEAD – creating a system to develop a rich pipeline of diverse talent; GROW – creating an environment where all employees have a blueprint for personal career success; and COMPETE – creating a "Great Place to Work" environment in which all feel valued for their contributions at Sony.</p>

Human Resources

Communication

Sony values employee communication. A corporate culture of good communication benefits employees in many ways. It fosters trust, enhances awareness, and spurs personal and professional growth, all of which lead to further value creation. Sony keeps the lines of communication open in its workplaces and provides many spaces where employees from different workplaces can get together. These initiatives are designed to enhance communication, in accordance with the spirit of freedom, open-mindedness, and progress that Sony was founded on and continues to embrace today.

[Facilitating Dynamic Communication](#)

[Global Employee Survey](#)

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Facilitating Dynamic Communication

Communication between Top Management and Employees

Sony sees communication between top management, including the CEO, and employees as vitally important. Through the corporate intranet, information is provided on progress made in the Group's businesses, and communications are exchanged 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 a very strong focus on these opportunities and frequently visits Sony Group operations worldwide to communicate directly with employees.

Principal Venues for Communication between Top Management and Employees

Electronics (USA)	<p>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.</p> <p>Management and general employees each have a blog through which opinions can be shared, facilitating reciprocal communication.</p>
Movie Business	<ul style="list-style-type: none"> ● Morning coffee sessions are held with the CEO and about 30 employees to give them a chance to speak directly with the CEO. ● Sony has initiated a program to encourage discussions between its executives and members of the so-called millennial generation*, pairing them up so that the executives can learn about how young people consume media and use social media and technology, Unlike traditional mentor programs, this program gives the mentee role to the senior person, and is orientated toward mutually beneficial learning.

Communication between Supervisors and Subordinates

Communication between supervisors and subordinates 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. Daily communication throughout the year increases employees' awareness and spurs growth. In addition, in the autumn each year, Sony runs a Career Month during which supervisors listen to employees' own aspirations for their future career direction and then provide advice based on this dialogue.

Communication among Employees

Sony actively encourages the free exchange of ideas that extend beyond the organization, field of work, and company, by giving employees opportunities to organize and run seminars and workshops or create things with their own hands. For example, Sony employees can access a space called "secret idea base" for their voluntary activities or a space called the Seed Acceleration Program (SAP) Creative Lounge, to share ideas with other employees and people from outside the company, as well as the Nest space for concentrated study. Sony recently opened "BRIDGE TERMINAL", which encourages new bridges between people, things, and ideas.

Sony will continue providing these spaces, which are planned and run on a day-to-day basis by Sony employees, thereby encouraging free discussion that can spontaneously develop into something bigger. Sony also has programs in place to help employees take ideas that are generated in these creative spaces and develop them into new businesses.



secret idea base



SAP Creative Lounge



BRIDGE TERMINAL

Communication between Employees' Families and Workplaces

Held since 2007, Sony Family Day provides an opportunity for employees to invite their family members to their office. The special day allows the family members to better understand Sony's business and the work done by the employees by seeing the actual workplace and talking with staff. It also gives the children who visit a look at a real business in action, inspiring them for the future.

Celebrating the 70th Anniversary of Sony

Sony Sendai FC Official Home Game

The corporate team Sony Sendai FC plays in the Japan Football League (JFL), which represents the top-tier of amateur soccer in Japan. On May 29, 2016, defending first-time JFL champion Sony Sendai FC played an official league game against Honda FC at the Ajinomoto Field Nishigaoka in Tokyo. The game was marked to celebrate the 70th anniversary of Sony and raise funds for victims of the Kumamoto Earthquake. Approximately 3,400 fans including Sony employees and their families and friends cheered on the exciting and hard-fought match between the two major corporate teams.



Match against Honda FC



Sony Sendai FC supporters cheer on their team

Summer Festa

Sony organized the Summer Festa on August 20, 2016 at the Sony City headquarters building to commemorate its 70th anniversary. More than 7,000 Sony Group employees and their families attended the event, where they were able to experience technologies, and services of Sony.

At a special venue called Sony EXPO, the Sony Concert Band opened the festivities, as adults and children enjoyed attractions such as games, live shows, workshops, and vendors organized by Sony Group companies. Special Sony logo goods were sold to eager buyers in order to raise funds for charitable causes, as part of a fun

day immersed in all things Sony.



Sony Concert Band opened the event



Workshop giving children experience with new business planning

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Global Employee Survey

Since fiscal 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 Development. The annual 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, around 80% of employees routinely respond that they understand and identify with Sony's Values and Objectives, indicating a strong awareness that is a key Sony strength. Survey findings are used as feedback to top management and as references for designing human resources strategies. Based on the findings, Sony holds internal workshops to identify organizational issues and create action plans to improve them, as well as meetings to share best practices from the improvement plans of the previous fiscal year. Programs like these help to maintain organizational vitality.

The internal website used for the survey enables global best practices to be shared and promotes direct communication beyond national and regional boundaries to help improve the organization based on the survey's results.

Furthermore, Sony Corporation and its group companies in the electronics business in Japan implement 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.

Human Resources

Occupational Health & Safety

Sony has articulated a philosophy for Sony Group companies worldwide that states, "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." To fulfill this commitment, Sony works hard to secure occupational health and safety and prevent workplace accidents.

Basic Policy and Management System

Occupational Health & Safety
Management System and Global
Initiatives

Global Occupational Health & Safety
Initiatives

Global Workplace Injury Statistics

Helping Employees Stay Healthy

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Basic Policy and Management System

Sony established a Global Policy on Occupational Health & Safety in 1998, with a philosophy stating that "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." This policy is implemented at Sony Group companies worldwide, who work together to secure occupational health and safety.

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

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Occupational Health & Safety Management System and Global Initiatives

Establishing an OH&S Management System

Sony is working to establish its own occupational health and safety (OH&S) management systems based on OHSAS 18001 international standards at each of its sites around the world. Sony also continues to work to ensure compliance with national and regional laws concerning OH&S, as well as to fulfill its own voluntary targets. Sony is acquiring external OHSAS 18001 certification for all manufacturing sites in China and Pan-Asia that have been requested to do so by their clients (30% of all manufacturing sites).

Common Global Programs

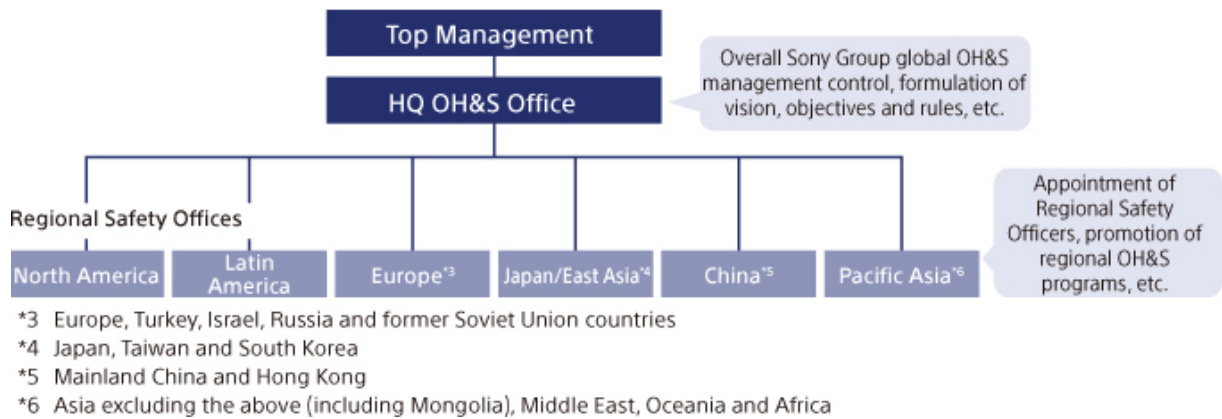
Global Management Structure

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

Management reviews are also conducted for managers each year based on reports covering OH&S activities, including regional compliance with relevant laws and regulations, education and training, and related audits, as well as occupational accidents and other incidents. Each business site has identified occupations in which workers are at high risk for occupational accidents and illness and is taking

steps to reduce risk in priority areas and manage conditions to keep risk low.

In the unlikely event of an accident, each business site investigates the cause and puts measures in place to improve conditions. The Headquarters OH&S department shares detailed information on accidents and injuries with all Group companies around the world to help prevent recurrence and future accidents.



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 Zero" with the ultimate objective of ensuring zero occupational accidents and zero illnesses.



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Global Occupational Health & Safety Initiatives

Japan

At each of Sony's business sites in Japan, an Occupational Health & Safety Committee made up of labor and management personnel meets every month. The committee develops OH&S policies tailored to each business site, and establishes targets, develops action plans, and implements initiatives to secure safe and healthy workplaces.

OH&S managers from Sony Group companies and business sites in Japan gather at a national OH&S conference held one or two times per year. At the conference, they report on OH&S policies, targets, and strategies, and the results are communicated throughout the Sony Group. They also discuss audit results, occupational accidents, target achievement, risk reduction at business sites, and initiatives to maintain and improve health.

Priority Measures in Japan

Sony is working to achieve its Vision Zero goals by pursuing initiatives under a common set of priority measures in Japan to assess risks and enhance employee wellness.

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.

China

Sony's manufacturing sites in China play an important role in the manufacturing activities of the Sony Group. Under the Sony Group Global Policy on Occupational Health & Safety, Sony leverages its accumulated knowledge and experience to secure safe, healthy, and engaging working environments for employees.

Sony operates an OHSAS 18001 occupational health and safety management system in China under the governance of regional safety offices and operated by manufacturing sites. Starting in fiscal 2016, Sony established overall management of safety in the China region and is reinvigorating its OH&S activities, aiming to achieve its "Vision Zero" of ultimately eliminating occupational accidents and illnesses.

As part of these activities, Sony has established a working group that concentrates on occupational safety, among the activities that are horizontally implemented by OH&S managers of all manufacturing sites. The working group shares accident case studies and implements measures to prevent accident recurrence.

Sony systematically implements OH&S in China. In fiscal 2014, hazard maps were developed to identify risks in manufacturing processes, and in fiscal 2015, training was conducted to adopt risk assessment methodologies for the proper identification and mitigation of risk sources. The risk assessment methodologies were partially revised and the methodologies in fiscal 2016 and applied to all manufacturing sites in China.

In addition to initiatives that are horizontally implemented at all sites, each business site implements safety initiatives comprising basic training and drills. Sony has also expanded its collection of occupational accident data to encompass non-manufacturing companies, and strives to reduce occupational accidents throughout the Sony Group in China. As a result of these efforts, the number of occupational accidents at Sony sites in China has continued to decrease for the last four years. In fiscal 2017, Sony will continue implementing its existing initiatives while using risk assessments to further reduce risks and the rates of occupational accidents.

Additionally, traffic accidents have become common in China as economic development has sharply increased the number of cars on the road. In an effort to reduce accidents while commuting by bicycle or electric scooter, Sony has been implementing safety education since fiscal 2014. This includes safety clinics and development of safety brochures that are handed out to employees. Sony has set a goal to achieve a 30% reduction in traffic accidents in 2017 and will pursue safety initiatives in cooperation with regional offices and business sites.



Fire drill at Shanghai Suoguang Visual Products Co., Ltd.



100-day safety campaign at Shanghai Suoguang Electronics Co., Ltd.



Traffic safety education at Shanghai Suoguang Visual Products Co., Ltd.



Near-miss accident prevention measures at Sony Precision Devices (Huizhou) Co., Ltd



Fire evacuation drill at Sony Precision Devices (Huizhou) Co., Ltd.



Safety education competition at Sony Precision Devices (Huizhou) Co., Ltd.

North America

Wellness

In North America, Sony has continued the wellness program that covers employees and, in most cases, 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 partners live healthy, active lives. Participants have access to health risk assessments, on-site biometric screening (during which employees are given their body mass index (BMI), glucose number, total cholesterol number (HDL and LDL) as well as triglycerides number), 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). Employees can receive incentives for participation in such health-promoting programs. The incentives include various drawings done by Redbrick Health for those employees who participate in the programs.

The Sony DADC Terre Haute facility continues to manage an onsite Fitness Center for employees to have access to exercise equipment. The SEL San Diego location also has an on-site fitness center that offers exercise equipment and various classes led by fitness trainers.

Other wellness activities are in place as well. Sony of Canada has a salad bar to encourage good eating and good health for Sony employees. Sony San Diego has instituted a weekly farmers' market set up in a parking lot outside the building that sells fruits, vegetables and other local produce. The site cafeteria also has nutritional choices available and makes nutritional information and calorie information available to employees. Sony Nuevo Laredo has a 5-minute employee exercise program that is done twice daily and includes several different types of exercises. The program is conducted by trained leaders, using a video that was made with the assistance of a government safety and health organization.

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 appropriate, industrial hygiene surveys are conducted.

Risk Control Audits and Recommendations

Corporate 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 are audits by insurance companies and agents. 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. The inspections are 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 agents 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.

In addition, in compliance with Sony corporate guidelines, job risk assessments are reviewed to ensure that they are all up-to-date and still reflect the job being performed. Both routine and non-routine jobs are included in this review.

Chemical Safety Information

Each Sony site in the U.S. has a revised written Hazard Communication Program for chemicals in place, including information on safety data sheets (SDS), labelling and training. The revisions are based on the changes to the U.S. Hazard Communication OSHA Standard, which brought it closely in line with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Employees in the U.S. with exposure to potentially hazardous materials received additional training. New chemical labels and SDS required by the revisions are in place in the workplace. Operations in Canada have been undergoing similar changes to the national Workplace Hazardous Materials Information System (WHMIS) standard, starting last year. Operations in Mexico are also working toward new GHS regulations. 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. Sony Electronics Inc. has placed AEDs in each facility with 100 or more employees. Sony Corporation of America implemented a program to place at least one AED Unit at every site that comes under the SCA umbrella. Employees at each site with an AED 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.

Middle and South America

Articles on SBR Manaus OHS initiatives/activities

Sony Brasil Ltda.

Sony Brasil, at its unit in Manaus in Brazil, has made it a primary objective to promote the health and well-being of its employees. It pursues continuous improvements in order to maintain good conditions and a safe work environment. SBR has been working to establish OSH campaigns, internal audits focused on health, safety and the environment, thus creating more robust processes, including the events described below.

Emergency Brigade Training

Annually, the company trains people to volunteer for the emergency brigade, to attend and control emergency situations. The training includes topics such as firefighting, chemical leaks, explosions and first aid.



Fire fighting



Use extinguisher



Rescue victims

Internal Committee for Accident Prevention

In order to prevent labor accidents and/or illnesses, Sony Brasil, based on Federal Normative Instruction 05 issued by the Ministry of Labor in Brazil, performs elections for its Internal Committee to assist OH&S professionals in preventive actions, labor risk assessment and others.



Selection of internal auditors

Dialogues on how to mitigate risks and reduce accidents to zero.



Workplace discussions

In addition to the legal services in Brazil, we take care of the main programs listed below with the help of our collaborators.

Preparation of Program of Risk Prevention: A program to identify, assess and control environmental risks in the SBR workplace, in order to preserve the health and assure the physical integrity of workers.

Ergonomic analyses of SBR workstations: This ergonomics program helps to study the work environment and improve jobs. The physical therapist does the ergonomics monitoring in conjunction with the company's SESMT in order to monitor employees in occupational illness situations and prevent new cases.

Evaluation by occupational physiotherapist of employees with related complaint: The physical therapist does the ergonomics monitoring in conjunction with the company's SESMT in order to monitor employees in occupational illness situations and prevent new cases.

Regular health examination of employees (according to law): Employees undergo specific medical examinations.

Supervision and training of employees working with chemical products.

Europe

OH&S Risk Reduction Program

In Europe, Sony has identified OH&S management as a top priority and has implemented an OH&S risk reduction program since 2004. The program aims to lower OH&S risk by reducing occupational accidents and strengthening the health and well-being of employees.

This program is based on three main initiatives:

1. Risk assessment;
2. Mandatory OH&S training for all employees; and
3. Accident/incident investigation and follow-up.

Program implementation and performance is reviewed by senior management at annual European management review meetings and during corporate audits.

Sony Europe is committed to ensuring the safety of Sony workplaces in Europe through a variety of OHS programs.

Health Promotion

In addition to risk management initiatives to reduce occupational incidents, Sony sites in Europe have been focusing also on health promotion. The benefits of this approach are multiple: improvement of employee's health, increased motivation and productivity, and reduction of employee absence from work.

One Fit at Sony DADC

Sony DADC pursues an original holistic health promotion program called "One Fit Sony DADC." The program aims to promote a healthy lifestyle and sets activity incentives to help each employee health and personal well-being. It offers trainings and support in four areas: sports, prevention, coaching and nutrition. Employees' active participation in One Fit Sony DADC activities leads to a strong commitment, high motivation and, consequently, improved work quality. In the past year, the activities included nutrition lectures, cooking courses, free fruit baskets, first aid courses, boxing training, Nordic walking, running, hockey, mini-workouts, and smoking cessation.



Participants of Sony DADC in Austria at the Salzburg Marathon



Participants of Sony DADC in Austria at a Hockey Game

OHS Training

At Sony sites in Europe, management considers safety awareness to be fundamental and always looks for innovative ways to enhance the awareness rate and reduce the number of related injuries.

The UK Technology Centre in Pencoed, UK has highly visible OH&S topics included in its induction training, awareness initiatives and communication tools. All newcomers receive a three-day induction training, out of which one full day comprehensively covers OH&S together with environmental topics.

As a European program, the regional safety office has launched chemical safety e-learning. The training emphasizes the importance of awareness and cooperation, proper storage of chemicals in the workplace and usage of safety data sheets as well as usage of personal protective equipment. All operators dealing with chemicals at Sony sites in Europe were within the scope of the training.

Pan-Asia

Sony's Pan-Asia sites employ individuals from 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 through training and education. Different types of events, which are intended to enhance and raise safety awareness, are held by

Sony Group companies across the Pan-Asia region.

In fiscal 2016, Sony Technology (Thailand) Co., Ltd. in Bangkok & Chonburi organized a series of health & safety activities, such as alcohol screening activities for safety driving, annual health checkups for employees, and safety training for construction contractors. Meanwhile, the Sony Group companies in Singapore organized WSH Day at two sites, where they held safety games & CPR/AED training. In India, Sony India Software Centre Pvt. Ltd. organized a health awareness activity on mosquito-borne dengue fever as well as road safety training for drivers this fiscal year. In addition, Penang Tec of Sony EMCS (Malaysia) Sdn. Bhd. held a World Safe Day in the workplace with a health promotion talk on site for all employees.

Lastly, KL Tec of Sony EMCS (Malaysia) Sdn. Bhd. was awarded the Occupational Safety and Health Recognition Award by Malaysia Government Agency Department of Occupational Safety and Health (DOSH).



Alcohol screening activities at Sony Technology (Thailand)



Annual health checkup at Sony Technology (Thailand)



Safety training for construction contractors at Sony Technology (Thailand)



WSH Day at Sony group companies in Singapore



WSH Day at Sony group companies in Singapore



Health awareness activity against mosquito-borne dengue fever at Sony India Software Centre



Road safety training for drivers at Sony India Software Centre



Health promotion talk at Penang Tec of Sony EMCS (Malaysia)

Sony Pictures Entertainment

Global

- SPE continues to expand the capability of its emergency notification system, Everbridge. All SPE employees are currently enrolled and the system is being integrated into the evacuation drill protocol. New smartphone applications are being evaluated for further employee communication. These applications focus on providing emergency information to employees via information residing on their smartphones, thereby improving capabilities for our Incident Assessment Team (IAT), business continuity planning and crisis management programs.
- The OH&S team consistently conducts outreach to offices through OHS awareness sessions, safety compliance consultations and by providing ergonomic assistance to employees.
- In 2016, SPE expanded its collection of injury data to all worldwide offices and

increased the amount of data collected from each injury. The effort now covers over 8,900 employees and contractors globally. The information gathered helps determine where to focus future efforts in order to improve safety and wellness for all employees globally.

North America

- At Sony Pictures Studios, improvements were made to roof fall protection systems addressing leading edge and skylight adjacent work. Additional improvements are in the design phase.
- A detailed dust analysis was also conducted to verify no explosive dust danger exists during dust cleaning operations of our sound stages. Testing demonstrated no significant risk.
- SPE plans to implement additional sit/stand desks at its facilities. This effort will increase the proliferation of these ergonomic tools above the 2,500 sit/stand desks already installed at various North American facilities including the 8-story Akio Morita building at Sony Pictures Studios, and offices in New York and Vancouver. This program continues the effort initiated in 2013 when SPE conducted a scientific study demonstrating the employee health benefits from using sit/stand desks. The study showed an increase in good cholesterol (HDL) when using sit/stand technology, which is similar to what athletes experience when they exercise on a regular basis.
- The production safety manual for all USA motion picture and TV productions has been improved and streamlined from over 650 pages to 275 pages. The number of documented safety and environmental topics was increased and it was formatted in Adobe Acrobat to allow editable forms. The manual is now accessible on online platforms. The Canadian production safety manual will be addressed next.
- Consulted with SPE Facilities and other relevant stakeholders to improve process for new building construction and supported their efforts to revise the employee density standards.

EMEA

- SPE engaged its Regional Crisis Response Team during several European crises this past year. Crisis Response Plans for EMEA office locations continue to

expand.

- SPE has now placed AEDs throughout its London (2), Gdynia and Budapest offices to meet the Sony required 2-minute call to shock time. Plans are in place to expand the placement of AEDs in additional offices throughout EMEA.
- The UK Safety Policy for motion picture and TV productions is slated to go through the same transformation as the US and Canadian production safety manuals.
- A "Young Person's" H&S policy is being developed to help address specific challenges faced by child production employees and interns.
- A Fire Safety Awareness training program is being developed for introduction to all EMEA offices.

Asia Pacific

- SPE has established a Regional Crisis Team and has completed validation and testing of Crisis Response Plans and Emergency Procedures for key offices in the region.
- Consultations on OSH legal, regulatory compliance and Safety Awareness Sessions in various offices in the region are ongoing.
- AED review and provisioning for selected offices to meet the Sony required 2-minute call to shock time.
- The injury data collection now covers India business operations across multiple cities with an estimated full-time employee and contractor headcount of 1,184.

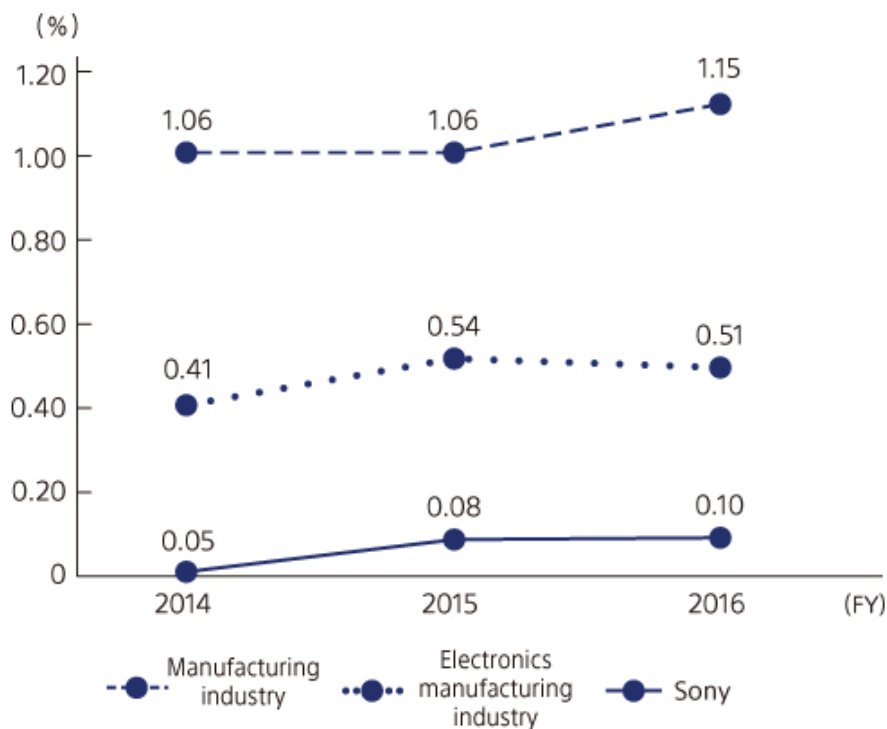
Human Resources

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Global Workplace Injury Statistics

Since fiscal 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, accident, injury/illness, cause, and the related practices of Sony Group companies, in order to help prevent recurrences.

Workplace Accident Frequency Rates*1



*1 Figures for Sony refer to the frequency rate of accidents causing one or more days of absence from work at the Sony Group's manufacturing and logistics sites in Japan. Figures for the manufacturing industry and the electronics manufacturing industry are based on the Fiscal 2016 Survey on Industrial Accidents published by the Ministry of Health, Labour and Welfare of Japan.

Workplace Accident Statistics in Japan

	2014	2015	2016
Number of accidents	23	35	22
Number of accidents causing absence from work	3	4	6
Number of lost workdays	122	150	69
Frequency rate of accidents causing absence from work	0.053	0.075	0.096
Accident severity rate	0.012	0.010	0.009
Number of deaths	0	0	0

Scope of data: 33 sites (excluding non-manufacturing sites)

Reference:

Comparative Statistics for Fiscal 2016

Average frequency rate in Japan: 1.63 for all industries, 1.15 for all manufacturing industries, 0.51 for the electronics manufacturing industry

Average severity rate in Japan: 0.10 for all industries, 0.07 for all manufacturing industries, 0.05 for the electronics manufacturing industry.

Source: Fiscal 2016 Survey on Workplace Accident Trends (Ministry of Health, Labour and Welfare of Japan)

Workplace Accident Statistics outside Japan

	2014	2015	2016
Number of accidents	377	274	223
Number of accidents causing absence from work*2	120	75	78
Number of lost workdays*2	1,518	1,485	1,408
Frequency rate of accidents causing absence from work	1.109	0.624	0.664
Workplace accident severity rate	0.012	0.012	0.011
Number of deaths	0	0	

Scope of data: 32 sites (excluding non-manufacturing sites)

Formulas:

Frequency rate of accidents causing absence from work = Number of accidents causing one or more days of absence from work ÷ total number of man-hours worked × 1,000,000

Accident severity rate: Number of lost workdays ÷ total number of man-hours worked × 1,000

- *2 Due to changes to reporting criteria enacted in fiscal 2016, figures from past fiscal year reports have been recalculated and may differ from those appearing in the original reports from those years.

Human Resources

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Helping Employees Stay Healthy

Sony's Health Management System

Sony aims to provide its employees with dynamic and appealing working environments, an approach that extends to health and productivity management, which is critical to both the company and individual employees. To create this kind of environment, it is vital to maintain conditions that enable each employee to work with a sound body and mind far into the future.

In cooperation with Sony Group companies, Sony Corporation's occupational health department carries out a wide range of activities aimed at securing the health of employees worldwide. These include offering regular health counseling sessions, posting health information on the Internet, and encouraging daily exercise.

Measures to prevent lifestyle diseases, limit excessive overtime, and promote mental health have become more important than ever in recent years, as work becomes more complex, evolves with organizational changes, and features an increasingly diverse array of tasks. Employees who work overtime receive personalized guidance from an occupational health physician and follow-up counseling from an occupational health nurse. Managers receive training on mental health issues to encourage early detection and prevention. Sony has also established in-house and outsourced physical and mental health counseling services for employees so that they can discuss any type of concern or problem, include work-related issues, with professionals in a relevant field.

Promoting Mental Health

Along with its activities to promote employees' health and manage related risks, Sony implements comprehensive mental health support measures with the aim of helping employees demonstrate their full potential. Sony makes its health counseling services known to employees via email and its internal website, offering them access to counseling in face-to-face sessions or by telephone or email. Employees can receive health counseling from Sony's staff of professionals, seek guidance from managers and human resources personnel, as well as obtain referrals to medical specialists and related information when needed.

Sony provides a mental health training program for various levels of employees and management, including new employees, newly promoted managers, and general managers. In addition, all employees receive self-care education on mental health. Based on the Stress Check System, which was required by a law enforced in December 2015, Sony introduced stress checks in fiscal 2016, conducting both individual interviews with employees and group analysis. Sony's human resources department and occupational health department work together to provide the support for stress management.

In addition, Sony has put a program in place to help employees return to work after taking a leave of absence. In cooperation with an outsourced employee assistance program, Sony offers such employees assistance with readapting to the workplace according to their individual circumstances. Sony also has a mental health program for helping employees cope with unforeseen accidents or disasters, such as a major earthquake. Implemented whenever necessary, the program provides such employees and their families with the assistance they need.

Addressing Overtime and Employee Health

The negative effects of working overtime are a hot topic nowadays, and the

Japanese government is taking action to reduce overtime.

In 2001, the Ministry of Health, Labour and Welfare of Japan issued a notice detailing criteria for determining cerebrovascular disease and ischemic heart disease, which pointed out the link between overtime work and health problems. Then in February 2002, the Ministry issued comprehensive guidelines for preventing health problems caused by overwork, which were passed into law in April 2006, and measures were then outlined to be taken by business operators.

Japan's Act on the Promotion of Measures to Prevent Death from Overwork, etc., went into force in November 2014, based upon which a cabinet decision set forth the Framework on Measures to Prevent Death from Overwork, etc., on July 24, 2015. On January 20, 2017, the Ministry issued new guidelines regarding measures that employers should take to properly monitor working hours. Additionally, the Japanese government is promoting "work style reforms" aimed at changing labor customs in Japan and improving working conditions. These changes highlight the urgent need to address overtime work through stronger measures.

Ahead of these changes, Sony has been implementing health consultations for employees who work overtime since April 2004, as part of its efforts to address overtime and employee health. Sony is comprehensively dedicated to promoting the health of its employees and preventing health problems.

Preventing Lifestyle Diseases and Promoting Good Health

Preventing lifestyle diseases caused by irregular eating habits, lack of exercise, and other factors is a major challenge for employees working at companies. Sony makes sure that employees undergo various types of medical checkups in accordance with relevant laws in Japan, and then receive personal health advice based on the checkup results, as well as support for visiting specialists at medical institutions if needed. Sony also focuses on counseling and advice on dealing with

metabolic syndrome, per Japan's mandated health guidance system.

Helping Employees Quit Smoking

Sony actively promotes campaigns for encouraging employees group-wide to give up smoking. Having already eliminated separate smoking areas from workplaces, Sony installed e-cigarette permitted areas in 2016. Sony has been gradually reducing the number of smoking rooms, removing cigarette vending machines, and prohibiting the sale of cigarettes on its premises. Meanwhile, Sony encourages its occupational health staff to speak specifically with employees about quitting when giving health guidance. These initiatives have led to a steady decline in the employee smoking rate, which has fallen below 12% at Sony Corporation.

Responding to Infectious Diseases

With today's increasing globalization, it is becoming easier than ever for infectious diseases to spread. In recognition of these circumstances, Sony asks its employees to receive vaccinations when necessary if they work in or travel on business to countries at risk. Sony provides safety bulletins and information on infectious diseases on its website for employees taking business trips to keep them aware of risks, and limits business travel as a safety precaution depending on the circumstances. In Japan, if there is an outbreak of a new strain of influenza, tuberculosis, or other illness, Sony cooperates with the government and sets up emergency response teams at each of its divisions in order to respond flexibly while staying ready to implement business continuity plans.

Health Management for Employees Transferred Overseas

At present, Sony employees and their family members from Japan are stationed in 39 countries worldwide. This is why Sony has established a health management

system that ensures that staff transferred abroad or traveling on business can work in safety and good health when they change workplaces. Under the system, these employees and their family members receive medical checkups before leaving Japan, after returning to Japan, and when visiting Japan each year. Sony has set specific items for health checkups for staff transferred abroad, which are more thorough and comprehensive than legally mandated standards. Like employees in Japan, employees transferred abroad receive follow-up support after medical examinations as a means for helping maintain their health on a regular basis. They also receive healthcare education before traveling abroad, get vaccinations, and are provided with information on medical facilities in the areas where they will work if they require ongoing medical treatment. Sony has put measures in place for raising awareness of personal health management, including preventative medicine and risk assessments.

Human Resources

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External Evaluation

Sony Corporation was awarded the highest level of "Eruboshi" certification by Japan's Minister of Health, Labour and Welfare in recognition of its outstanding performance in promoting women's interests. This recognition was granted because Sony was found to satisfy all five criteria set out in the Act on Promotion of Women's Participation and Advancement in the Workplace: (1) hiring; (2) continuous employment; (3) work hours and other working conditions; (4) women's share of management positions; and (5) diversity in career path options.

The Sony Group in Japan received a gold rating in the 2016 Pride Index for its LGBT initiatives. The Group's rating highlighted its equal treatment policy for same-sex partners and heterosexual spouses in its employee benefit and welfare system. *

Moving forward, Sony will continue working in line with its Diversity Policy to build a work environment where employees will all be able to fully demonstrate their individuality and abilities, and diverse human resources can play major, meaningful roles.

* The employee benefit and welfare system includes recognition of transfers to new posts away from family and separation allowances, congratulatory and condolence payments, congratulatory and condolence leave, school bag presentation ceremonies, Sony Family Day (family visits to the workplace), babysitter/child care subsidies, childcare leave, reduced working hours for childcare, care receiver conditions under the nursing care-related system, and eligibility for Sony Family Cards.



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](#)

[LGBT Initiatives by Sony Group around the World](#)

[Promoting Work-life Balance](#)



Responsible Supply Chain



Management Approach

Materiality Rationale

In recent years, stakeholders have grown increasingly aware of how crucial it is that companies fulfill their overall responsibilities throughout their supply chains, including procurement and production. Sony takes these stakeholder concerns seriously and is working closely with its suppliers on initiatives in fields such as human rights, labor conditions, health and safety, and environmental protection. These initiatives cover not only Sony's own sites, but sites throughout the supply chain—from parts and material suppliers, to mineral mining operations, to production sites operated both by Sony and by subcontractors.

Basic Approach

The foundation of Sony's efforts to build a responsible supply chain is the compliance of each and every director, executive, and employee with the Sony Group Code of Conduct and ethical business practices. Based on this approach, Sony focuses on supply chain management and responsible procurement of raw materials and works with suppliers and subcontractors to establish a responsible supply chain that ensures compliance with the Sony Supply Chain Code of Conduct. These efforts are undertaken in collaboration with relevant industry organizations and other stakeholders.

Structure

At Sony, the CSR and compliance groups at the head office, and the human resources & general affairs and procurement groups at Sony Global Manufacturing & Operations Corporation (SGMO), 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 at the head office formulates group-wide supply chain management policy. With guidance from the corporate executive officer in charge of production and procurement, the representative director and president of SGMO is responsible for the implementation of the policy. In addition, Sony has a Supplier Hotline to receive complaints. This helps to ensure more responsible sourcing.

Main Achievements in Fiscal 2016

Here are the main results of fiscal 2016 initiatives:

- Sony conducted CSR self-assessment survey of 20 of its manufacturing sites in Japan, China, Korea, Singapore, Thailand, Malaysia, the UK, Mexico, and Brazil.
- Sony conducted CSR assessments of 175 of its suppliers.
- Secondary suppliers were requested to comply with the Sony Supply Chain Code of Conduct.
- Sony launched a fire prevention initiative to support safety management at supplier facilities.
- Sony implemented an annual survey of use in relation to the four designated minerals under US law on conflict minerals.
- Sony was one of the initial participants in the newly launched Responsible Raw Materials Initiative (RRMI).

Assessments conducted at **20** electronics manufacturing sites at Sony and **175** suppliers



Participated in Responsible Raw Materials Initiative (RRMI)



Secondary suppliers requested to comply with the Code of Conduct



Looking to the Future

In order to further strengthen efforts to establish a responsible supply chain, Sony will expand assessments of its own sites and its suppliers, for example by having primary suppliers request secondary suppliers to comply with the Sony Supply Chain Code of Conduct. Sony remains committed to ongoing efforts to raise awareness, educate, and provide training in order to focus the attention and boost the capacity of Sony employees-likewise for supplier employees engaged in the supply chain-to respond effectively to responsible supply chain issues.

Activity Reports

Supply Chain Management	Supply Chain Management Home	Establishing and Promoting the Sony Supply Chain Code of Conduct
	Initiatives at Sony Electronics Manufacturing Sites	Sony's Approach to Supplier Relations
	Working with Industry Groups and Other Stakeholders	

**Responsible
Sourcing of
Raw Materials**

**Responsible Sourcing of
Raw Materials Home**

**Addressing the Issue of
Conflict Minerals**

**Responsible Procurement
of Raw Materials for
Environment and Human
rights**

Responsible Supply Chain

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Supply Chain Management

Sony supply chain management focuses not only on its own production sites, but also on those of suppliers and subcontractors.

[Establishing and Promoting the Sony Supply Chain Code of Conduct](#)

[Initiatives at Sony Electronics Manufacturing Sites](#)

[Sony's Approach to Supplier Relations](#)

[Working with Industry Groups and Other Stakeholders](#)

Responsible Supply Chain

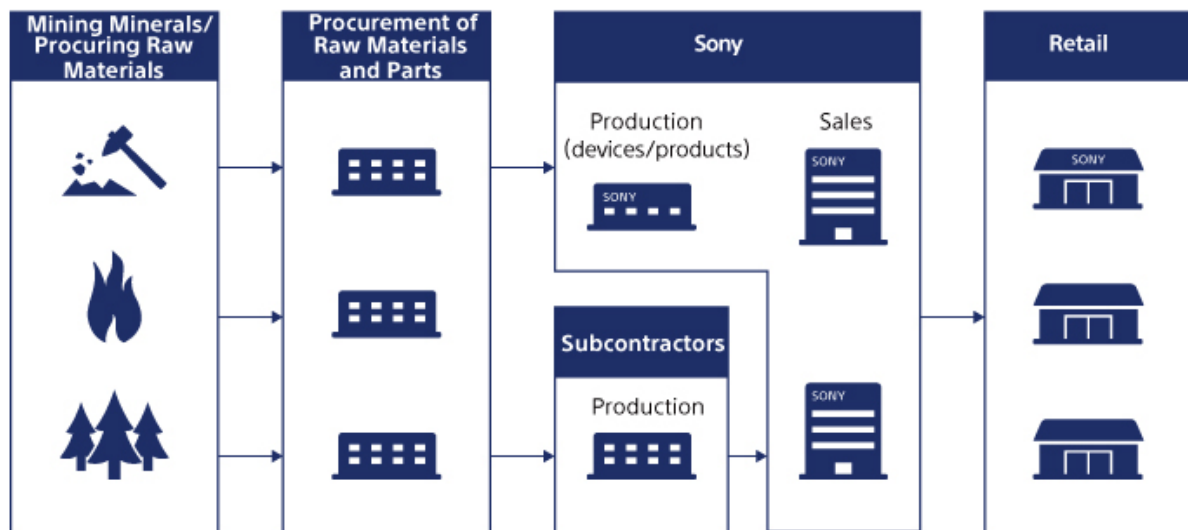
Updated on August 23, 2017

Establishing and Promoting the Sony Supply Chain Code of Conduct

Basic Approach

Sony recognizes the increasing importance of global companies' responsibility to manage their supply chains responsibly as diligent members of society and is taking a variety of steps to structure a responsible supply chain. Sony works with its suppliers to address issues such as human rights, labor conditions, health and safety, and environmental protection throughout its supply chain.

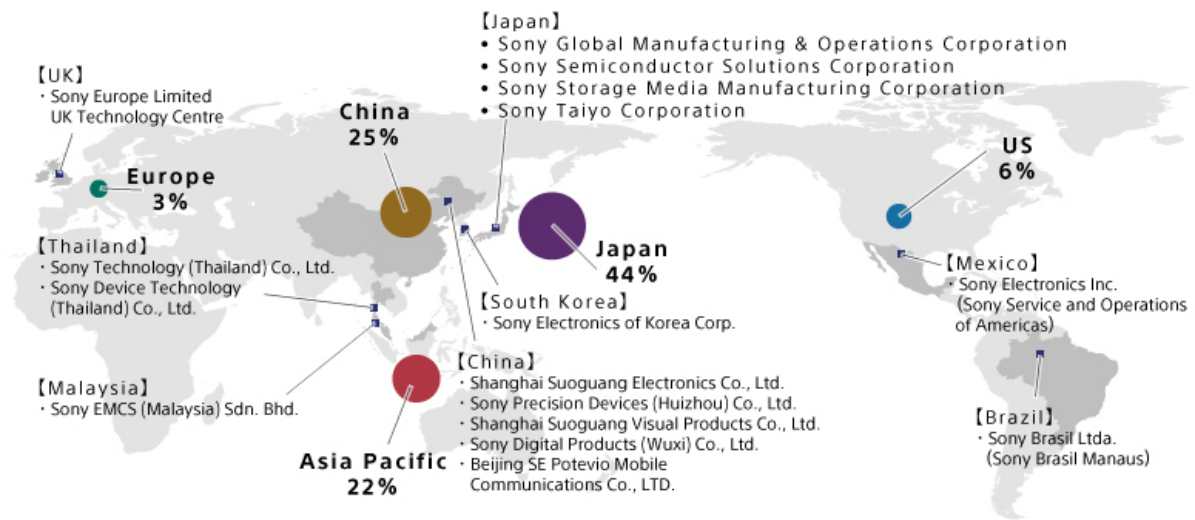
Basic Structure of the Supply Chain



Sony Supply Chain

The Sony supply chain stretches across the entire globe. The Group has its own electronics manufacturing facilities in Japan, China, South Korea, Singapore, Thailand, Malaysia, the UK, Mexico, and Brazil. Also, 44% of the suppliers' manufacturing facilities are located in Japan, while 6% are in the US, 3% are in Europe, 25% are in China, and the remaining 22% are in the Asia-Pacific region.

Sony Supply Chain



[Electronics manufacturing facilities at Sony]

■ Countries and facility names

[Geographic breakdown of suppliers' manufacturing facilities]

■ Japan ■ US ■ Europe
 ■ China*1 ■ Asia Pacific*2

*1 China (mainland) and Hong Kong

*2 Southeast Asia, Oceania, India, South Korea and Taiwan

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

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

Establishing the Sony Supply Chain Code of Conduct

In recent years, stakeholders have become increasingly concerned about manufacturers' responsibilities in relation to the product supply chain, including issues related to human rights, labor conditions, health and safety, and environmental protection, not only at their own production sites, but also at the production sites of subcontractors and parts suppliers. Conduct at Sony production sites is guided by the code issued by the Electronic Industry Citizenship Coalition (EICC), a CSR alliance for the electronics industry which Sony joined when the alliance was established in 2004. All Sony electronics manufacturing sites are involved in ongoing efforts to ensure compliance with the EICC Code of Conduct, which represents industry best practices. Recognizing that parts suppliers, subcontractors in design and production, and other partner firms are all involved in the production of Sony products, and seeing the need to address these issues within a framework that meets Sony's standards, in 2005 Sony established the Sony Supplier Code of Conduct, based on the EICC Code of Conduct.

To enhance its CSR management in the supply chain, in 2016 Sony established the Sony Supply Chain Code of Conduct. This code adopts the EICC Code of Conduct to govern manufacturing processes at both Sony's own electronics manufacturing sites and those of its suppliers.

As part of the requirements under this Code of Conduct, Sony asks that its suppliers comply with items required in its Green Partner Environmental Quality Approval Program and the Sony Group Conflict Minerals Policy.

 [Sony Supply Chain Code of Conduct](#)

Sony's Structure for Promoting Supply Chain Management

At Sony, CSR and compliance groups at the head office, and Sony Global Manufacturing & Operations Corporation (SGMO), 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 Sony CSR group at the head office communicates with external stakeholders to monitor trends and best practices, drawing on both to formulate basic company-wide supply chain management policy. With guidance from the corporate executive officer in charge of production and procurement, the representative director and president of SGMO is responsible for the implementation of the policy, which is operated by the human resources & general affairs and procurement groups of SGMO serving as the administrative office. The administrative office is responsible for the general execution of the Operational Rules for the Sony Supply Chain Code of Conduct, which includes ensuring compliance with the Code at electronics manufacturing sites both at Sony and its suppliers, conducting risk assessments and regular monitoring, and implementing necessary improvements. The office is also working to provide training opportunities to build the capacity of those involved with Sony and its suppliers.

In cases where assessments or external sources indicate any possibility of violations of the Sony Supply Chain Code of Conduct or a material legal violation, or in cases where the supplier does not provide adequate cooperation with assessments and audits, the person in charge works together with the CSR and compliance groups at the head office to determine the facts and take action deemed necessary, and the situation is immediately reported to the corporate executive officer in charge of production and procurement.

Responsible Supply Chain

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Initiatives at Sony Electronics Manufacturing Sites

Conducting Regular Assessments

Sony has introduced the EICC framework, including tools for measuring compliance with its standards, to its production plants and implements regular assessments and monitoring to check on compliance and make improvements. Specifically, Sony utilizes the EICC questionnaire as an annual CSR self-assessment survey at all of its electronics manufacturing sites in and outside of Japan as part of its efforts to ascertain compliance with the Sony Supply Chain Code of Conduct. The self-assessment evaluates compliance in five categories designated by the EICC Code of Conduct: labor, health and safety, ethics, environment, and management systems. At manufacturing sites where self-assessment surveys indicate issues with compliance, and further evaluation and improvement in these areas are deemed necessary, the site is audited to develop the appropriate measures to improve compliance. These measures are implemented and, when necessary, an EICC audit is conducted of the site. In fiscal 2016, 20 manufacturing sites in Japan, China, Korea, Singapore, Thailand, Malaysia, UK, Mexico and Brazil completed self-assessment surveys. The survey did not identify any areas of major non-compliance with Sony standards. In cases where any possibility of violations of the Sony Supply Chain Code of Conduct is reported by external sources, such as NGOs or media reports, the manufacturing site in question determines the facts of the case. If this determination confirms the reported violations, Sony ensures that appropriate action is immediately taken, including an EICC audit conducted by a third-party auditor.

Third Party Assessment of Labor Conditions for Foreign Workers Employed at Manufacturing Sites in Malaysia

There is mounting social pressure on global corporations to conduct human rights due diligence for their supply chains. For example, the United Kingdom enacted the Modern Slavery Act to prevent modern forms of slavery such as forced labor in supply chains. Malaysia in particular has many foreign workers who are employed at manufacturing facilities for electronic products and components. An international human rights non-governmental organization has issued a report citing forced labor conditions among foreign workers in Malaysia's electronics industry. The practices cited include workers being charged excess commissions upon hiring and employers retaining workers' passports, making it difficult for workers to get their passports back when they needed them. These conditions limit the freedoms of foreign workers who are living away from their home countries, leading to forced labor conditions.

Sony also employs many foreign workers at its manufacturing sites in Malaysia. In response to social concerns over forced labor, Sony commissioned a third-party assessment involving a fact-finding survey and risk identification regarding employment of foreign workers and their labor conditions at Sony manufacturing sites in Malaysia in fiscal 2016. The assessment was conducted by the non-profit Business for Social Responsibility, which provides its member companies with research and consulting services relating to corporate social responsibility. The third party assessment was implemented by interviewing management, human resources personnel, and foreign workers from Indonesia, Nepal, Myanmar, Vietnam, and Bangladesh, as well as interviewing temporary staffing agencies acting as intermediaries for foreign workers either in their home countries or Malaysia. Personnel from the CSR department in Japan were dispatched to Malaysia to observe the assessment, which covered the entire process from before hiring (prior to leaving the home country) to actual hiring and conditions after termination of employment (after expiry of the employment contract). The

assessment did not find any cases that qualified as serious legal violations, but identified some areas for improvement that Sony is currently working to address. For example, the assessment found that living conditions for foreign workers hired through temporary staffing agencies could be improved in terms of the cleanliness of dormitories, living space provided, and surrounding environment. Sony is working with temporary staffing agencies to make improvements by implementing follow-up visits to dormitories, as well as citing agencies that have made positive improvements and sharing their initiatives among agencies.

Responsible Supply Chain

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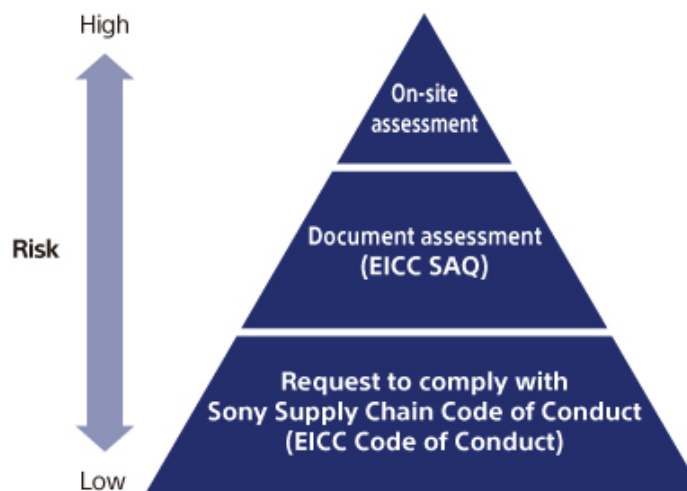
Sony's Approach to Supplier Relations

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

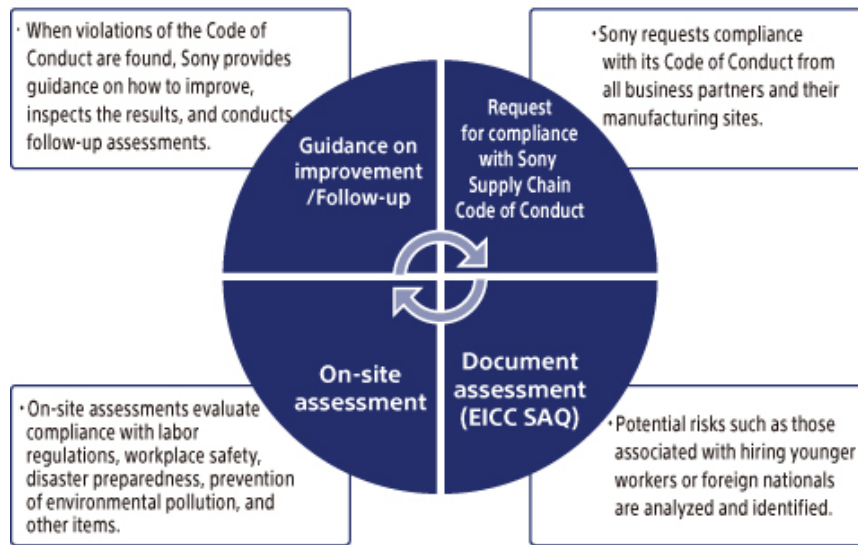
Sony established the Sony Supply Chain Code of Conduct to ensure that suppliers understand Sony's expectations in more detail. Suppliers of products and materials to Sony are required to observe this code.

As part of its effort to ascertain supplier compliance with the Sony Supply Chain Code of Conduct, Sony conducts assessments worldwide. To this end, Sony uses the concept of risk assessment to determine risks associated with the country and region in which each supplier is based, as well as risks associated with the scale, status and nature of the supplier's business, and tailors its assessments, such as its CSR self-assessment using EICC questionnaires, to the supplier's risk level.

Risk-Based Supplier Assessment



Process of Assessment and Monitoring

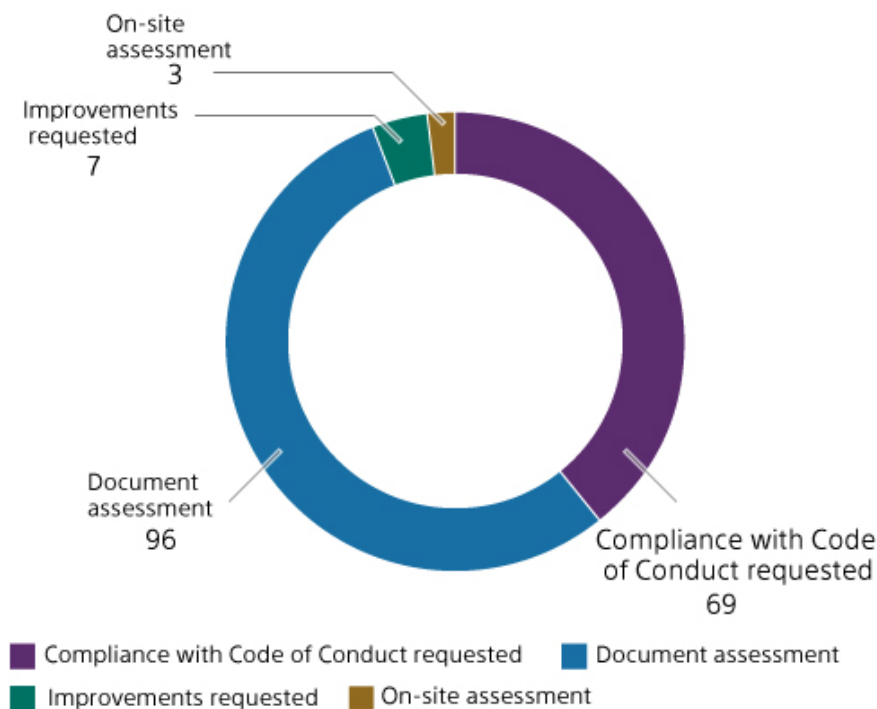


Sony asks suppliers to assess themselves using EICC questionnaires. The assessments are repeated each year for major OEM suppliers with whom Sony does sizable business. Based on the results of these assessments, Sony evaluates the degree to which suppliers are complying with the Sony Supply Chain Code of Conduct and whether violations have occurred at each of the suppliers' factories. As part of its risk assessments, Sony conducts on-site assessments of suppliers it deems to be subject to risks in order to confirm how their factories are being managed.

For example, if suppliers employ students, Sony's internal procedures provide that Sony directly visits their factories to check whether any workers are younger than the legal age limit in that country, and to confirm whether the health and safety of younger workers are being affected by their jobs due to long working hours, working night shifts, and other factors. Likewise, if suppliers employ foreign workers, Sony's internal procedures provide that Sony confirms whether such workers are subject to forced labor, whether dormitory facilities provided to those workers meet international standards, and whether the working environment is clean and safe. By inspecting factories and providing direction in this way, Sony ensures that suppliers are making every effort to comply with CSR standards.

In fiscal 2016, Sony completed assessments of 175 suppliers, including document assessments of 106 suppliers. The document assessments identified seven suppliers who were associated with a high risk, all of which received guidance on making improvements. On-site assessments were conducted for three supplier facilities that were identified as being at risk of violating the Code of Conduct. Guidance was provided on how to develop improvement plans related to issues identified in these assessments and follow-up assessments were conducted until which time it was determined that improvements had been completed. Sony found that, in general, suppliers identified to be at risk tend to have issues requiring improvement in the area of occupational health and safety management systems and other organizational infrastructure.

FY2016 Assessment Results



In cases where any possibility of violations of the Sony Supply Chain Code of

Conduct is 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. In the event that any deficiencies are discovered, the supplier is required to develop an improvement plan, and Sony monitors the supplier's performance in the form of follow-up audits to ensure the progress of initiatives. In cases where any possibility of violations is reported at a secondary supplier, Sony works with the primary supplier to ensure that remedial action is carried out.

Initiatives for Secondary and Further Suppliers

Sony requires that its primary suppliers ensure that the Sony Supply Chain Code of Conduct is observed by secondary and further suppliers. Primary suppliers conduct self-assessments to verify their understanding of the Sony Supply Chain Code of Conduct and to ensure that it has been communicated internally and is being complied with. Additionally, primary suppliers communicate the Sony Supply Chain Code of Conduct to their own supply chains and require compliance.

Communicating and Partnering with Suppliers

Sony provides support to suppliers in order to improve their initiatives. In Southeast Asia and China, local liaison officers assigned to communicate directly with suppliers are provided with the educational and training opportunities needed to serve as CSR specialists at local sites. These CSR specialists strive to ensure that suppliers make continuous efforts to improve management systems and other organizational structures, by communicating with them and providing direct guidance on ways to improve.

In fiscal 2016, Sony launched a fire prevention initiative to support safety management at supplier facilities. Under the initiative, Sony provides suppliers with

a document describing actual fire incidents, including the causes and lessons learned, together with a fire prevention checklist, to facilitate improvements to safety management.

Supplier Hotline

Sony has established a Supplier Hotline which suppliers may use to report conduct by a Sony Group company executive or employee that violates laws, regulations, the Sony Group Code of Conduct, or the Sony Supply Chain Code of Conduct, as well as conduct that violates the company's agreements with suppliers. The hotline is part of a framework that Sony is focused on establishing to facilitate sharing of concrete information on cases where the conduct of a Sony Group company executive or employee has been identified to be in violation (or possible violation) of any laws, regulations, the Sony Group Code of Conduct, the Sony Supply Chain Code of Conduct or an agreement between Sony and a supplier.

[What Sony Expects of Suppliers](#)

Responsible Supply Chain

Updated on August 23, 2017

Working with Industry Groups and Other Stakeholders

Participation in the Electronic Industry Citizenship Coalition (EICC)

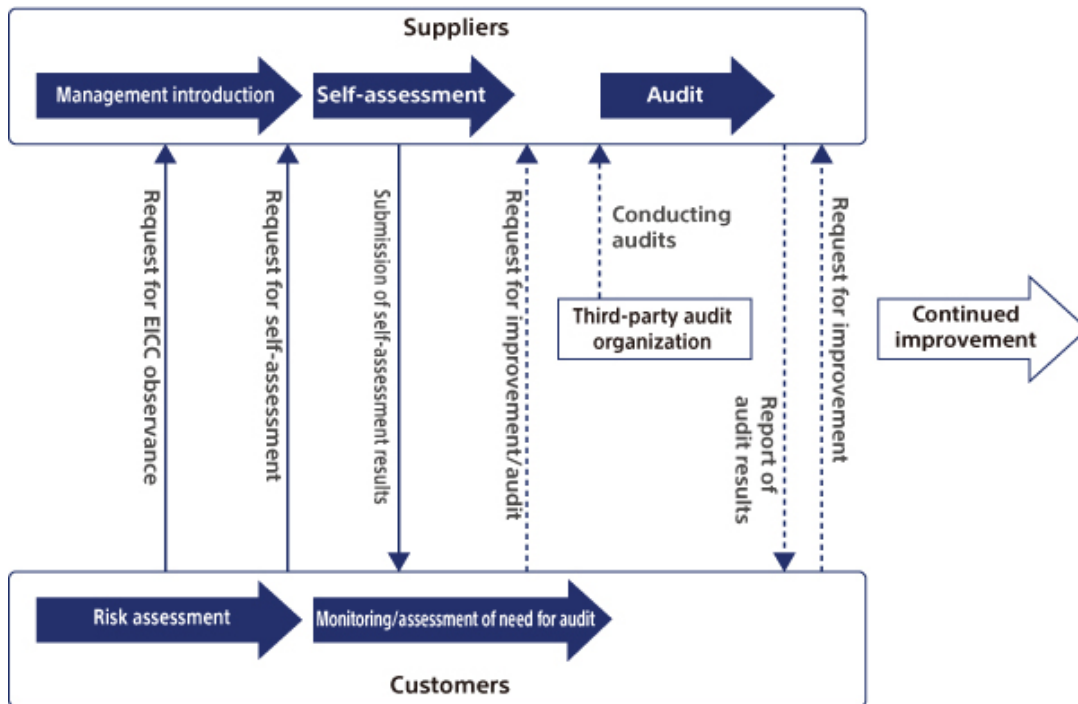
Supply chains overlap considerably in the electronics industry, with multiple manufacturers of finished products sharing the same subcontractors and parts suppliers. Accordingly, there are fears that the introduction of independent, company-specific standards for socially responsible management will 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, Web-based systems, and skills development programs for suppliers that are needed to create a framework for ensuring the code is upheld. As of May 2017, the EICC consisted of over 120 participating companies from Europe, the Americas and Asia, and members included manufacturers and OEM companies. In cooperation with the Global e-Sustainability Initiative (GeSI) Supply Chain Working Group, consisting mainly of the European telecom sector and other electronics industry organizations, the EICC is currently

promoting social responsibility across the global supply chain.

EICC Framework



Promoting Stakeholder Dialogue

Sony solicits opinions from its diverse range of stakeholders by arranging exchanges and other opportunities to communicate with NGOs, socially responsible investment groups, and other stakeholders. This feedback is a very valuable reference point for Sony's efforts to improve its supply chain.

Responsible Supply Chain

Updated on August 23, 2017

Responsible Sourcing of Raw Materials

Sony's stakeholders care about sustainability issues, including ethics and respect for human rights and the environment, when it comes to the sourcing of raw materials such as minerals and paper. Sony is working with its suppliers to address issues related to human rights, labor conditions, health and safety, and environmental protection at production sites, as well as in its procurement of raw materials.

[Addressing the Issue of Conflict Minerals](#)

[Responsible Procurement of Raw Materials for Environment and Human Rights](#)

Responsible Supply Chain

Updated on August 23, 2017

Addressing the Issue of Conflict Minerals

Sony's Approach

Addressing US Law on Conflict Minerals

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."

Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act in the United States, which first became effective in January 2013, seeks to ensure transparency and reporting related to conflict minerals. This law requires companies that issue shares on a 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 May 31, 2017, Sony submitted its fourth report to the U.S. Securities and Exchange Commission (SEC) based on its review of its supply chain activities for calendar year 2016.

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

Sony's Conflict Minerals Policy and Exercise of Due Diligence

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. (Sony's policy is available on its CSR web site, link below.) To help ensure compliance with its Conflict Minerals Policy, Sony has designed an internal due diligence framework to determine the country of origin and chain of custody for any conflict minerals in its supply chain. This due diligence framework is designed to conform, in all material respects, with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. Sony endeavors to ensure that its 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 it is still able to source responsibly from that region and avoid a de facto embargo, by requiring suppliers to source materials from smelters determined to be compliant with the Conflict-Free Smelter (CFS) Program* of the Conflict-Free Sourcing Initiative (CFSI), which was established by the Electronic Industry Citizenship Coalition (EICC)/Global e-Sustainability Initiative (GeSI), or other smelters that have been determined to be conflict-free smelters or determined to be conflict-free under other trusted traceability projects.

 [Sony Group Conflict Minerals Policy](#)

* 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

Survey and Results on Use of Four Conflict Minerals

Tungsten, tantalum, tin and gold enter global supply chains from the DRC as well

as 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. Sony's conflict minerals program is aimed at continuous improvement of its understanding of our supply chain and risk reduction over time. Sony's expectation is to make progress in the early years of this program, and achieve increased transparency over time based on its efforts to obtain increased supplier cooperation.

Sony began exercising due diligence regarding use of tin, tantalum, tungsten and gold in selected product categories in August 2011. Sony then expanded its inquiry to the entire Group in 2013. Due diligence was exercised in the supply chain by investigating whether tin, tantalum, tungsten or gold were present in any Sony products manufactured or contracted to be manufactured during that year. 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, during this period, 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 of the CFSI. The smelters identified by direct suppliers were then compared against the conflict-free smelter list prepared by the CFSI, to further enhance the accuracy of Sony's findings.

In 2016, Sony identified a total of 304 smelters and refiners as potential sources of four minerals and, of those 304 smelters and refiners, 259 smelters and refiners were validated as Conflict-Free Smelters (CFS) or are now under the CFSI audit process. 54 of these CFS in the supply chain were reported to procure materials from the DRC and its adjacent countries. While the results of Sony's due diligence for the report to the SEC did not reveal that any of the tin, tantalum, tungsten or gold in Sony's electronics products was sourced from the DRC or any of its adjacent countries, nor that they financed or benefited armed groups in these countries, Sony concluded that it lacked sufficient information at this time to definitively

determine the country of origin of all such minerals in its electronics products.

- * Please refer to the smelter list in the aforementioned Sony report to the SEC, 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 \(CFSI website\)](#)

Expectations for Sony Suppliers and Requests for Remediation

Expectations for Sony Suppliers of Tin, Tantalum Tungsten and Gold

Sony requires direct suppliers to comply with the Sony Group Conflict Minerals Policy and to fully cooperate with its due diligence efforts regarding sourcing tantalum, tungsten, tin or gold in accordance with the terms of this Policy. 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 its products, components or materials may contain conflict minerals, Sony, in collaboration with 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.

As part of its efforts to help promote CFS validation for smelters, Sony also participates in the CFSI Smelter Engagement Team, urging smelters identified by supplier surveys to acquire CFS validation if they have not already been validated.

Sony has also 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 its internal risk assessments, the hotline enables Sony to be alerted to risks in its supply chain.

› [Conflict Minerals Policy Hotline](#)

Participating in Industry Groups and the Public-Private Alliance

Sony recognizes that effective change requires a joint effort and has joined in multi-stakeholder dialogue about conflict minerals with nongovernment organizations (NGOs) and peer companies. Sony actively participates in and supports industry groups and alliances that seek to identify and prevent or mitigate the adverse impact associated with mineral extraction in high-risk areas, including the EICC, and has funded a range of programs addressing this issue. The EICC 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

multiple stakeholders, in August 2013 the EICC/GeSI launched the CFSI. Sony utilizes the frameworks developed by the EICC, CFSI and other alliances as part of its efforts to ensure responsible sourcing of raw materials. In 2016, Sony took steps to help all smelters in its supply chain acquire CFS validation by donating funds to help support The Initial Audit Fund (a CFSI subsidy program that aims to encourage smelter participation in the CFSP by covering the expenses involved for smelters undergoing the initial audit for CFSP validation inspection).

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. In addition, Sony 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 among 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 its overall effort to achieve conflict-free supply chains, Sony promotes active, ongoing 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 with NGOs, socially responsible investors, local government representatives and other stakeholders, in which Sony participates. Sony also works to support the industry initiatives of the Japan Electronics and Information Technology Industries Association (JEITA).

[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 \(JEITA release\)](#)



Responsible Supply Chain

Updated on August 23, 2017

Establishment of the Conflict Minerals Policy Hotline

Sony has established the Conflict Minerals Policy Hotline as part of our continuing efforts to ensure lawful and ethical behavior and to ensure compliance with the Sony Group Conflict Minerals Policy and other applicable policies. This is a confidential resource for any stakeholder to inform us of any suspected violation of Sony Group Conflict Minerals Policy.

Information to be provided to the Conflict Minerals Policy Hotline

Subject to any local laws or legal restrictions applicable to such reporting, we encourage reporting of possible violations of Sony Group Conflict Minerals Policy. Please include specific information and explain in detail why you think the reported situation or incident may be problematic. Please provide the time date and location of the suspected misconduct, as well as any other pertinent information including the names of any involved companies, groups, departments or individuals, and their titles and functions, if possible. Please do not knowingly report a falsehood or abuse the system for improper purposes such as slander or libel.

Methods of contacting the Conflict Minerals Policy Hotline

Information may be communicated to the Conflict Minerals Policy Hotline by completing the contact form below. The Hotline representatives may want to contact you to ask follow up questions to determine the exact nature of your concerns. You may also contact the Conflict Minerals Policy Hotline anonymously.

Response

The information provided through the Conflict Minerals Policy Hotline will be received by the assigned unit, which is operated independently from the ordinary procurement transactions. They will promptly review and investigate the concern and take actions that are appropriate to remediate any substantiated concerns. Please be informed that reports on the results of the investigation and any actions taken in response to a report will not be made to the informants unless Sony decides that such reports are necessary.

Handling of personal information

Sony shall handle the details of the reported information and any personal information about the informant (company name, personal name, etc.) as strictly confidential and use such information only for purposes of investigating the facts. Anyone who comes forward in good faith to report a concern will be treated fairly and respectfully. Sony Group will not tolerate any form of retaliation against anyone who makes a report in good faith. This does not mean that an individual who reports illegal conduct will be protected if he or she engaged in any illegal activity, or improper conduct.

The following pages are linked to the website operated by salesforce.com Co.,Ltd.

› [Agree to the above conditions and contact the Conflict Minerals Policy Hotline](#)

Responsible Supply Chain

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Responsible Procurement of Raw Materials for Environment and Human Rights

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.

[Green Procurement](#)

Assessing Greenhouse Gas Emissions over the Entire Value Chain

The recent escalation of climate change issues has prompted corporations to broaden the scope of efforts to ascertain the greenhouse gas emissions not just of their own operations but also those throughout their entire value chain*. Sony determines the greenhouse gas emissions of its major component suppliers and OEM suppliers, and uses these figures to estimate greenhouse gas emissions over

the entire value chain.

- * 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.

For more information on the topic below, click to visit the Environment section.

[Assessing Greenhouse Gas Emissions over the Entire Value Chain](#)

Participation in Responsible Raw Materials Initiative Launched by EICC and CFSI

The Responsible Raw Materials Initiative (RRMI) was launched in November 2016 to acknowledge the growing importance of responsible material procurement in global supply chains. The initiative is co-sponsored by the Electronic Industry Citizenship Coalition (EICC) and Conflict-Free Sourcing Initiative (CFSI). Sony has joined the multi-industry initiatives of RRMI, which seek to assess the environmental and social impacts of the extraction and processing of raw materials in supply chains, and then work toward shared targets that mitigate these impacts. Twenty companies including Sony Corporation initially pledged their support for RRMI, and a kick-off meeting was held in January 2017. The priority areas of RRMI include labor and environmental risks related to tin mining in Indonesia, and child labor risks related to cobalt mining in the Democratic Republic of the Congo.

[RRMI site](#)

Supporting Sustainable Tin Mining Practices in Indonesia

Reports of unsafe working conditions and environmental concerns in Indonesia's tin industry are concerning and are a major factor why Sony has been one of the

members in the Tin Working Group (TWG).

The goal of the TWG is to positively contribute to addressing the sustainability challenges of tin mining and smelting in Indonesia, while recognizing the economic benefits of the sector in terms of poverty reduction.

Members of the TWG include global tin users (downstream and midstream industry), the Electronics Industry Citizenship Coalition (EICC), the international environmental NGO Friends of the Earth, and the global tin trade association ITRI. The TWG works with local partners from the Indonesian tin industry and the Indonesian government both centrally as well as from Bangka and Belitung. The TWG started its work in 2013, with a situational analysis conducted to better understand the issues to be addressed in the tin mining industry in Indonesia. In 2014, the TWG started working closely with key local industry players to address issues via multi-stakeholder dialogue. In 2017, these activities were taken over by the tin sub-team of the RRMI. Sony will continue to support these efforts by participating in the TWG.

[Responsible Raw Materials Initiative \(RRMI\)](#)

Managing Cobalt Supply Chain

Cobalt is an important mineral used in lithium-ion batteries for smart phones and other electronic products. There have been concerns about the prevalence of child labor and working conditions at its extraction sites in the Democratic Republic of Congo (DRC), where it is known to have the largest reserve of cobalt in the world.

Sony pledges its strong commitment to ethical business conduct and respect for human rights in the Sony Group Code of Conduct, which sets forth such core values and establishes basic policies including the prohibitions of using any form of forced

labor, and specifically, child labor. Sony also expects all of its suppliers to adhere to the same standards, and established the "Sony Supply Chain Code of Conduct". All the suppliers are requested to fully comprehend and comply with the Code, which is also integrated into supplier contracts.

 [Sony Group Code of Conduct](#)

 [Sony Supply Chain Code of Conduct](#)

In the fiscal year 2016, Sony undertook assessments for adherence to the Sony Supply Chain Code of Conduct as well as investigation to confirm the chain of custody with respect to the cobalt supply chain across all its battery suppliers and battery parts suppliers. Sony assessed total 14 suppliers, including seven lithium-ion battery suppliers and seven suppliers that deliver cobalt contained battery parts for its battery manufacturing business. As a result, five suppliers have reported that the cobalt contained in the battery parts they delivered to Sony include the ones that are sourced from the DRC. To further ensure the compliance with the Sony Supply Chain Code of Conduct, Sony also requested the above 14 suppliers to ensure the conformance of its upstream suppliers.

In order to identify as well as mitigate the adverse human rights impact associated with mineral extraction in high risk areas, we believe that multi-stakeholder collaboration is necessary. Sony has engaged in various multi-stakeholder collaborations such as the Responsible Cobalt Initiative (RCI) and Responsible Raw Material Initiative (RRMI) to participate in the development of the due diligence process and mitigate human rights risks in the supply chain. Also, to better understand the current situation of artisanal and small-scale mining in the DRC, Sony has supported an independent academic research project conducted by the Center for Effective Global Action (CEGA) at the University of Berkeley together with several other companies. The research aims to provide rigorous empirical data on households engaged in artisanal mining, and it involves collecting survey data from households, children, village leaders, and local mineral traders in 150 communities that are representative and cover the full geographical extent of the

DRC Copper Belt. The project will be a baseline for further actions to support in collaboration with the DRC government and other stakeholders.

[RCI \(press release by CCCMC\)](#)

[RRMI website](#)

[Research by the University of Berkeley](#)

Initiatives Related to Paper Procurement

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.

[Policy on Resources](#)



Quality and Services



Management Approach

Materiality Rationale

In recent years, customers and other stakeholders have become increasingly concerned about the protection of consumer rights. Product safety, security, and accessibility are very important in this respect. Sony is expected to provide products and customer services that are high in quality from its customers' viewpoints.

Basic Approach

True to its Philosophy and Policy for Product Quality and Customer Services, Sony is wholeheartedly committed to improving product and service quality from its customers' viewpoints in order to both maintain and enhance satisfaction, confidence, and trust. In particular, Sony is working to ensure product quality and improve accessibility and usability, in the conviction that its most important goal is to remain a highly trusted partner to all customers.

Structure

Sony has configured its global quality management system by defining quality management mechanisms across all processes, from product development, planning, design, and manufacturing through sales and customer service. This has included defining the roles, responsibilities, and authority of those responsible for product and customer service quality and establishing guidelines.

In addition, in order to respond effectively to quality problems and customer inquiries, Sony is taking steps around the world to open up Customer Service Centers and reinforce its customer service network.

Main Achievements in Fiscal 2016

Here are the main results of fiscal 2016 initiatives:

- In order to deliver customers product quality and customer service that exceed their expectations, Sony continuously applies a wide range of internal rules for quality specifications.
- Sony presented information visually in its startup guides to make the information easier to understand.
- In order to provide customers with truly useful support and information, staff who deal directly with customers regularly attended training and education activities to familiarize themselves with new technologies and shared information on how to solve problems.
- Sony analyzed customer feedback (including comments made on social media) in an effort to improve quality and products.
- Sony improved accessibility of its website based on the Sony Group Website Accessibility Policy.
- Sony took measures to improve the accessibility of the general meeting of shareholders.
- Sony runs the internal UI testing program not only by its employees but also by their family members to expand the diversity.
- Sony offers the variety of channels of communications with customers about product inquires such as online chat, e-mail, and telephone to meet the different needs.

Development of reliability technology in the Quality Reliability Lab



Accessibility settings for products introduced



Analyzed customer feedback including comments made on social media to improve quality



Looking to the Future

Sony will continue to take its customers' viewpoints in order to deliver product quality and customer service that exceed customers' expectations. This is a necessary first step toward ensuring product quality and security, and preventing safety problems before they cause any harm. With these aims in mind, Sony will continue making use of its worldwide network to collect and analyze information which can then be reflected in the next releases of products and services.

Activity Reports

[Philosophy and Policy for Product Quality and Services](#)

[Product Quality and Quality Management](#)

[Improving the Quality, Safety and Long-Term Reliability of Products](#)

[Responsiveness and Customer Service](#)

Accessibility and Usability

Quality and Services

Updated on August 23, 2017

Philosophy and Policy for Product Quality and Services

Sony is committed to improving product and service quality from its customers' viewpoints and works hard to maintain and enhance customer satisfaction, confidence and trust. This effort is driven by Sony's most important goal: to remain a highly trusted partner to its customers.

Philosophy and Policy

Since the start of its operations, Sony has been firmly committed across all of its businesses to providing customer-oriented, high-quality products and services. 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, mandates that Sony continuously strive to comply with or exceed legally mandated standards in all 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. 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

Updated on August 23, 2017

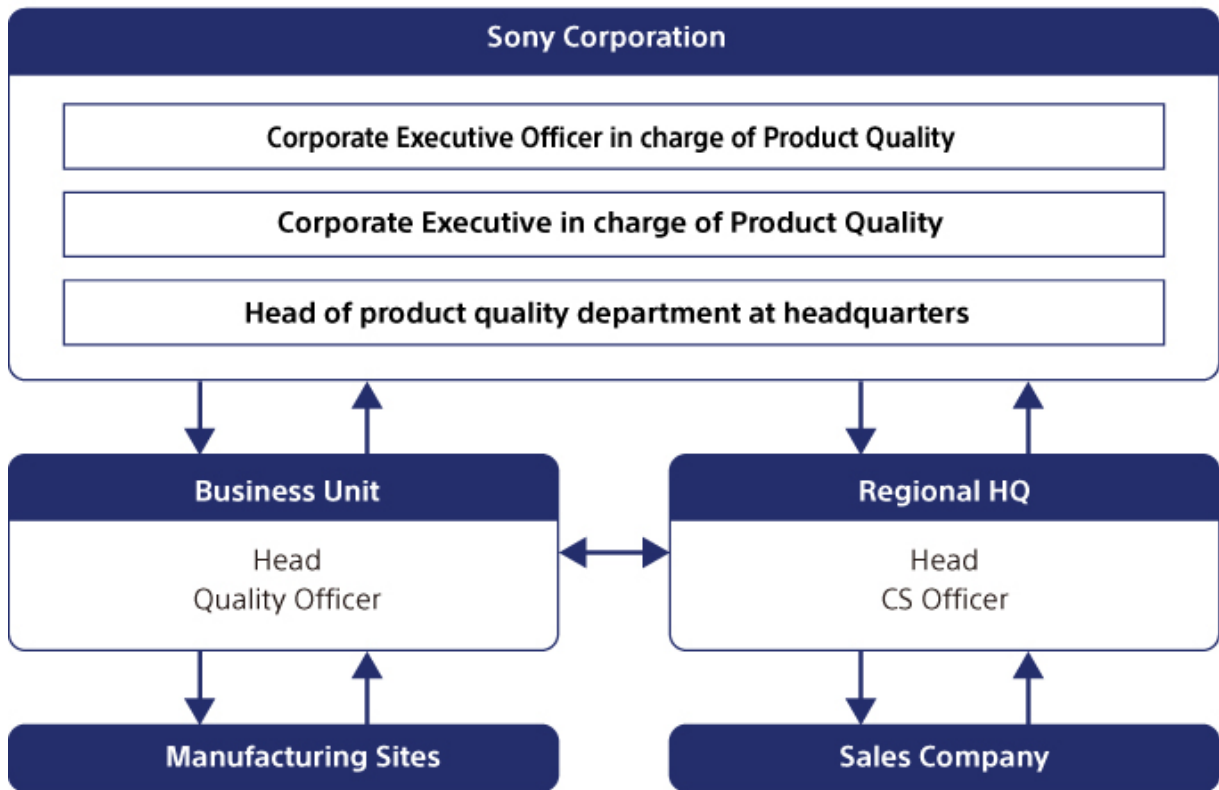
Product Quality and Quality Management

The Sony Pledge of Quality declares that "Sony employees will always 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

Sony has configured its quality management system by defining quality management mechanisms across all processes, from product planning, development, design and manufacturing to sales and customer service. This has included defining the roles, responsibilities and authority of those responsible for product and customer 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 given below. Sony:

- Has appointed the Corporate Executive in charge of Product Quality and has tasked this person 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 promoting activities to improve product quality and spearheading initiatives to enhance the quality of products and services in specific business areas under the direction and supervision of the Corporate Executive in charge of Product Quality and the head of the relevant business unit;
- 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 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 targets for the quality of and customer service related to Sony products, 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 customer service targets and business plans, in line with which they continue to promote quality improvement initiatives;
- Has held meetings of top managers responsible for quality and customer service in the electronics business to deliberate and decide on policy, targets, and key strategies related to product quality and customer service;
- Has held regular meetings of Quality Officers from business units 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;
- Has held meetings of business unit Quality Officers and regional CS Officers to evaluate the progress of quality and customer service business plans and promote initiatives aimed at achieving targets, and to share information on customer service and product quality activities and common challenges, thereby contributing to global efforts to improve product quality and customer service;
- Has formulated and administers Sony quality standards applicable to Sony's

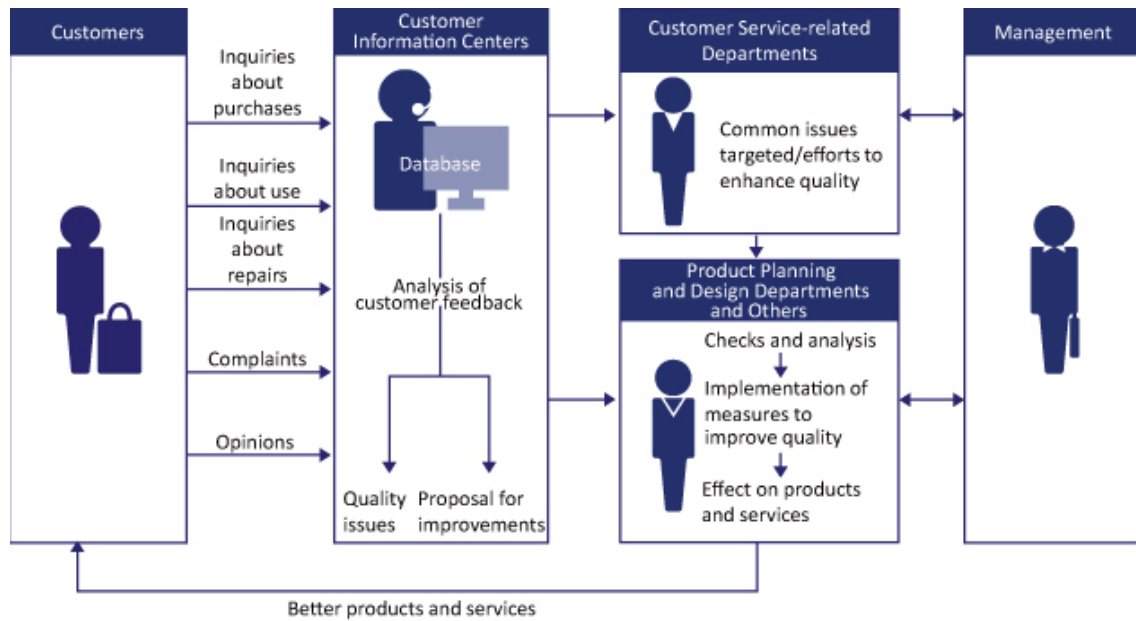
electronics products and related customer services, which focus on such criteria as product safety and performance, labeling and customer services. These standards are updated continuously to reflect technological advances, changes in applicable legal and regulatory requirements, and social changes, aiming to ensure Sony's ability to deliver quality and services that exceed the expectations of customers;

- Has strengthened rules worldwide since 2006 to ensure prompt reporting to the Corporate Executive in charge of Product Quality, when Sony receives information about an incident involving a Sony product that affects customer safety or has the potential to do so. Based on the reports received, the Corporate Executive in charge of Product Quality provides the necessary follow-up and instructs the relevant divisions to investigate the incidents and respond appropriately to the customer. Since 2007, under a similar system, Sony has been addressing software security issues found in products and managing potential software security issues.

Responding to the Customer

Sony makes active use of customer feedback to improve its products and customer services. Sony Customer Information Centers promptly and accurately evaluate customer opinions, reports of malfunctions after purchase, questions regarding use, and other feedback. The planning, design and product quality groups work together to improve product quality and strengthen product performance, reporting progress to top management on an as-needed basis.

In order to reinforce these efforts, Sony has since 2015 centralized all customer feedback received at Customer Information Centers and technical support desks around the world. This change allows for feedback to be used group-wide to improve Sony products and provide better information to customers. Sony analyzes customer feedback on social networking services (SNS), as well.



Quality Hotline

It is vital to detect product quality-related problems at the earliest stage 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 use the Quality Hotline, an in-house website, to send messages regarding matters that are too difficult to handle at their workplace such as certain product quality issues. They can also share findings identified during customer use of products and any problems with the quality of product-related customer services as perceived by customers who have made use of those services. Upon investigating a problem to ascertain the veracity of the information received, the Quality Hotline office proposes and introduces measures to prevent previous problems from recurring and precluding potential new problems.

These initiatives are 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." Since the establishment of the Quality Hotline, Sony has received a diverse range of

information, including proposals to make products more user-friendly and manuals easier to understand, which has led to a great many improvements.

As these initiatives indicate, employees across the Sony Group are wholeheartedly committed to working together to improve product and service quality as the customer experiences it and are working hard to maintain and enhance customer satisfaction, confidence and trust.

Market Quality Improvements

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

At Sony headquarters, 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 headquarters quality management and technical specialists. Based on the reported information, Sony ascertains whether or not issues in the marketplace have been addressed appropriately. In addition to ensuring that such issues are thoroughly addressed, Sony is accelerating its quality improvement performance by promoting measures to prevent recurrence and proactive measures in relation to quality issues.

Responses to Quality Issues

Sony recognizes that ensuring its customers' satisfaction, confidence 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 the relevant departments working together to investigate facts and take appropriate action on

a global scale. When such an issue arises, Sony decides upon the need for public announcements and market action for customers and implements any needed steps, after undertaking various studies of the issue, following a process common to all Sony products. 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 CS Officers at sites in each region 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

Updated on August 23, 2017

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

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 unit 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 require original equipment manufacturer (OEM) and original design manufacturer (ODM) companies and parts suppliers to comply with Group-wide 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, while also ensuring that product designs incorporate consideration of 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) processes, 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 determined 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 among relevant departments.

Improving Product Safety

Providing reliable products that customers can use safely is top priority for Sony. Accordingly, at every stage of its business activities, including product planning, development, design, manufacturing, marketing, and after-sales service for all products and services, Sony takes steps to comply with safety standards based on laws and regulations while constantly striving to surpass those standards in order to maintain the safety of its products. As part of these efforts, Sony has established a team in charge of product safety assessment from a medical perspective. When developing products employing new technologies, Sony also seeks advice on product safety from a medical perspective from outside experts in order to ensure products do not affect customer health, and this advice is then incorporated into product development, design and engineering. When deemed necessary, Sony also conducts evaluation tests to assess safety with the assistance of a specialized organization.

In addition, Sony strives to ensure that the safety-related explanations and information it provides to customers are accurate, easy to understand, and clearly presented. If a safety-related problem involving a Sony product is reported, Sony immediately collects information and examines the facts, and then takes the steps necessary to rectify the problem.

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 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, seeking to go beyond its own walls and contribute to the industry.

Efforts to Improve Quality of Security of Products

With more products connecting to networks, there is a heightened danger of, among others, personal information leaks and the falsification or destruction of data. As a consequence, it is very important to improve the quality of the security of products and network services.

Sony has a function for collecting security risk-related information from outside experts, researchers and other individuals. Sony assigns managers responsible for the software security of products and has a dedicated department for it at headquarters. The department coordinates with business units to address issues with the security of products. Based on the information received, the department-led by these managers-assesses the impact of risk on customers from a software

security 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 the quality of the security of products and network services and continues to implement employee training programs. In 2009, Sony began to implement security inspections prior to product shipment using a software vulnerability detection tool. Sony is also working to further fortify its efforts to improve the quality of the security of products by introducing a system that will ensure the security of products over their entire life cycle from planning and shipment to disposal.

Quality and Services

Updated on August 23, 2017

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: "Sony employees will always 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 organizations designed to ensure the best possible repair service quality.

System

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 of regional headquarters, Sony has also introduced a set of key performance indicators, such as improvement in rate of repair completion within a predetermined period of time. With the aim of enhancing customer service quality on a global level, Sony has also established a network of bases through which it provides services tailored to the needs of local customers.

Training for Customer Support Staff

Committed to 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 possible enjoyment from their Sony products.

Customer Information Centers and Customer Service Improvements

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 improve the quality of its customer service.

Sony strives to enhance customers' understanding of Sony products, software, and services, as well as to swiftly resolve any trouble a customer may encounter. To accommodate the variety of ways in which customers access information, Sony provides online instruction manuals that are formatted for Internet compatibility, and is enhancing its support websites for mobile phones. Sony is also reinforcing customer support information related not only to Sony products, but to software and network services, as well.

In certain regions, Sony also provides customer support via such means as live Internet chat sessions, support using social media platforms, and online community forums where customers can share information to help each other find solutions. In these ways, Sony tailors its support to meet the increasingly diverse needs of its customers in every region of the world. In addition, Sony conducts surveys to determine customer satisfaction at various touchpoints, and makes improvements based on the survey results in its efforts to continually improve customer satisfaction.

Number of Inquiries Received from Customers (Fiscal 2016)

(Thousands)

Region	Number of Inquiries Received (Telephone, E-mail, Chat)
Japan	630
United States/Canada	1,410
Europe	1,107
China*1	935
Asia-Pacific*2	2,797
Others*3	304

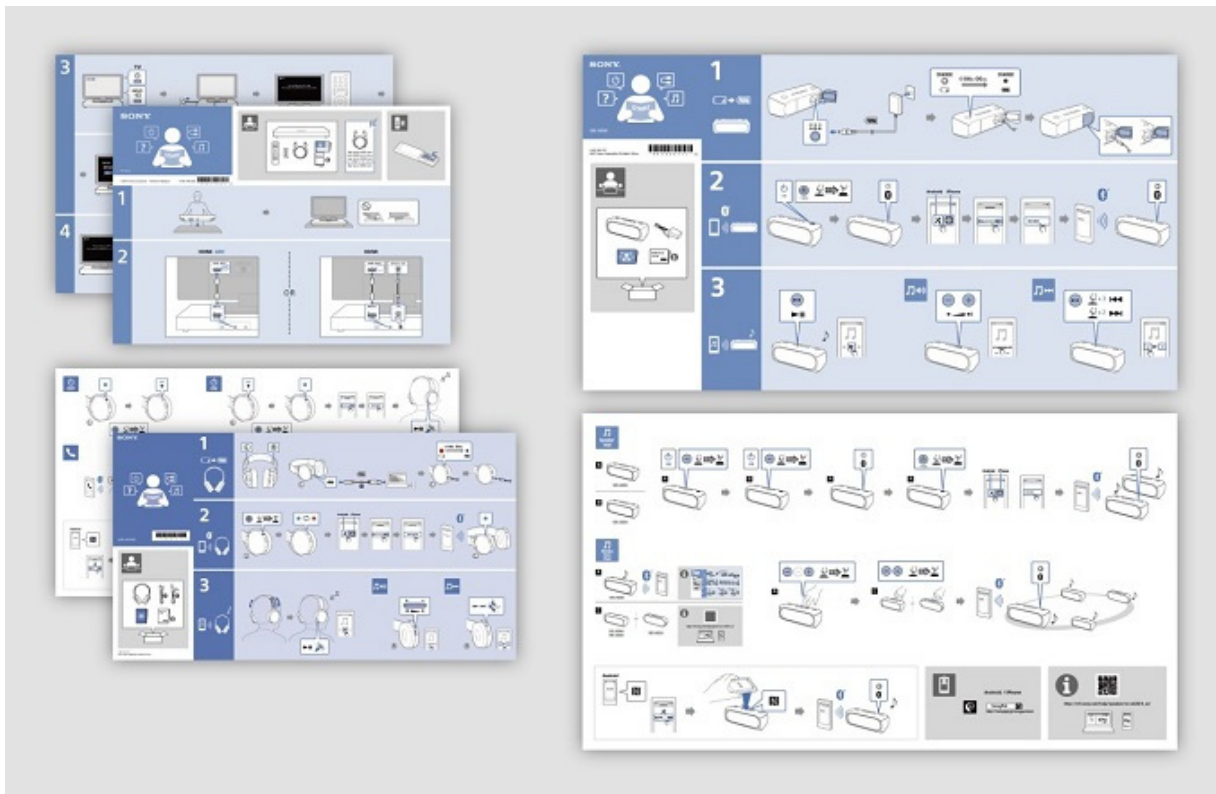
*1 Coverage area: China (mainland) and Hong Kong

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

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

More Convenient, Eco-Friendly Instruction Manuals

Sony is shifting from printed instruction manuals and operating guides to more convenient online versions. This not only improves searchability, but also reduces the amount of paper used. Paper is used for startup guides, which provide the basic information needed to start using a product with ease. In some categories, textless guides with visual illustrations only have been introduced and are being rolled out across the Group. This eliminates the need to translate content into multiple languages, which is expected to contribute to environmental protection by reducing paper consumption and lowering CO₂ emissions with smaller and lighter product packaging.



A textless startup guide

Repair and Service Network

Currently, there are more than 4,300 Sony customer service locations worldwide, including Sony customer service stations and authorized repair agents.

To enhance customer satisfaction, Sony is working to meet customer needs by reducing the number of days required for repairs, overhauling its repair pricing system, and providing collection services for repair items, among other efforts. 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 keep enhancing quality.

Sony Service Locations (Fiscal 2016)

Region	Number of Repair Service Locations
Japan	501
United States/Canada	909
Europe	1,325
China*1	601
Asia-Pacific*2	619
Others*3	444

*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 and Africa

Quality and Services

Updated on August 23, 2017

Accessibility and Usability

"Accessibility and Usability" is an essential aspect of quality at Sony. Sony aims to create products and services that people can use with ease – independent of age and disabilities.

User-Centered Product and Service Development

As technological advances bring about increasingly multifunctional consumer electronic products with more advanced user interfaces, Sony aims to deliver products and services that are easy to use and comfortable to operate. Based on user-centered design (UCD) concepts, Sony focuses on the user's perspective at every stage of the development process, from surveys and planning to design and assessment.

User Research and Usability Testing

Sony products and services are used around the world, so usability must be achieved throughout the world, whatever the culture and lifestyle may be like in any given region. Sony has established a coordinated usability testing structure and environment that includes Sony sites in Japan, North America, Europe, India, China, and other countries around the world. Sony



Usability testing

conducts worldwide user research through home visits and user interviews in order to incorporate the user's perspective from the very beginning of product development.

In the design and assessment stages, usability factors such as viewability, understandability, and responsiveness can be verified. Sony actively conducts usability testing in the environments where consumers live and use Sony products. Based on the results, Sony repeats cycles of detecting and correcting usability problems to enhance the usability of its products before they are launched.

In addition to pre-release testing of products, Sony also conducts long-term use surveys and interviews actual users to gain an understanding of customer satisfaction regarding usability and any usability problems that have arisen with purchased Sony products used on a day-to-day basis.

In terms of in-house initiatives, Sony has established an employee UI tester system under which employees can volunteer to take part in certain aspects of usability testing.

Via these initiatives, Sony employs a user-centered approach to design that offers a multifaceted approach to product usability for Sony customers.

Formulating Internal Standards and Applying Acquired Expertise

Representatives of product and service designers across the Sony Group meet to formulate the usability standards to which Sony is committed. They prepare UI design standards for words and icons used on devices and screens, and for operation rules. The knowledge gained through usability testing and the expertise of the product development departments are shared in the meetings.

UI design standards and expertise are posted on Sony's internal portal site so that everyone in the Sony Group has access to them. This information is used in product and service development as Sony continues to work to enhance usability for

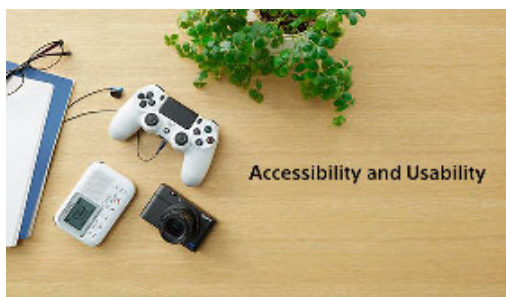
customers.

Ensuring More Customers Are Able to Use Sony Products and Services

To ensure that as many people as possible are able to use its products and services, Sony conducts interviews and usability testing with a large sample of individuals, including those with specific disabilities, and works to ensure that its research results are reflected in final products and services. Furthermore, Sony takes a leading role in the industry's effort to achieve product accessibility standardization.*

* References: IEC 62731 Text to speech for television; IEC TC 100 TA16 (active assisted living, accessibility and user interface); and IEC 62944 digital television accessibility etc.

Specific examples of this approach to products and services are described on the Sony [Accessibility and Usability website](#).



Working to Enhance Sony Website Accessibility

With its focus on improving the quality of its websites, Sony released a set of website accessibility guidelines on July 1, 2007. Over the years since then, the W3C Web Content Accessibility Guidelines (WCAG) 2.0 have become the international standard. Recognizing this, Sony revised its website accessibility guidelines and renamed them the Sony Group Website Accessibility Policy on April 1, 2016. This revision, based on WCAG 2.0, Sony added a compliance clause that requires

compliance within a specific period of time to WCAG 2.0 Level A for all items other than those deemed to require reasonable endeavors.

The Sony Group Website Accessibility Policy applies to the public websites of all Sony Group companies and aims to maintain and improve accessibility for users of all Sony Group websites. Sony strives to create and maintain accessible websites that are easy for all individuals to use; whenever changes are made to website content or new pages are created, Sony complies with its Website Accessibility Policy and, as necessary, gives due consideration to the laws, regulations, and guidelines in each country where Sony operates.

Creating an Environment for Carefree Internet Use

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



PlayStation®4

Console 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 20 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, 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, SIE has included a Parental Control function in PlayStation®4, PlayStation®3 and PlayStation®Vita. This function enables customers to adjust access levels and limit children's access only to appropriate software across the PlayStation® platform.

As Internet use begins at younger and younger ages and Web-connected non-computer devices such as smartphones and tablets proliferate, the impact of harmful websites on children has become a social concern. Internet service provider Sony Network Communications Inc. offers various security services, which protects customer devices from threats such as viruses, hacking, and phishing, to provide a safer environment for families to use the Internet.



Environment



Management Approach

Materiality Rationale

Sony's corporate activities are only possible if the earth, which sustains all life on earth, is healthy. This is why Sony is so determined to fight climate change, preserve resources, manage chemical substances, conserve biodiversity, and take other needed steps to protect the environment. True to this commitment, Sony conducts its business in a sustainable manner and provides environmentally conscious products and services, always seeking to deliver innovation and develop uniquely superior technologies. Sony also works hand-in-hand with stakeholders to help build a more sustainable society.

Basic Approach

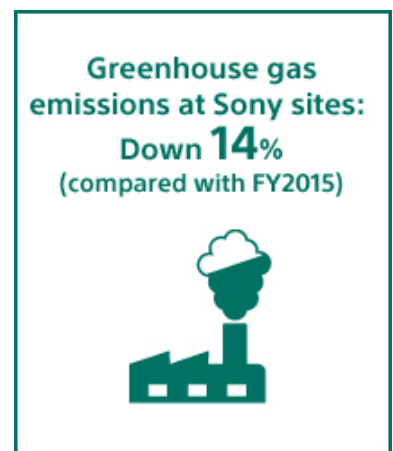
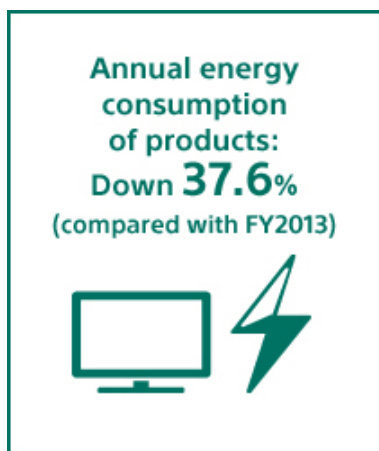
Since the early 1990s, Sony has pursued environmental initiatives in accordance with its environmental principles and targets. In April 2010, Sony announced the "Road to Zero," a new global environmental plan, the goal of which is to realize a sustainable society by achieving a zero environmental footprint throughout the life cycle of its products and business activities by the year 2050. Working toward a zero environmental footprint by 2050, once every five years Sony sets concrete environmental mid-term targets for each stage of the life cycle for its products with respect to climate change, resources, chemical substances, and biodiversity.

Structure

Sony has built and is continually improving its globally integrated environmental management system with the aim of realizing the Sony Group Environmental Vision, achieving the environmental mid-term targets, and complying fully with legal requirements, regulatory demands, and internal policies adopted by the Group. Sony has also established specialized functions at the Sony Group's environmental headquarters, which is overseen by a corporate executive officer of Sony Corporation.

Main Achievements in Fiscal 2016

Under the Green Management 2020 environmental mid-term targets, Sony put forward specific goals for each stage of the product lifecycle. Here are the main results of fiscal 2016 initiatives:



Looking to the Future

Acting on the basis of Green Management 2020, which sets environmental mid-term targets for fiscal 2016-2020, Sony seeks to strengthen its own internal initiatives, encourage environmental initiatives in its entire value chain, and appeal to consumers and the public to take action. Aware of the risk of growing environmental impact as certain products get bigger and production increases, Sony is adopting even stronger measures to achieve its goal of "zero environmental footprint" by 2050.

Related Links



Activity Reports

Environmental Policies and Targets	Sony Group Environmental Vision	Environmental Plan and Mid-Term Environmental Targets
	"Green Management 2020" Environmental Mid-Term Targets	Green Management 2020 Targets and Progress
	Environmental Management Structure	Overview of Sony's Environmental Impact

<p>Environmental Technologies</p>	<p>Mid-Term Targets for the Development of Environmental Technologies</p>	<p>Developing the Environmental Technologies of the Future</p>
<p>Products and Services</p>	<p>Environmental Mid-Term Targets for Products and Services</p>	<p>Reducing Greenhouse Gas Emissions</p>
	<p>Conserving Resources</p>	<p>Reducing Use of Virgin Plastics</p>
	<p>Management of Chemical Substances</p>	<p>Reduction and Replacement of Chemical Substances of Very High Concern</p>
	<p>Creating Environmentally Conscious Products</p>	<p>Conducting an Life Cycle Assessment (LCA)</p>
	<p>Environmentally and Socially Beneficial Products and Services</p>	
<p>Procurement</p>	<p>Reducing Environmental Impact at Suppliers and Outsourcing Contractors</p>	

Sites	Environmental Mid-Term Targets for Operations	Reducing Greenhouse Gas Emissions
	Use of Renewable Energy	Reducing Waste Generation
	Reducing Water Consumption	Managing Chemical Substances
	Guiding Principles for Biodiversity Conservation Initiatives and Case Examples	Feature: "Sony Forest" Hosts a Blossoming Ecosystem
	Feature: Working on Groundwater Recharge Projects	The Green Star Program
Logistics	Progress Toward Achieving Mid-Term Targets for Logistics	Reducing the Environmental Impact of Logistics
Product Recycling	Product Recycling Policy and Performance	Improving Product Recyclability
	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

**Environmental
Communication**

**Environmental
Communication Activities**

Stakeholder Engagement

Environmental Data

Environment

Updated on August 23, 2017

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

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

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.

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.

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.

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.

- * Gases that raise the temperature of the earth's surface by absorbing infrared radiation from reflected sunlight. Seven typical examples are carbon dioxide (CO₂), methane, nitrous oxides, hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).

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.

For more information, please refer to ["Our journey along the Road to Zero" at the Sony and the Environment website.](#)

Environment

Updated on August 23, 2017

Environmental Plan and Mid-Term Environmental Targets

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.

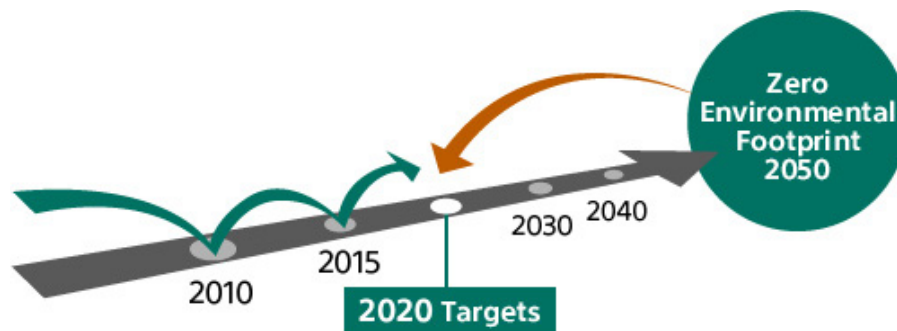
"Road to Zero," Sony's Global Environmental Plan

As stated in the 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." Under this plan, Sony aims to bring its environmental footprint to zero by 2050 and works to achieve incremental mid-term environmental targets toward this end.



Environmental Mid-Term Targets

Sony is working toward its goal of having a "zero environmental footprint" by 2050, setting mid-term (5-year) environmental targets progressively backcasted from 2050, and adjusting fiscal year targets based on current achievement levels. This approach will enable Sony to work steadily toward achieving the zero environmental footprint goal, while making ongoing adjustments based on current progress. In 2011, Sony established the Green Management 2015 environmental mid-term targets (fiscal 2011 – 2015), which was its first step on the road to a zero environmental footprint, achieving almost all of its targets by 2015. Currently, Sony is implementing initiatives to achieve the goals it has set under the Green Management 2020 environmental mid-term targets (fiscal 2016 – 2020).



Focusing on Four Environmental Perspectives

Sony's environmental mid-term targets define concrete targets at each stage of the product life cycle, from the four priority perspectives of climate change, resources, chemical substances, and biodiversity. Sony is working with multiple environmental NGOs and experts to gain feedback on Sony's initiatives under each priority perspective.



Sony focuses on four environmental perspectives

Policies on Four Environmental Perspectives

Sony carries out initiatives under the following policies, which it has outlined for four environmental perspectives of climate change, resources, chemical substances, and biodiversity, in order to achieve its environmental mid-term targets.

Policy on Climate Change

Sony strives to achieve zero emissions of greenhouse gases from its business activities and throughout the life cycle of its products and services. Sony sites make it their highest priority to reduce energy consumption and greenhouse gas emissions, use energy more efficiently, and switch to energy sources that generate less greenhouse gas emissions, while also promoting renewable energy use. Sony also develops and supplies energy efficient, environmentally conscious products and services, and works with manufacturing subcontractors and suppliers of components and raw materials in an effort to reduce greenhouse gas emissions

both directly and indirectly.

Policy on Resources

Sony seeks to minimize the consumption of resources and maximize resource recycling in order to use resources effectively in its business activities and throughout the life cycle of its products and services, while striving to achieve zero consumption of new materials made from "key resources.*1" Sony minimizes resource consumption by reducing the weight of products and utilizing resources more efficiently in its internal operations. Sony is also working to extend the life of products through quality and durability enhancements, to indirectly reduce resource consumption. In terms of waste, Sony recycles waste generated from internal operations, with the goal of eliminating landfilled waste. Additionally, Sony designs products to facilitate recycling and implements ongoing programs to collect and recycle end-of-life products according to the needs of local communities, while also promoting advanced recycling with recycling companies.

*1 At Sony, "key resources" are designated by taking the following factors into account: resource depletion, resource availability, environment impact of resource extraction, and loss of biodiversity and community impacts from resource extraction.

● Policy on Water Use

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 increase 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.

● Policy on Paper Resources

Recognizing that paper resources are limited, under the Sony Group Paper / Printed Material Purchasing Policy, Sony constantly works to reduce paper

consumption while prioritizing the procurement of environmentally preferable paper, such as paper made from resources sourced from certified forests and recycled paper.

 [Learn more about the Purchasing Policy \(PDF\)](#)

Policy on Chemical Substances

Sony endeavors to minimize the risk that chemical substances it uses might cause serious harm to human health and the environment. Chemical substances used in Sony products are suitably managed based on available data including national regulations, toxicity, environmental impacts, applications, and content level in components and products. 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. Sony manages the type and application of chemical substances used at business sites, and for high-risk substances sets criteria for managing each substance to either prohibit their use or reduce emissions or amounts transferred. Sony also prohibits the use of certain substances in manufacturing processes in the supply chain which are restricted under international frameworks because of environmental impacts throughout the life cycle.

Policy on Biodiversity

Recognizing the importance of natural capital and the ecosystem services it supplies, Sony endeavors to conserve natural capital and biodiversity, both in its business activities and through community initiatives. Sony has identified the following basic principles*2 to guide its initiatives.

- (1) Sony recognizes the importance of biodiversity issues. Sony recognizes that biodiversity is an important issue in its business activities, endeavors to reduce the impact of its business activities on biodiversity (both directly and indirectly in the supply chain),*3 and engages in community initiatives that help to conserve natural capital and biodiversity.

- (2) Sony helps achieve the Aichi Biodiversity Targets by engaging in initiatives to conserve natural capital and biodiversity throughout the life cycle.
 - (3) Sony cooperates with stakeholders where needed in pursuing the above principles.
 - (4) Sony actively discloses information about these initiatives and endeavors to raise awareness about biodiversity.
- *2 For Sony's stance on the consumption of paper resources as it relates to biodiversity, please refer to "Policy on Paper Resources."
- *3 This includes reducing the environmental impact of Sony's business activities, such as reducing greenhouse gases, conserving resources, and comprehensively managing chemical substances, while also reducing the impact on biodiversity as a result of achieving these environmental targets.

Risks and Opportunities

Understanding and Responding to Business Risks

As a company that strives to help build a sustainable society, Sony believes that addressing environmental issues 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 quickly collecting information on laws and regulations in force in countries around the world and to ensure that its business activities and products comply.

Creating and Expanding Business Opportunities

Addressing environmental issues opens up business opportunities for Sony. For example, the adoption of the Paris Agreement* at the 2015 United Nations Climate Change Conference (Conference of the Parties 21: COP 21) held in December 2015 has increased social awareness of climate change issues, which will raise consumer demand for energy-efficient products. Sony has been improving energy efficiency across a broad range of products, which will further cement the advantage of Sony products amid growing social awareness. In the image sensor category of its devices business, Sony possesses technologies that deliver both high performance and low power consumption. Sony sees significant growth potential for its image sensors. One growing application is for on-board cameras for automobiles. Sony will continue to enhance its products and secure differentiation in the image sensor market, on the strength of its proprietary elemental technologies in areas like power consumption management, signal processing, and recognition algorithms.

* The Paris Agreement was adopted at COP 21 to provide an international framework for addressing climate change in 2020 and beyond.

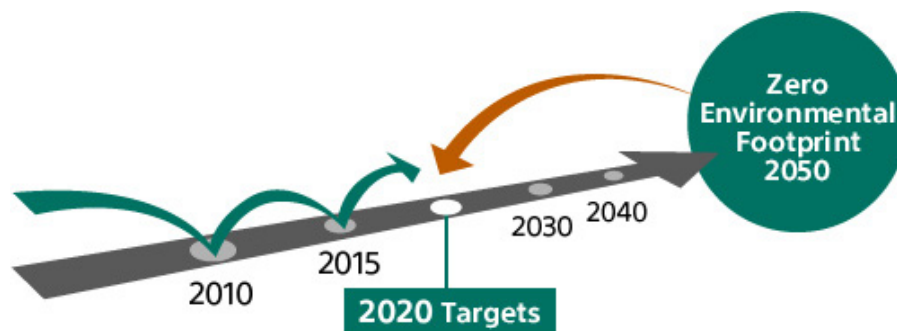
Environment

Updated on August 23, 2017

"Green Management 2020" Environmental Mid-Term Targets

Taking Environmental Initiatives to the Next Stage

Sony is working to reduce its environmental footprint to zero by 2050, and has set a series of environmental medium-term targets to get there. As the first step, Sony set the Green Management 2015 environmental mid-term targets which spanned fiscal 2011 to 2015. In April 2016, Sony introduced the Green Management 2020 environmental mid-term targets to be achieved by fiscal 2020. This transition takes Sony's environmental activities to the second stage of its journey to a zero environmental footprint.



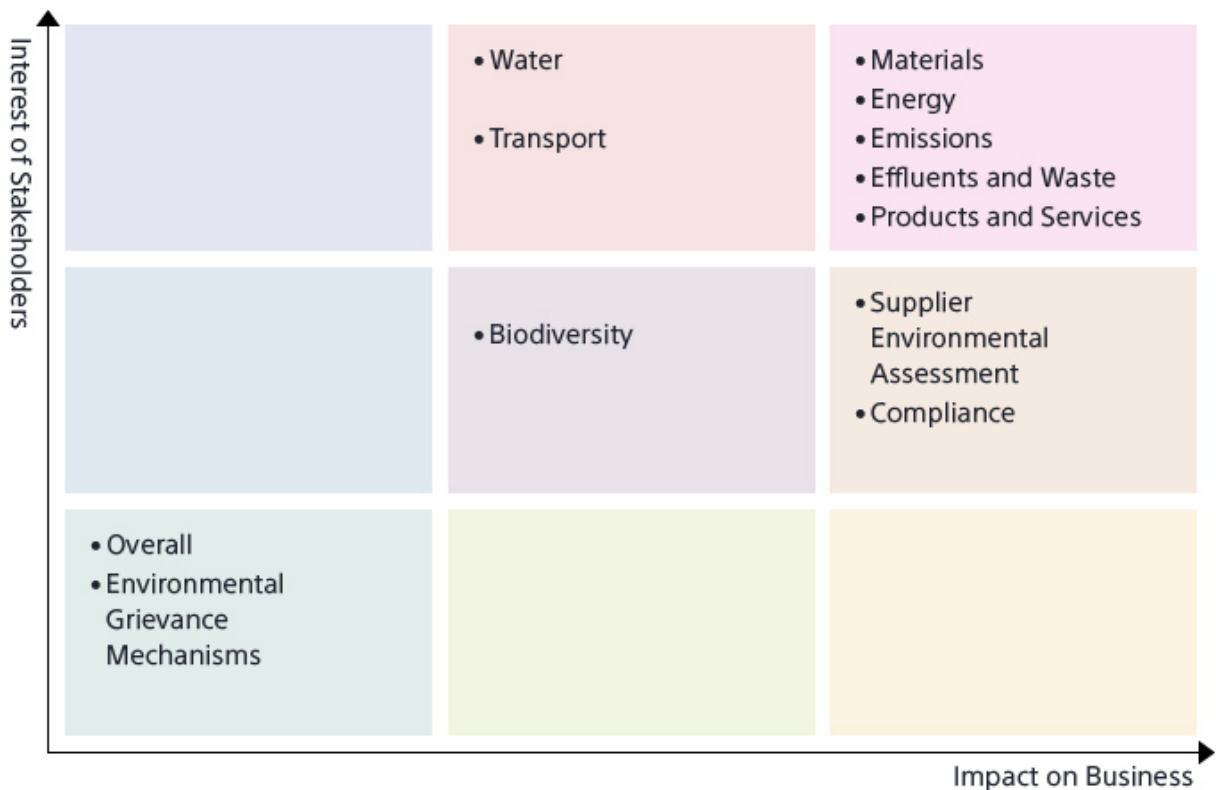
The Process of Formulating Green Management 2020

When formulating Green Management 2020, Sony examined its past environmental activities and conducted a materiality analysis* in order to incorporate the viewpoints of stakeholders outside the Sony Group.

Based on these results, Sony specified raw materials, energy, atmospheric emissions, effluents and waste, and products and services as priority areas to tackle by 2020. It then designated water, biodiversity, and environmental assessments of suppliers as important issues to deal with. Sony has been addressing all of these issues already, and continues to focus on initiatives to address them through fiscal 2020.

* A materiality analysis is a method for identifying and specifying important issues for a company and its stakeholders.

Sony Environmental Materiality Analysis *

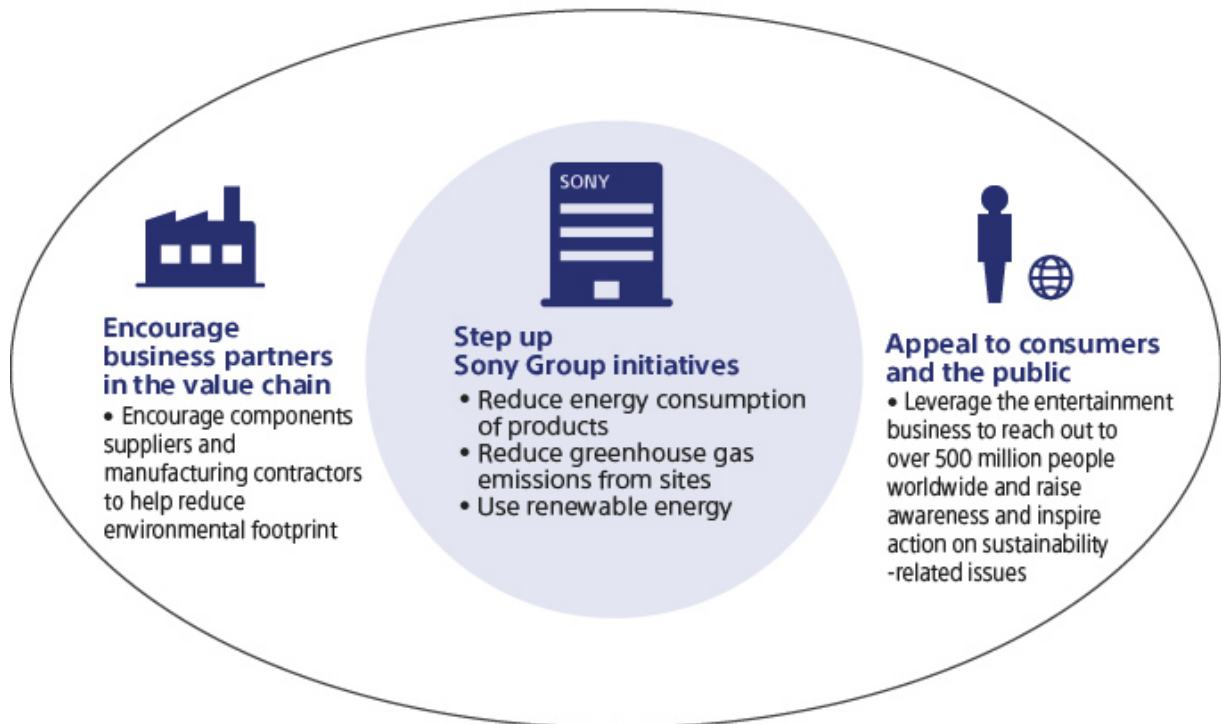


* The headings on the axes of the graph are environmental categories defined in the G4 Sustainability Reporting Guidelines from GRI.

Under the Green Management 2020 environmental mid-term targets, while the Sony Group is strengthening its internal initiatives to reduce power consumption in products and decrease greenhouse gas emissions from sites, Sony is expanding the reach of its environmental initiatives to outside the company such as: reaching

more than 500 million people worldwide with its campaigns to raise awareness of sustainability issues, and encouraging consumers and other social groups to take action; and working with its component suppliers and manufacturing contractors to reduce their environmental footprint.

Expanding Sony's Environmental Activities under Green Management 2020



Sony is being recognized by stakeholders for setting goals and taking action under the Green Management 2020 targets. Sony's climate change targets have been approved by the Science Based Targets initiative*1. This, in turn, led to Sony's involvement in the "Take Action" climate change initiative of the We Mean Business*2, an international coalition of businesses and investors. Starting in fiscal 2017, Sony will also participate in the We Mean Business coalition's "Improve Water Security" initiative to reduce water risks.

*1 [For more information, please refer to the Science Based Targets website.](#)

*2 [For more information, please refer to the We Mean Business website.](#)

Green Management 2020: Target Matrix (abridged version)

Sony organized its activities under Green Management 2020 according to the six stages of the product lifecycle: product/service planning and design, operation, raw materials and components procurement, logistics, take-back and recycling, and innovation. In each of these stages, specific targets are set under the four categories of climate change, resources, chemical substances and biodiversity.

 [View larger image \(PDF\)](#)

		Climate Change	Resources	Chemical Substances	Biodiversity
		1. Employ environmental features in products 2. Promote environmentally conscious design throughout the life cycle 3. Raise awareness and inspire action on sustainability from over 500 million people through entertainment			
Product/Service Planning and Design (vs. FY2013)		1. AC powered devices*1): reduce energy consumption by 30% 2. Power consumption at no load condition and in battery maintenance mode: No more than 0.03 W 3. DC powered devices*2) other than those in 2: Improve energy efficiency and charging efficiency	1. Reduce virgin plastic per product by 10% 2. Reduce and substitute key resources 3. Minimize resource inputs 4. Promote design for recycling	Eliminate and substitute "Controlled Substances"*3) in high-risk applications*4)	Use recycled and certified paper
Operation (vs. FY2015)	Sony sites	1. Reduce absolute GHG*5) emissions by 5% (equivalent to 42% reduction vs. FY2008) 2. Use renewable energy equivalent to 300,000 CO ₂ -tons	«Waste» 1. Reduce absolute waste generated by 5% (equivalent to 77% reduction vs. FY2008) 2. Landfilled waste rate under 1% «Water» Reduce absolute water usage by 5% (equivalent to 45% reduction vs. FY2008)	Class 1: Prohibit use Class 2: Prohibit use (exceptions granted for certain applications) Class 3: Reduce the amounts released and transferred; maintain absolute VOC *6) emissions Class 4: Use under appropriate control	Implement environmental contribution activities respecting the needs of local communities
	Outsourcing contractors	1. Request main manuf. contractors to monitor GHG*5) emissions and reduce GHG*5) intensity by 1% per year 2. Request main manuf. contractors to use renewable energy 3. Prioritize the use of energy efficient data center	1. Request main manuf. contractors to monitor volume of water use and reduce water use intensity by 1% per year 2. Request main manuf. contractors to monitor and reduce volume of waste generation	1. Request manuf. outsourcing contractors to respond to Sony's unified standard that takes into account laws around the world restricting and banning chemical substances used for products and partially-finished products supplied to Sony 2. Request manuf. contractors to ban from manufacturing processes the use of substances restricted at an international framework that Sony has specified	Encourage manuf. contractors the environmental contribution activities respecting the needs of local communities
Raw Materials and Components Procurement		Request suppliers dealing in component categories that create high environmental impact, and/or suppliers involved in large business transactions to monitor GHG*5) emissions, establish their own targets and implement reduction measures	Request suppliers dealing in component categories that create high environmental impact, and/or suppliers involved in large business transactions to monitor water consumption, establish their own targets and implement reduction measures	1. Request to respond to Sony's unified standard that takes into account different laws around the world restricting and banning chemical substances used for raw materials, components and products supplied to Sony 2. Request suppliers to ban from manufacturing processes the use of substances restricted at an international framework that Sony has specified	Request that consideration be given to biodiversity
Logistics (vs. FY2013)		Reduce absolute CO ₂ emissions related to logistics between nations and within regions by 10%	—	—	—
Take Back and Recycling		—	1. Establish recycling schemes which meet the needs of local communities, and move ahead with efficient operations 2. Aim at the high-level return of waste to a form in which it can be used as a resource by acquiring a clear grasp of recycling key resources	—	—
Innovation		1. Promote the development of environmental technologies, and contribute to the establishment of technologies that result in reducing the environmental impact 2. Promote the development of business models that contribute to reducing the environmental impact of the products and services provided in all fields			

*1) AC powered devices refers to energy-using products which operate the intended main function with energy input from the main power source (the main electric grid)
 *2) DC powered devices refers to energy-using products which operate the intended main function with energy input from the battery
 *3) "Controlled Substances" is an abbreviation for "Environmentally Restricted Substances to be Controlled," and it refers to substances contained in parts and devices that Sony considers to have significant environmental impact on both humans and the global environment.
 *4) Sony Middle East Corporation and Sony India Corporation (SOMC) restricted substances are not applied for SOMC products.
 *5) GHG stands for Greenhouse Gas
 *6) VOC stands for Volatile Organic Compounds

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[Click here for more details in Sony's Green Management 2020 website.](#)

Green Management 2020
In Quest of a Zero Environmental Footprint,
Sony Moves on to the Next Stage



Environment

Updated on October 24, 2017

Green Management 2020 Targets and Progress

Under the Green Management 2020 environmental mid-term targets, which spanned from fiscal 2011 through fiscal 2015, Sony categorized targets and activities accordingly to product lifecycle stage. The targets and progress of activities for each stage are outlined below.

1. Product/Service Planning and Design

Sony is committed to delivering products and services with low environmental impact in all of its businesses. In electronics, Sony designs and manufactures products to have a low environmental impact throughout the product's entire lifecycle. In motion pictures, music, and other areas of its entertainment business, Sony makes the most of the content it creates to develop and implement environmental campaigns.

	Targets (base year: 2013)	Progress in FY2016
Overall	Employ environmental features in products	Created environmentally conscious products in major product categories. Example: 28% reduction in energy consumption compared to previous model (PS4® CUH-2000 series), adoption of recycled plastics for 71%* of all plastic used (Sound Bar HT-XT2)
	Promote environmentally conscious design throughout the life cycle (during production, in use, at disposal, etc.)	* Gross value that includes recycled plastics mixed with virgin plastic and additives
	Raise awareness and inspire action on issues of sustainability from over 500 million people in the world through the entertainment business	Raised awareness and inspired action by reaching an audience of over 8.23 billion through events and the broadcasting of TV shows.

Climate Change	AC powered devices*1: Reduce annual energy consumption by 30% (average reduction rate)	Approx. 37.6% reduction
	Mobile phones and tablets: Power consumption at no load condition and in battery maintenance mode: No more than 0.03W	All smart phones launched in fiscal 2016 less than 0.03W
	DC powered devices*2: Improve energy efficiency and charging efficiency	Improved energy savings and charging efficiency in many models. Example: Achieved approx. 20% energy savings over previous model with latest HD portable camera HXC-FB75

Resources	Reduce amount of virgin oil-based plastics per product unit by 10% (average reduction rate).	Approx. 6.9% reduction
	Reduce and substitute key resources other than oil-based resources	Reduced certain key mineral resources.
	Aim to minimize resource inputs	Continued to focus on making products smaller.
	Promote design for recycling	Promoted designs with recyclability based on Sony Group Environmental Design Standards. Regularly held training sessions on recycling for designers.
Chemical Substances	Eliminate high-risk applications of "Controlled Substances" *3 that are of high concern (polyvinyl chloride, brominated flame retardants, etc.) and use alternative substances*4	<p>Promoted use of alternative substances based on Sony standards for management of chemical substances.</p> <ul style="list-style-type: none"> ● For more information on alternatives for polyvinyl chloride (PVC) and brominated flame retardants (BFR), please see below. <p>Alternative substances for PVC</p> <p>Alternative substances for BFR</p>

Biodiversity	Promote the use of recycled paper and certified paper	Promoted use of recycled and certified paper based on purchasing policy for paper and printed materials.
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- *1 AC powered devices refers to energy-using products which operate the intended main function with energy input from the main power source (the main electricity grid)
- *2 DC powered devices refers to energy-using products which operate the intended main function only with energy input from the battery
- *3 "Controlled Substances" is an abbreviation for "Environment-related Substances to be Controlled," and it refers to substances contained in parts and devices that Sony considers to have significant environmental impact on both humans and the global environment
- *4 The list of Sony Mobile Communications (SOMC) controlled substances (the use of which is to be controlled, including polyvinyl chloride, bromine/chlorine compounds, and phthalic ester) applies to all products sold by and bearing the corporate name, on product or packaging, of SOMC.

2. Operations

Sony is accelerating its adoption of renewable energy at worksites and offices throughout the Sony Group as part of its focus on reducing its environmental impact. Sony has established targets for manufacturing outsourcing contractors and is reinforcing its efforts to reduce environmental footprint. Sony is also actively developing environmental activities that meet local needs.

Sony sites

	Targets (base year: 2015)	Progress in FY2016
Climate Change	Reduce absolute GHG *1 emissions from Sony's sites by 5%	Approx. 14% reduction
	Use renewable energy equivalent to 300,000 CO ₂ -tons	Approx. 78,000 tons
Resources	Reduce absolute waste generated by 5%	Approx. 17% reduction
	Landfilled waste rate under 1% (excluding waste that Sony cannot control)	Approx. 1.6%
	Reduce absolute usage of water by 5%	Approx. 6% reduction

<p>Chemical Substances</p>	<p>Take actions for classes 1-4. Detailed groups of chemical substances are defined separately.</p> <ul style="list-style-type: none"> ● Class 1 substances: Prohibit use ● Class 2 substances: Prohibit use (Exemptions granted for certain applications) ● Class 3 substances: Reduce the amounts released and transferred >Reduce the amount of VOCs*2 released to the air by 50% from FY 2000 level ● Class 4 substances: Comply with the relevant laws and regulations and use under appropriate control 	<ul style="list-style-type: none"> ● Class 1 substances: No use of prohibited substances ● Class 2 substances: No use of prohibited substances ● Class 3 substances: Continued to reduce amounts released and transferred >Emissions of VOC into the air: Approx. 64% reduction ● Class 4 substances: Compliance with relevant laws and regulations and use under appropriate control
<p>Biodiversity</p>	<p>Implement environmental contribution activities (including conservation activities at Sony's sites) respecting the needs of local communities</p>	<p>Implemented activities to preserve, educate, and raise awareness of biodiversity at all sites as part of local contribution activities.</p>

Outsourcing contractors

	Targets	Progress in FY2016
Climate Change	Request manufacturing outsourcing contractors with large business transactions to monitor GHG*1 emissions and reduce GHG*1 intensity by 1% per year	Requested relevant manufacturing outsourcing contractors to reduce and track emissions intensity and surveyed progress.
	Request contractors with large business transactions to continually use renewable energy	Surveyed relevant contractors on introduction of renewable energy.
	Prioritize the use of energy efficient data center	Issued internal guidelines and promoted priority use of energy efficient data center.
Resources	Request manufacturing outsourcing contractors with large business transactions to monitor volume of water use and reduce water use intensity by 1% per year	Requested relevant manufacturing outsourcing contractors to reduce and track water use intensity and surveyed progress.
	Request manufacturing outsourcing contractors with large business transactions to monitor and reduce volume of waste generation	

Chemical Substances	Request manufacturing outsourcing contractors to respond to Sony's unified standard that takes into account laws around the world restricting and banning chemical substances used, for products and partially-finished products supplied to Sony	Requested response based on Sony standards for the management of chemical substances.
	Request manufacturing outsourcing contractors to ban from manufacturing processes the use of substances restricted at an international framework that Sony has specified	Requested manufacturing outsourcing contractors to ban the use of substances specified by Sony from manufacturing processes and surveyed status of the use of these substances.
Biodiversity	Encourage manufacturing outsourcing contractors the environmental contribution activities (including conservation activities at Sony's sites) respecting the needs of local communities	Surveyed activities undertaken at major manufacturing outsourcing contractors.

*1 GHG stands for Greenhouse Gas.

*2 VOC stands for Volatile Organic Compounds.

3. Raw Materials and Components Procurement

The environmental impact throughout the entire supply chain, including parts suppliers and others, is clearly larger than the environmental impact created by the activities of a single company. Sony is focused on strengthening efforts to reduce environmental impact and achieve concrete results on targets across the entire product lifecycle.

	Targets	Progress in FY2016
Climate Change	Request suppliers dealing in component categories that create high environmental impact and/or suppliers involved in large business transactions to monitor GHG* emissions, establish their own targets and implement reduction measures	Requested relevant suppliers to reduce and track emissions and surveyed progress.
Resources	Request suppliers dealing in component categories that create high environmental impact and/or suppliers involved in large business transactions to monitor water consumption, establish their own targets and implement reduction measures	Requested relevant suppliers to reduce and track water consumption and surveyed progress.

Chemical Substances	Request suppliers to respond to Sony's unified standard that takes into account laws around the world restricting and banning chemical substances used, for raw materials, components and products supplied to Sony	Requested response based on Sony standards for the management of chemical substances.
	Request suppliers to ban from manufacturing processes the use of substances restricted in an international framework that Sony has specified	Began surveying use of banned substances.
Biodiversity	Request that consideration be given to biodiversity	Began surveying biodiversity activities.

* GHG stands for Greenhouse Gas.

4. Logistics

In order to reduce CO2 emissions associated with distributing products, Sony takes steps to reduce shipping weight by making products lighter and smaller. Sony also pursues alternative shipping methods (modal shift, etc.) by identifying and employing methods that are most efficient and have less impact on the environment.

	Targets (base year: 2013)	Progress in FY2016
Climate Change	Reduce absolute CO2 emissions related to logistics between nations and within regions by 10%	Approx. 44% reduction

5. Take Back and Recycling

Sony is focused on recycling-oriented product design and promotes take-back and recycling processing for used products. Meanwhile, Sony seeks to ensure that even items which the company itself is unable to recycle at the present time are recycled, and collaborates with recyclers to clarify the extent to which key resources are being recycled.

	Targets	Progress in FY2016
Resources	Establish recycling schemes suitable for the needs of local communities, and move ahead with efficient operations	Complied with all legal requirements in all areas where laws and regulations on take-back and recycling are established. Implemented voluntary collection and recycling activities in areas where laws and regulations are not yet established.
	Aim at the high-level return of waste to a form in which it can be used as a resource by acquiring a clear grasp of recycling key resources	Worked with recycling plant to survey the status of recycling of key resources.

6. Innovation

Sony has continued to bring entertainment and pleasure to people through creativity and innovation, and this is equally true of its approach to environmental activities. Sony is focused on developing environmental technologies and on contributing to the establishment of technologies that will result in reducing environmental impact.

	Targets	Progress in FY2016
Climate Change, Resources, Chemical Substances	Promote the development of environmental technologies, and contribute to the establishment of technologies that result in reducing the environmental impact	Promoted technological development such as Triporous™, cooperative agriculture and open energy systems, external sales of Sustainable Oriented Recycled Plastic (SORPLAS™), and new businesses such as support for environment-related business using drones.
	Promote the development of business models that contribute to reducing the environmental impact of the products and services provided in all fields	

Environment

Updated on August 23, 2017

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 targets and complying fully with legal requirements, regulatory demands and internal policies established for the Group.

Integrated ISO 14001 Certification for the Entire Sony Group

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 2000. Since then, Sony has expanded this effort, establishing a group-wide environmental management system that integrates headquarters with environmental departments, business units and sites globally, while taking advantage of the management systems already operational at each business site, and acquiring integrated ISO 14001 certification for the entire Sony Group in fiscal 2005. As of March 31, 2017, integrated ISO 14001 certification had been obtained by 110 of the Sony Group's business units and sites around the world.*2

*1 "Sites" refers to manufacturing and non-manufacturing sites.

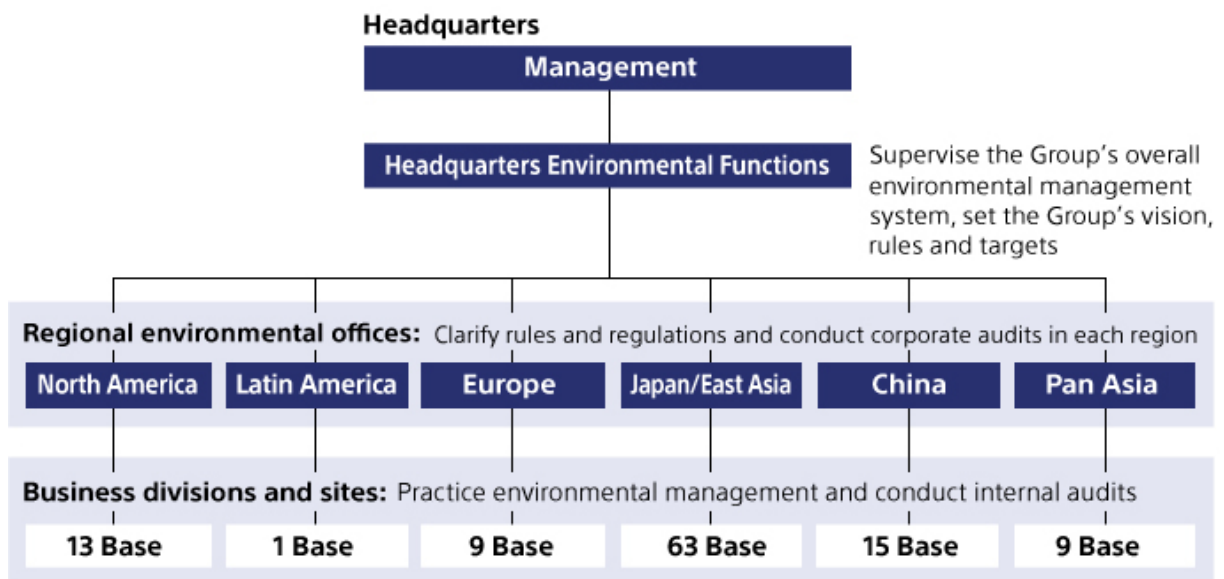
*2 The scope of integrated ISO 14001 certification is all manufacturing, distribution centers with 100 or more employees and non-manufacturing sites with 1,000 or more employees.

Specialized Functions for Environmental Management

To deal with the increasingly diverse and complex environmental issues that 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. The Sony Group's environmental headquarters is overseen by management, and a Sony Corporation corporate executive officer assumes ultimate responsibility.

Each of these specialized functions works together with regional offices and departments that specialize in such areas as product quality, customer service, 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. The offices are in six regions, namely: North America, Latin America, Europe,*1 Japan/East Asia,*2 China,*3 and Pan Asia.*4

The Sony Group Global Environmental Management System (As of March 31, 2017)



Integrated ISO 14001 certification for 110 Sony Group sites worldwide

- *1 The Europe environmental office supervises divisions/sites in the nations of Europe, Turkey, Israel, Russia, and former Soviet Union (except for Tajikistan, Turkmenistan, and Uzbekistan).
- *2 The Japan/East Asia environmental office supervises divisions/sites in Japan, Taiwan region and South Korea.
- *3 The China environmental office supervises divisions/sites in mainland China and Hong Kong.
- *4 The Pan Asia environmental office supervises divisions/sites in Asia (except for divisions/sites supervised by the Europe environmental office, the Japan/East Asia environmental office, and the China environmental office), Mongolia, Middle East, Oceania, Africa, Tajikistan, Turkmenistan, and Uzbekistan.

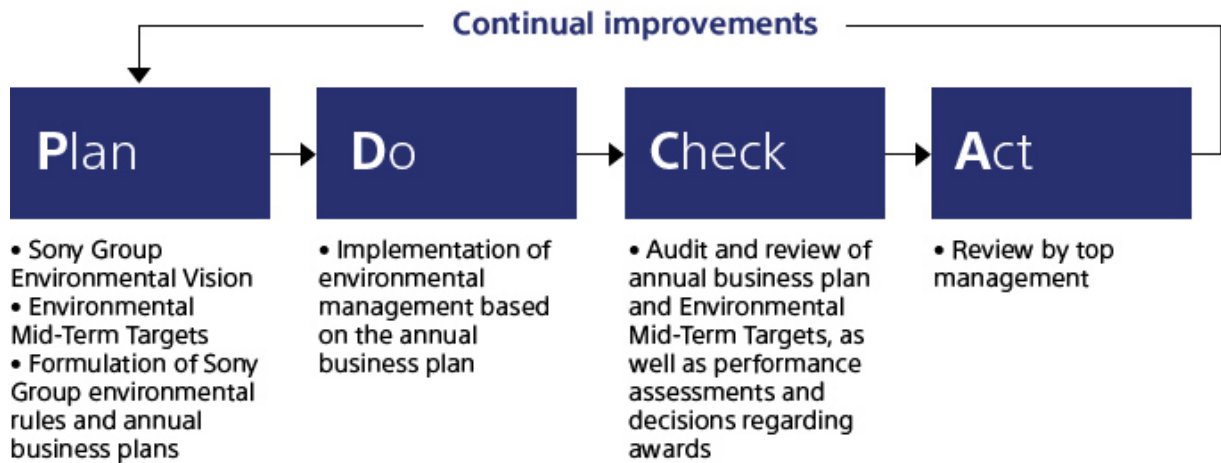
Continual Improvement by Using the PDCA Cycle

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 level 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 the 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 broad environmental education for employees that is tailored to specific objectives or the type of work they perform.

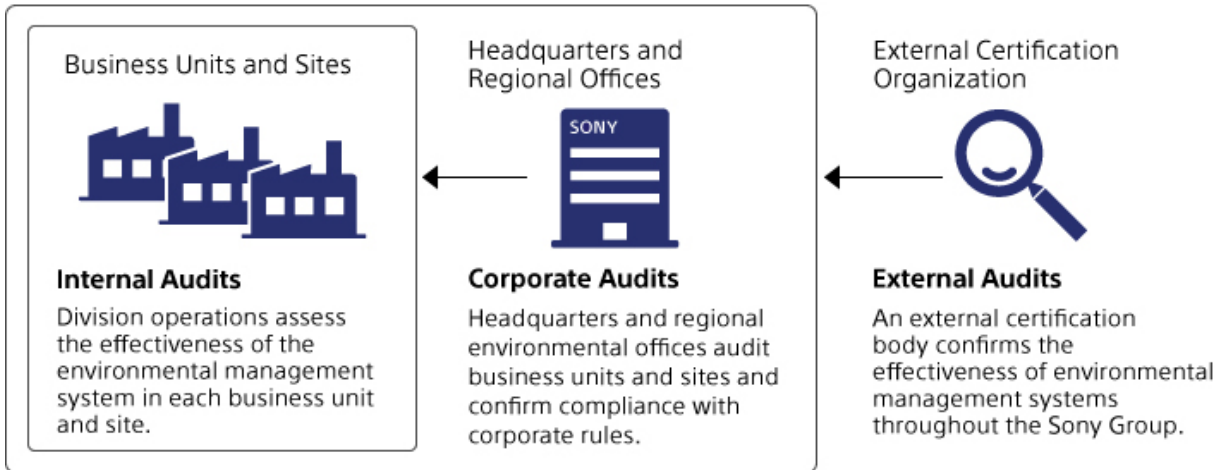
The Sony Group Environmental Management System PDCA Cycle



Environmental Audits

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. In internal audits, business units and sites independently confirm the effectiveness of their own organization's environmental management system. In corporate audits, headquarters or regional environmental offices conduct audits of business units and sites in order to verify compliance with corporate rules. In external audits, an external certification body conducts audits to determine the effectiveness of environmental management systems throughout the Sony Group.

Sony Group Environmental Audit System



Environment

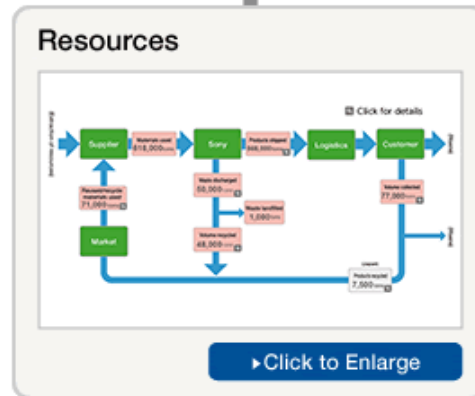
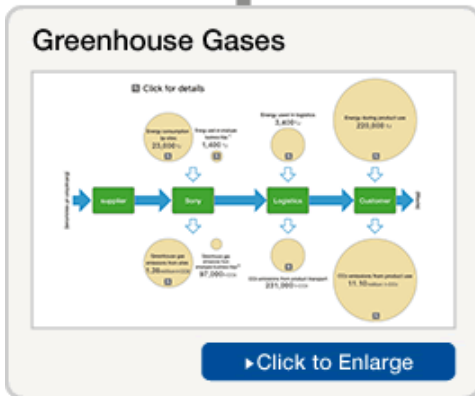
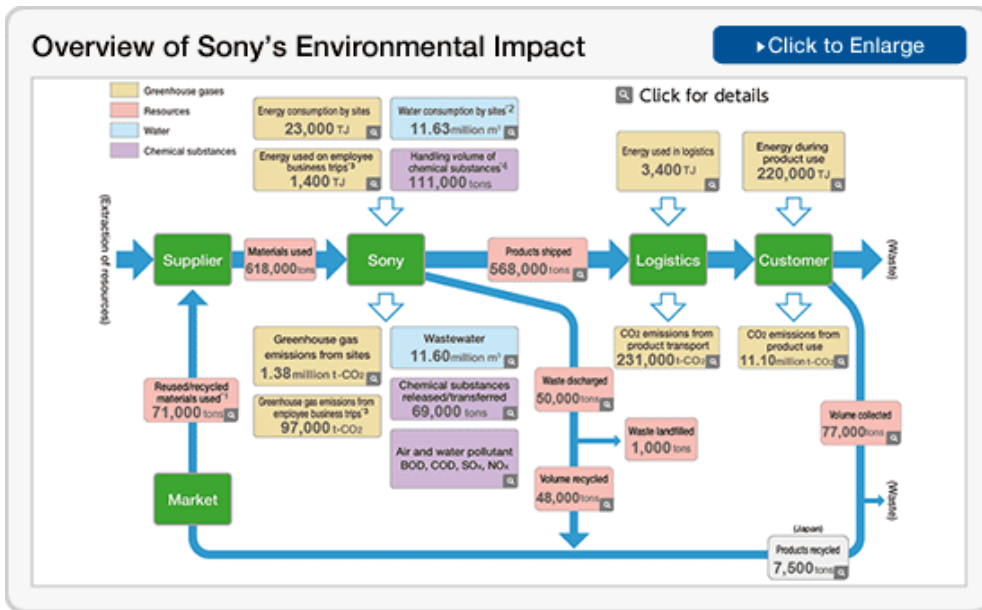
Updated on August 23, 2017

Overview of Sony's Environmental Impact

Sony's business activities 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

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 customers, and the recycling and disposal of products after use. The chart shows the principal environmental impact during fiscal 2016 for items that Sony can recognize and manage directly.



Links to Related Items:

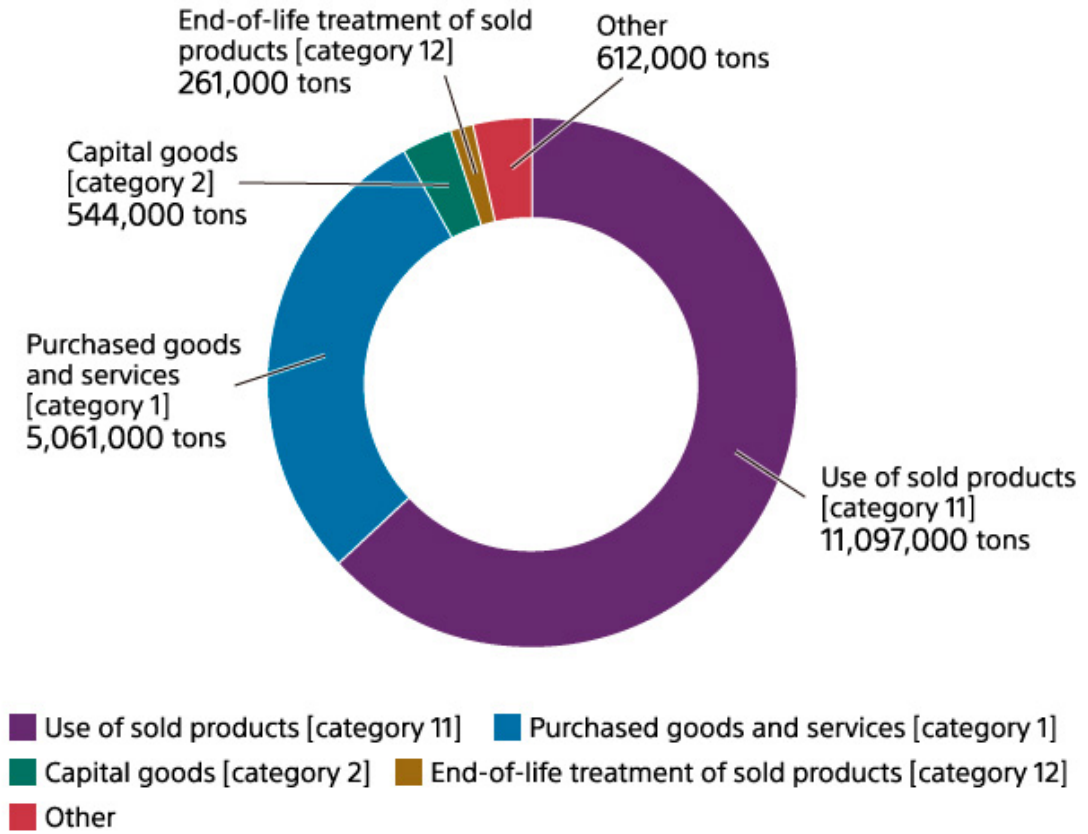
[Environmental Data > Environmental Data Collection Methods and Rationale](#)

Assessing Greenhouse Gas Emissions over the Entire Value Chain

The recent escalation of climate change issues has prompted corporations to broaden the scope of efforts to ascertain the greenhouse gas emissions not just of their own operations but also those throughout their entire value chain.*1 Sony has determined emissions from its major component suppliers and manufacturing contractors. Furthermore, based on the level of emissions identified, Sony has estimated greenhouse gas emissions for its entire value chain.*2 The amount of greenhouse gas emissions from Sony's overall value chain in fiscal 2016 is estimated to be approximately 17.58 million tons. The largest volume of emissions, approximately 11.1 million tons, was from "energy consumed during product use." The next-largest category was "goods and services procured," which includes raw materials and components, at approximately 5.06 million tons. 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 Value chain refers to the entire product life cycle process, from procurement of materials through to manufacturing, use and disposal. It includes upstream and downstream manufacturing processes.
- *2 Estimated greenhouse gas emissions are 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



Status of Scope 3 Emissions per Category

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

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

[For more information on scope 3 emissions, please refer to "Greenhouse Gas Emissions > Scope 3".](#)

Environment

Updated on August 23, 2017

Mid-Term Targets for the Development of Environmental Technologies

Sony's Green Management 2020 environmental mid-term targets, which extend through fiscal 2020, include the following targets for technology development (innovation). Under these targets, Sony is changing its business models and developing new businesses, in addition to developing environmental technologies.

Green Management 2020 Targets for Technology Development (Innovation)

Climate Change, Resources, Chemical Substances	<ul style="list-style-type: none"> ● Promote the development of environmental technologies, and contribute to the establishment of technologies that result in reducing the environmental impact ● Promote the development of business models that contribute to reducing the environmental impact of the products and services provided in all fields
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Environment

Updated on August 23, 2017

Developing the Environmental Technologies of the Future

Triporous™ Plant-Based Porous Carbon Material

Humankind is facing a major challenge with global environmental pollution due to industrialization, and therefore is creating a strong demand for technological solutions. Sony has responded by developing Triporous™, a new carbon material that can be used to enhance water and air quality, and help make improvements on several environmental issues. Triporous™ is made from rice husks and other raw biomass materials that contain silica (a component of glass), which are processed to give the material a unique, fine structure that easily absorbs substances that are otherwise difficult to absorb using existing technology. Triporous™ can be used to make filters that effectively remove pollutants such as high-molecular-weight organic molecules, viruses, and allergens from water and air. In 2014, Sony received The 21st Century Encouragement of Invention Prize from the Japan Institute of Invention and Innovation for developing Triporous™ technology.

Japan alone generates more than two million tons of rice husk waste each year. Sony is currently developing technology and practical applications for Triporous™, to help recycle excess biomass (rice husks) and address global environmental pollution.



Triporous™ and its logo

Synecoculture

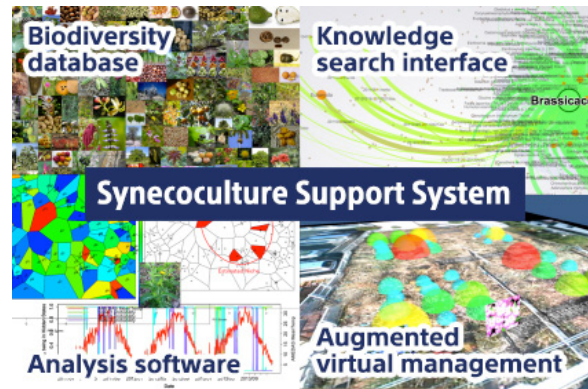
Conventional agriculture largely focuses on increasing productivity from a single crop, by plowing top soil, spreading fertilizer, and applying pesticides based on the characteristics of the crop. These practices damage ecosystems and cause other environmental problems. Sony Computer Science Laboratories, Inc. (Sony CSL) is testing applications for synecoculture, a sustainable agricultural practice that balances productivity with the need to reduce environmental impact.

Synecoculture eliminates the need for plowing, fertilizing, and pesticide use that impact the environment, by taking maximum advantage of the material cycling that occurs naturally in ecosystems, aiming to create rich ecosystems with a diverse mix of plants that coexist together and grow lushly. Synecoculture requires vast knowledge of plant ecology, and for several years Sony CSL has been conducting tests at a number of farms, cultivating a blend of plants in order to collect data on plant compatibility and soil conditions.

Sony CSL is also using IT to develop systems to support greater social ecological diversity including synecoculture.



A synecoculture farm, where a diverse blend of useful plants is cultivated together



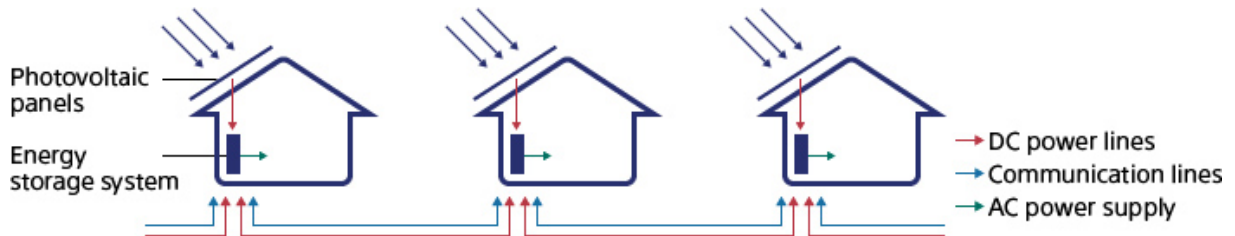
Elements of Synecoculture support system

Open Energy Systems

Although renewable energy sources such as solar and wind power generation have been attracting much attention in recent years, 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)," a whole new type of bottom-up, distributed electric power system, which mainly uses renewable energy sources. From fiscal 2013 to 2016, Sony CSL collaborated with the Okinawa Institute of Science and Technology Graduate University (OIST) on a joint industry-academic research project entitled, "Research Related to Distributed DC Power Control for the Realization of OES." The research was selected by the Okinawa Prefectural Government to be part of its subtropical and island energy infrastructure technology research subsidy program. Under the project, Sony CSL installed photovoltaic panels and energy storage systems at 19 faculty housing units in the OIST campus, and built a DC-based OES (DCOES) to interconnect the housing with DC power lines. The installation has been used to test automatic power exchange between the housing units since December 2014.

DCOES Powering 19 Residences in the OIST Faculty Housing Area



The electric power interchange system automatically compensates for imbalances between power generation and electricity consumption across residences, which are interconnected by DC power lines and communication lines.

Environment

Updated on August 23, 2017

Environmental Mid-Term Targets for Products and Services

Sony's Green Management 2020 environmental mid-term targets, which extend through fiscal 2020, include the following targets for product/service planning and design. Under these targets, Sony is working to develop environmentally conscious products in the electronics business and to raise awareness of the environment through the entertainment business.

Green Management 2020 Targets for Product/Service Planning and Design

<p>Overall</p>	<ul style="list-style-type: none"> ● Employ environmental features in products ● Promote environmentally conscious design throughout the life cycle (during production, in use, at disposal, etc.) ● Raise awareness and inspire action on issues of sustainability from over 500 million people in the world through the entertainment business
<p>Climate Change</p>	<ul style="list-style-type: none"> ● AC powered devices*1: Reduce annual energy consumption by 30% (average reduction rate) (compared with FY2013) ● Mobile phones and tablets: Power consumption at no load condition and in battery maintenance mode: No more than 0.03 W ● DC powered devices*2: Improve energy efficiency and charging efficiency

<p>Resources</p>	<ul style="list-style-type: none"> ● Reduce amount of virgin oil-based plastics per product unit by 10% (average reduction rate) (compared with FY2013) ● Reduce and substitute key resources other than oil-based resources ● Aim to minimize resource inputs ● Promote design for recycling
<p>Chemical Substances</p>	<p>Eliminate high-risk applications of "Controlled Substances*3" that are of high concern (polyvinyl chloride, brominated flame retardants, etc.) and use alternative substances</p> <p>Apply Sony Mobile Critical Substance directive for all products sold by and marked with Sony Mobile Communication Inc. on the product and/or box.</p>
<p>Biodiversity</p>	<p>Promote the use of recycled paper and certified paper</p>

*1 AC powered devices refers to energy-using products which operate the intended main function with energy input from the main power source (the main electricity grid)

*2 DC powered devices refers to energy-using products which operate the intended main function only with energy input from the battery

*3 "Controlled Substances" is an abbreviation for "Environment-related Substances to be Controlled," and it refers to substances contained in parts and devices that Sony considers to have significant environmental impact on both humans and the global environment

Environment

Updated on August 23, 2017

Reducing Greenhouse Gas Emissions

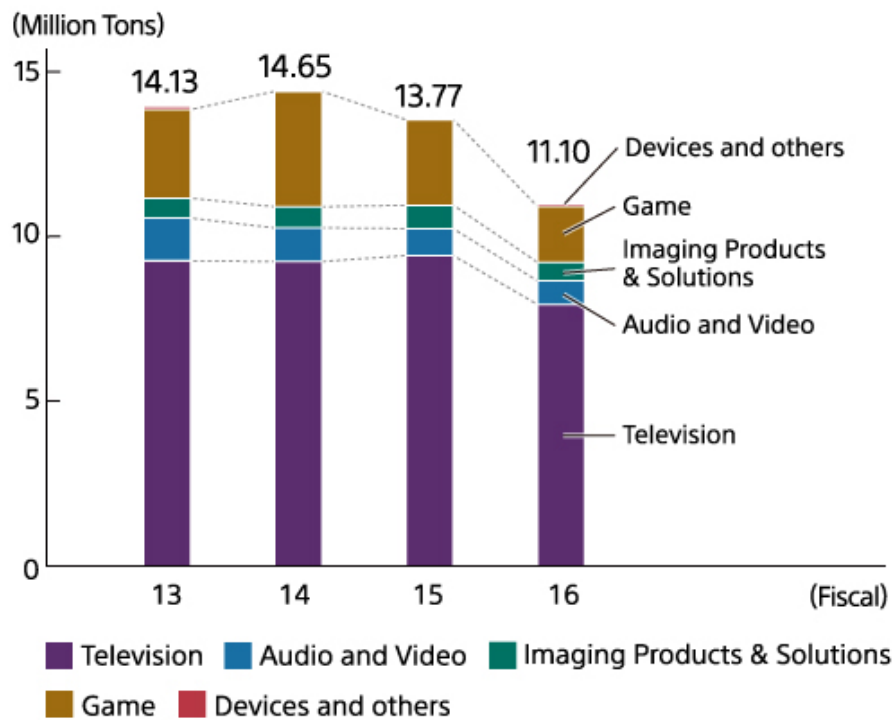
Energy Consumption per Product Reduced by 37.6% from the Fiscal 2013 Level

Sony products consume electrical power while used by their owners, resulting in indirect emissions of CO₂. Sony has adopted the target of reducing annual energy consumption per product*1 from product use by 30% by fiscal 2020 compared to the fiscal 2013 level. To achieve this, Sony is working to incorporate energy-saving features in a wide range of product categories. In fiscal 2016, annual energy consumption per product was 37.6% lower than in fiscal 2013. In particular, Sony has made great progress in reducing the power consumption of flat screen televisions and game consoles. Sony's total CO₂ emissions over the entire life cycle of all products sold in fiscal 2016 were approximately 11.10 million tons, which was 19% lower than in fiscal 2015, mainly due to the decreased energy consumption of game consoles.*2

*1 Energy-using products which operate the intended main function with energy input from the main power source (the main electricity grid)

*2 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.

Greenhouse Gas Emissions from Products Use



Reducing Product Power Consumption

Sony sets specific fiscal year targets to reduce product energy consumption in every product category. To achieve these targets, Sony engages in ongoing technology development to improve energy efficiency, while continually studying products for potential improvements and implementing diverse measures to reduce energy consumption. Regulations governing energy efficiency of products, such as the Energy-related Products Directive (ErP) enacted in the European Union in 2010, are enforced in countries around the world, and Sony products are ready for compliance in every country before these regulations go into effect.

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

[Reducing the Power Consumption of PlayStation®](#)

[Reducing the Power Consumption of Data Projectors](#)

[Reducing the Power Consumption of Speakers with the Use of Magnetic Fluid](#)

Environment

Updated on August 23, 2017

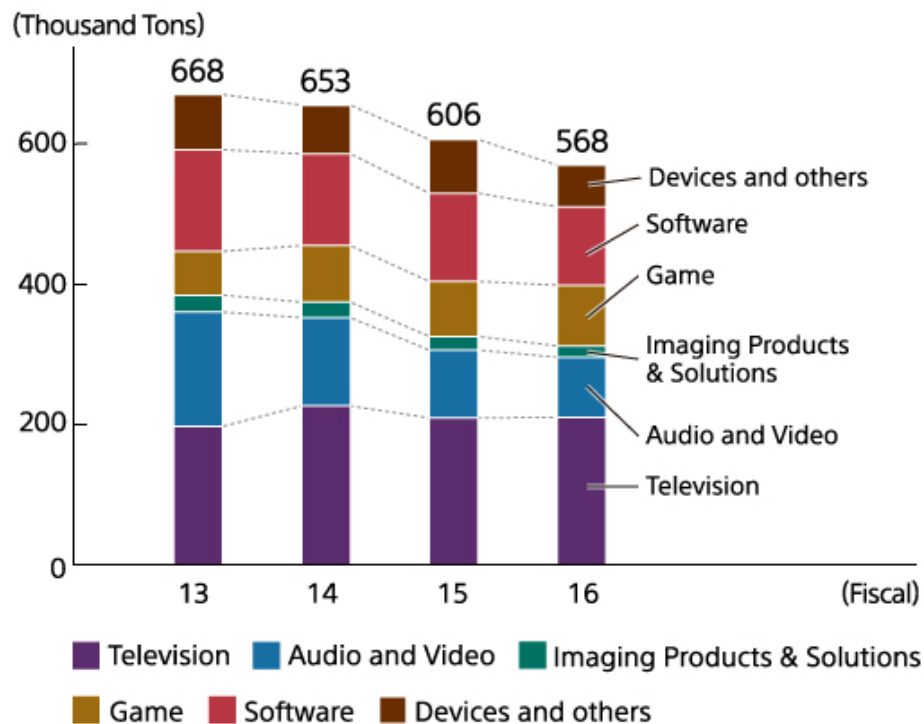
Conserving Resources

Reducing Resources Used in Products

Under its targets for minimizing resource inputs, Sony worked to reduce the average mass of products. In fiscal 2016, the total volume of resources used in products was approximately 570,000 tons,* which was down around 6% from fiscal 2015.

* Total volume of resources used is the total weight of resources used in products, accessories, instruction manuals and packaging materials. The weight of total products shipped is used to represent this value.

Total Volume of Resources Used in Products



Using Fewer Resources in Products and Packages

Sony is working to make its products and packages even more lightweight and compact across a wide range of product categories in order to conserve resources.

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

[Reducing the use of resources in the body of PlayStation®](#)

[Digital 4K camcorder Handycam®](#)

[Reducing the use of resources in the body of Action Cam](#)

[Reducing the use of resources in the packages for soundbars and home theater systems](#)

[Reducing the use of resources in the package for Xperia Ear™](#)

[Packaging made with post-consumer recycled PET bottles](#)

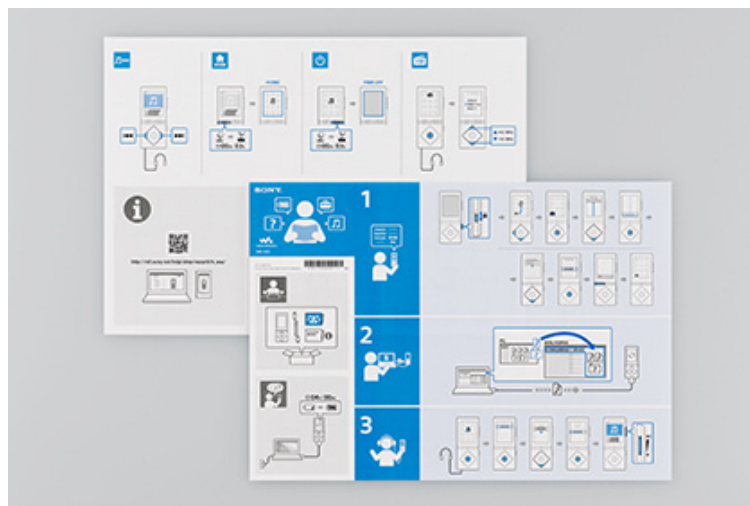
Digitization of Product Manuals

Sony is conserving resources by making documentation digitally available for downloading, while working to keep documents readily understandable as documentation volume grows in support more multi-functional products. As a result, customers can more readily view documentation on a variety of devices including PCs, tablets, and smartphones, while the amount of paper used to print documentation is being reduced. Fewer printed pages also mean less carbon emissions from printing and having to ship documentation with products.

Textless Quick Start Guides

As part of initiatives to conserve resources in documentation, Sony has adopted

textless quick start guides for Sony Walkman® and headphone products sold in markets outside of Japan. These universal quick start guides, included with each product, use illustrations to guide consumers through setup and basic operation, replacing multilingual documentation that used to be written in as many as nine languages. With textless quick start guides, consumers can directly comprehend the instructions no matter what language they speak, and without having to look up the instructions in their preferred language. Since the introduction of the textless quick start guide for Sony Walkman® and headphone products in fiscal 2015, Sony has reduced approximately 61 tons of paper. Textless quick start guides also help to reduce the bulk and weight of product packaging. Sony received a Good Design Award 2015 in recognition of its fresh approach to using textless documentation.



Textless quick start guide for Sony Walkman® overseas model

Sony Financial Group—Going Paperless

The Sony Financial Group is reducing the use of paper for contracts and transactions, both to conserve paper resources and reduce mailing that produces carbon emissions. In October 2012, Sony Life Insurance Co., Ltd. updated its sales support system through the large-scale deployment of some 5,000 devices, which

enable staff to electronically fill out insurance applications, effectively making the process paperless. Sony Bank Inc. encourages customers to sign up to digitally receive records for investment trust transactions, while Sony Assurance Inc. enables consumers to apply for vehicle and medical insurance online, eliminating the printing and mailing of application forms. Consumers who apply for vehicle insurance online can also opt out of receiving a printed copy of their insurance papers, receiving a 500-yen discount off the price of their insurance for going paperless.

Environment

Updated on August 23, 2017

Reducing Use of Virgin Plastics

Virgin Plastic Used Per Product Reduced by 6.9% from Fiscal 2013 Level

Sony has set a target of reducing virgin plastic used per product by 10% from the fiscal 2013 level, by fiscal 2020. To achieve this target, Sony has been working to incorporate recycled plastics into products while also reducing product size. In fiscal 2016, virgin plastic used per product was down 6.9% from the fiscal 2013 level. The main factors in the reduction were the increased use of recycled plastic in televisions, media players, and camcorders, and reductions in the size and weight of game consoles.

Incorporating Recycled Plastic

To reduce the consumption of virgin plastic, Sony has expanded the use of recycled plastics in a broad range of product categories by developing recycled plastics while elevating quality and reducing manufacturing costs. Sony recently developed a recycled plastic for audio products that actually improves sound quality while retaining a high percentage of recycled content. This recycled plastic was used in soundbars and home theater systems that were sold in 2016.

In fiscal 2016, the Sony Group used some 16,000 tons of recycled plastic* in its products. This amount consisted of approximately 67% recycled plastic content from scraps and other waste materials generated from manufacturing by the Sony Group and other companies, and approximately 33% post-consumer recycled plastic content from used products, containers, and other sources.

- * Consumption of recycled plastic is based on the gross value including virgin plastic and additives that are mixed with recycled materials.

[For more information on recycled plastic in audio products, please refer to "Recycling and better listening experience" at the Sony and the Environment website.](#)

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

[Using recycled plastic in soundbars and home theater systems](#)

[Action Cam manufactured with recycled plastics](#)

[Handycam® digital 4K camcorder with recycled plastics](#)

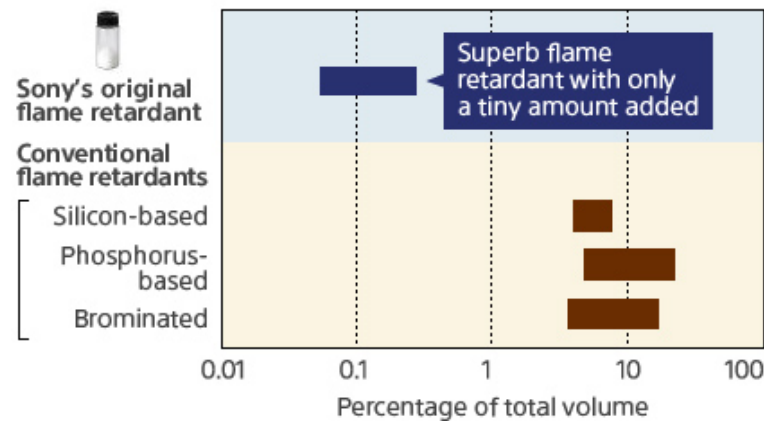
SORPLAS™, Sony's Original Flame-Retardant Recycled Plastic

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 – itself 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 makes it possible to impart flame-retardancy by the addition of a very small amount of less than 1% or less of total content, SORPLAS™ not only surpasses conventional flame-retardant plastics in terms of durability, flame-retardancy and recyclability, but also achieves an outstanding utilization rate of up to 99% waste plastics. The effective utilization of SORPLAS™ has been shown to reduce CO₂ emissions in product manufacturing by up to 80%.* Moreover, Sony's versatile waste-plastic compounding technology makes it possible to tailor SORPLAS™ to the needs of a variety of products. Sony

first used SORPLAS™ in its products in 2011 and has since incorporated it into a wide variety of Sony products. Then, in 2014, Sony commenced external sales. Sony will continue to make SORPLAS™ widely available also outside the group, promote resource recycling, and contribute to a society with a reduced environmental impact.

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

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



Links to Related Items:

[Products and Services > Environmentally and Socially Beneficial Products and Services > External Sales of SORPLAS™ Recycled Plastic](#)

Click here for Sony and the Environment, which features detailed information on environmental initiatives.

[Using SORPLAS™ in the Xperia Ear™ earphone](#)

[Using SORPLAS™ in the Handycam® digital 4K camcorder](#)

[Sony's Environmental Technology > Leading the development of recycled plastics](#)

Environment

Updated on August 23, 2017

Management of Chemical Substances

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

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*2 mark, 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 J-Moss refers to 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 was enforced in July 1, 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 Management Regulations for the Environment-related Substances to be Controlled which are Included in Parts and Materials (SS-00259) refers to Sony standards that are used for giving directions to suppliers on chemical substances for items procured by Sony. 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 more information, please refer to "Management Regulations for the Environment-related Substances to be Controlled which are Included in Parts and Materials (SS-00259)" at the Sony website.)

Complying with Regulations Governing Chemical Substances in Products

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 has adopted the chemSHERPA*2 scheme based on IEC62474.*3 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) is a regulation 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 [Environmental Management](#) (only available in English).

- *2 chemSHERPA is a scheme that facilitates sharing information throughout an entire supply chain on chemical substances that may be used in products. Discussions on chemSHERPA commenced in 2013 under the guidance of the Ministry of Economy, Trade and Industry of Japan. A data compilation support tool was released in October 2015, and is now in use.
- *3 IEC 62474 is a set of international standards, issued in March 2012, regulating the procedures, content, format and other aspects of reporting within the supply chain regarding the presence of chemical substances and constituent materials in electrical and electronic goods.

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:

- * Management Regulations for the Environment-related Substances to be Controlled which are Included in Parts and Materials (SS-00259) refers to Sony standards that are used for giving directions to suppliers on chemical substances for items procured by Sony. 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 more information, please refer to "Management Regulations for the Environment-related Substances to be Controlled which are Included in Parts and Materials (SS-00259)" at the [Sony website](#).)

Upstream management

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 manufacturing partners. 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, and other materials that are commonly used by multiple first tier suppliers. To assist REACH compliance, Sony has started to collect information on raw materials listed in Green Book data on the content of certain chemical substances and makes this data available to its suppliers and contract manufacturers.

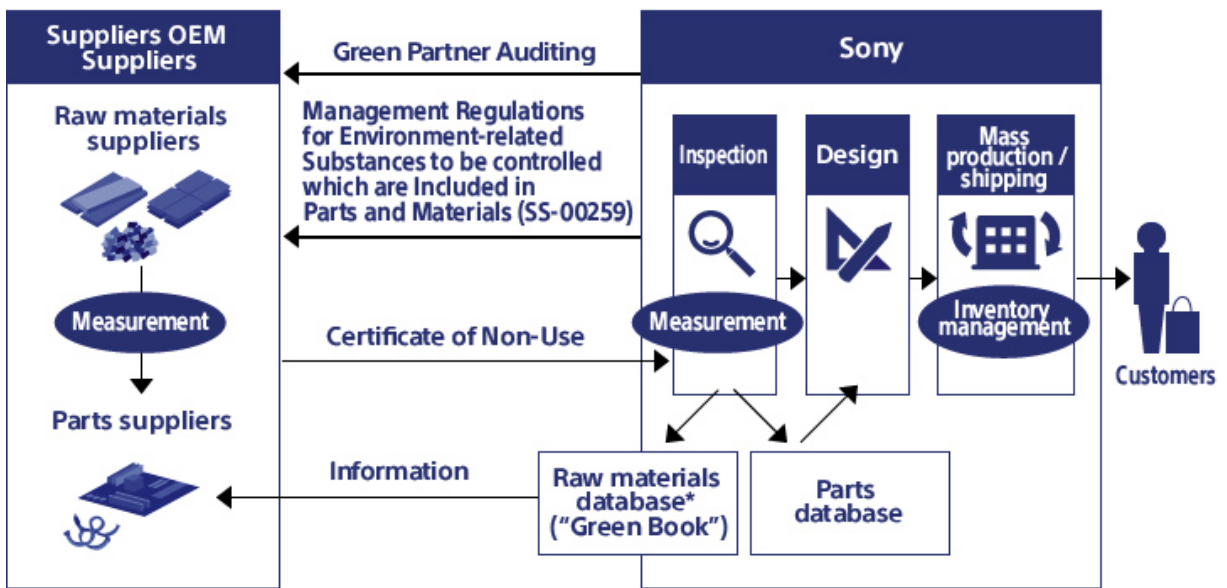
Management in Quality Control/Quality Assurance processes

New parts and materials are tested to ensure conformity with SS-00259 standards in addition to compliance with conventional quality control standards. Data on the content of certain chemical substances collected from suppliers are thoroughly evaluated for this purpose. By implementing these strict management procedures worldwide, incompliant products are prevented from entering the market.

Utilization of chemical analysis

To prevent prohibited substances from accidentally entering products, Sony requires suppliers to conduct ICP analysis on the specific parts and materials. 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.

System for Managing Chemical Substances in Products



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

Substance Management in Xperia™ Smartphones and Tablets

Sony Mobile Communications inc. (SOMC) is promoting efforts to manage chemical substances in its Xperia™ Smartphones and tablets. Starting in 2002, SOMC was known as one of the first companies in the industry to phase-out brominated flame retardants (BFRs) in mobile phone (circuit boards, cables and casings). Since then SOMC has continued the journey and phased out BFRs in all parts, and also phased out chlorinated flame retardants (CFRs), polyvinyl chloride (PVC), as well as phthalates, beryllium, and antimony trioxide in plastic and resin. Going forward, SOMC will continue phasing out all brominated and chlorinated compounds as well as antimony.

For more information on the management of chemical substances for Xperia™, please refer to "Sustainability/Substance control" at the Sony Mobile Communications website.

For more information on SOMC critical substances, please refer to "Sony Mobile Critical Substance list" at the Sony Mobile Communications website.



Xperia™ XZ smartphone

Information on Color IQ™* Incorporated in Some Television Models

Some of the televisions sold by Sony employ Color IQ™, a light-emitting semiconductor technology developed by QD Vision, Inc. of the US. Combining QD Vision's Color IQ™ optical components with Sony's proprietary display technologies greatly expands the color gamut for display devices and makes it possible to provide a visual experience characterized by more natural, richer colors. The Color IQ™ component 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 high image quality without being exposed to cadmium.

Color IQ™ televisions comply with all applicable environmental laws and regulations in countries and regions where Sony sells them. 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 televisions, in accordance with applicable local environmental laws and regulations.

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

For more information, please refer to ["Information on "Color IQ™" Incorporated in Some Television Models"](#) at the Sony website.

Management of Chemical Substances in Packaging Materials

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.

Environment

Updated on August 23, 2017

Reduction and Replacement of Chemical Substances of Very High Concern

Sony defines "Environment-related Substances to be Controlled" (hereafter "Controlled Substances") as certain chemicals that it has determined to have significant impact on both humans and the global environment, including substances that may not be controlled by laws. (Please refer to the list "Controlled Substances' Defined by Sony.") Sony either prohibits the use of these substances in parts or phases them out wherever a viable alternative that meets all product quality and technical requirements is available. In its Green Management 2020 mid-term management targets, Sony specifies high-risk applications from collected application- and content-related information, considering the hazardous nature and extent of exposure (volume) as risk factors, and plans to prohibit the "Controlled Substances" in the specified use.

"Controlled Substances" Defined by Sony	
Bis (2-ethylhexyl) phthalate (DEHP)	Dibutyl phthalate (DBP)
Benzyl butyl phthalate(BBP)	Diisobutyl phthalate(DIBP)
Cadmium and cadmium compounds	Lead and lead compounds
Mercury and mercury compounds	Chromium(IV) compounds
Polybrominated biphenyls (PBBs)	Polybrominated diphenylethers (PBDEs)
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified	Polychlorinated biphenyls (PCBs) and specific substitutes
Polychlorinated naphthalenes (PCNs)	Polychlorinated terphenyls (PCTs)
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCP)	Tris(2-chloroethyl)phosphate (TCEP)

Tris(1-chloro-2-propyl)phosphate (TCPP)	Tris (1,3-dichloro-2-propyl) phosphate (TDCPP)
Fluorinated greenhouse gases (PFC, SF ₆ , HFC)	Ozone depleting substances (ODS) (CFC, Halon, Carbon tetrachloride, 1,1,1-Trichloroethane)
Ozone depleting substances (ODS) (HCFCs)	Perfluorooctane sulfonates (PFOS)
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	Tri-substituted organostannic compounds
Dibutyltin (DBT) compounds	Diocetyl tin (DOT) compounds
Beryllium oxide	Cobalt dichloride
Diarsenic trioxide	Diarsenic pentoxide
Nickel	Diisononyl phthalate (DINP)
Di-isodecyl phthalate (DIDP)	Di-n-Octyl phthalate (DNOP)
Asbestos	Formaldehyde
Azocolourants and azodyes which form certain aromatic amines	Benzenamine, N-phenyl-, reaction products with styrene and 2,4,4-trimethylpentene (BNST)
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	Dimethyl fumarate (DMF)
Polycyclic aromatic hydrocarbons (PAH)	Brominated flame retardants (BFR)
Chlorinated flame retardants(CFR)	Di-n-hexyl phthalate (DnHP)
Perchlorates	Radioactive substances
Substances in candidate list for authorization of EU REACH regulation	Polyvinyl chlorides (PVCs) and PVC compounds

Note: Control level varies depending on application.

Polyvinyl Chloride (PVC)

Improper disposal of PVCs poses a risk of generating hazardous substances. For example, Sony is concerned about the possibility that its small electronic products, in particular, could be collected to obtain valuable materials, and then the unwanted parts could be improperly incinerated and disposed of in landfills, thus causing adverse environmental impacts. In addition, there are also concerns about the environmental and health impact of some of the substances used as plasticizers and stabilizers in PVCs. Although PVCs are not currently regulated by any laws that apply to chemical substances used in electronic products, Sony works to reduce PVC content in individual components.

As a result, Sony does not use PVCs in product packaging materials (with the exception of some packing materials for devices, semiconductors, batteries, and similar items) or in sheets/laminates used for product housings, contactless IC cards, and carrying bags/cases for products (excluding those for professional use). Sony has also successfully replaced PVCs by substitute materials for internal components that are difficult to remove prior to recycling, such as flexible flat cables, insulation plates, and heat-shrink tubes (excluding those for batteries). Also, Sony is working to end the use of PVCs in the housings and internal wiring of small electronic devices (the adoption of alternatives is subject to the ability to resolve issues relating to quality, technology, and supply).

As of the end of July 2017, Sony has replaced PVCs in the following products with alternative materials.

[For more information, please refer to "Examples of Polyvinyl Chloride \(PVC\)-Free Products and Brominated Flame Retardant \(BFR\)-Free Products."](#)

PVC-Free Product Categories*
Xperia™ Smartphone
Xperia™ Tablet
MP3 players WALKMAN®
IC recorder/ Portable Radio Recorder
Video Camera Handycam®
Video Camera Action Cam
Digital Still Camera Cyber-shot™
Interchangeable lens digital camera α™
PlayStation®Vita
Portable DVD Player
Portable Blu-ray Disc™/DVD Player
Memory Stick™
SxS™ memory card

- * PVCs have been eliminated from all plastic components in Xperia™ smartphones and tablets, and from the casings and internal wiring (excluding accessories) in products other than Xperia™ smartphones and tablets.

Brominated Flame Retardants (BFRs)

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 has banned the use of components and materials containing any of three specified BFRs – polybrominated diphenyl ethers, polybrominated biphenyls, or hexabromocyclododecanes – and is working to phase out BFRs (the adoption of which is subject to the resolution of issues relating to quality, technology, and supply). Sony has also developed an environmentally sound, bromine-free flame retardant for the manufacture of a polycarbonate plastic flame retardant that is

used in such products as the LCD TV Bravia™ XBR-65X900E flat-screen TV and the Cyber-Shot™ DSC-HX400V digital camera.

As of the end of July 2017, Sony has replaced BFRs in the following products with alternative substances.

For more information, please refer to ["Examples of Polyvinyl Chloride \(PVC\)-Free Products and Brominated Flame Retardant \(BFR\)-Free Products."](#)

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™
Interchangeable lens digital camera α™
PlayStation®Vita
Portable DVD Player
Portable Blu-ray Disc™/DVD Player
Memory Stick™
SxS™ memory card

* BFRs have been eliminated from all plastic components in Xperia™ smartphones and tablets, and from the casings and main PWBs(excluding accessories) in products other than Xperia™ smartphones and tablets.

Sony has 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).

Phthalates

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 the phthalates DEHP, DBP, BBP, DIDP, DNOP and DINP* from Xperia™ smartphones.

* DEHP stands for bis (2-ethylhexyl) phthalate and di (2-ethylhexyl) phthalate; DBPs for dibutyl phthalate and di-n-butyl phthalate; BBPs for benzyl butyl phthalate and butyl benzyl phthalate; DIDP for di-isodecyl phthalate; DNOP for di-n-octyl phthalate; and DINP for di-isononyl phthalate.

Beryllium Compounds

Sony has designated beryllium oxide 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

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

Updated on August 23, 2017

Creating Environmentally Conscious Products

Examples of Environmental Features in Sony Products

Sony makes products that are not only superior in terms of functionality, performance, and quality, but also impose less of an environmental impact and are much loved by their users. Some of the best examples of such products are introduced on the Sony and the Environment website.

Environmental Features in Sony Products

Click here to proceed to the Sony and the Environment website.

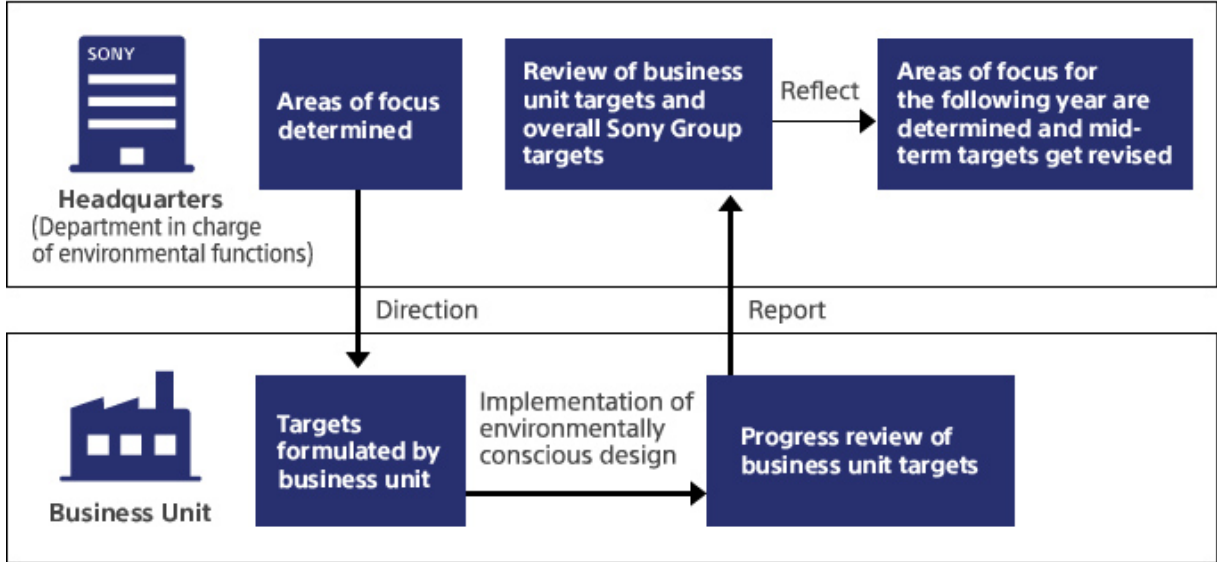


Promoting Environmentally Conscious Design

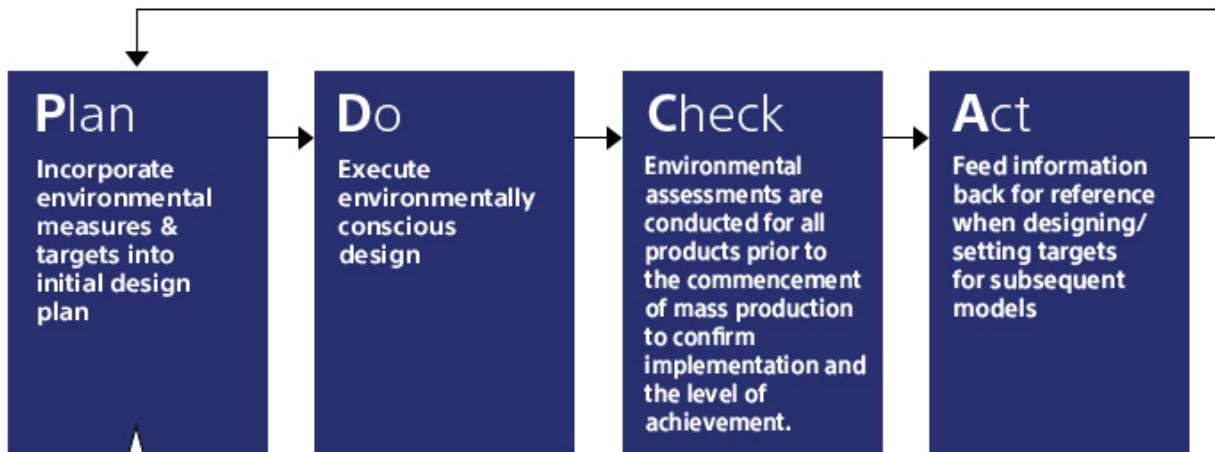
The Sony Group's mid-term targets include targets for products, which involve the reduction of annual power consumption, the promotion of resource conservation and the management of chemical substances. Business units formulate their targets based on the characteristics of their product category. Then, they execute environmentally conscious design by setting environmental mid-term targets for each product. They review progress against their environmental mid-term targets for each product, and report results to the department in charge of environmental functions at headquarters. In turn, this department evaluates the targets and progress of each business unit, using these evaluations as the basis for its review of the Sony Group's progress on 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. This method enables Sony to execute ongoing environmentally conscious processes for each business unit and product, which in turn ensure the development of environmentally conscious products.

Management Structure for Environmentally Conscious Product Development



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.

Designing Recyclability into Products

One initiative Sony is taking to ensure that its products are environmentally responsible involves designing them with recyclability in mind. This means, for example, reducing the number of screws, and labeling the material type of plastic used in parts to make it easier to extract resources from used products during recycling. For example, Sony has issued Environmental Design Standards and Guidelines for TVs, which are used when planning and designing new products.

These design standards and guidelines reflect the trends in regulations inside and outside of Japan as well as Sony's mid-term environmental targets. Additionally, Sony conducts an annual review and revision of these guidelines based on industry trends and the latest recycling information, which is gathered via regular sharing of information and opinions with the Green Cycle Corporation, a Sony Group company engaged in the recycling business.



Some of the 2015 Bravia™ flat-screen televisions feature a slide-lock structure that requires fewer screws.

Environment

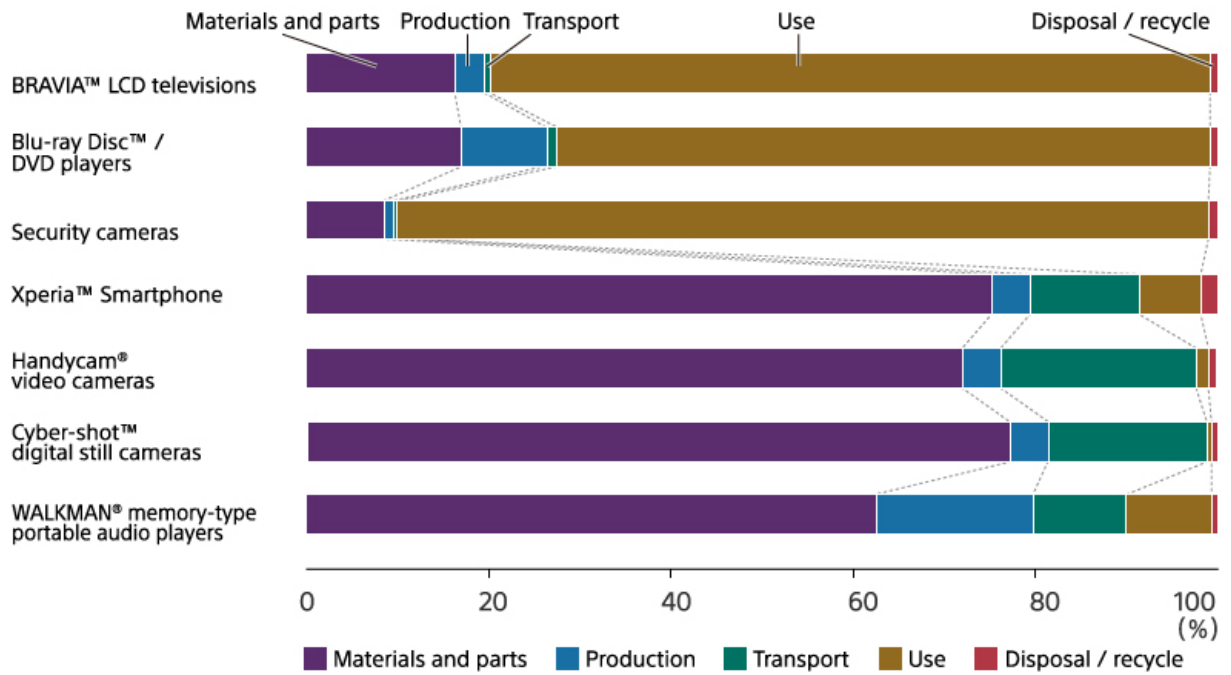
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Conducting an Life Cycle Assessment (LCA)

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 such as LCD televisions, and Blu-ray Disc™/DVD players, 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 product categories such as smartphones and digital video cameras, a large portion of CO₂ emissions occur at the manufacturing stage and in the production of materials and parts, rather than during use. 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 players : 5years : Cyber-shot™ compact digital camera : 2.7 years : Handycam® digital camcorder : 6.4 years : Xperia™ Smartphone : 4years : Security camera : 7years : Blue-ray Disc™ / DVD players : 7years : BRAVIA™ LCD television : 10years

Notes

1. This chart shows the proportion of CO₂ emissions at each stage of the life cycle. It does not indicate the degree of environmental impact of these products.
2. The assumptions (usage assumptions, shipping distance, mode of shipping, manufacturing site assumptions, etc.) used for calculation of CO₂ emissions differ among products.

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Environmentally and Socially Beneficial Products and Services

Digital Cinema Systems

Sony developed the HDW-F900, the world's first digital video camera for cinema production, back in the year 2000. Then, in 2006, Sony released 4K digital cinema projection systems featuring Sony SXRD projectors. These products helped usher in the era of energy- and resource-saving digital cinema, replacing traditional film, which uses water and chemicals for film manufacturing and processing. In addition to conserving resources, digital film distribution to theaters is simplified using hard disks, which is much more efficient than transporting cases of traditional film. In 2013, Sony released the PMW-F55 CineAlta 4K camera, which supports 4K capturing in a compact package that consumes even less power.



PMW-F55 CineAlta 4K camera



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

Video Conferencing Systems

Corporate meetings that require employees to travel from other locations generate

CO₂ emissions. The more meetings are held, the more transportation-driven emissions there are. To address this, Sony supplies video conferencing systems to help reduce CO₂ emissions associated with employee travel. Sony is improving various aspects of the video conferencing experience, including image and audio quality, while increasing the number of locations that can join a single conference. The goal is to deliver a realistic conferencing experience that enables corporations to adopt video conferencing and reduce employee travel.



PCS-XG100 HD video conferencing system

Digital Paper

Sony has been offering Digital Paper devices since 2013, featuring displays that use original Sony technology to render fine text so that it appears as sharp and readable as printed text. These devices ship with a stylus that enables users to take notes just as easily and smoothly as when using real paper. Major paper users such as universities, offices and hospitals are adopting this digital paper technology to go paperless and conserve resources.



DPT-RP1 Digital Paper

External Sales of SORPLAS™ Recycled Plastic

Sony commenced external sales of its proprietary Sustainable Oriented Recycled Plastic (SORPLAS™) in 2014. SORPLAS™ is a flame-retardant recycled plastic that offers excellent heat resistance, durability, and recyclability. It contains up to 99% recycled materials. SORPLAS™ was first used in Sony products in 2011 and has since been incorporated into a wide variety of Sony products. By now offering SORPLAS™ to other companies, Sony aims to promote the recycling of resources and help reduce the environmental impact of society as a whole. Many companies are interested in using SORPLAS™. It is already being used in a wide variety of products, including televisions, smartphones, lighting fixtures, and office supplies.



Sony's proprietary flame retardant (in vial) and two types of SORPLAS™ recycled plastic pellets

[For more information on SORPLAS™, please refer to "Leading the development of recycled plastics" at the Sony and the Environment website.](#)

[News Release: Sony commences external sales of SORPLAS™ flame-retardant recycled plastic material that achieves high durability and heat resistance, and comprises up to 99% recycled content](#)

FeliCa™ IC Card Passenger Ticketing Systems

Sony's smart card passenger ticketing system, based on FeliCa™ contactless IC card technology, is helping to alleviate air pollution in Bangladesh. The city is facing serious air pollution issues due to increasing traffic congestion. The national bus company decided to adopt a FeliCa™ smart card passenger ticketing system in order to encourage the residents of Bangladesh to use municipal buses. The FeliCa™-based system has made it easier for users to get on and off buses. This added convenience has attracted more riders, which is in turn helping to alleviate traffic congestion.

[For more information, please refer to "Solving Social Issues in Urban Bangladesh by Utilizing IC Card Technology".](#)

Supporting Environmental Projects Using Drones

The Sony Group company, Aerosense Inc., supplies industrial solutions integrating drone technology with cloud services. The company supports local governments and corporations with their environmental projects and operations. Aerosense drones are being used today as part of weather observation networks to enhance monitoring for torrential thunderstorms and other dangerous weather events. They are also used to inspect wind turbine blades at wind farms. Since September 2016, Aerosense has been involved in a project tackling pine wilt disease in protected

coastal forests, which is a serious problem across Japan. The Aerosense drones use their cameras to identify damaged trees precisely. This technology is helping to establish new methods of maintaining and managing protected coastal forests.



Aerosense drone used in weather observation network

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Reducing Environmental Impact at Suppliers and Outsourcing Contractors

Environmental Mid-Term Targets for Procurement / Outsourced Operation

Sony's Green Management 2020 environmental mid-term targets, which extend through fiscal 2020, include the following targets for raw materials and component procurement and for contract manufacturers. Under these goals, Sony is working even more closely with component suppliers and contract manufacturers to reduce environmental impacts throughout the life cycle of its products and services.

Green Management 2020 Targets for Raw Materials and Component Procurement

Climate Change	Request suppliers dealing in component categories that create high environmental impact and/or suppliers involved in large business transactions to monitor greenhouse gas emissions, establish their own targets and implement reduction measures
Resources	Request suppliers dealing in component categories that create high environmental impact and/or suppliers involved in large business transactions to monitor water consumption, establish their own targets and implement reduction measures

<p>Chemical Substances</p>	<ul style="list-style-type: none"> ● Request suppliers to respond to Sony's unified standard that takes into account laws around the world restricting and banning chemical substances used, for raw materials, components and products supplied to Sony ● Request suppliers to ban from manufacturing processes the use of substances restricted in an international framework that Sony has specified
<p>Biodiversity</p>	<p>Request that consideration be given to biodiversity</p>

Green Management 2020 Targets for Outsourced Operation

<p>Climate Change</p>	<ul style="list-style-type: none"> ● Request manufacturing outsourcing contractors with large business transactions to monitor greenhouse gas emissions and reduce greenhouse gas intensity by 1% per year ● Request contractors with large business transactions to continually use renewable energy ● Prioritize the use of energy efficient data center
<p>Resources</p>	<ul style="list-style-type: none"> ● Request manufacturing outsourcing contractors with large business transactions to monitor volume of water use and reduce water use intensity by 1% per year ● Request manufacturing outsourcing contractors with large business transactions to monitor and reduce volume of waste generation

<p>Chemical Substances</p>	<ul style="list-style-type: none"> ● Request manufacturing outsourcing contractors to respond to Sony's unified standard that takes into account laws around the world restricting and banning chemical substances used, for products and partially-finished products supplied to Sony ● Request manufacturing outsourcing contractors to ban from manufacturing processes the use of substances restricted at an international framework that Sony has specified
<p>Biodiversity</p>	<p>Encourage manufacturing outsourcing contractors the environmental contribution activities (including conservation activities at Sony's sites) respecting the needs of local communities</p>

Links to Related Items:

[Environmental Policies and Targets > Overview of Sony's Environmental Impact > Assessing Greenhouse Gas Emissions over the Entire Value Chain](#)

[Products and Services > Management of Chemical Substances > Three Core Principles for Managing Chemical Substances in Products](#)

Working with Component Suppliers and Manufacturing Outsourcing Contractors to Reduce the Impact on the Environment

As part of its efforts to reduce environmental impact across the supply chain, Sony has been working with key component suppliers and manufacturing outsourcing contractors since fiscal 2016 to reduce their environmental footprint. For example, Sony has asked its manufacturing outsourcing contractors to reduce their greenhouse gas emissions and reduce water use intensity by 1% per year, while

asking component suppliers to set voluntary reduction targets. Sony also collects data on greenhouse gas emissions and water consumption relating to the manufacturing and shipping of products and components delivered to Sony.

Prioritizing Energy-Efficient Data Centers

Sony offers a wide variety of network services including gaming, Internet, and streaming services for movies and music. These services rely on data centers with facilities and components for transmitting large volumes of data to ensure seamless services for users. The amount of electricity consumed by data center equipment and facilities is increasing with the growth of network businesses. Sony's environmental mid-term targets include the target of prioritizing the use of energy-efficient data centers. Sony has been working on this by developing guidelines in fiscal 2016 that were put into effect in fiscal 2017.

Promoting Green Purchasing

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.

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Environmental Mid-Term Targets for Operations

Sony's Green Management 2020 environmental mid-term targets, which extend through fiscal 2020, include the following targets for operations at sites. Under these targets, Sony works to reduce environmental impact by taking energy-saving measures at its manufacturing sites and offices.

Green Management 2020 Targets for Internal Operations

Climate Change	<ul style="list-style-type: none"> ● Reduce absolute GHG emissions from Sony's sites by 5% (compared with FY2015) ● Use renewable energy equivalent to 300,000 CO₂-tons
Resources	<ul style="list-style-type: none"> ● Reduce absolute waste generated by 5% (compared with FY2015) ● Landfilled waste rate under 1% (excluding waste that Sony cannot control) ● Reduce absolute usage of water by 5% (compared with FY2015)

<p>Chemical Substances</p>	<p>Take actions for classes 1-4. Detailed groups of chemical substances are defined separately.</p> <p>Class 1 substances: Prohibit use</p> <p>Class 2 substances: Prohibit use (Exemptions granted for certain applications)</p> <p>Class 3 substances: Reduce the amounts released and transferred</p> <p>> Reduce the amount of VOCs released to the air by 50% from FY 2000 level</p> <p>Class 4 substances: Comply with the relevant laws and regulations and use under appropriate control</p>
<p>Biodiversity</p>	<ul style="list-style-type: none"> ● Implement environmental contribution activities (including conservation activities at Sony's sites) respecting the needs of local communities

Links to Related Items:

[Environmental Communication > Environmental Communication Activities](#)

Environment

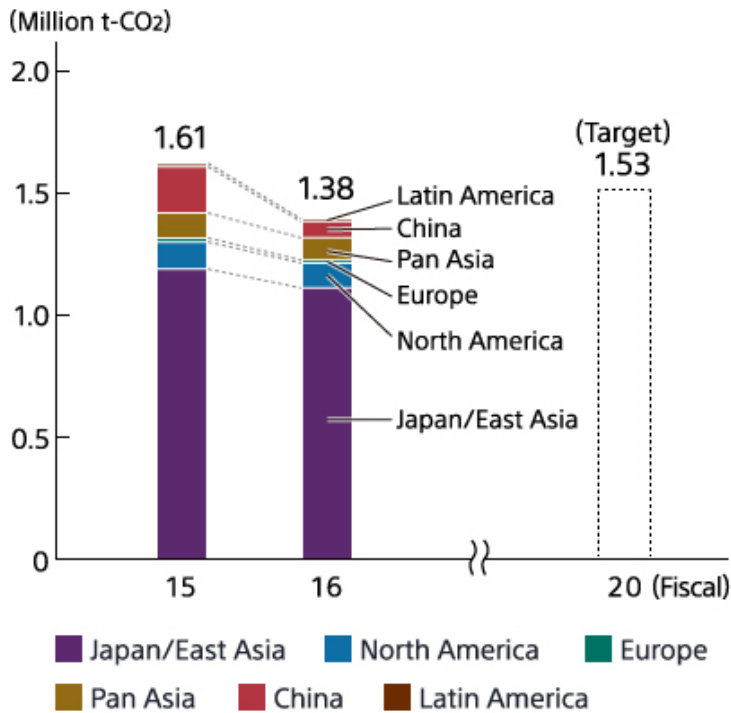
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Reducing Greenhouse Gas Emissions

Greenhouse Gas Emissions Reduced by 14% from Fiscal 2015 Level

Under the Green Management 2020 mid-term environmental targets, Sony is working to achieve an absolute reduction in greenhouse gas emissions of 5% from the fiscal 2015 level by fiscal 2020. Main efforts toward this end included striving to reduce greenhouse gases such as CO₂ related to energy consumption and cutting emissions of perfluorocarbons (PFCs) and other gases. In fiscal 2016, Sony's emissions of greenhouse gases (calculated in terms of CO₂) totaled approximately 1.38 million tons. This represents an approximately 14% reduction from the fiscal 2015 level. Greenhouse gas emissions per unit of consolidated net sales, or emissions intensity, were 0.15 tons of CO₂/million yen in Japan and 0.04 tons of CO₂/million yen outside Japan.

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



CO₂ Emissions from Energy Use at Sites

In fiscal 2016, emissions of CO₂ from energy use at Sony sites* accounted for approximately 1.25 million out of the approximately 1.38 million tons of total emissions at Sony, down by about 222,000 tons from fiscal 2015. CO₂ emissions resulting from the use of energy at sites in Japan amounted to approximately 980,000 tons, a decrease of approximately 77,000 tons from fiscal 2015. CO₂ emissions resulting from energy use at Sony sites include emissions from fuel used by Sony-owned business vehicles. In fiscal 2016, CO₂ emissions resulting from fuel used in vehicles amounted to approximately 22,000 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.

- * Emissions of CO₂ from energy use at Sony sites include CO₂ emissions from fuel use of business vehicles owned by Sony.

Emissions of PFCs and Other Greenhouse Gases

PFCs and other greenhouse gases with high global warming potential are used in cleaning and etching processes in the manufacture of semiconductors. Emissions of PFCs and other greenhouse gases in fiscal 2016 (calculated in terms of CO₂) totaled approximately 130,000 tons, up about 3,000 tons from fiscal 2015. The main increase was attributable to an increase in device production volumes. Sony is taking further steps to reduce emissions, including installing gas abatement equipment.

Promoting Efficient Energy Use

To achieve its fiscal 2020 reduction targets, Sony is working on various energy conservation activities at its sites around the world. A sample of these initiatives follows.

Using Waste Heat from Air Conditioners in Semiconductor Cleanroom Facilities

Sony Semiconductor Manufacturing Corporation's Nagasaki Technology Center is working to improve air conditioning systems with the goal of conserving energy in cleanroom facilities used to manufacture semiconductors. Previous systems consumed a great deal of energy blowing clean air into cleanrooms and cooling down waste heat generated by the rooms' production equipment. Focusing on waste heat generated by this equipment, the center installed waste heat recovery

equipment and a two-fluid humidification system to effectively use waste heat to power air conditioning equipment. By releasing mist to humidify and cool the room and facilitate transpiration that traps heat from the surrounding environment, two-fluid humidification establishes a system that is remarkably easy to control to ensure a stable air condition. Cleanroom facilities where semiconductors are manufactured must meet rigorous criteria, including precise humidity levels and temperatures. Utilizing two fluids, this humidification system not only meets these conditions, but also saves energy. The Nagasaki Technology Center capitalizes on the synergistic effect between the two-fluid humidification system and the use of recovered waste heat, which had previously been lost as surplus energy, to significantly reduce energy consumption in its cleanroom facilities. This initiative has become the new model for maintaining cleanroom humidity/temperature in the manufacture of semiconductors by Sony.



The two-fluid humidification system releases mist.

Effectively Using Waste Heat from the Production Process at Semiconductor Production Plants

Sony Semiconductor Manufacturing Corporation's Kumamoto Technology Center is working to save energy by effectively using the waste heat generated in its production processes. The center uses heated pure water in the semiconductor

cleaning process, it had been burning municipal gas and fuel in a boiler to generate steam for heating the water. To save energy, the center switched to a hot water heating method by efficiently recovering the waste heat from manufacturing machinery and using it as the heat source. This resulted in a considerable reduction in energy consumption compared to before installation, equivalent to a decrease of about 1,043 tons of CO₂.



A highly efficient heat recovery system was installed in the pure water room

Energy Conservation: Initiatives Driven by Plant Employees

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 implemented activities for reducing energy consumption suggested by manufacturing site employees. These activities focus 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. These activities were prompted by the effectiveness of the Eco Challenge Project implemented in 2009 at Sony Corporation's Sendai Technology Center and Sony Storage Media Manufacturing Corporation's Tagajo site. Similar energy conservation activities are now being implemented at Sony manufacturing sites around the world.



Team at Sony Storage Media Manufacturing Corporation's Tagajo site uses measuring instruments to identify waste at the plant and plan energy-saving initiatives.

Environment

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Use of Renewable Energy

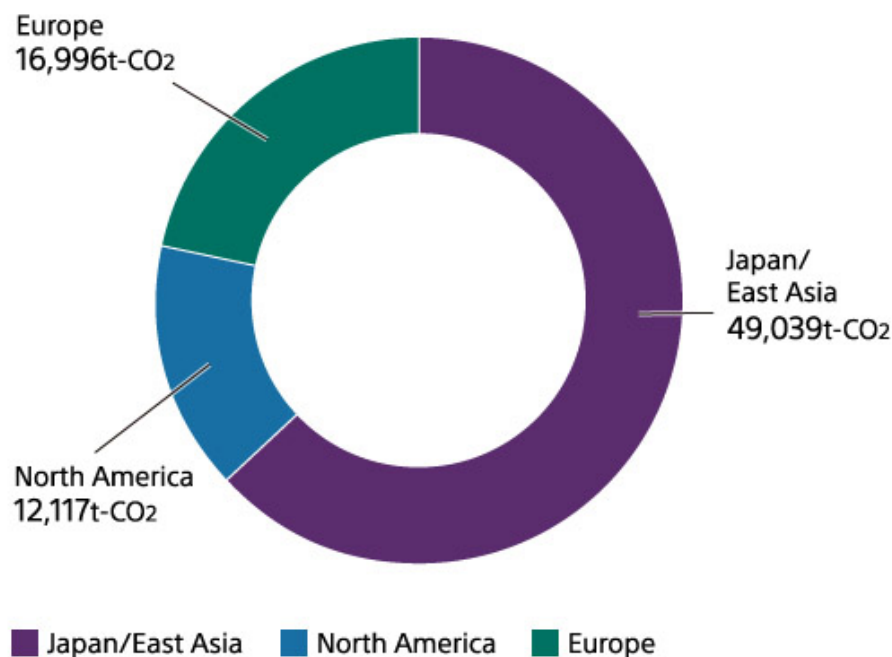
Sony Reduces Emissions of CO₂ in Fiscal 2016 by Approximately 78,000 Tons through the Use of Renewable Energy

Sony has adopted the target of reducing CO₂ emissions by 300,000 tons by using renewable energy* by fiscal 2020 and is pursuing Green Energy Certificates and renewable energy through the use of solar power systems for all of its business sites worldwide.

In fiscal 2016, the total amount of CO₂ emissions reduced by using renewable energy at Sony worldwide was approximately 78,000 tons. By region, renewable energy input breaks down to 12,000 tons in North America, 17,000 tons in Europe, and 48,000 tons in Japan and East Asia. Of the electricity used at Sony business sites worldwide, electricity generated by renewable energy accounted for approximately 7%.

* Renewable energy includes solar, wind, water, geothermal and biomass. This is energy that comes from sustainable sources.

Quantity of Renewable Energy Use by Region (Fiscal 2016)



Japan: Utilizing Green Energy Certificates and Other Carbon Offset Credit Systems

In fiscal 2016, Sony purchased The Green Power Certificates* that amounted to 17,278 MWh of green electricity and 133,330 GJ of green heat, equivalent to reducing some 17,000 tons of greenhouse gas emissions. This makes Sony one of the largest purchasers of Green Certificates in Japan.

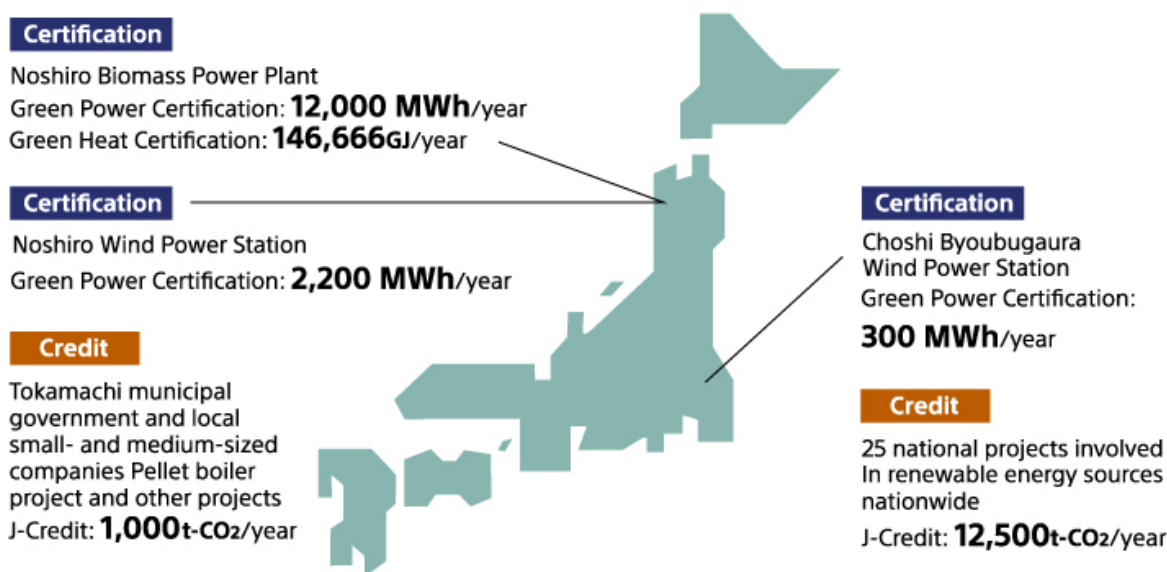
In addition to the Green Power Certification System, Sony uses other carbon offset credit schemes as part of its initiatives to use renewable energy. In fiscal 2016, Sony first used carbon offset credits acquired through investment in the Japan GHG Reduction Fund (JGRF, dissolved in May 2014 when scheduled to expire) and through investment in the Verified Carbon Standard (VCS) program. Those credits were equivalent to reducing some 31,000 tons of CO₂ emissions.

Moreover, in 2017, Sony signed an agreement with the Tokyo Electric Power Group

(TEPCO) for the direct purchase of electricity generated by hydraulic power.

- * The Green Power Certification System was jointly developed in 2001 by Sony and power utilities. Under the scheme, green certificates are issued for green electricity and green heat generated from power plants across Japan, which entities can purchase and trade. These certificates are considered equivalent to purchasing renewable energy, even if generated at a distant place.

Renewable Energy Certification and Emissions Credits in Japan (As of March 31, 2017)



Sony's use of green electricity and green heat certificates is equivalent to reducing some 17,000 tons of greenhouse gas emissions in total (based on contracts in place).

Note: Data indicated in the above diagram is calculated from contracts, and differs from data described in the main text, which is calculated from purchased credits.

Europe: Using 100% Renewable Electricity

In Europe, Sony has been using renewable electricity since 2002. From fiscal 2008 onward, 100% renewable electricity usage had been achieved by Sony sites* in Europe through the direct purchase of electricity generated from renewable sources and through the purchase of Renewable Electricity Certificates if direct purchase of renewable electricity was not possible. In fiscal 2016, Sony used a total

of approximately 63,991 MWh of renewable electricity in Europe.

Sony UK Technology Centre (UK TEC) based in Pencoed, United Kingdom is one of several Sony sites in Europe which use 100% renewable electricity. The renewable energy used by UK TEC is generated by PV Solar Panels which cover 8% of the site's electricity usage, and the remainder is supplied via Renewable Energy Certificates.

* Sony sites in Europe that have obtained ISO 14001 certification



PV Solar Panels on the roof of the UK TEC

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

Beginning April 2008, four of Sony's sites in the United States – the Pitman (at the time) and Terre Haute plants of Sony DADC U.S. Inc., 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 2016 Green Power Certification purchased by the Sony Group covered more than 25,580 MWh of electricity in the United States and Canada at the following sites: Sony DADC's Terre Haute plant; Sony DADC's Bolingbrook distribution center; the New York office of

SCA; the Toronto office of Sony of Canada Ltd, and major facilities of SEL. This is enough green power to meet an estimated 26% of these entities' electricity use in the United States and Canada. The Green Power Certificates purchased by SEL are equivalent to 46% of the electricity consumption of the main SEL sites in the United States and Mexico that have received unified ISO certification during fiscal 2016. At the Sony Pictures Entertainment Inc. (SPE) headquarters, approximately 219 MWh of electricity was provided by the company's own solar power generation system in fiscal 2016.



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

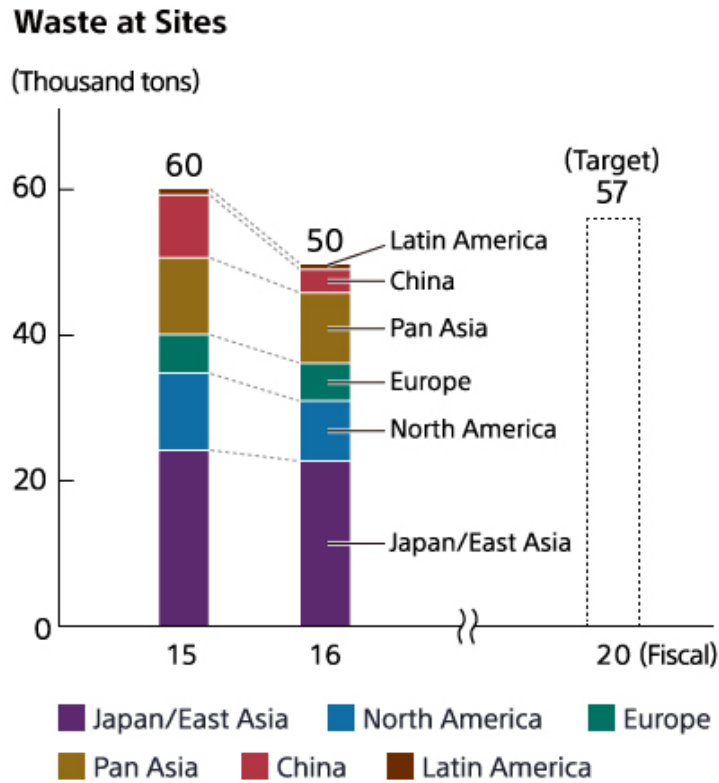
Environment

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Reducing Waste Generation

Absolute Waste at Sites Reduced by 17% from the Fiscal 2015 Level

Under the Green Management 2020 mid-term environmental targets, Sony implements 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 5% from the fiscal 2015 level. In fiscal 2016, waste at Sony sites totaled approximately 50,000 tons. This represents an approximately 17% decline from the fiscal 2015 level. Sony reuses packaging materials used when shipping parts – a major component of waste generated by production sites – and pursues reuse and recycling throughout the Sony Group. Waste at Sony sites per unit of consolidated net sales was 0.003 tons/million yen in Japan and 0.0036 tons/million yen outside Japan.



Landfilled Waste Rate for Sony Sites

In fiscal 2016, the landfilled waste rate for all Sony Group sites was approximately 1.6%. The rate for sites in Japan was 0.02%. The landfilled waste rate for Sony sites – when calculated including waste that Sony is required by law or ordinance to dispose of in landfills – was approximately 2.2%. Sony strives to reduce the rate of waste disposed in landfills by reusing it within the Group.

Management of Industrial Waste

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.

Waste Reduction

All Sony Group sites are making efforts to cut down on waste. Speaker manufacturer Sony EMCS Penang Tec has taken the initiative to recycle scrap wood left over from the manufacture of speaker cabinets. In the past, wooden planks were disposed as landfilled waste because the vinyl sheets attached to the wood made them difficult to recycle. After trying various measures in collaboration with the local government and waste treatment firms, the company found a way to separate the vinyl sheets from the wooden planks and is now able to recycle both the scrap wood and the vinyl sheets. This led to a reduction in the amount of waste disposed in landfills and improved the production plant's overall recycling rate. In addition, other types of production wood wastes are now also recyclable under this project.



Sony EMCS Penang Tec made it possible to recycle scrap wood from speaker cabinets.

Improving Component Packaging

At all of 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.

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



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

Environment

Updated on August 23, 2017

Reducing Water Consumption

Water Consumption Reduced by Approximately 6% from Fiscal 2015 Level

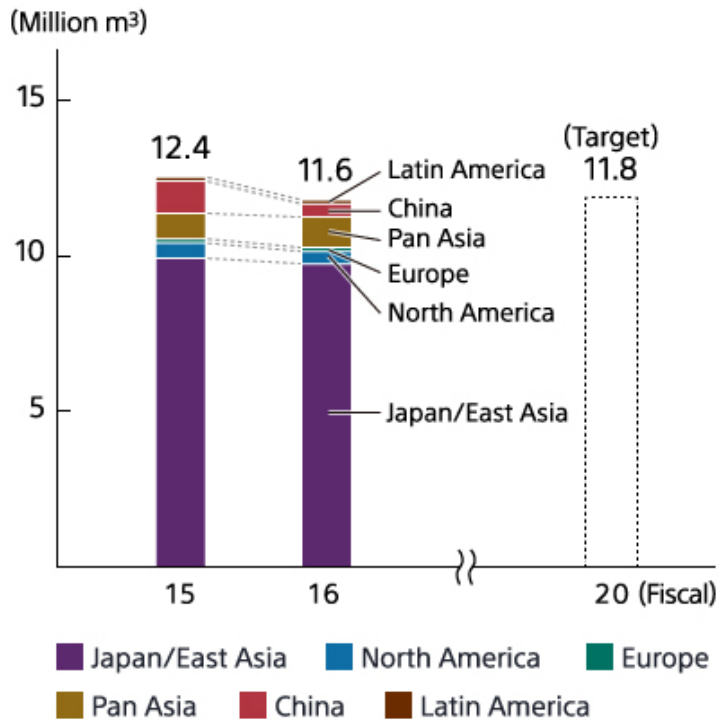
Under the Green Management 2020 mid-term environmental targets, Sony worked to reduce the consumption of water at its sites in line with its target of achieving an absolute reduction of 5%, compared with the fiscal 2015 level, by fiscal 2020. In fiscal 2016, Sony sites used approximately 11.63 million m³ of water, a decrease of approximately 6% compared with the fiscal 2015 level. Water consumption per unit of consolidated net sales was 1.28 m³/million yen in Japan and 0.25 m³/million yen outside Japan.

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, please refer to "Emissions of Air and Water Pollutants \(Worldwide\)"](#)

Water Consumption at Sites



Reducing Water Use at Manufacturing Sites

For semiconductor and consumer electronic products, vast amounts of water are needed not only in the manufacturing process but also in the recycling process. At its plants all over the world, Sony is taking a variety of measures to preserve local water resources, including wastewater and rainwater recycling and initiatives for reducing water consumption. Examples of these initiatives are described below.

Controlling Water Consumption by Improving the Production System at the Nagasaki Technology Center

Sony Semiconductor Manufacturing Corporation completed an initiative for controlling water consumption at Nagasaki Technology Center, a semiconductor production plant, when it installed a new production line intended to boost production capacity. As one part of this initiative, the center began reusing

wastewater for gas detoxification equipment, which renders the gases used in the semiconductor production process harmless. A large quantity of industrial water is needed to eliminate the toxins in such gases, and with the installation of the new production line and additional gas detoxification equipment, the amount of industrial water consumption was set for an increase. In response, the center installed a wastewater recovery system to reuse the wastewater from the gas detoxification equipment, enabling it to recover and reuse about 80% of the water. Moreover, the center began using the system to recover and reuse wastewater from other production equipment, allowing it to significantly limit the increase in industrial water consumption related to increased production.



A wastewater recovery system for gas detoxification equipment

Wastewater Recycling by Kumamoto Technology Center

The Sony Semiconductor Manufacturing Corporation's Kumamoto Technology Center undertook a project to recycle wastewater in semiconductor manufacturing processes. Blow water from the water measuring system used in the production of ultra pure water for semiconductor cleaning was recycled for distillation into pure water, and general service water used to cool ammonia removal systems was recycled to supply water to scrubber systems. These measures enabled the

Kumamoto Technology Center to reduce 12,680 m³ of industrial and well water use annually.



Blow water is reused for the reverse osmosis (RO) membrane filtration system.

Collecting and Using Rainwater at Green Cycle Corporation

As a member of the Sony Group, Green Cycle Corporation specializes in the recycling of used consumer electronic goods and other products. Aiming to reduce the amount of industrial water it consumes, the company carried out an initiative to use rainwater. Before using the rainwater, it analyzed its quality and confirmed that it could be used as industrial water without affecting the production process, and then refurbished the 1,620 m² roof of the warehouse on its site to serve as a collection area. In fiscal 2016, Green Cycle Corporation used rainwater for 22.4% of its total water consumption, in the recycling process for crushers, sorters and other equipment, and for everyday use as toilet flushing water.



A rainwater storage tank next to the warehouse building

Environment

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Managing Chemical Substances

The Sony Group has developed a group-wide approach to the management of chemical substances 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

Under the Green Management 2020 environmental mid-term targets, chemical substances are categorized into four classes. Sony carefully manages and reduces the amount transferred as air, water, or soil emissions and 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. Chemical substances are classified as follows:

Class 1 substances

- The substances regarded as having a serious impact on the human body or environment (carcinogenicity, mutagenicity, toxicity for reproduction, acute toxicity, ecotoxicity, etc.) which are prohibited to be produced or used under international treaties or individual countries' regulations
- The substances considered to have a high risk of environmental pollution such as soil contamination

Class 2 substances

- The substances regarded as having a serious impact on the human body or environment (carcinogenicity, mutagenicity, toxicity for reproduction, acute toxicity, ecotoxicity, etc.), which are subject to regulations that require their registration or to monitor the amounts released and transferred because they are of high risk.
- The substances recognized as needed to be eliminated because they are regarded as high risk in their management after considering the trend of regulations or the social circumstances.

Class 3 substances

- The substances having a serious impact on the human body or environment, which are subject to regulations requiring monitoring of the amounts released and transferred.
- The substances which are recognized as needed to be reduced in the amount of release and transfer after considering the trend of regulations or the social circumstances.
- Volatile organic compounds (VOC) other than Classes 1 and 2

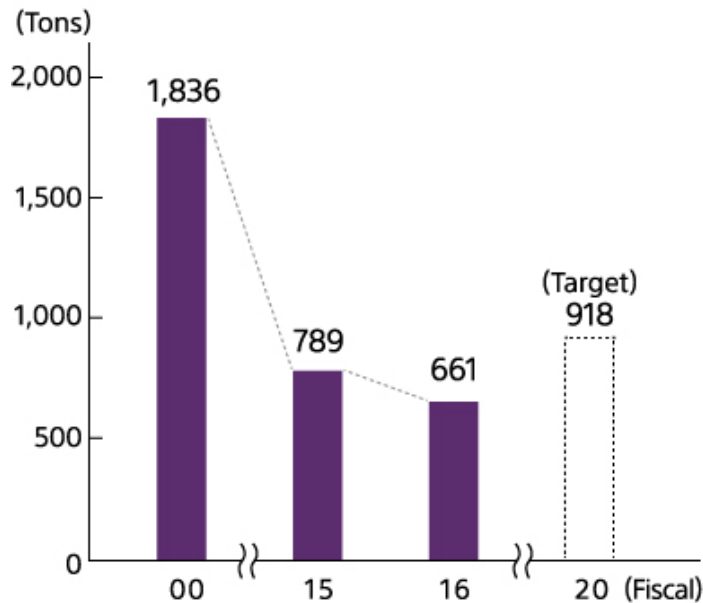
Class 4 substances

- The substances not classified as Class 1, 2, or 3.
Note that water and air are not required to be managed as chemical substances.

Sony is working to achieve its targets for reducing the amount of volatile organic compounds (VOCs) released into the air by 50% from the fiscal 2000 level. VOC emissions into the air were approximately 661 tons in fiscal 2016, 64% lower than fiscal 2000 levels and down 16% from fiscal 2015. At its semiconductor fabrication facilities, which are the main source of VOC emissions, Sony is replacing VOCs with alternative substances and reducing VOC use in manufacturing processes. Sony has also been developing compact VOC treatment systems, and it is steadily installing them. In fiscal 2016, emissions of VOCs per unit of consolidated net sales

were 0.0122 tons/million yen in Japan and 0.0013 tons/million yen outside Japan.

Release of VOCs into the Air



Example of Reduction in Chemical Substance Usage

Sony Semiconductor Manufacturing Corporation (SCK), a semiconductor production plant, 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 substances, it is very large, making space and cost constraints an issue for semiconductor plants that want to install these types of systems. SCK responded by focusing on production equipment for highly concentrated organic substance and developed a small, fixed condensing-type VOC treatment system in conjunction with an equipment manufacturer. The newly developed system can be installed near 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

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 2000. Sony business sites currently prohibit the use of ozone-depleting substances stipulated under the Montreal Protocol. Sony uses CFCs as a refrigerant in some air-conditioning units only. Compliance with laws and regulations in each country is ensured, and strict care is taken to prevent leakage of CFCs from these units during maintenance.

Environmental Risk Management at Sony Sites

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 give examples of improvement measures. Based on these standards, at each site Sony has implemented accident prevention measures, including prohibiting the burial of tanks for chemical substances 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 2016.

Response to Soil and Groundwater Contamination

In the event that an incident of soil or groundwater contamination is identified at a Sony site in a voluntary check or other assessment, remediation processes are implemented in compliance 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 Japanese laws and ordinances. This manual stipulates that issues be addressed through the following three phases:

Phase 1: Investigate past and present chemical use and confirm the existence or otherwise of used or unused underground tanks, buried piping, other similar equipment, or 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.

Incidents of soil and groundwater contamination resulting from operations have been confirmed at four Sony Group sites, as shown below. In response, Sony has been remediating the contamination and submitting regular reports to authorities.

Progress of Soil and Groundwater Remediation

Site	Date Contamination Confirmed	Substance(s) Detected	Cause	Response/Current Status
Former 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 Global Manufacturing & Operations Corporation Inazawa Site (Japan)	June 2001 (Result of voluntary assessment)	Fluorine	Leak from crack in drainage pipe	The site has discontinued use of the equipment that caused the contamination, removed the contamination, and is monitoring groundwater. Analysis carried out in fiscal 2016 found substances in a concentration of 1.35 mg per liter.

<p>Former Sony EMCS Corporation's former Mizunami Site (Japan)</p>	<p>Survey conducted in accordance with Article 3 of the Soil Contamination Countermeasures Act of Japan</p>	<p>Lead and its compounds, fluorine and its compounds, boron and its compounds</p>	<p>Leakages in areas where the substances had been previously used</p>	<p>According to the results of reporting to government, the site was designated as an "area that poses no risk of damage to human health" because, despite the fact that soil contamination has been confirmed on the premises, there is no likelihood that the contamination has leaked into neighboring sites, as contamination has not been detected in the groundwater. Accordingly, measures to remove the contaminated soil are currently unnecessary.</p>
<p>Sony Corporation's Atsugi Technology Center (Japan)</p>	<p>March 2015 (Result of voluntary assessment)</p>	<p>Hexavalent chromium, fluorine</p>	<p>Leakages in areas where the substances had been previously used</p>	<p>According to the results of reporting to government, the site was designated as an "area that poses no risk of damage to human health" because, despite the fact that soil and groundwater contamination have been confirmed on the premises, there is no likelihood that the contamination has leaked into neighboring sites. The site continues to remove contamination from areas exceeding legal concentrations and to monitor groundwater as directed by the government in August 2016. Concentration in groundwater is currently below legal standards.</p>

Environment

Updated on August 23, 2017

Guiding Principles for Biodiversity Conservation Initiatives and Case Examples

Guiding Principles for Conservation Initiatives

Sony has established a Basic Policy on Biodiversity Conservation, pledging its commitment to help achieve the twenty Aichi Biodiversity Targets by conserving natural capital and biodiversity through the entire product life cycle.

Sony business sites are intricately connected with the natural environment and ecosystems that surround them. In light of this, Sony is focused on helping to achieve the Aichi Biodiversity Targets by promoting activities to protect biodiversity in these regions and further afield. Sony introduced its Green Star Program in April 2011 as an internal framework for assessing the green performance of business sites and advancing green measures, and categorizes biodiversity considerations and initiatives as outlined below. Sony also communicates with employees about the importance of pursuing initiatives under the Green Star Program as a way to help achieve the Aichi Biodiversity Targets, working to build a shared recognition of the significance of these initiatives that will encourage action.

Biodiversity Considerations/Initiatives and Associated Aichi Biodiversity Targets

	Measures	Main Associated Aichi Targets
Education and awareness	<ul style="list-style-type: none"> ● Conduct education, seminars, and lectures concerning biodiversity ● Conduct nature observation programs 	Target 1 Awareness increased: Focus on raising awareness of the value of biodiversity and protective 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 	Target 19 Knowledge improved, shared and applied: Improve related knowledge, science and technology
Improve ecosystems	<ul style="list-style-type: none"> ● Improvement of environment for living things ● Give consideration to ecological network and green corridor ● Give consideration to three-dimensional vegetation ● Adoption of local species 	<p>Target 5 Habitat loss halved or reduced: Cut the loss of natural habitats, including forests, to at least half; significantly reduce degradation and fragmentation</p> <p>Target 10 Pressures on vulnerable ecosystems reduced: Protect coral reefs and other ecosystems that are particularly susceptible to environmental changes</p>

<p>Measures against negative impact</p>	<ul style="list-style-type: none"> ● Measures against alien species ● Give consideration to bad effects on ecosystems caused by emissions 	<p>Target 8 Pollution reduced: Control contamination from chemical substances, fertilizers and pesticides to within parameters that are not harmful</p> <p>Target 9 Invasive alien species prevented and controlled: Control or eradicate invasive alien species</p> <p>Target 12 Extinction prevented: Prevent the extinction of known threatened species</p>
<p>Protection and conservation of ecosystem services</p>	<ul style="list-style-type: none"> ● Grasp and conserve endangered species ● Conserve a wildlife sanctuary ● Groundwater recharge 	<p>Target 11 Protected areas increased and improved: Protect at least 17% of terrestrial areas and 10% of marine areas</p> <p>Target 14 Ecosystems and essential services safeguarded: Restore and safeguard ecosystems that provide natural abundance</p>

<p>Management</p>	<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 	<p>Target 4 Sustainable consumption and production: Implement plans for sustainable production and consumption among all stakeholders</p>
<p>Cooperation with stakeholders</p>	<ul style="list-style-type: none"> ● Cooperation with stakeholders ● Support for organizations that engage in biodiversity conservation activities 	<p>Associated targets depend on focus of activities</p>

For more information on the Aichi Biodiversity Targets, please refer to "Aichi Biodiversity Targets" at the Convention on Biological Diversity website.

Links to Related Items:

[Environmental Policies and Targets > Environmental Plan and Mid-Term Environmental Targets > Policy on Biodiversity](#)

[Sites > The Green Star Program](#)

Education and Awareness

Promoting initiatives for biodiversity conservation starts with getting people in diverse positions to better recognize and understand the value of biodiversity. Sony broadly engages in biodiversity education and awareness, with the understanding that awareness leads to conservation. These initiatives will enable

Sony to help achieve Target 1 "Awareness increased" of the Aichi Biodiversity Targets.

Wow! Wow! Biodiversity Project (Japan and China)

Since May 2015, Sony has been working in partnership with The Nature Conservation Society of Japan, an environmental NGO, to launch and operate the Wow! Wow! Biodiversity Project . The project organizes events for the general public to experience nature, and uses social media as a platform to share information about living plants and organisms, conveying the wonders of nature and the importance of biodiversity to as broad an audience as possible. In 2016, Sony China introduced its own Wow! Wow! Biodiversity Project to promote awareness of biodiversity and the implementation of conservation activities at business sites in China. As part of the project activities, Sony held Living Creatures Photo Contests in Japan and China to share the wonders of nature with as large an audience as possible. The 2016 photo contests received 1,070 submissions in Japan and 971 submissions in China.



Participants gather to experience nature at an event held in China (Shanghai Botanical Garden)



2016 Japan photo contest Grand Prix Award winning photo

[For more information, please refer to "Wow! Wow! Biodiversity Project" at the Sony and the Environment website. \(only in Japanese\)](#)

Investigation

As part of their environmental conservation activities, various Sony sites survey and monitor the natural habitats located on their grounds and in the surrounding areas. They then reflect the results of these studies in conservation plans, allowing them to carry out activities in consideration of the local ecosystem. The disclosure of the survey results will enable Sony to help achieve Target 19 "Knowledge improved, shared and applied" of the Aichi Biodiversity Targets.

Monitoring Ecosystems Surrounding Offices in Japan

The Kunisaki Satellite at the Oita Technology Center of Sony Semiconductor Manufacturing Corporation monitors red-clawed crab and other marine creatures living along the coast, as well as wildlife living in the forest on the center's premises, which has been the focus of conservation since the site was established. The site has also been monitoring the status of a group of endangered golden orchid and cephalanthera erecta plants discovered during surveys in 2013. In 2015, the site began monitoring for alien species and has enacted conservation plans to protect the ecosystem on its premises through a variety of measures, including selecting trees to be removed.



An employee monitors growth

Observing the Neighboring Natural Habitat from Sony's Office Building in South Korea

In South Korea, Sony is conducting fixed-point observations of wildlife inhabiting a river next to its office building. Using a video camera equipped with a telephoto lens, the set-up captures the river habitat 24 hours per day through an office window. These images are shown on various displays in the office, helping raise employees' awareness of local biodiversity.



The video camera is set up for fixed-point observations

Improve Ecosystems

Sony works to maintain a natural environment that is the appropriate place for the wildlife to inhabit. Accordingly, we actively plant local varieties of trees and carry out other activities intended to preserve the environment in consideration of local ecosystems. These initiatives are enabling Sony to help achieve Targets 5 "Habitat loss halved or reduced" and 10 "Pressures on vulnerable ecosystems reduced" of the Aichi Biodiversity Targets.

Conserving Green Spaces at Business Sites

Sony business sites in Japan and other countries conduct environmental maintenance in their green spaces that account for biodiversity, such as installing birdhouses and maintaining humus with organic matter (leaves and prunings). Business sites that are engaged in these initiatives in Japan include the Atsugi and Shonan Technology Centers of Sony Corporation, Sony City Osaki, and Sony Global Manufacturing & Operations Corporation (at the Sony Forest of the Kohda Site), as well as Sony Digital Products (Wuxi) Co., Ltd. in China.

[For more information on the activities at the Kohda Site, please refer to "Feature: 'Sony Forest' Hosts a Blossoming Ecosystem".](#)



Maintaining humus with leaves and prunings at Sony Digital Products (Wuxi) Co., Ltd.

Participating in Local Nature Conservation Activities (UK and Japan)

In the United Kingdom, employees of Sony DADC Corporation have joined nature conservation activities organized by Horsham Green Gym and Friends of Firs Farm Park, a local volunteer group. The activities have included tree-planting and clearing weeds in a country park near the company's site, as well as restoring local

ponds, wild grasslands, and waterways. In Japan, employees of Sony Network Communications Inc. work with community residents to maintain the So-net Forest in Saku City in Nagano Prefecture.

For more information on the So-net Forest, please refer to [“So-net Forest”](#) at the Sony Network Communications website (only in Japanese).



Nature conservation activities

Restoring Local Nature (Thailand and Japan)

In an effort to protect biodiversity, Sony Device Technology (Thailand) Co., Ltd. planted 200 trees in local parks in 2015. Sony Technology (Thailand) Co., Ltd. introduced a program to restore coral reefs in 2014, and had planted 500 coral larvae colonies by the end of 2015. In Japan, Kagoshima Technology Center of Sony Semiconductor Manufacturing Corporation took part in the Kirishima City 100,000 Trees Project, growing on the center's premises seedlings from acorns gathered in the nearby hills and planting them in local forests.



Planting coral fragments

Measures Against Negative Impact

The Sony Group has been taking measures to remove non-native species that negatively affect local ecosystems. Furthermore, the Group's sites work to limit any harmful effects on local ecosystems by using only appropriate amounts of agricultural chemicals and chemical fertilizers at their green spaces in order to prevent soil pollution and the buildup of excessive nutrients in the soil. These initiatives are enabling Sony to help achieve Targets 8 "Pollution reduced", 9 "Invasive alien species prevented and controlled", and 12 "Extinction prevented" of the Aichi Biodiversity Targets.

Removing Invasive Species of Plants in China

Sony Precision Devices (Huizhou) Co., Ltd. (SPDH) has been carrying out an initiative for removing invasive species since 2010. In July 2016, SPDH employee volunteers worked with the city of Huizhou's water and environmental hygiene department to remove water hyacinth, a non-native aquatic plant, from the Dongjiang River. The volunteer group had already removed approximately 40 tons of water hyacinth, which has helped to restore balance to the ecosystem and

protect the lush river environment.



Volunteer removes water hyacinth that had completely covered the water's surface

Protection and Conservation of Ecosystem Services

Sony is working to conserve ecosystem services such as groundwater recharging, as well as identify and protect threatened species, and protect wildlife and flora. These initiatives are enabling Sony to help achieve Targets 11 "Protected areas increased and improved" and 14 "Ecosystems and essential services safeguarded" of the Aichi Biodiversity Targets.

[For more information, please refer to "Feature: Working on Groundwater Recharge Projects."](#)

Activities to Protect the Harpy Eagle in Panama

Based in Panama, Sony Inter-American, S.A. has been carrying out activities for protecting the harpy eagle (*Harpia harpyja*), which, while recognized as the national bird of Panama, is also designated as an endangered species. Since 1998, the company has been sponsoring the Harpy Eagle Center, a facility that promotes protection activities. In 2008, it provided the center with several Sony BRAVIA™ LCD

televisions that have been combined into a large wall-mounted screen. In 2016, the wall-mounted screen was replaced by a 4K 84" Sony BRAVIA™ LCD television and Sony Home Theater System to show high-definition videos in an effort to raise awareness among visitors of the importance of efforts to protect the harpy eagle.



The harpy eagle

Firefly Protection Project in Japan

Sony Global Manufacturing & Operations Corporation's Kosai Site in Japan has been implementing a project to revitalize the firefly habitat in cooperation with the local government. Fireflies were previously abundant in the woodland area neighboring the Kosai Site, but their numbers have been dwindling in recent years. In response, the company has begun maintaining the woodlands and raising firefly larvae to restock the population.



A firefly raised by the project

Helping Ensure That Endangered Loggerhead Turtles Can Spawn in Japan

For over 20 years, the Kunisaki Satellite within the Oita Technology Center of Sony Semiconductor Manufacturing Corporation has been actively involved in shore clean-up activities at the nearby Kurotsuzaki beach. Thanks to these efforts, loggerhead sea turtles, which have been designated as an endangered species, returned to the beach in 2009 to spawn for the first time in decades, and they have been observed spawning each year since then. In addition to shore clean-up activities, the Kunisaki Satellite is involved in the incubation of eggs laid by loggerhead sea turtles.



Recently hatched loggerhead sea turtle

Management

Sony works to ensure that chemical substances are properly managed, organic resources are effectively utilized, and the items it procures have been produced with biodiversity in mind. These initiatives will enable Sony to help achieve Target 4 "Sustainable consumption and production" of the Aichi Biodiversity Targets.

Converting Food Waste into Biogas and Organic Fertilizer in Thailand

Sony Technology (Thailand) Co., Ltd. is located in Chon Buri and in 2010 became one of the first Sony sites worldwide to have installed a biogas facility. Instead of sending it to a landfill, this facility has helped to turn food waste into LP gas which can be used for cooking. In addition, the leftover food waste (compost) is used as organic fertilizer to grow plants and vegetables at the site, thus eliminating the use of chemical fertilizers. Some of the organic fertilizers produced by the facility are being donated for public use.



The biogas facility

Environmentally Preferable Paper Purchasing

Recognizing that paper resources are finite, Sony strives to use paper in an environmentally responsible manner, and it has established a related purchasing policy for paper and printed materials. Accordingly, Sony makes a point of purchasing environmentally preferable paper, such as recycled paper and forest-certified paper.

[For more information on Sony's policies related to paper and printed materials, please refer to "Policy on Paper Resources."](#)

Cooperation with Stakeholders

With a view to make its initiatives to protect biodiversity even more effective, the Sony Group seeks the opinions of related experts, NGOs, and other stakeholders while carrying out environmental conservation activities. For example, Sony works with research organizations when conducting studies and nature conservation groups when becoming involved in conservation activities. It also cooperates with governments and NGOs when maintaining the natural environment. In addition, Sony provides support and assistance to organizations involved in protecting

biodiversity.

Sony Group companies in North America participate in a project that supports a wildlife refuge in New York City, led by the local NGO New York Cares.

For more information, please refer to the ["Initiatives"](#) at the [Sony and the Environment website](#).

Sony provides support for WWF Japan's Forest Conservation in Sumatra project in Indonesia.

For more information, please refer to the ["Project for Forest Conservation in Sumatra"](#) at the [CSR/Environment website](#).

Environment

Updated on August 23, 2017

Feature: "Sony Forest" Hosts a Blossoming Ecosystem

Kohda Site conserves natural woodlands on the grounds to create "Sony Forest" with local cooperation

Since its inception in 1972, the Kohda Site of Sony Global Manufacturing & Operations Corporation in Japan has had the goal of creating a park-like factory with lush greenery, and has conserved the natural forest on the site, naming it "Sony Forest." Since 2008, Sony has been building an owl-friendly environment at the forest. Bird feeders and bird houses, for example, have been set out continually since that time. As a result, a family of owls built a nest at Sony Forest in 2016 and three chicks have hatched there. While the owls are the most notable residents, the vibrant ecosystem at Sony Forest is also home to bush warblers, Japanese white-eyes, Japanese pygmy woodpeckers, and many other small birds, as well as raccoon dogs, mice, and other small animals.

The Kohda Site has also contributed to the local community by building a walking path and installing athletic equipment in the forest for locals to use. It is used for outdoor educational purposes by many local elementary school students. In 2015, Sony participated in the Kagayake Aichi Sustainability Research Institute,* an Aichi prefectural government project. The researchers, who are local university students, planned and executed PR measures to publicize the Sony Forest throughout the area. The activities associated with this project have raised environmental awareness among employees and raised public awareness of the rest of the environmental activities taking place at the Kohda site.

* [For more information, please refer to the Kagayake Aichi Sustainability Research Institute website.\(only in Japanese\)](#)



Owl chicks



Local university students develop PR measures amongst the trees in Sony Forest.

Certified as top-level greening activities in Japan

The Sony Forest obtained a prestigious recognition when the Kohda Site received Superlative Stage certification under SEGES* from the Organization for Landscape and Urban Green Infrastructure in 2011, making it the first site in Japan to earn this honor. The certification was maintained in 2017. The Kohda Site is also conducting a nature conservation project using Sony Forest, in cooperation with other local companies. Seedlings of native species in the area are essential in conservation of the local ecosystem, and Sony Forest has preserved many trees unique to the area, including the konara oak and the Japanese clethra. The Kohda Site's nature conservation project entails collecting seeds of trees within Sony Forest, raising them until they become seedlings, and then donating them to local administrations and NPOs for forestation projects. This project was certified as an exemplary project in 2015 by the Japan Committee for the United Nations Decade on Biodiversity (UNDB-J).

* The Social and Environmental Green Evaluation System (SEGES) is an accreditation system run by the Urban Green Space Development Foundation. SEGES evaluates the environmental conservation activities of businesses that aim to help improve society and the environment, and recognizes outstanding initiatives by businesses.



This local nature conservation project has been certified by the Japan Committee for the United Nations Decade on Biodiversity (UNDB-J).



Planting seedlings grown from seeds in Sony Forest as part of a nature observation program.

Environment

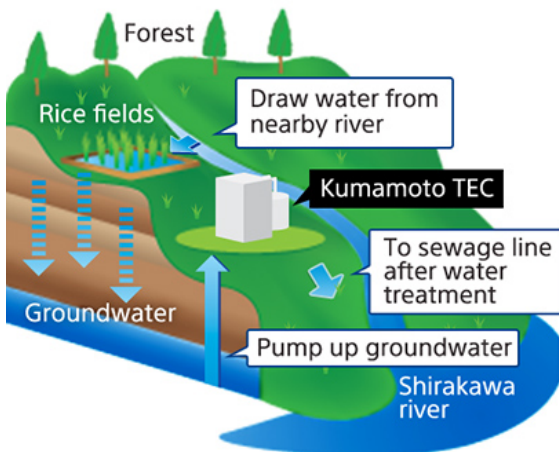
Updated on August 23, 2017

Feature: Working on Groundwater Recharge Projects

Kumamoto TEC Continues Groundwater Recharging Initiatives

At Sony Semiconductor Manufacturing Corporation's Kumamoto Technology Center (Kumamoto TEC), a large volume of water (groundwater) is used in semiconductor production. Kumamoto area, home to Kumamoto TEC, has always been blessed with abundant groundwater resources. However, the decline in groundwater has been a deep concern in recent years, and has been attributed to a decrease in the area of land used for rice paddy cultivation and an increase in the land used for residential purposes. Kumamoto TEC recognizes the importance of groundwater as natural capital, and is involved in continuous efforts to recharge* groundwater using neighboring paddies in cooperation with local environmental NGOs as part of its responsibility as a local business. From May through October, Kumamoto TEC uses its water facilities to help fill unused rice paddies with river water, thus allowing the extra water to penetrate into the soil and ultimately replenish the aquifer.

* Groundwater recharge refers to the process of water on the surface of the ground (rainwater, river water, etc.) permeating the soil and replenishing the groundwater in the aquifer.

"Groundwater recharge" using rice fields

Rice grown in paddies on farmland used to recharge groundwater

Efforts to recharge groundwater using paddy fields

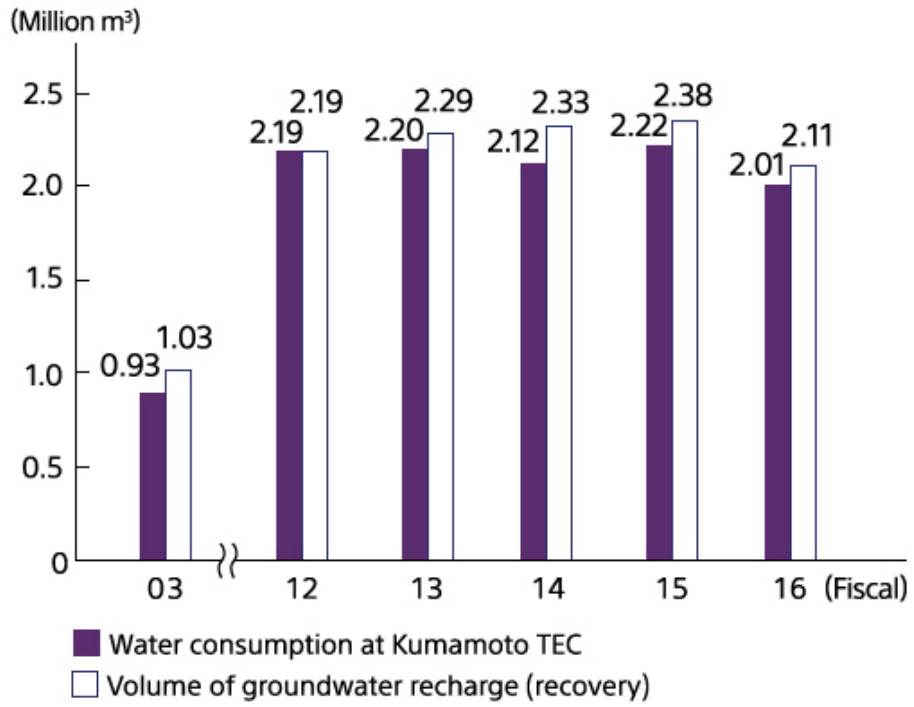
Recharged Groundwater Lauded as an Advanced Example of Biodiversity Conservation

Groundwater recharge efforts at Kumamoto TEC began in fiscal 2003, and in fiscal 2016, 2.11 million m³ more water than Kumamoto TEC's yearly water usage (including tap water and groundwater) was recharged. Activities such as these are called payment for ecosystem services (PES)*, and they are an important part of protecting natural capital and biodiversity. These efforts have also been noted as an advanced example in the Annual Report on the Environment, the Sound Material-Cycle Society and the Biodiversity in Japan 2014 published by the Ministry of the Environment in Japan.

Kumamoto TEC is also involved in initiatives to encourage employees to purchase the agricultural crops produced in the groundwater recharge farming areas, thus helping to support local farmers and conserve groundwater resources.

* PES stands for "payment for ecosystem services. It means compensating the ecosystem with something equivalent in value or working to conserve the ecosystem in a way that compensates for the services received.

Comparison of Water Used and Water Replenished by Kumamoto TEC



Environment

Updated on August 23, 2017

The Green Star Program

In fiscal 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. The achievement levels are indicated by number of stars. Implementation of the Green Star Program shows how well each site is performing and elucidates their strengths and weaknesses, thus indicating what needs to be done next. The program is useful as a tool for ongoing efforts to make improvements.

Sony's Green Management 2020 environmental mid-term targets run through fiscal 2020. Sony has been working to achieve them under updated evaluation standards since fiscal 2016. Progress against the mid-term environmental targets is indicated by up to as many as seven stars.

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	Reduce generated waste; promote resource recovery and recycling; and ensure proper management of waste disposal contractors
	Water	Monitor and analyze water use; take steps to promote the efficient use of water and reduce water consumption, etc.
Chemical substances		Properly manage handling of chemical substances; monitor and analyze handling amount and amount released and transferred; and reduce volume used and replace with alternative substances
Biodiversity		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

Environment

Updated on August 23, 2017

Progress Toward Achieving Mid-Term Targets for Logistics

Environmental Mid-Term Targets for Logistics

In its Green Management 2020 environmental mid-term targets, which run through the end of fiscal 2020, Sony set the following target for logistics. To meet the target, Sony pursues initiatives to reduce shipping weights by designing more compact, lighter products, as well as to optimize shipping efficiency (smaller product packaging, better load efficiency, improved parts packaging, joint shipping) and switch to modes of transportation with less environmental impact (modal shift, use of fuel efficient vehicles).

Green Management 2020 Target for Logistics

Climate change	Reduce absolute CO ₂ emissions related to logistics between nations and within regions by 10% (compared with FY2013)
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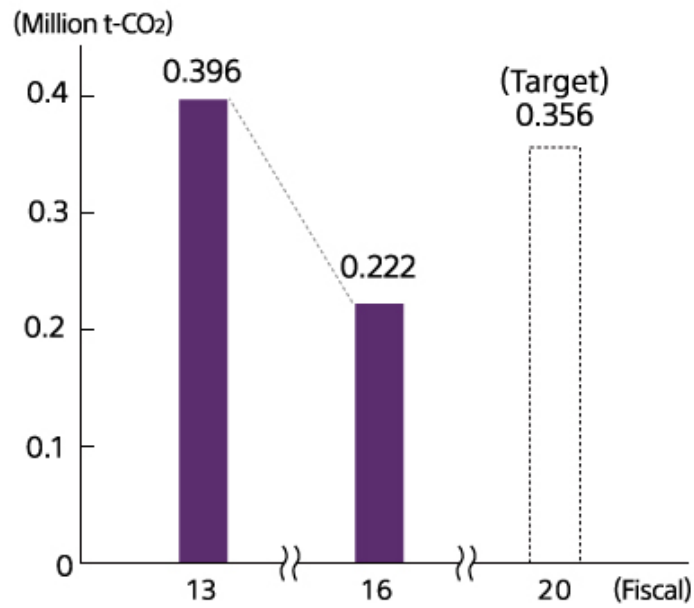
CO₂ Emissions from Transport of Finished Products

Under the Green Management 2020 environmental mid-term targets, which run through fiscal 2020, Sony reduced CO₂ emissions generated by transportation in fiscal 2016 by approximately 222,000 tons (both international and intraregional transportation*), an approximate 44% reduction from fiscal 2013 and an approximate 18% reduction from fiscal 2015. These results are due to switching to low-emission modes of transport and shortening transportation routes, as well as

increased load efficiency achieved by downsizing product packaging and improving component packaging.

* Some countries and regions are excluded from "intraregional transportation."

CO₂ Emissions from Product Transportation



Environment

Updated on August 23, 2017

Reducing the Environmental Impact of Logistics

Sony is reducing energy consumption from transport and packaging materials in all aspects of logistics, from international freight transport to the movement of goods at business sites. Discussed here are just a few of the ways in which Sony is reducing the environmental impact of logistics.

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

Sony's efforts to advance modal shift also include transport in overseas markets. In Brazil, Sony has been switching from air and truck transport to marine transport for freight destined for Sao Paulo shipped out of the Manaus Plant of Sony Brasil Ltda. Since fiscal 2015, nearly all freight over this route has been shipped by marine transport, significantly reducing CO₂ emissions from transport.



Modal shift to marine transport in Brazil

Modal Shift in Japan

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™/DVD 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-ray Disc™/DVD recorders have earned product certification. Sony also promotes domestic sea transport. In fiscal 2016, CO₂ emissions attributable to the transport of products in Japan were approximately 398 tons lower than would have been the case if products had been transported by truck.

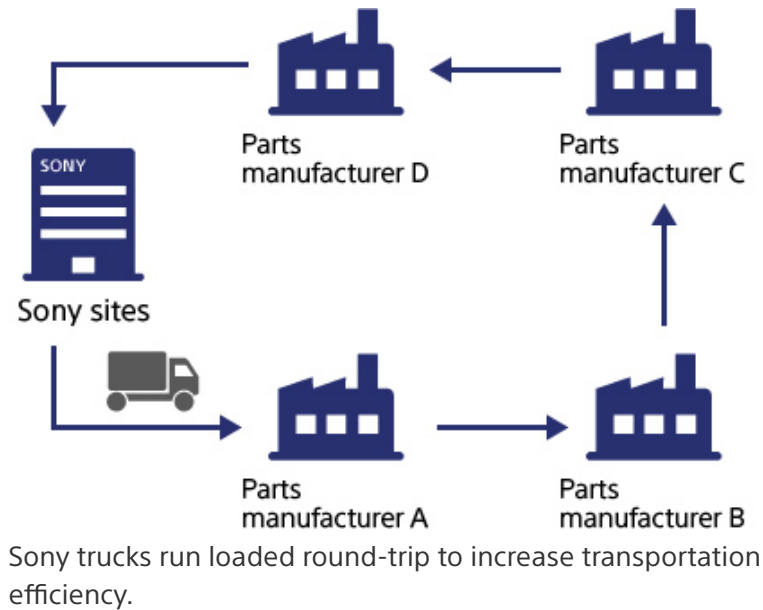


Logo indicating Eco Rail Mark certification for businesses

Improving Transport Efficiency with Intra-Industry Collaboration and Milk Runs

Efficient transport realized by maximizing loading volume per truck reduces environmental impact. Sony seeks to improve transport efficiency by utilizing various modes of intra-industry collaboration such as cooperative transport and milk runs.* Sony has been using cooperative transport by truck in some regions of Japan. In China, Sony has been improving transport efficiency, which helps to reduce CO₂ emissions, using a combination of transport solutions such as milk runs* and round trips.

* 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.



Raising Transport Efficiency by Improving Shipping Boxes

At Sony DADC US Inc., warehousing, packaging, returns processing and distribution of optical media had previously used regulation size boxes. Space inside the boxes was often left unused depending on the shipment size and number of orders. Cushioning material was also needed inside the empty spaces to protect the goods during transport, which resulted in additional expenditures for materials. In response to these circumstances, the Bolingbrook Distribution Center improved the boxes by redesigning them into a shape optimally suited for the size and amount of products for shipment. Ultimately, the Distribution Center eliminated the wasted space in the boxes, increased the rate of products shipped, and substantially improved transport efficiency. The initiative also helped to reduce the amount of cushioning material used.



The shape of the shipping boxes was changed to optimally suit the products being shipped.

Promoting the Use of Reusable Bands for Products and Parts Transport in Manufacturing Sites and Warehouses

To keep stacked cartons from collapsing during transport of products and parts in manufacturing sites and warehouses, Sony employs reusable bands as one of packaging materials. This has contributed to the reduction of use and disposal of packaging materials such as stretch films.



A reusable band in use

Environment

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Product Recycling Policy and Performance

Sony subscribes to the principle of individual producer responsibility (IPR), that is, the idea that a producer bears responsibility for its products over their entire life cycle. Accordingly, Sony is focused on recycling-oriented product design, collection and recycling used products, and building global recycling systems that suit the needs of individual countries and regions. Sony recognizes its social responsibility as a manufacturer to deal with its used products and actively promotes product collection and recycling. Sony complies with recycling laws and regulations in countries and regions around the world, including Japan's Home Appliance Recycling Law, the EU's Waste Electrical and Electronic Equipment Directive (WEEE Directive), state recycling laws on waste electrical and electronic equipment in the US, China's Management Regulations for Recycling and Disposing of Consumer Electronics and Electronic Waste, and India's recycling laws on electronic waste. Sony is actively working to achieve the goals of its long-term environmental plan, Road to Zero, to eliminate its environmental footprint by 2050, and toward this end, has set a series of environmental mid-term targets to be met over consecutive five-year periods.

Environmental Mid-Term Targets for Take-Back and Recycling.

Sony's Green Management 2020 environmental mid-term targets, which extend through fiscal 2020, include the following targets for product take-back and recycling. Under these targets, Sony promotes easy-to-recycle product design and continues take-back and recycling programs of end-of-life products around the world. Sony aims to achieve even more advanced recycling through efforts such as recycling materials that have not been recycled in the past and is working with recycling companies to acquire a clear grasp of recycling key resources.

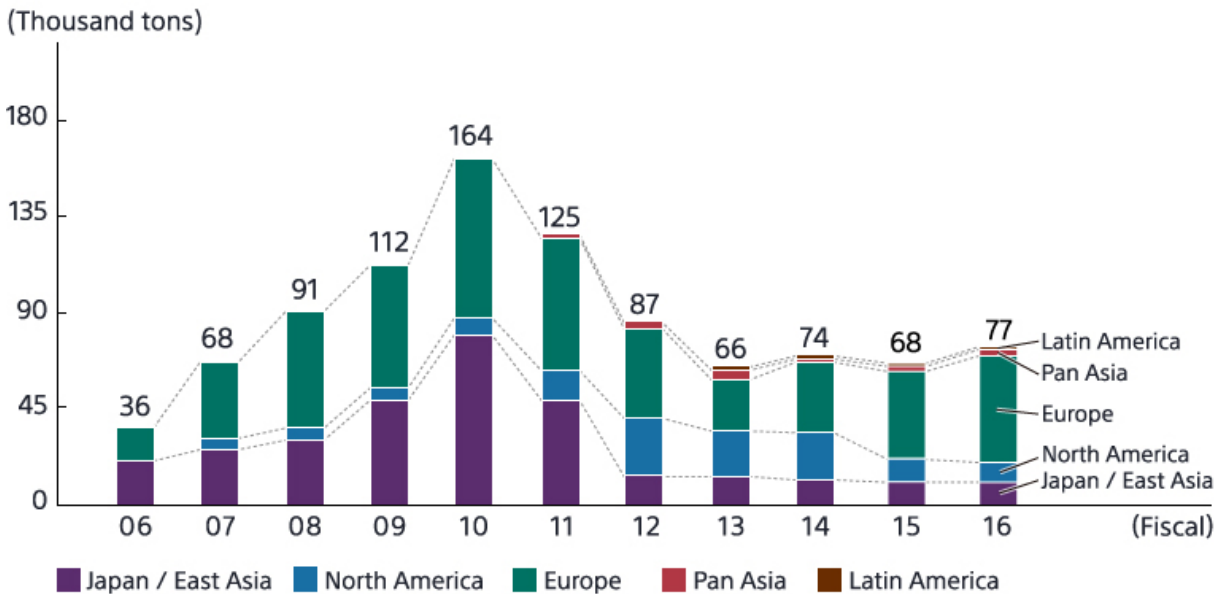
Green Management 2020 Targets for Take-Back and Recycling

Resources	<ul style="list-style-type: none"> ● Establish recycling schemes suitable for the needs of local communities, and move ahead with efficient operations ● Aim at the high-level return of waste to a form in which it can be used as a resource by acquiring a clear grasp of recycling key resources
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Sony's Recycling Record

In fiscal 2016, Sony collected approximately 77,000 tons of end-of-life products (as of August 2017), an approximate 9,000-ton increase over the previous fiscal year. Though Sony's overall take-back record has fallen significantly from its peak in fiscal 2010 due to the completion of Japan's eco-point incentive program for home appliances, increased figure in Europe pushed Sony take-back higher over the previous year's figure.

Take-Back of End-of-Life Products Record



* The figure for fiscal 2016 includes data calculated as of the date of release of this CSR Report (August 2017).

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Improving Product Recyclability

Working Together with Green Cycle Corporation

As one of its strategies for resource efficiency, Sony works to increase the recyclability of its products. When examining various related measures, Sony receives feedback from Green Cycle Corporation, a Sony Group company specializing in the recycling business. Green Cycle Corporation presents ideas and proposals for improvements to Sony headquarters departments with environmental responsibilities, including how to make it easier to disassemble products and separate materials, based on the expertise it has gained through recycling used electronic products and personal computers. Practical measures incorporating those ideas are then drawn up and submitted to design departments for each product category. Meanwhile, Sony supports the efforts of Green Cycle Corporation to improve its recycling technologies while sharing the latest information on product manufacturing.

Green Cycle Corporation also offers company tours that ordinary customers can participate in.



Recycling at Green Cycle Corporation's facilities in Nagoya, Aichi Prefecture

Holding Workshops on Recyclability

Sony has been regularly holding workshops on recyclability since 2006 at Green Cycle Corporation. Its product designers, mechanical designers and other employees in various positions participate. The workshops aim to reaffirm the importance of and need for considering recyclability in product designs, and to ensure those ideas are later applied when creating products. During the workshops, the participants first observe a television disassembly line onsite, and then try to take apart an LCD television themselves. Afterwards, line managers at Green Cycle Corporation explain current challenges and needs, and then exchange ideas with the participants in a discussion. Participants then apply what they have learned when designing products that will be sold worldwide, with a first-hand understanding of the difficult work of disassembling products and ways to make it easier, as well as an appreciation of the importance of reusing materials that have been separated from used products.



Employees disassemble an LCD television

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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 rechargeable batteries, as well as packaging materials, as required by law.

Recycling of Television Sets

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 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 manufacturers to recycle these appliances.

Sony has established a nationwide cooperative recycling network with four other manufacturers. As a consequence, Sony-manufactured televisions are now recycled at 15 recycling plants across Japan. One of these plants is operated by Green Cycle Corporation, which manages a recycling business as a Sony Group company.



TV being dismantled at Green Cycle Corporation

In fiscal 2016, Sony recycled approximately 199,000 CRT televisions and 203,000 flat-screen televisions manufactured by Sony (including products bearing the Aiwa brand). The Home Appliance Recycling Law obliges manufacturers to maintain recycling rates of at least 55% for CRT televisions and at least 74% for flat-screen televisions. Sony has consistently exceeded these rates since fiscal 2001. In fiscal 2016, the recycling rate for Sony-manufactured CRT televisions was 76%, while for Sony-manufactured flat-screen televisions it was 90%.

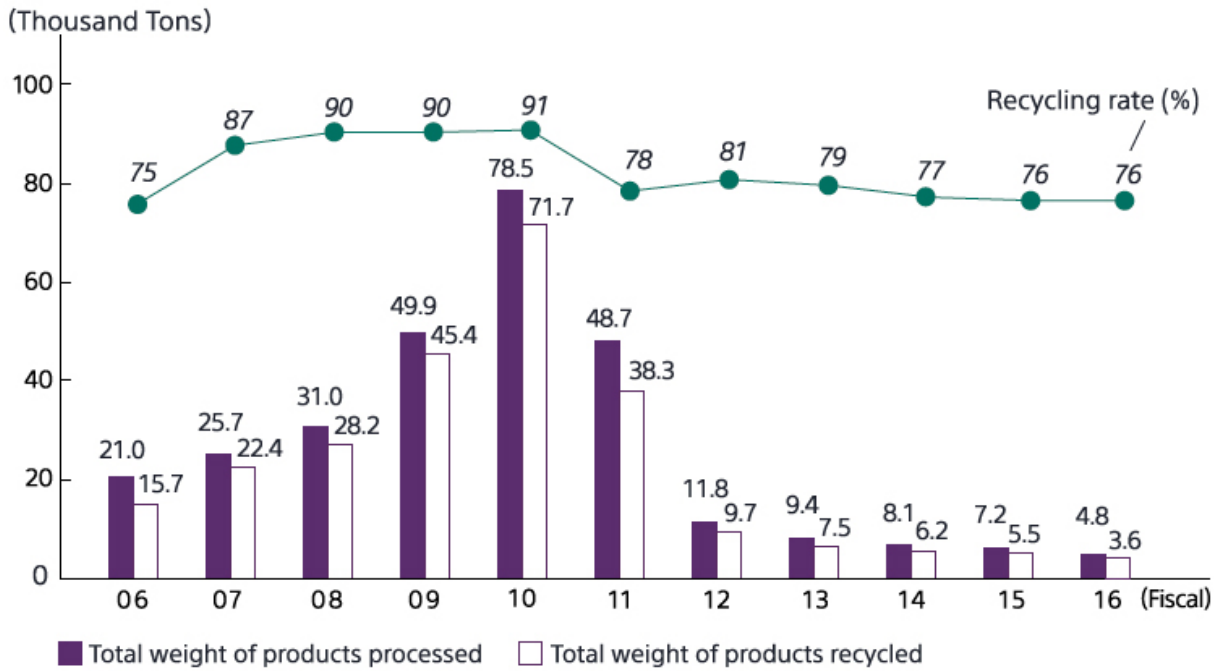
Television Recycling in Japan (Fiscal 2016)

	Units	CRT televisions	LCD and plasma televisions
Number of products brought into designated collection locations	Thousand	196	204
Number of products recycled	Thousand	199	203
Total weight of products processed	Tons	4,855	3,997
Total weight of recycled products and materials	Tons	3,695	3,631
Recycling rate	%	76	90

Notes:

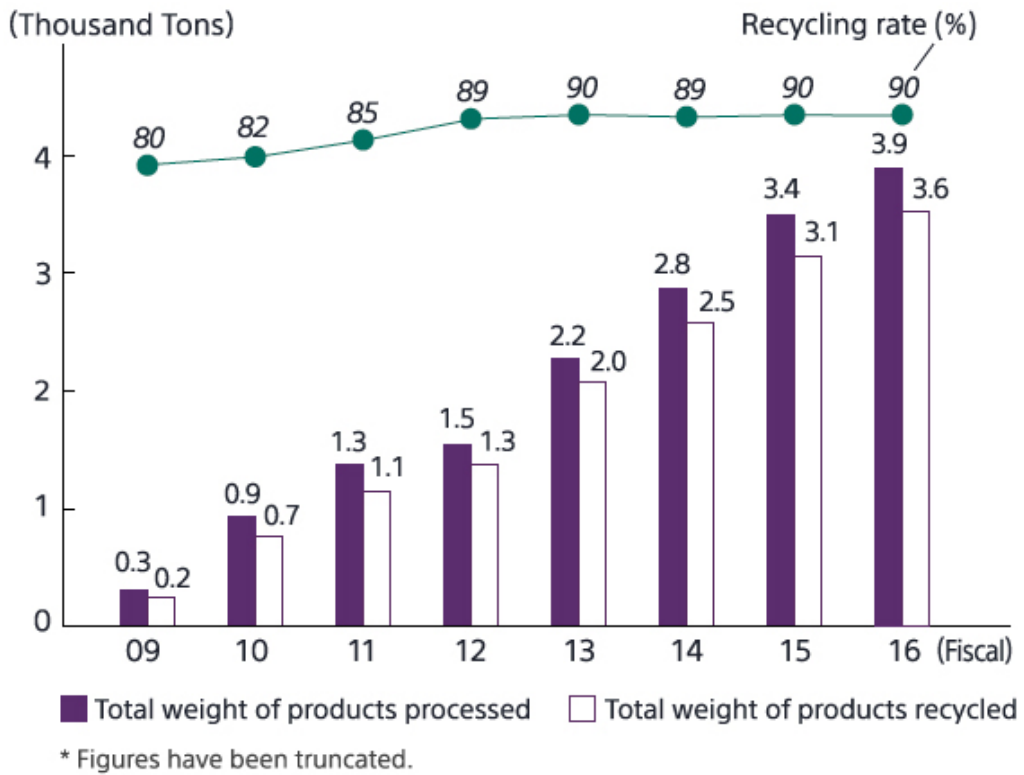
1. Figures have been truncated.
2. The number of products recycled and total weight of products processed refer to the number and weight of products for which recycling processes were implemented in fiscal 2016.
3. The number of products brought into designated collection locations and number of products 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



* Figures have been truncated.

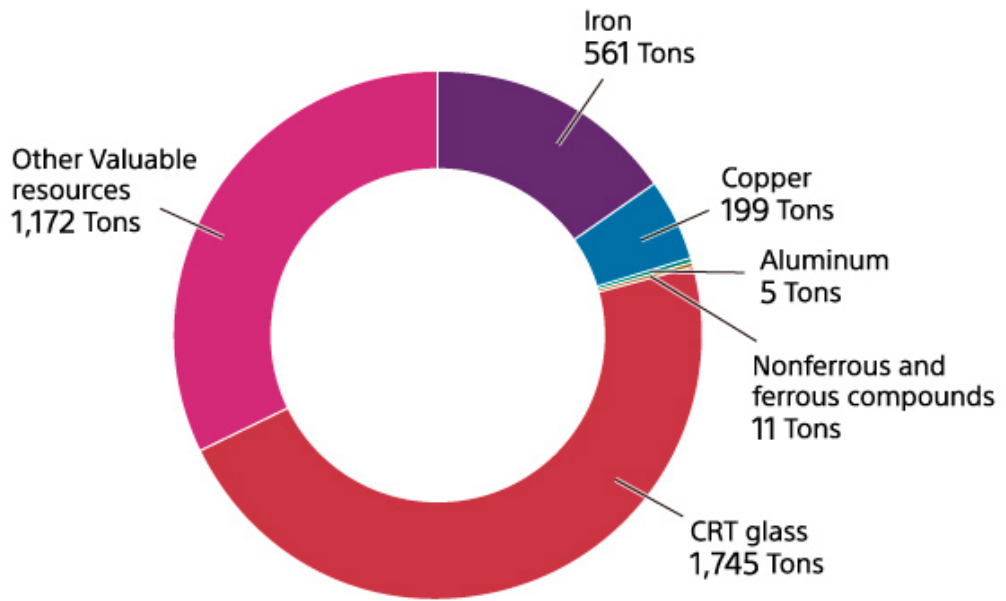
LCD and plasma Television Recycling Performance



Parts and Resources Recycled from Televisions

Total weight of parts and resources which were processed to become possible to be transferred for profit or free of charge for use as parts or materials in other products

Resources Recycled from CRT Televisions (Fiscal 2016)

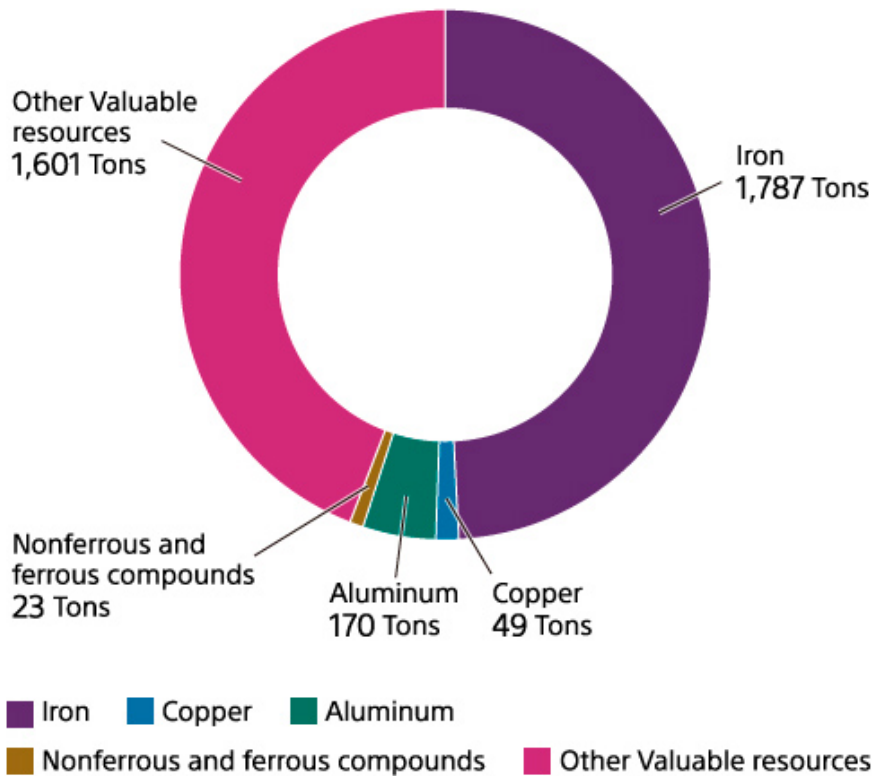


- Iron
 Copper
 Aluminum
 Nonferrous and ferrous compounds
- CRT glass
 Other Valuable resources

Notes:

1. Figures have been truncated.
2. Other valuable resources include plastics, among others.

Resources Recycled from LCD and Plasma Televisions
(Fiscal 2016)



Notes:
 1. Figures have been truncated.
 2. Other valuable resources include plastics, among others.

Recycling of Personal Computers

Although Sony sold off its personal computer business in July 2014, it is collecting and recycling its PC products in Japan that are no longer used by households and businesses, including long-time corporate users, in accordance with Japan's Act on the Promotion of Effective Utilization of Resources. Items being recycled are desktop PC units, notebook PCs, CRT displays, and LCDs.

The many used computers made by Sony are being recycled with close attention to information security, with hard drives being physically destroyed in a dedicated work space at Green Cycle Corporation. In fiscal 2016, the total amount of Sony-

made computers and displays that were collected and recycled numbered approximately 34,000 units, for a total weight of approximately 200.9 tons. From these items, about 145.7 tons of materials were reused, including metal, plastic, and glass parts.



Notebook PC being dismantled

Personal Computer Recycling in Japan (Fiscal 2016)

	Unit	Desktop PC units	Notebook PCs	CRT displays	LCDs
Number of products brought into plants	Thousands	4.7	15.9	2.2	12.0
Total weight of products processed	Tons	45.2	31.4	40.0	84.4
Total weight of recycled products and materials	Tons	33.1	19.4	24.0	69.2
Recycling rate	%	73.3	61.9	60.0	82.0

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Recycling Activities in Europe

Take-back legislation in Europe - in particular, the European Union (EU) Directives on Waste Electrical and Electronic Equipment (WEEE)*1, Batteries*2 and Packaging*3 - 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 applicable European countries.

This is exemplified by our strong commitment to actively create a competitive market for professional recycling activities in Europe.

As such, 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 continuously strives to find the best recycling partners across Europe.

*1 Directive 2012/19/EU on waste electrical and electronic equipment (WEEE)

*2 Directive 2006/66/EU on batteries and accumulators and waste batteries and accumulators

*3 Directive 94/62/EC on packaging and packaging waste

Sony's Recycling Compliance Systems

Sony utilizes authorized collection schemes for the collection and recycling of WEEE, batteries and packaging across Europe. These conduct regular on-site audits of all contracted recyclers to ensure compliance and prevent illegal shipments

outside the EU. Sony engages authorized partners that undertake recycling on behalf of manufacturers to ensure our products are recycled in a compliant manner, in accordance with European Directives and country specific regulations.

In 2016, Sony financed the costs of recycling around 52,155 tons* of end-of-life products and packaging in Europe. Sony discloses for all its products placed on the market in Europe information on substances and components that require special treatment to facilitate safe recycling.

* End-of-life products and packaging in 2016 does not include packaging for Netherlands.

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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

Promoting the Sony Take Back Recycling Program

In the United States, Sony Electronics Inc. (SEL) continues to operate its voluntary recycling sponsorship program and compliance programs in states with take back regulations. 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 2016, these collection centers and through compliance channels collected approximately 9,749 tons (21,448,000 pounds) of used consumer electronics. SEL aims eventually to provide a collection center within 32km (20 miles) of the homes of 95% of the country's population. SEL in 2016 recycled 0.49Kg (1.01 pounds) for every 1Kg (2.20 pounds) sold which measures progress 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)

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 2017, SEL has cumulatively collected approximately 222,727 tons (490 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.

As a member of the Call2Recycle program*, SEL recycles rechargeable batteries free of charge in line with Call2Recycle's recycling scheme.

Consumers can find drop-off locations for rechargeable batteries from the Call2Recycle website (external).

- * 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.



Take back Recycling Program Website

Recycling Responsibly

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. SEL participates in the EPA Sustainable Material Management program Electronics Challenge since its program inception.

Canada

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.

From 2008 through 2015, Sony Canada operated an expanded recycling program for small electronics equipment across Canada by enabling consumers to take such products to its retail partners across the country. More recently, provincial programs matured to deliver appropriate collection opportunities for consumers through <http://epra.ca/>. In addition, Sony Canada supports other recycling programs for packaging and battery and supports small distributors fulfill their recycling obligation.

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.



Recycling Activities (Canada)

For more information, please refer to "Recycling Program in Canada" at the [Sony and the Environment website](#).

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Recycling Activities in Pan Asia

The operations of Sony in the Pan Asia region stretch from Africa to New Zealand. Throughout the region, Sony 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 that local requirements are met.

India: Working with a Local Partner to Collect and Recycle E-Waste

In order to ensure compliance with local legislation, Sony India has partnered with a leading third party recycling company to provide recycling services for e-waste. In fiscal 2016, Sony India collected approximately 340 tons of e-waste, including generated service waste, through the recycling partner. Additionally, Sony India has focused on creating a broad network of e-waste collection points, thereby making it easier for customers to turn in their e-waste. As of the end of March 2017, 26 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.

[For more information on the recycling of Sony products in India, please refer to "E-Waste Management" at the Sony India website.](#)

Australia: Participating in the "Government-Accredited Recycling Partner" System

Since March 2012, Sony Australia has been taking part in a recycling system with partners accredited by the Australian federal government under new home appliance recycling legislation. The company has been making a concerted recycling effort over this period of time. From July 2016 through June 2017, the company recycled roughly 2,766 tons of discarded home appliances.

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Recycling Activities in Latin America

Sony has offices in a number of Central and South American countries, including Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Panama 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 representative examples of Sony commitment to recycling initiatives.

Sony Joint Project in Central and South America: Green Service Program

Since 2010, Sony sales companies in Latin America-including Sony Mexico, Sony Inter-American, Sony Colombia, Sony Peru, Sony Chile and Sony Argentina-gradually launched the Green Service Program. During 2012 this program was expanded to Sony sales company in Bolivia as well. Under this initiative, using participating companies' service networks, products and components that are under warranty but discarded during repair are appropriately treated. Also the e-waste generated by Sony sales companies facilities in Latin America are appropriately treated under this program as well. 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 fiscal 2016, approximately 229 tons of scrap were collected and processed appropriately. Going forward, the companies will continue to implement the Green Service Program.

Supporting the Electronic Waste Recycling Program "Live the Change (Vive el Cambio)"

"Live the Change" (Vive el Cambio) is an environmental campaign operated by Sony Group companies in Latin America. This campaign is designed based on the Sony Stores retail platform, aiming for direct contact with customers, in an effort to educate them about the benefits of product recycling to ensure efficient use of precious natural resources, while at the same time actively collaborating with Sony on the new paradigm of "Circular Economy" for a sustainable future.

Launched on Earth Day in 2014, with a presence in 4 countries in Latin America and with a total of 32 collection points, the initiative is encouraging Sony customers to bring in their Sony Mobile phones and small Sony products for recycling. During fiscal 2016 a total of about 5.7 tons of products have been collected. This has allowed Sony to partner with local governments and NGOs to amplify our eco message by joining public campaigns and capturing the interest of local media and digital opinion leaders. More and more participants are being reached via SNS, where the number of followers has topped 46,000 and during the first half of 2017, the number of interactions hit 70,000.



Logo of "Live the Change" (Spanish)

For more information on the recycling of Sony products in Argentina, Colombia, Mexico and Peru, please refer to "Live the Change (Vive el Cambio)" at the official website.

Recycling Used Mobile Phones

Sony Mobile Communications Inc.(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 43 countries. In 19 of these countries, SOMC has set up its own voluntary collection system.

One SOMC best practice is a used mobile phone collection program in Latin America that has placed collection boxes in 32 service centers or stores in four countries in the region. A couple of times every year SOMC organize one-time events promoting recycling and sustainable activities under the Vive el Cambio concept in Latin America.

In France, Germany, Hungary, Poland, Spain, Sweden, United Kingdom and the United States, SOMC offers postage-paid collection for used mobile phones.

[For more information on recycling initiatives taken worldwide, please refer to "Sony Mobile Communication's website"](#)

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Recycling Activities in China

Compliance with Regulations on Recovery Processing of Waste Electrical and Electronic Products (China WEEE)

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

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 Academy of Imaging Technology 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.

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Environmental Communication Activities

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.

Raising the Environmental Awareness of Employees

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 and has also been introduced at overseas sites. In addition, Sony presents its environmental initiatives to employees in environmental education courses and events held at sites around the world. In China, for example, Sony Digital Products (Wuxi) Co., Ltd. set up an Environment, Health, and Safety hands-on education facility in 2016 to provide visitors with an interactive environmental learning experience. Also, the president of Sony Corporation and other executives share information on environmental issues of importance to the Sony Group in regularly held executive meetings.

Employee Communication Campaign on the Environment

"Center Stage: Living Green" is an employee communication campaign that celebrates members of the Sony Music group who take steps to live a greener lifestyle. Topics have included participating in Meatless Mondays*, growing vegetables and raising backyard chickens, and reducing water consumption. In

March 2015, the campaign recognized Global Citizen Earth Day 2015, highlighting the participation of Sony Music Entertainment artists Usher and Train, and challenged employees to join Sony Global Volunteer Day. Living Green will continue to encourage eco-conscious colleagues and artists alike to share their stories, promote achievable lifestyle choices, and foster a community of Green Living.

- * Meatless Mondays is an environmental initiative that encourages people to refrain from eating meat once per week and reduce consumption. It arose in response to increased consumption of meat around the world in recent years, which has led to a number of problems including environmental destruction resulting from the cultivation of livestock feed and the release of the greenhouse gas methane from cattle, sheep, and other livestock.



"Center Stage: Living Green" logo

Taking Advantage of Sony Events to Raise Environmental Awareness

At the 2016 and 2017 Sony Open in Hawaii, a PGA Tour event,* Sony Electronics Inc. (SEL) in the United States once again worked toward conducting an environmentally conscious event. In advance of the tournament each year, SEL organized consumer electronics recycling events, and during the tournament

spectators were encouraged to recycle their waste as well and to use public transportation, bicycles, and other low-impact means of transportation to attend the event. Styrofoam containers were phased out from food serving at the event with support from vendors, sponsors, Waialae Country Club and others. Sony Open in Hawaii was honored as a recipient of the Hawaii Green Event Award by the State of Hawaii in 2016 as the largest event receiving the honor, and again in 2017 with improvement in the score by 17%.

* PGA Tour is the US men's professional golf tour.

[For more information, please refer to "2017 Sony Open in Hawaii Certified as "Green Event" Two Years in a Row." at the Sony and the Environment website.](#)



Sorting of waste by type to recycle plastic bottles etc.

Movie Characters Promote Environmental Awareness

To foster increased environmental understanding, Sony uses movie characters to get the message across. For example, Sony Pictures Entertainment (SPE) produces the Smurfs series of animated movies "Smurfs: The Lost Village".

SPE features the Smurfs characters in the "Small Smurfs Big Goals" campaign -- launched by SPE, United Nations, UNICEF, and the United Nations Foundation -- to

encourage everyone to learn about and support the 17 Sustainable Development Goals (SDGs), which were agreed on by all 193 member countries of the United Nations in 2015. These SDGs address several environmental issues and include goals such as "Take urgent action to combat climate change and its impacts. The "Small Smurfs, Big Goals" campaign targets a global audience, seeking to raise global awareness of the environment.

For more information on the "Small Smurfs Big Goals", please refer to "Small Smurfs Big Goals" official website.

For more information on the "Small Smurfs, Big Goals" campaign to raise awareness of SDGs, please refer to "International Day of Happiness 2017 - Small Smurfs Big Goals(YouTube)".

For more information on the SDGs and what Sony is doing to help achieve them, please refer to "Contributing to Sustainable Development Goals" at the CSR Reporting website.



SPE campaign to raise awareness of the UN Sustainable Development Goals (SDGs) featuring the Smurfs.

Management of Risks Related to Chemical Substances

As a company that uses chemical substances, Sony discloses information on emissions of such substances and exchanges views on safety and environmental issues with residents in the vicinity of its sites, as well as with local authorities, with the aim of reinforcing mutual understanding. For instance, Sony Semiconductor Corporation actively participates in local community events and organizes its own interactive events at all of its in-plant. The company also holds tours of its

manufacturing plants, during which it explains to visitors how wastewater is processed by environmental-related equipment.

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Stakeholder Engagement

Sony is active in a wide range of fields, and its stakeholders have diverse expectations. In order to promote a healthy, spiritually abundant, sustainable society, Sony is deeply committed to stakeholder engagement, a process whereby it seeks to earn greater trust from stakeholders and cooperate with them to achieve common aims. Described here are two of the more notable examples of this approach.

Participation in the WWF's Climate Savers Programme

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, and monitoring by the WWF and an independent body has enhanced the transparency of Sony's various environmental initiatives. Sony's participation in the Climate Savers Programme includes meeting the climate change targets set in its Green Management 2020 group environmental mid-term targets.

[For more information, please refer to "Partnership and Participation in frameworks".](#)



"Climate Savers" logo

Membership in the Consortium for Sustainable Paper Use

In November 2013, Sony became a founding member of the Consortium for Sustainable Paper Use (CSPU), the aim of which is to encourage environmentally preferable and socially responsible paper use – usage of forest-certified paper and recycled paper – 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 to disseminate information and promote public awareness. Consortium members exchange information regularly and interview non-member companies with the goal of promoting the consortium-wide application of particularly outstanding initiatives.

With regard to certified-forest paper, Sony promotes the use of FSC-certified paper*, which is not merely in conformance with the regulation, but is in fact highly valued as a means of supporting forest sustainability. For example, Sony uses FSC-certified paper in its corporate publications and other printed materials, including company brochures, shareholders meeting notices, calendars, and business cards. In fiscal 2015, moreover, use of this paper was expanded to include product catalogs and envelopes. Sony used 393 tons of FSC-certified paper in fiscal 2016.

- * FSC-certified paper is any paper product made from wood that has been certified by an international body called the Forest Stewardship Council, which aims to promote forest preservation.



"CSPU" logo



Community Engagement



Management Approach

Materiality Rationale

In Sony's Founding Prospectus, co-founder Masaru Ibuka set "contributing to Japanese culture through technology" and "the promotion of education in science among the general public" as primary goals. Sony has focused on science education for children, who will shape the next generation. In keeping with Ibuka's vision, Sony continues to implement activities designed to contribute to society.

Basic Approach

Following the course set by Sony co-founder Masaru Ibuka, activities are adapted to meet current and local needs in helping to solve the various issues facing regions where Sony operates around the world. Putting its "For the Next Generation" CSR philosophy into action, Sony makes the most of its unique technological and service assets in the areas in which it is particularly strong. Recognizing the affinity of this approach with the UN Sustainable Development Goals, Sony aims to contribute to the resolution of a wide range of global social issues through tapping into the power of entertainment and applying its technologies, for example, supporting education in countries and regions throughout the world, and emergency relief in response to major disasters.

Structure

In addition to global projects, which are spearheaded by Sony Corporation, Sony Group companies worldwide and the Group's five foundations cooperate with stakeholders such as international organizations and NGOs to promote initiatives tailored to local needs. Sony encourages employees to play an active role in these types of activities, as well.

Main Achievements in Fiscal 2016

Here are the main results of fiscal 2016 initiatives:

- Expenditures for social contribution initiatives were 2.4 billion yen.
- A total of 130,000 employees took part in Sony's global in-house volunteer program known as "SOMEONE NEEDS YOU".
- About 70 Sony Science Program workshops were held, attracting 3,000 participants.



Looking to the Future

Sony will continue to make the most of its products, technologies, services, innovations, the capabilities of Sony Group employees, and its partnership with stakeholders to address various social needs. As part of this effort, Sony will also be

working to help achieve the Sustainable Development Goals (SDGs), particularly those which are related to Sony's community engagement.

Activity Reports

Vision of Sony's Founder

Community Engagement Policy, Main Scope and Structure

Expenditures for Community Engagement Initiatives

Volunteer Systems for Employees

Contributing to the International Community through Business Activities

Sony Museums and Foundations

Community Engagement

Updated on August 23, 2017

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. 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 Engagement

Updated on August 23, 2017

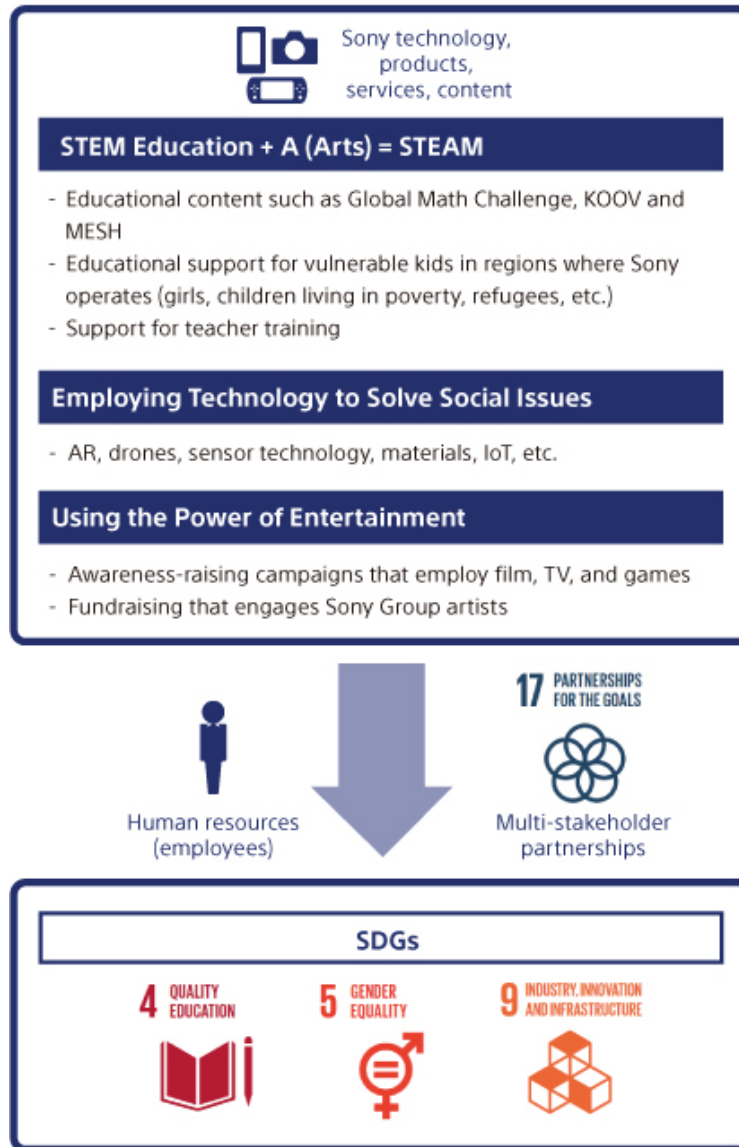
Policy, Framework and Main Scope of Community Engagement

The philosophy of "For the Next Generation" goes all the way back to the vision of Sony co-founder Masaru Ibuka, and it still guides Sony's community engagement everywhere we do business. Sony makes the most of the products, technologies, services, and innovations of the Sony Group, as well as the strengths of Sony Group employees and its partnerships with stakeholders, to engage with communities. Sony's efforts focus on the following United Nations Sustainable Development Goals (SDGs): 4, "Quality education," 5, "Gender equality," 9, "Industry, innovation and infrastructure," and 17, "Partnerships for the goals." Sony is helping to address diverse global issues in many ways: using the power of entertainment, employing technology to solve social issues, supporting education in fields such as science, technology, engineering, and mathematics (STEM) in various countries and regions with the Sony Science Program, and providing emergency relief and assistance in large-scale disasters.

For the Next Generation

[CSR at Sony](#)

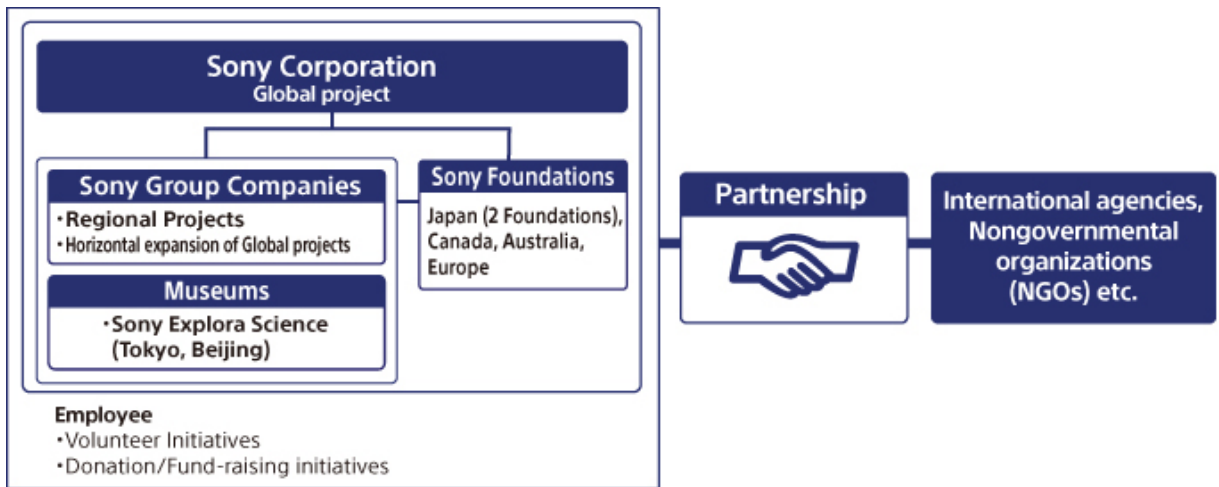
Sony Group Community Engagement



Framework for Community Engagement

Sony's global projects are spearheaded by its headquarters in Tokyo. In addition, Sony Group companies worldwide, along with five foundations and two museums, are involved in initiatives tailored to local needs. All of these efforts are guided by the Sony Group's community engagement policy, and often include cooperation with international organizations including NGOs. Employees are also encouraged

to play an active role in their communities by participating in volunteer and fundraising, and other programs.



Community Engagement

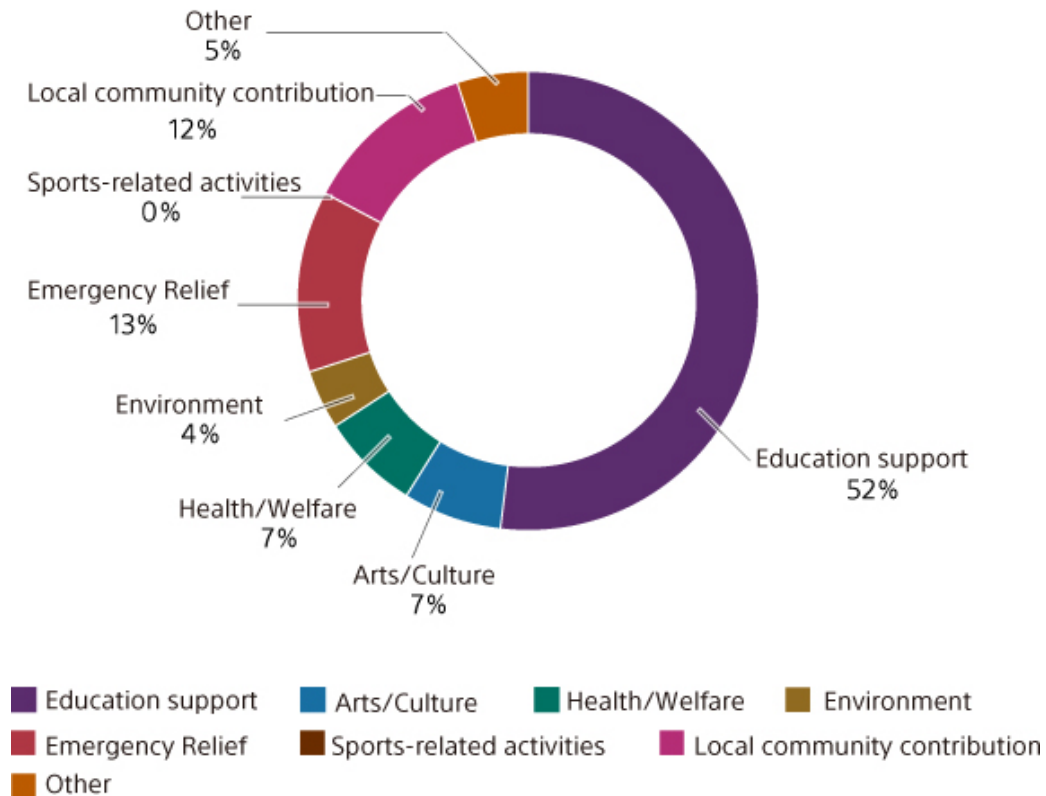
Updated on August 23, 2017

Expenditures for Community Engagement Initiatives

In fiscal 2016, the Sony Group spent approximately 2.5 billion yen* on community engagement initiatives. By category, 52% of the spending went to supporting education, including science education. The next highest areas of spending were emergency relief (about 13%) including assistance for the Kumamoto earthquake, followed by spending for contributing to local communities (about 12%).

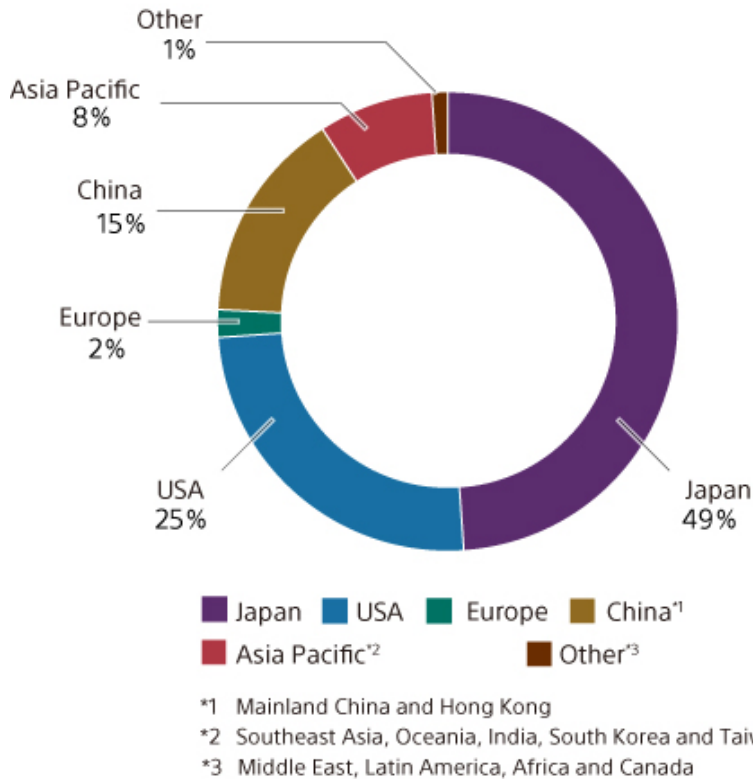
* Cumulative figure. In addition to donations, sponsorships and independent program expenses (including facility operation expenses), this amount includes the market value of products donated.

Community Engagement Expenditures by Field (Fiscal Year 2016)



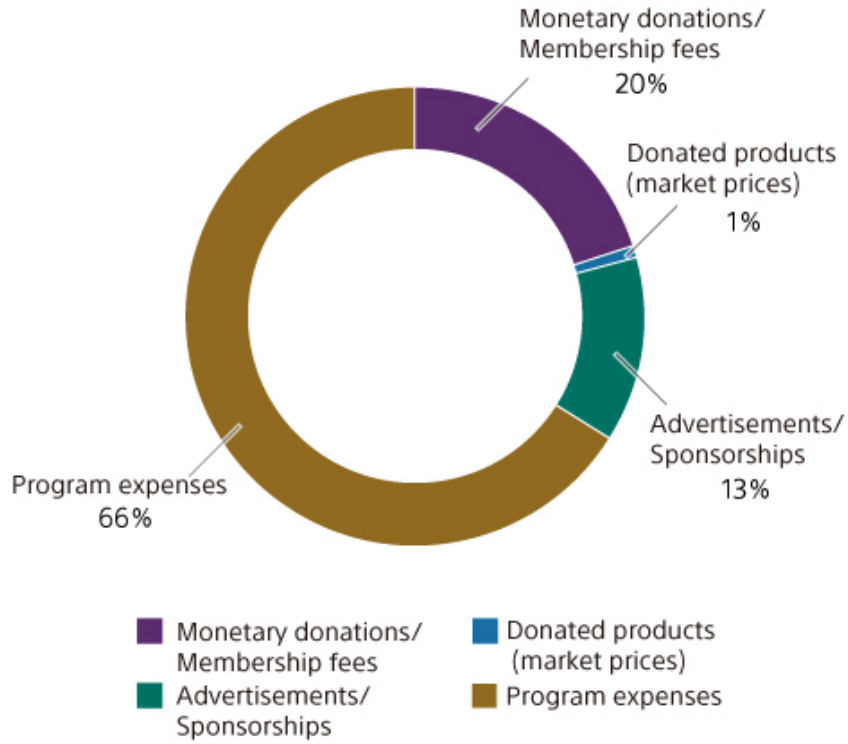
By region, just under 50% of total spending was in Japan, followed by about 25% in the United States and about 15% in China.

Community Activity Expenditures by Region (Fiscal Year 2016)



By type of expenditure, 66% of total spending was for program expenses, followed by 20% for monetary donations.

Community Activity Expenditures by Category (Fiscal Year 2016)



Community Engagement

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Volunteer Systems for Employees

Employee volunteer promotion program: "SOMEONE NEEDS YOU"

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 2016, a total of 130,000 Sony Group employees* participated in volunteer initiatives.

* Cumulative participants in fundraising initiatives, blood drives and other activities.

Leave for volunteer purposes

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.

Charitable donation systems for employees

Sony has put several systems in place for encouraging employees to donate money for emergency relief and other worthy causes, including matching gift programs. Employees can donate money by bank transfer or by using electronic money with

Sony's Felica™ contactless IC card system.

Related information:

[Activities to promote employee participation](#)

Community Engagement

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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.

Solutions That Make Good Use of Products and Services

Sony's SmartEyeglass and 4K Ultra Short Throw Projector – Playing a Big Role in the "AR HOPE TOUR in Sendai/Tagajo," a Project to Convey the Devastation Caused by the Great East Japan Earthquake

In March 2011, the Great East Japan Earthquake and ensuing tsunami wrought cataclysmic losses in Japan, especially in the northeastern region. Five years later, in March 2016, Tohoku University's International Research Institute of Disaster Science teamed up with dmp inc. to hold the "AR HOPE TOUR in Sendai/Tagajo." The idea behind the project is to ensure that the events of that day will never fade from memory.

The AR HOPE TOUR was originally the idea of students at Miyagi Agricultural High School, for whom the tour idea brought home a Grand Prix in 2014 at the National Tourism Plan Competition for high school students (an event sponsored by the Ministry of Education, Culture, Sports, Science and Technology and the Japan Tourism Agency). Others then took the idea and turned it into a reality by presenting augmented reality in both video and audio format via a number of Sony

products, including the wearable SmartEyeglass, the Xperia™ Z4 Tablet, and a 4K ultra short throw projector. These products were used to create a solution that delivers a strikingly realistic depiction of the destruction caused by the March 2011 earthquake.

In the AR HOPE TOUR, persons can visit the areas hit by the tsunami and put on the SmartEyeglass to experience an "augmented reality" version of the tsunami. Tour participants can also view 360-degree video showing how locations were affected by the earthquake using tablet computers. They further have the option of watching video and images from a 4K ultra short throw projector. These cutting-edge technologies afford a real feeling of the tremendous size and ferocity of the tsunami. There are also "storytellers" with the tour that share their personal experience. The tour shows quite clearly the capabilities of these solutions. Sony will continue working on them to develop applications in disaster preparedness education and tourism.



Presenting footage using a Sony 4K Ultra Short Throw Projector



Experiencing augmented reality using the Sony SmartEyeglass

Working to Address Social Development through the Utilization of Technology

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*1 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*2 and photovoltaic (PV) panels. Based on the results of this study, Sony has begun considering the feasibility of building a new business model.

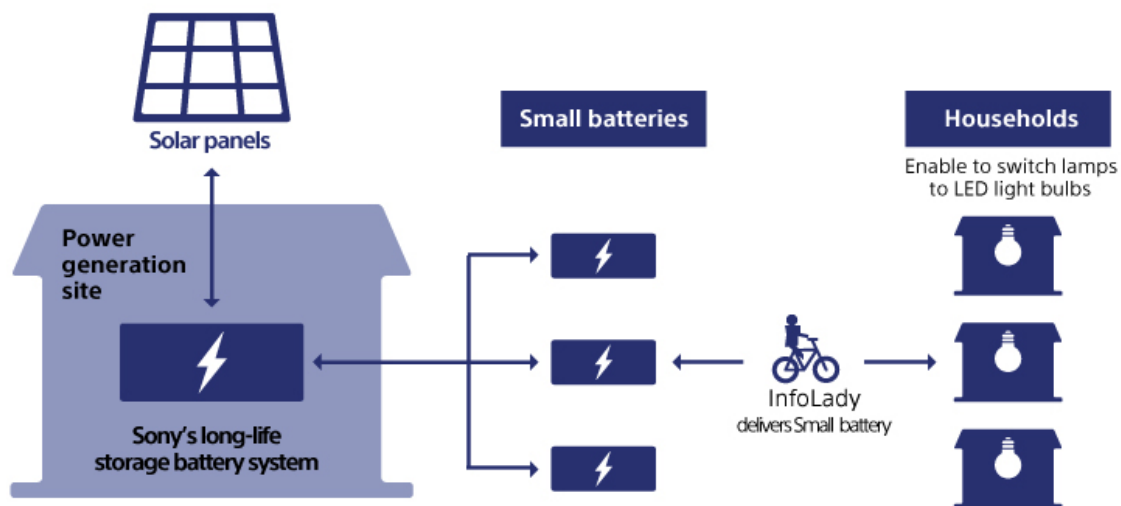
Project name:

Electrification of an unelectrified area using solar power generation and a long-life storage battery system

Objectives:

- To effectively utilizes 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



Business model in Bangladesh

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.



LED bulb provides precious lighting in this home



Studying with the help of LED lighting

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*3consultants 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.

Sony Computer Science Laboratories, Inc. has subsequently been collaborating with the local startup Solaric to study ways of using solar power generation and storage battery systems to bring electricity to unelectrified areas in developing countries.

Solaric Green Innovation Delivered

- *1 Details on this study are [here](#).
- *2 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).
- *3 This is an action program managed by the 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.



InfoLady consultants do their local rounds by bicycle

II. Solving Social Issues in Urban Bangladesh by Utilizing IC Card Technology

Sony is involved in activities designed to solve social issues in urban Bangladesh by using Sony's FeliCa™ contactless IC card technology.

In the capital city of Dacca, a majority of people use buses for their transportation, which causes traffic jams that have become a social problem. Moreover, people typically have to purchase paper tickets by the roadside for every boarding, which is inconvenient and makes it easy to dodge fares.

To help solve such problems, an IC card-based system using FeliCa technology was introduced in 2011 to replace the paper tickets. In addition to improving convenience for passengers, it realized speedy boarding and alighting time and the utilization of incoming and outgoing records to optimize bus operation management. The system has also contributed to the alleviation of traffic jams and the improvement of air pollution, and made fare collection more transparent.

In the future, the IC card system will be upgraded to a Rapid Pass system that will enable the use of one card for all public transport including buses.



Commuter in Dacca,
Bangladesh, pays his bus fare
using a SPASS IC card

Community Engagement

Updated on August 23, 2017

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.

Sony Museums

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 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 Foundation Australia Limited (Australia)

Sony Canada Charitable Foundation (Canada)

Stichting Sony Europa Foundation (Pan-Europe)

CSR at Sony

Updated on August 23, 2017

External Evaluation and Recognition of CSR Activities

External Evaluation of CSR Activities

In recognition of its ongoing CSR initiatives, Sony was selected in 2016 for inclusion in the FTSE4Good Index and the FTSE Blossom Japan Index, which has launched in July, 2017. These investment indices identify companies around the world that are leaders in environmental, social, and governance (ESG) performance.



FTSE4Good



FTSE Blossom
Japan

In the CDP Japan 500 Climate Change Report 2016, a report by a UK non-profit organization, Carbon Disclosure Project (CDP), which evaluates environmental activities, Sony Corporation was given the highest rating for the second consecutive year. Sony was also included on the CDP Water A List, which is based on the CDP's survey of water resource management.



[External Evaluation](#)

External Awards Received for CSR Activities (since fiscal 2000)

*Organization names appear as they were at the time of award receipt.

Fiscal 2016 (in order received)

Name of Fiscal 2016 Award	Recipient	Awarded By	Date
Biodiversity Action Award	Wow! Wow! Biodiversity Project	Japan Committee for United Nations Decade on Biodiversity (UNDB-J)	2016.11
2016 Environmental Media Awards	The Angry Birds for A Happy Planet campaign by Sony Pictures Entertainment	The Environmental Media Association	2016.10
Innovation Award	Entertainment Access Glasses (STW-C140GI)	Hearing Loss Association of America (HLAA)	2016.05
Golden Peacock Award for Corporate Social Responsibility	Sony India	Institute of Directors	2016.01

Fiscal 2015

Award during FY 2015	Subject	Sponsor	Acquired
Sustainable Materials Management Award	Sony Electronics's responsible recycling of electronic waste through certified recyclers	United States Environmental Protection Agency	2016.02
Award for exemplary long-term environmental goals in the Low-Carbon Cup 2016	Sony Corporation	Japan Center for Climate Change Actions (Support) Ministry of the Environment, Ministry of Education, Culture, Sports, Science and Technology, Platinum Society Network	2016.02
The leading carbon-neutral company in 2015	Sony Korea	the Korea Energy Agency (KEA) under the Ministry of Trade, Industry and Energy	2015.12
ASEAN Energy Award	Sony EMCS Malaysia KL Tec's effort to improve energy efficiency through process optimization and thermal insulation	ASEAN Centre for Energy	2015.10

The 3rd Green Society Award	Sony EMCS Corporation Kohda Site's environmental conservation activities with the local community for many years	Organization for Landscape and Urban Green Infrastructure	2015.10
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Fiscal 2014

Award during FY 2014	Subject	Sponsor	Acquired
Sustainable Materials Management Award	Sony Electronics's responsible recycling of electronic waste through certified recyclers	United States Environmental Protection Agency	2014.10
ASEAN Energy Award	Sony EMCS Malaysia KL Tec's effort in increasing energy efficiency and implementing measures that are easily transferable to other industries	ASEAN Centre for Energy	2014.09
InnoCSR's AIM Responsibility Award	Sony group's CSR initiatives in Asia	Inno CSR Co. Ltd. Asian Institute of Management	2014.09
2014 Disability Matters Asia-Pac Region Conference & Awards	Sony/Taiyo Corporation, Sony Hikari Corporation	Springboard Consulting LLC	2014.07

Fiscal 2013

Award during FY 2013	Subject	Sponsor	Acquired
2 Prime Minister's Hibiscus Awards	Sony EMCS Malaysia KL Tec's local environmental management system and their activities to reduce the environmental footprint	Ministry of Natural Resources and Environment (MNRE), Malaysia	2014.01
Index National Environmental Award 2013	Sony Service and Operations of Americas's outstanding environmental activities and performance.	National Council of the Maquiladora and Manufacturing Industry of Exportation (Mexico)	2013.11
CSR-DIW Award	Sony Technology Thailand's activities relating to the environmental conservation and education program for the community	Department of Industrial Works, Ministry of Industry Thailand	2013.10
Trade, Industry & Energy Minister Award	Sony Korea Corp.'s advanced response to climate change	Ministry of Trade, Industry & Energy (Korea)	2013.10

Environmental Minister Award	Sony Korea Corp.'s environmental management system	Ministry of Environment (Korea)	2013.10
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Fiscal 2012

Award during FY 2012	Subject	Sponsor	Acquired
Innovation in Plastics Recycling Award	SORPLAS™	American Chemistry Council	2012.11
Good Design Sustainable Design Award	Home Energy Server CP-S300 E / CP-S300W	Japan Institute of Design Promotion	2012.11
CEA Innovations 2013 Design and Engineering Awards: Eco-Design and Sustainable Technologies product category	-Blu-ray Home Theater System BDV-N790W (employs magnetic fluid speakers) -Cyber-shot™ Cioact Digital Camera DSC-HX30/20 series (employs SORPLAS™)	Consumer Electronics Association (USA)	2012.11
2012 Environmental Excellence Awards: Technology Innovation	SORPLAS™	Industrial Environmental Association (California, USA)	2012.10
EISA Green Smart Phone Award	Smartphone Xperia™ P	European Imaging and Sound Association	2012.09

Fiscal 2011

Award during FY 2011	Subject	Sponsor	Acquired
Corporation of the Year at the Beyond Sport Awards 2011	Sony Corporation (Project: Dream Goal 2010)	The Beyond Sport Awards	2011.12
Singapore PUB Watermark Award	Outstanding contributions to water conservation by Sony Group companies in Singapore	Public Utility Board in Singapore	2011.10
Singapore Sustainability Awards	Long-term commitment on environmental policies by the Sony Group companies in Singapore	Singapore Business Federation	2011.07

Fiscal 2009

Award during FY 2009	Subject	Sponsor	Acquired
The Knowledge Economy Minister's Prize	Sony Korea Corp's Initiative Climate Changes Response Activities	The Ministry of Knowledge Economy (Republic of Korea)	2009.11

Director-General for Commerce and Distribution Policy Award, FY 2009 METI Minister Awards for Best Contributors to Product Safety	Sony Corporation	Ministry of Economy, Trade, and Industry, Japan	2009.11
Minister of economy, trade and industry award-winning for resource circulation technology & system	Sony Chemical & Information Device Corporation, Kanuma Plant	Ministry of Economy, Trade, and Industry, Japan	2009.10
Director General, Industrial Science and Technology Policy and Environment Bureau, Ministry of Economy, Trade and Industry Award	Packing of a small mobile PC (VAIO Type P)	JAPAN PACKAGING INSTITUTE	2009.06

Fiscal 2008

Award during FY 2008	Subject	Sponsor	Acquired
Director-General of the Agency for Natural Resources and Energy Award of Commendation Program to Excellent Energy Management Factories	Sony Corporation, Sendai Technology Center	Ministry of Economy, Trade and Industry	2009.02
Director-General of the Agency for Natural Resources and Energy Award of Commendation Program to Excellent Energy Management Factories	Sony Semiconductor Kyushu Corporation, Kokubu Technology Center	Ministry of Economy, Trade and Industry	2009.02
Sony Corporation awarded Director-General of the Agency for Natural Resources and Energy Prize	Increased acquisition of Green Power Certificates and forest conservation activities linked to the certificate system by Sony Corporation	Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry	2008.11
Ontario Waste Minimization Awards - Platinum Award	Sony of Canada Ltd.	Ontario Recycling Council	2008.10
Environment Minister's prize	Sony Korea	Ministry of Environment (Republic of Korea)	2008.10
Acquired certification mark for "Carbon Neutral Program"	Sony Korea	Ministry of Knowledge Economy (Republic of Korea)	2008.09

Fiscal 2007

Award during FY 2007	Subject	Sponsor	Acquired
1st Diversity Management Award	Sony Corporation	Toyo Keizai Inc.	2008.01
Best Environmental Report Award, ACCA Malaysia Environmental and Social Reporting Awards 2006	Environmental Site Report 2006 published by Sony EMCS (Malaysia) Sdn. Bhd.	ACCA Malaysia	2007.05

Fiscal 2006

Award during FY 2006	Subject	Sponsor	Acquired
Environmental Communication Awards 2006 : Sustainability Excellence Award	Sony CSR Report 2006	Global Environmental Forum	2007.02
Sustainable Energy Europe Award	Sony's voluntary commitment to energy efficiency	European Commission	2007.02

Fiscal 2005

Award during FY 2005	Subject	Sponsor	Acquired
Environmental Communication Awards 2005 : Sustainability Excellence Award	Sony CSR Report 2005	Global Environmental Forum	2006.01
Award for family-friendly corporations on FY 2005, Ministry of Health, Labour and Welfare Award (Japan)	Support for employees raising children and caring for family members	Ministry of Health, Labour and Welfare	2005.09
Minister of Economy, Trade and Industry award-winning for the First Japan Prize for Creativity	Technology development and commercialization of mercury-free silver oxide batteries	Ministry of Economy, Trade and Industry	2005.08

Fiscal 2004

Award during FY 2004	Subject	Sponsor	Acquired
Environmental Communication Awards 2004 : Excellent Environmental Reporting Award	Environmental & Social Report 2004 published by Sony EMCS Kisarazu TEC	Global Environmental Forum	2005.01

Environmental Communication Awards 2004 : Sustainability Excellence Award	Sony CSR Report 2004	Global Environmental Forum	2005.01
Minister of Agriculture, Forestry and Fisheries of Japan award-winning for excellent utilization of biomass	Technological development and proactive implementation of vegetable based plastics on home electric appliances	Ministry of Agriculture, Forestry and Fisheries of Japan	2004.11
Minister of Economy, Trade and Industry award-winning for promoting 3R activities	Marketing of Mini Disc that contains recycled resin and contribution to 3R, Reduce, Reuse and Recycle, activities	Reduce, Reuse, and Recycle Council in Japan	2004.10

Fiscal 2003

Award during FY 2003	Subject	Sponsor	Acquired
Best Environmental Report 2003 Award, ACCA Malaysia Environmental Reporting Award 2003	Environmental Report FY2002 published by Sony Technology Malaysia Sdn. Bhd	ACCA Malaysia	2004.03
Minister of economy, trade and industry award-winning for resource circulation technology & system	The circulation system of the ferric chloride used solution for etching Joint award-winning of Sony Chemicals Corporation Neagari plant and TOAGOSEI CO.,LTD.Nagoya plant	Ministry of Economy, Trade, and Industry, Japan	2004.03
Best Environmental Report 2003 Award, Singapore Environmental Reporting Awards (SERA)	Environmental & Social Report 2003 published by Sony Display Device Singapore	ACCA Singapore	2004.03
Environment Reports Award 2003 :Good Environmental Reporting Prize	Environmental & Social Report 2003 published by Sony EMCS Kisarazu TEC	Global Environment Forum	2004.01
Environment Reports Award 2003 : Sustainability Excellence Prize	Sony CSR Report 2003	Global Environment Forum	2004.01

Prime Minister's Hibiscus Award 2002/2003	Exceptional Achievement in Environmental Performance	Business Council for Sustainable Development in Malaysia (BCSDM), Environmental Management and Research Association of Malaysia (ENSEARCH), Federation of Malaysia (FMM)	2003.12
Minister of Economy, Trade and Industry Award	Greenery activity by Oita Technology Center, Semiconductor Kyusyu Corporation	Japan Greenery Research and Development Center	2003.10
5th PBEC Environmental Award	Sony Electronics of Korea Co.	Pacific Basin Economic Council	2003.08
Thailand Prime Minister Award	Environmental conservation activities at Sony Siam Industries Co. Ltd.	Royal Government of Thailand	2003.05

Fiscal 2002

Award during FY 2002	Subject	Sponsor	Acquired
ACCA Malaysia Environmental Reporting Award - The Best Environmental Report - Runner Up	Corporate transparency of Environmental report published by Sony Technology Malaysia Sdn. Bhd.	ACCA Malaysia and endorsed by Ministry of Science, Technology and Environment of Malaysia	2003.03
World Star Award for Packaging Excellence	Development of transparent packages made of vegetable-based plastics for portable radio ICR-P10	World Packaging Organization	2003.01
2002 Ecot Goods Award; Resource Conservation	Resource conservation effort for implementing vegetable-based plastic to enclosure of Walkman, WM-FX202	NTT-X	2003.01
Green Dragon Wales Environmental Standard Level 5. Continuous Environmental Improvement	Continuous environmental improvements at Sony UK Manufacturing. Pencoed Technology Centre	Arena Network, Groundwork Wales, and the Welsh Assembly Government	2003.01
Appreciation for leadership partner	Leadership in supporting the Plug-In To Recycling Campaign and the safe recycling of electronics for Sony Electronics Inc.	The U.S. EPA	2003.01

Recognition from US EPA	Active participation in Mid-Atlantic Regional E-Cycling Project for Sony Electronics Inc.	The U.S. EPA	2002.11
Waste Minimization and Electronics Recycling	Active participation in Mid-Atlantic Regional E-Cycling Project for Sony Electronics Inc.	The U.S. EPA	2002.10
2002 British Energy/NMI Energy Efficiency Awards	Reduced energy consumption by 37% over three years at Sony Manufacturing Company UK, Ltd., Bridgend Plant	British Energy / The National Microelectronics Institute	2002.09
Award for promoting thermal energy storage system	Ice thermal energy storage system by ST Liquid Crystal Display Corp.	Heat Pump & Thermal Storage Technology Center in Japan	2002.07
26th Kinoshita-Award by Japan Packaging Institute : Packaging Category	Establishing recycling system of low quality papers used by Sony sites	Japan Packaging Institute	2002.05
The 5th Green Reporting Award Site Report Award	Sony EMCS Kisarazu TEC Site Report 2001	Toyo Keizai, Inc. Green Reporting Forum	2002.05
The 5th Green Reporting Award	Sony Environmental Report 2001	Toyo Keizai, Inc. Green Reporting Forum	2002.05

Fiscal 2001

Award during FY 2001	Subject	Sponsor	Acquired
The 2nd Annual ECO-Web Awards: Judge's Choice Award	For Sony environmental activities Homepage	Ecology Symphony	2002.03
World Star Award	Contribution to resource conservation by using hexagonal carton for WEGA	World Packaging Organization	2002.02
General Kyushu Bureau of Economy, Trade and Industry Award for Superior Energy Control Site; Heat Section	Sony Semiconductor Kyushu Corporation, Kokubu Technology Center	Kyushu Bureau of Economy, Trade and Industry	2002.02
General Kyushu Bureau of Economy, Trade and Industry Award for Superior Energy Control Site; Heat Section	Sony Semiconductor Kyushu Corporation, Kokubu Technology Center	Kyushu Bureau of Economy, Trade and Industry	2002.02
Excellence in Plastics Impact on the Environment	Sony Electronics Inc.	Society of Plastics Engineers, Inc.	2002.02

Successful Case of Energy Conservation in Factory & Building: Excellent Prize	Sony Semiconductor Kyushu Corporation, Kokubu Technology Center	The Energy Conservation Center, Japan	2002.01
Kankyo-goo Award Superiority Prize for Web-site	For Sony environmental activities Homepage	Kankyo-goo	2001.12
The 11th Environmental Advertisement Contest : Newspaper Special Prize	For Environmental Advertizement on Nihon Keizai Shimbun	NPO Japan Regional Exchange Center Nihon Keizai Shimbun, Inc.	2001.12
Environmental Reports Award 2001: Excellence Prize	Sony Environmental Report 2001	Global Environmental Forum	2001.12
International Environment Business Exhibition 2001 Ecolife Award:Excellence Prize	Environmentally conscious product developmant in MD Walkman MZ-909 by Sony Corporation and Sony EMCS Corporation, Saitama TEC	Shiga Prefecture	2001.11
Industrial Environmental Association Award	Sony Electronics Inc.	Industrial Environmental Association	2001.10
Recycling Promotion Chairman's Award, recognizing contribution to promoting recycling in fiscal 2001	Sony EMCS Corporation Kohda TEC Sony EMCS Corporation Minokamo TEC Sony EMCS Corporation Kosai TEC Sony Corporation Sendai Technology Center Sony Corporation Sendai Technology Center Sony Logistics Corporation Sony Tochigi Corporation Sony Semiconductor Kyushu Corporation Kokubu Technology Center	Recycle Promotion Association	2001.10
General Kyusyu Bureau of Economy, Trade and Industry Greenery Award	Sony Semiconductor Kyushu Corporation Oita Technology Center	Kyushu Bereau of Economy, Trade and Industry	2001.10
The 2000 Ontario Waste Minimization Awards - Bronze	Sony of Canada Ltd.	The Recycling Council of Ontario	2001.06
The 28th Environmental Award : Excellence Prize	Development and employment of lead-free solder	THE NIKKAN KOGYO SHIMBUN, LTD.	2001.06

World Star Award	In cooperation with CHUOH PACK INDUSTRY CO.,LTD, Sony has moved away from EPS packaging to cardboard cushion as packaging material for LCD display.	World Packaging Organisation	2001.05
The Fourth Green Purchasing Award:Excellence Prize	Sony Corporation	Green Purchasing Network	2001.04
The Tenth Global Environment Award: Grand Prize	Activities conducted to consolidate Sony's new environmental management structure and global environmental activities (Sony Group)	Japan Industrial Journal Co.	2001.04

Fiscal 2000

Award during 2000	Subject	Sponsor	Acquired
The Fourth Environmental Report Awards: Excellence Prize	A site report by Sony Tochigi Corporation	National Association Promotion of Environmental Conservation	2001.03
Council for the Promotion of Recycling Chairman's Award in Fiscal 2000 in recognition of recycling promotional activities	Recycling activities by Sony Broadcasting Products, Sony Oita, Sony Kohda, Sony Atsugi Technology Center, Sony Sendai Technology Center, Sony Minokamo and Sony Tochigi	Recycle Promotion Association	2000.11
Ecohitech Award 2000	Results of environmental activities by Sony Italia	Italian Ministry of Industry, Commerce and the Handicrafts	2000.10
2000 Nikkei Superior Trend-setting Factories and Offices Awards	Environmentally conscious facilities at Sony Center am Potsdamer Platz (Germany)	Nihon Keizai Shimbun, Inc	2000.10
Good Design Award 2000	Sony's Green Envelopes and Green Packaging	Japan Industrial Design Promotion Organization	2000.10

The Excellent Consumer-oriented Group: Minister of International Trade and Industry Award	Measures concerning environmentally conscious packaging by the Sony Package Engineering Committee	Ministry of International Trade and Industry/Japan Industrial Association	2000.10
The Excellent Consumer-oriented Group: Minister of International Trade and Industry Award	Measures concerning environmentally conscious packaging by the Sony Package Engineering Committee	Ministry of International Trade and Industry/Japan Industrial Association	2000.10
Prime Minister's Award for Outstanding Industries 2000	Results achieved in environmental activities by Sony Mobile Electronics (Thailand)	Royal Government of Thailand	2000.09
Prime Minister's Commendations for Outstanding Contributions to the National Greening Campaign	Greenery promotion campaign by Sony Kohda	The Liaison Council for Greening	2000.08
Best Factory Award 2000	Environmental and other activities by Sony Mobile Electronics (Thailand)	Royal Government of Thailand	2000.06
24th Kinoshita-Award by Japan Packaging Institute: R&D Category	100% recycled magazine paper and an ink with solvent completely replaced with soybean oil developed by Sony in cooperation with Oji Paper Co., Ltd., Shinfuji Paper Co., Ltd. and Dainippon Ink and Chemicals Incorporated	Japan Packaging Institute	2000.05
PBEC Environmental Award	Sony Magnetic Products Thailand	Pacific Basin Economic Council	2000.03

Environment

Environmental Data

Common Data

- [Overview of Environmental Impact and Eco-Efficiency](#)
- [Greenhouse Gas Emissions](#)
- [Environmental Cost](#)

Product Related Data

- [Environmental Data for Products](#)
- [Product Recycling Data](#)
- [Examples of Polyvinyl Chloride\(PVC\)-free Products and Brominated Flame Retardant\(BFR\)-free Products](#)

Site Related Data

- [Environmental Data for Site](#)
- [Emissions of Air and Water Pollutant\(Worldwide\)](#)

Others

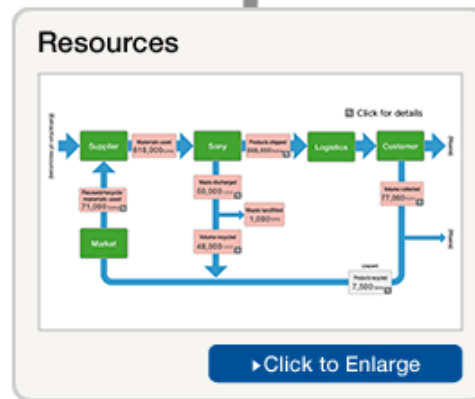
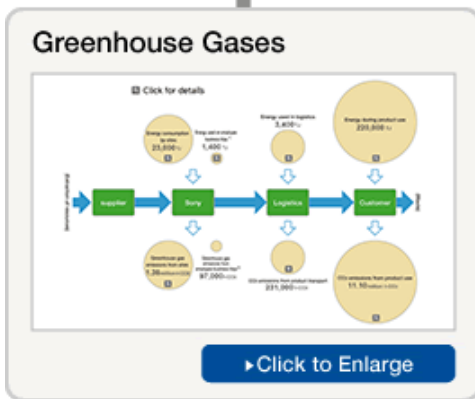
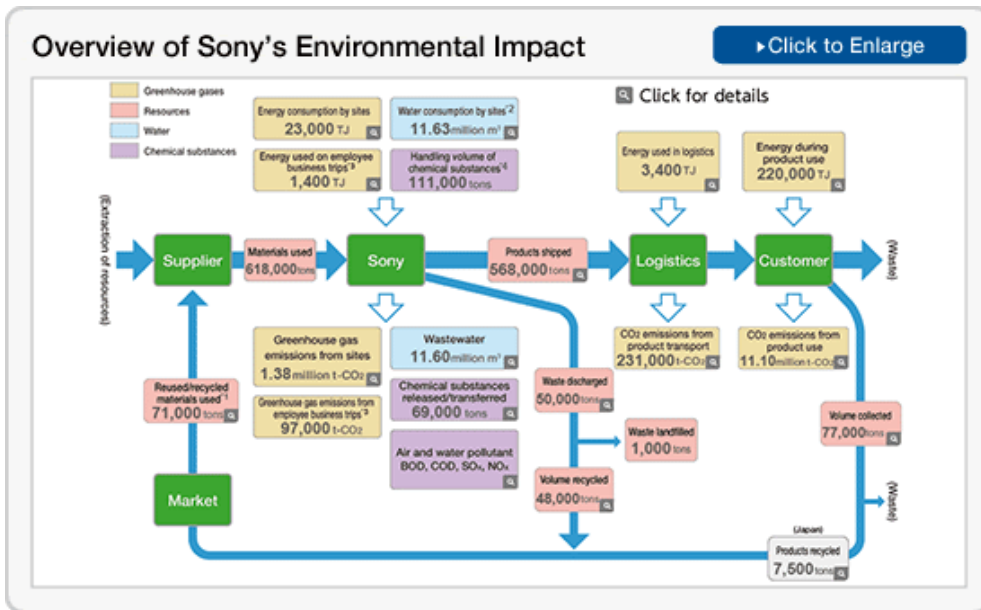
- [Environmental Data Collection Methods and Rationale](#)
- [ISO14001 Certified Sites](#)
- [Independent Verification Report](#)
- [History of Environmental Activities](#)
- [Response to CDP\(Carbon Disclosure Project\) Investors by Sony Corporation](#)

Environment

Updated on August 23, 2017

Overview of Environmental Impact and Eco-Efficiency

Overview of Environmental Impact

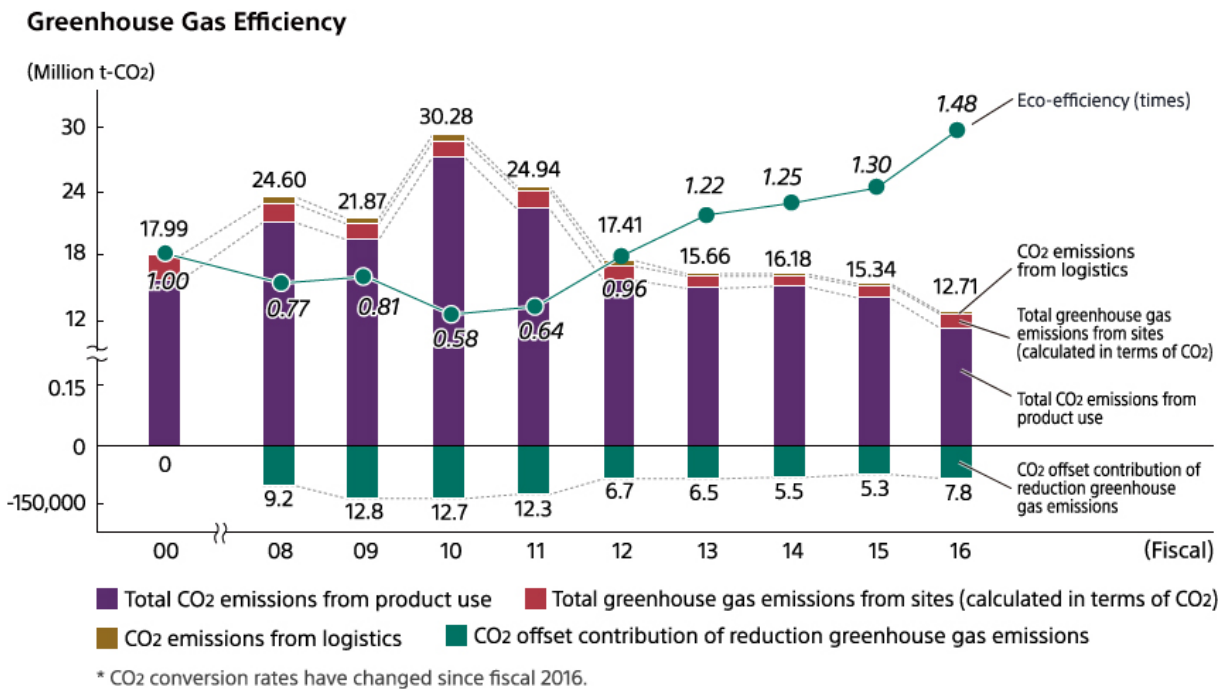


Eco-Efficiency

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

- Greenhouse gas index = Total greenhouse gas emissions from sites + Total CO₂ emissions from product use + Total CO₂ emissions from logistics - Greenhouse gas emissions offset by greenhouse gas reduction activities(CO₂ offset by contribution of renewable energy)

- Resource index = Waste landfilled from sites + Product resource input - Volume of reused / recycled materials - Volume of resources recovered from end-of-life products

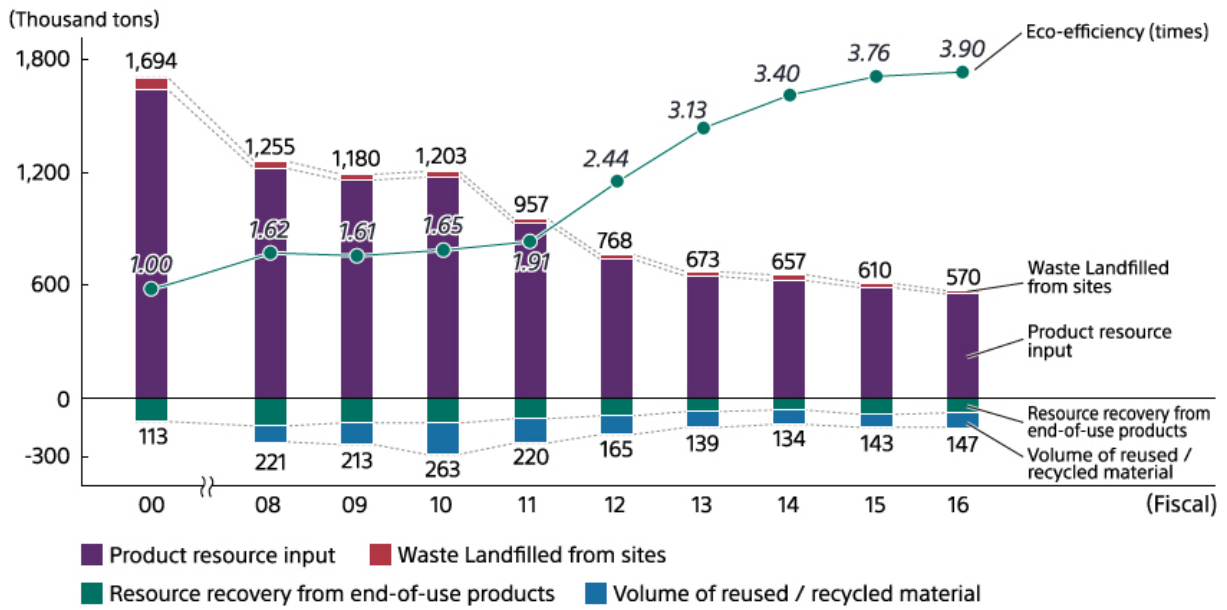


Greenhouse Gas Efficiency

[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)
Fiscal 2000	2.22	15.77		0	1.00
Fiscal 2001	2.13	15.09		0.00075	1.08
Fiscal 2002	2.10	15.30		0.0026	1.06
Fiscal 2003	2.11	15.11		0.0068	1.07
Fiscal 2004	2.15	16.48		0.0065	0.95
Fiscal 2005	2.18	15.32		0.016	1.05
Fiscal 2006	2.03	17.83		0.013	0.97
Fiscal 2007	2.07	19.34		0.020	0.97
Fiscal 2008	1.84	22.04	0.72	0.092	0.77
Fiscal 2009	1.62	19.70	0.55	0.128	0.81
Fiscal 2010	1.53	28.18	0.57	0.127	0.58
Fiscal 2011	1.50	22.97	0.47	0.123	0.64
Fiscal 2012	1.26	15.76	0.38	0.067	0.96
Fiscal 2013	1.23	14.13	0.30	0.065	1.22
Fiscal 2014	1.20	14.65	0.33	0.055	1.25
Fiscal 2015	1.32	13.77	0.26	0.053	1.30
Fiscal 2016	1.38	11.10	0.23	0.078	1.48

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)
Fiscal 2000	55	1,640	113	0	1,581	1.00
Fiscal 2001	45	1,500	97	10	1,443	1.14
Fiscal 2002	37	1,460	114	14	1,367	1.18
Fiscal 2003	18	1,450	110	15	1,338	1.21
Fiscal 2004	26	1,430	162	17	1,280	1.21
Fiscal 2005	23	1,250	134	30	1,113	1.45
Fiscal 2006	20	1,230	129	36	1,087	1.65
Fiscal 2007	17	1,230	131	68	1,084	1.77
Fiscal 2008	16	1,240	130	91	1,034	1.62
Fiscal 2009	12	1,170	101	112	967	1.61
Fiscal 2010	11	1,190	100	164	940	1.65
Fiscal 2011	12	945	95	125	736	1.91
Fiscal 2012	5	762	78	87	603	2.44
Fiscal 2013	5	668	73	63	537	3.13
Fiscal 2014	3	653	62	72	523	3.40
Fiscal 2015	4	606	78	65	467	3.76
Fiscal 2016	1	568	71	77	422	3.90

Environment

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Greenhouse Gas Emissions

Greenhouse Gas Emissions from Sites

	(Unit: t-CO ₂)	(Unit: t-CO ₂)	(Unit: t-CO ₂ /million yen)
	Total Greenhouse Gas Emissions	Greenhouse Gas Emissions Offset*	Emissions Divided by Consolidated Sales (Emission Intensity)
Fiscal 2015	1,605,947	68,173	0.198
Fiscal 2016	1,384,299	78,152	0.182

* Sony's efforts to reduce greenhouse gas emissions by using renewable energy include using electrical power produced from renewable energy sources, purchasing electrical power produced from renewable energy sources, and purchasing green energy certificates and other carbon offset credits. The greenhouse gas emissions reduction achieved by using renewable energy is calculated by multiplying the renewable energy used by the CO₂ conversion rate.

Emissions by Business Category in Fiscal 2016

Electronics	Other Than Electronics			
	Music	Movie	Finance	Others
1,323,230	7,886	33,137	1,824	18,222

(Unit: t-CO₂)

Scope 1 (Direct Emissions from Sites)

(Unit: t-CO₂)

	Non Energy-Related						Energy-Related	Total
	HFCs	PFCs	SF6	NF3	Other	Total		
Fiscal 2015	7,504	73,823	23,528	5,075	28,307	138,237	161,738	299,975
Fiscal 2016	8,212	73,840	23,545	4,719	28,586	138,903	128,385	267,288

Scope 2 (Indirect Emissions from Sites)

(Unit: t-CO₂)

	Purchased Electricity	Purchased Heat	Total
Fiscal 2015	1,287,383	18,590	1,305,972
Fiscal 2016	1,114,086	2,924	1,117,011

Scope 3 Emissions in Fiscal 2016 (Other Emissions)

Category	Emissions (t-CO ₂)	Overview of Calculation
1 Purchased goods and services	5,061,000	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	544,000	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)	92,000	Emissions associated with procurement of fuels and energy consumed by Sony Group sites.
4 Upstream transportation and distribution	254,000	Emissions associated with the transportation and storage of electronics products sold by the Sony Group and purchased parts.

5	Waste generated in operations	38,000	Emissions associated with the treatment and disposal of waste generated by Sony Group sites.
6	Business travel	97,000	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	102,000	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	4,000	Emissions associated with the distribution of electronics products sold by the Sony Group from retailers to consumers.
10	Processing of sold products	4,000	Emissions associated with the assumed post-sale third-party processing of electronics products sold by the Sony Group.
11	Use of sold products	11,097,000	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	261,000	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	22,000	Emissions associated with the business activities of companies in which the Sony Group has invested.

Data for Fiscal 2014 and Earlier

Greenhouse Gas Emissions from Sites

	(Unit: t-CO ₂)	(Unit: t-CO ₂)	(Unit: t-CO ₂)	(Unit: t-CO ₂)
	Total Greenhouse Gas Emissions	Greenhouse Gas Emissions Offset*	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
Fiscal 2014	1,253,641	55,090	1,198,551	0.146

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
Fiscal 2014	3,980	44,582	44,889	26,324	26,144	145,918	143,503	289,420

Scope 2 (Indirect Emissions from Sites)

(Unit: t-CO₂)

	Purchased Electricity		Purchased Heat	Total	
	Total Greenhouse Gas Emissions	Emissions from Which Greenhouse Gas Emissions Offset Is Subtracted		Total Greenhouse Gas Emissions	Emissions from which Greenhouse Gas Emissions Offset Is Subtracted
Fiscal 2000		1,325,478	1,061	1,061	1,326,539
Fiscal 2001		1,317,742	1,081		1,318,823
Fiscal 2002		1,360,856	1,195		1,362,051
Fiscal 2003		1,393,452	3,226		1,396,678
Fiscal 2004		1,423,706	4,656		1,428,362
Fiscal 2005		1,496,083	6,295		1,502,378
Fiscal 2006		1,467,183	22,173		1,489,356
Fiscal 2007		1,515,172	30,991		1,546,163
Fiscal 2008		1,342,423	29,518		1,371,941
Fiscal 2009		1,221,392	25,853		1,247,245
Fiscal 2010	1,267,240	1,141,048	23,143	1,290,383	1,164,191
Fiscal 2011	1,240,416	1,118,110	29,789	1,270,205	1,147,899
Fiscal 2012	980,626	914,350	46,347	1,026,973	960,697
Fiscal 2013	958,647	894,154	32,926	991,574	927,081
Fiscal 2014	934,949	879,858	29,272	964,221	909,130

Environment

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Environmental Cost

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
Fiscal 2014	0.3 billion yen	23.1 billion yen
Fiscal 2015	0.4 billion yen	20.9 billion yen
Fiscal 2016	0.3 billion yen	21.6 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

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Environmental Data for Products

Greenhouse Gas Emissions from Product Use (Unit: t-CO₂)

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

	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
Fiscal 2014	9,396,018	350,493	687,578	-	652,497	3,559,259	14,645,845
Fiscal 2015	9,580,042	281,139	549,855	-	723,618	2,637,183	13,771,836

* CO₂ conversion rates for each country in fiscal 2000 are used.

	Television	Audio and Video	Imaging Products & Solutions	Game	Devices and others	Total
Fiscal 2016	8,072,700	728,812	572,519	1,722,828	14	11,096,874

* CO₂ conversion rates have changed since fiscal 2016.

For more information, please refer to "Greenhouse Gas Related Data Collection Methods and Rationale".

Total Volume of Resources Used in Products (total products shipped)* (Unit: tons)

* Total weight of resources used in products, accessories, instruction manuals and packaging.

The weight of total products shipped is substituted for this value.

	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
Fiscal 2014	225,958	28,654	107,648	10,184	11,650	58,911	80,250	130,090	653,345
Fiscal 2015	208,813	21,945	82,834	12,837	11,086	64,139	78,982	125,020	605,656

	Television	Audio and Video	Imaging Products & Solutions	Game	Software	Devices and others	Total
Fiscal 2016	209,329	85,375	16,052	86,018	111,322	59,738	567,831

Environment

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Product Recycling Data

Weight of End-of-Life Products Collected

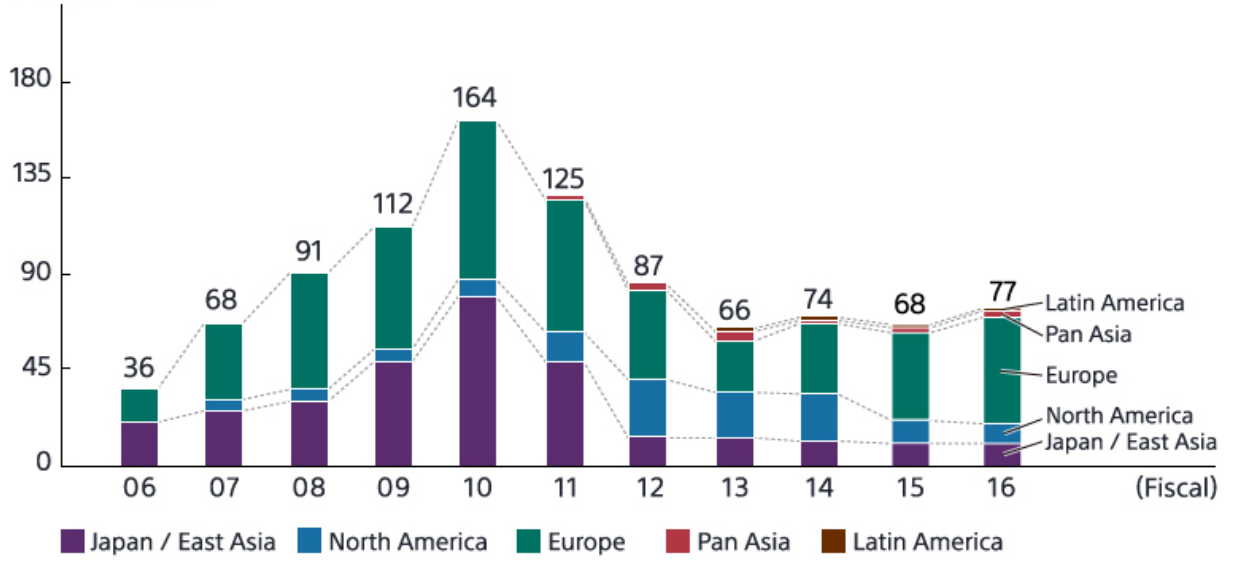
(Unit:ton)

	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	31,040	20,338	2,190	308	65,999
Fiscal 2014	11,464	36,445	23,920	1,375	315	73,519
Fiscal 2015	10,981	43,583	10,754	2,354	357	68,029
Fiscal 2016	11,419	52,155	9,778	3,106	234	76,692

* The figure for fiscal 2016 includes data calculated as of the date of release of this CSR Report (August 2017).

Take-Back of End-of-Life Products Record

(Thousand tons)



* The figure for fiscal 2016 includes data calculated as of the date of release of this CSR Report (August 2017).

Environment

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Examples of Polyvinyl chloride (PVC)-free Products and Brominated Flame Retardant (BFR)-free Products

Examples of PVC-free Products and BFR-free Products: Model Name (As of July 2017)

	Polyvinyl chloride(PVC)	Brominated Flame Retardant(BFR)
Product Category	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-A35/A35HN/A36HN/A37HN	NW-A35/A35HN/A36HN/A37HN
	NW-S13 / S14 / S13K / S14K	NW-S13 / S14 / S13K / S14K
		NW-ZX100 / ZX100HN
		NW-WM1A/WM1Z
	NW-E393 / E394 / E395	NW-E393 / E394 / E395
	NWZ-B183F / B183	NWZ-B183F / B183
		NWZ-WS623/WS625
	NW-WS413 / WS414	
IC recorder	ICD-UX533 / UX565F / UX560F / UX560	ICD-UX533 / UX565F / UX560F / UX560
	ICD-SX2000	ICD-SX2000
	ICD-TX650	ICD-TX650
	ICD-FX88	ICD-FX88
	ICD-PX333 / PX333D / PX333M	ICD-PX333 / PX333D / PX333M
	ICD-PX440 / PX370 / PX470 / PX470F	ICD-PX440 / PX370 / PX470 / PX470F
	ICD-PX240	ICD-PX240
	ICD-BX122	ICD-BX122
	ICD-BX140	ICD-BX140
Memory Card Recorder		ICD-LX31
Portable Radio Recorder	ICZ-R100	ICZ-R100
		ICZ-R250TV
Linear PCM Recorder		PCM-D100

Video Camera Handycam®	NEX-VG30	NEX-VG30
	NEX-VG30H	NEX-VG30H
	NEX-VG30EM	NEX-VG30EM
	FDR-AX1	FDR-AX1
	HDR-CX240	HDR-CX240
	FDR-AX100	FDR-AX100
	HDR-CX900	HDR-CX900
	HDR-CX405	HDR-CX405
	HDR-CX440	HDR-CX440
	HDR-CX470	HDR-CX470
	HDR-PJ410	HDR-PJ410
	HDR-PJ440	HDR-PJ440
	FDR-AX33	FDR-AX33
	FDR-AXP33	FDR-AXP33
	FDR-AX30	FDR-AX30
	HDR-CX450	HDR-CX450
	HDR-CX455	HDR-CX455
	HDR-CX485	HDR-CX485
	HDR-CX625	HDR-CX625
	HDR-CX675	HDR-CX675
	HDR-CX680	HDR-CX680
	HDR-PJ675	HDR-PJ675
	HDR-PJ680	HDR-PJ680
	FDR-AX40	FDR-AX40
FDR-AX53	FDR-AX53	
FDR-AX55	FDR-AX55	
FDR-AXP55	FDR-AXP55	
Video Camera Action Cam	HDR-MV1	HDR-MV1
	HDR-AS200VR	HDR-AS200VR
	FDR-X1000VR	FDR-X1000VR
	FDR-X3000	FDR-X3000
	FDR-X3000R	FDR-X3000R
	HDR-AS50	HDR-AS50
	HDR-AS50R	HDR-AS50R
	HDR-AS300	HDR-AS300
	HDR-AS300R	HDR-AS300R

Digital Still Camera Cyber-shot™	DSC-HX400	DSC-HX400	
	DSC-HX60	DSC-HX60	
	DSC-HX80	DSC-HX80	
	DSC-HX90	DSC-HX90	
	DSC-HX90V	DSC-HX90V	
		DSC-RX1	
		DSC-RX1R	
		DSC-RX1RM2	
		DSC-RX10	
		DSC-RX10M2	
		DSC-RX10M3	
	DSC-RX100	DSC-RX100	
	DSC-RX100M2	DSC-RX100M2	
	DSC-RX100M3	DSC-RX100M3	
	DSC-RX100M4	DSC-RX100M4	
	DSC-RX100M5	DSC-RX100M5	
	DSC-W800	DSC-W800	
	DSC-W810	DSC-W810	
	DSC-W830	DSC-W830	
	DSC-WX220	DSC-WX220	
	DSC-WX350	DSC-WX350	
	DSC-WX500	DSC-WX500	
	DSC-H300	DSC-H300	
	DSC-H400	DSC-H400	
	Interchangeable lens digital camera α™	ILCA-68	ILCA-68
		ILCA-77M2	ILCA-77M2
		ILCA-99M2	
		ILCE-6000	
		ILCE-6300	
		ILCE-6500	
ILCE-5000		ILCE-5000	
ILCE-5100		ILCE-5100	
		ILCE-7	
		ILCE-7M2	
		ILCE-7R	
		ILCE-7RM2	
		ILCE-7S	
		ILCE-7SM2	
		ILCE-9	

PlayStation®Vita	PCH-1100 series	PCH-1100 series
	PCH-2000 series	PCH-2000 series
Portable DVD Player	DVP-FX780	DVP-FX780
	DVP-FX980	DVP-FX980
Portable Blu-ray Disc™ / DVD Player	BDP-SX910	BDP-SX910
	BDP-Z1	BDP-Z1
Memory Stick™	MS-HX32B / HX16B / HX8B	MS-HX32B / HX16B / HX8B
	MS-MT16G / MT8G / MT4G	MS-MT16G / MT8G / MT4G
	MS-M4	MS-M4
SxS™ memory card	SBP-256E / 128E / 64E	SBP-256E / 128E / 64E
	SBS-128G1C / 64G1C / 32G1C	SBS-128G1C / 64G1C / 32G1C
	<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 Data for Sites

[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

Updated on August 23, 2017

Environmental Data for Sites (Worldwide)

Greenhouse Gas

(Unit: t-CO₂)

	Scope 1		Scope 2	Total
	Non Energy-Related	Energy-Related	Energy-Related	
Fiscal 2015	138,237	161,738	1,305,972	1,605,947
Fiscal 2016	138,903	128,385	1,117,011	1,384,299

Water

(Unit: m³)

	Water Consumption	Water Discharge
Fiscal 2015	12,374,977	11,777,341
Fiscal 2016	11,626,474	11,598,615

- * Water consumption represents the volume of water used less contribution to water conservation (water cultivation).

Waste

(Unit: tons)

	Waste Generated	Waste Reused/Recycled	Waste Landfilled
Fiscal 2015	60,117	57,232	5,042
Fiscal 2016	50,007	47,704	1,096

Chemical Substances

(Unit: tons)

	Handling Volume of Class 1 Substances	Handling Volume of Class 2 Substances	Handling Volume of Class 3 Substances	Handling Volume of Class 4 Substances	Total
Fiscal 2015	0.78	1,753	24,924	98,762	125,439
Fiscal 2016	0.78	1,493	16,828	92,465	110,788

Data for Fiscal 2014 and Earlier

* Data definitions and CO₂ conversion rates used for fiscal 2014 and earlier are different from those for fiscal 2015 and beyond.

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
Fiscal 2014	880,083	101,966	22,695	18,842	1,023,586

* 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
Fiscal 2014	10,605,162	10,161,756

* 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	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
Fiscal 2014	77,575	74,206	3,298	71

* "Waste" includes valuables, substances to be treated by outsourcing, and non-industrial waste.

* Since fiscal 2012, 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
Fiscal 2014	1.17	1,027	13,403	29,085	43,516

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since fiscal 2011.

Environmental Data for Sites

Environment

Updated on August 23, 2017

Environmental Data for Sites (Japan / East Asia Region)

Greenhouse Gas

(Unit: t-CO₂)

	Scope 1		Scope 2	Total
	Non Energy-Related	Energy-Related	Energy-Related	
Fiscal 2015	133,308	112,415	945,169	1,190,892
Fiscal 2016	134,405	82,145	897,097	1,113,647

Water

(Unit: m³)

	Water Consumption	Water Discharge
Fiscal 2015	9,931,168	9,840,446
Fiscal 2016	9,758,759	9,971,890

- * Water consumption represents the volume of water used less contribution to water conservation (water cultivation).

Waste

(Unit: tons)

	Waste Generated	Waste Reused/Recycled	Waste Landfilled
Fiscal 2015	24,161	24,002	227
Fiscal 2016	22,641	22,477	63

Chemical Substances

(Unit: tons)

	Handling Volume of Class 1 Substances	Handling Volume of Class 2 Substances	Handling Volume of Class 3 Substances	Handling Volume of Class 4 Substances	Total
Fiscal 2015	0.09	1,387	21,944	84,405	107,736
Fiscal 2016	0.00	1,464	16,344	83,089	100,896

Data for Fiscal 2014 and Earlier

* Data definitions and CO₂ conversion rates used for fiscal 2014 and earlier are different from those for fiscal 2015 and beyond.

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
Fiscal 2014	528,721	73,502	22,018	2,537	626,777

* 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
Fiscal 2014	7,990,699	8,023,153

* 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
Fiscal 2014	33,406	33,268	67	71

* "Waste" includes valuables, substances to be treated by outsourcing, and non-industrial waste.

* Since fiscal 2012, 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
Fiscal 2014	0.04	665	10,634	16,007	27,306

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since fiscal 2011.

Environmental Data for Sites

Environment

Updated on August 23, 2017

Environmental Data for Sites (North America Region)

Greenhouse Gas

(Unit: t-CO₂)

	Scope 1		Scope 2	Total
	Non Energy-Related	Energy-Related	Energy-Related	
Fiscal 2015	1,192	29,070	81,638	111,900
Fiscal 2016	733	31,139	70,302	102,174

Water

(Unit: m³)

	Water Consumption	Water Discharge
Fiscal 2015	491,854	429,099
Fiscal 2016	403,284	368,536

- * Water consumption represents the volume of water used less contribution to water conservation (water cultivation).

Waste

(Unit: tons)

	Waste Generated	Waste Reused/Recycled	Waste Landfilled
Fiscal 2015	10,595	9,478	168
Fiscal 2016	8,258	7,716	339

Chemical Substances

(Unit: tons)

	Handling Volume of Class 1 Substances	Handling Volume of Class 2 Substances	Handling Volume of Class 3 Substances	Handling Volume of Class 4 Substances	Total
Fiscal 2015	0	8	56	128	192
Fiscal 2016	0	8	47	105	159

Data for Fiscal 2014 and Earlier

- * 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.
- * Data definitions and CO₂ conversion rates used for fiscal 2014 and earlier are different from those for fiscal 2015 and beyond.

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
Fiscal 2014	96,141	19,142	15	6,564	121,863

* 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
Fiscal 2014	612,511	556,207

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
Fiscal 2014	12,397	11,601	795

* "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
Fiscal 2014	0	10	68	85	164

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since fiscal 2011.

Environmental Data for Sites

Environment

Updated on August 23, 2017

Environmental Data for Sites (Latin America Region)

Greenhouse Gas

(Unit: t-CO₂)

	Scope 1		Scope 2	Total
	Non Energy-Related	Energy-Related	Energy-Related	
Fiscal 2015	0	45	663	708
Fiscal 2016	0	26	604	631

Water

(Unit: m³)

	Water Consumption	Water Discharge
Fiscal 2015	14,512	11,581
Fiscal 2016	10,630	8,976

- * Water consumption represents the volume of water used less contribution to water conservation (water cultivation).

Waste

(Unit: tons)

	Waste Generated	Waste Reused/Recycled	Waste Landfilled
Fiscal 2015	906	904	0
Fiscal 2016	875	872	0

Chemical Substances

(Unit: tons)

	Handling Volume of Class 1 Substances	Handling Volume of Class 2 Substances	Handling Volume of Class 3 Substances	Handling Volume of Class 4 Substances	Total
Fiscal 2015	0	0.21	0.13	0	0.34
Fiscal 2016	0	0	0	0	0

Data for Fiscal 2014 and Earlier

- * 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.
- * Data definitions and CO₂ conversion rates used for fiscal 2014 and earlier are different from those for fiscal 2015 and beyond.

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
Fiscal 2014	841	0	65	33	939

* 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
Fiscal 2014	30,198	26,016

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
Fiscal 2014	2,676	2,653	23

* "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	0.08	67
Fiscal 2013	0	24	6	0.02	29
Fiscal 2014	0	0.12	2	0.003	2

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since fiscal 2011.

Environmental Data for Sites

Environment

Updated on August 23, 2017

Environmental Data for Sites (Europe Region)

Greenhouse Gas

(Unit: t-CO₂)

	Scope 1		Scope 2	Total
	Non Energy-Related	Energy-Related	Energy-Related	
Fiscal 2015	158	1,812	8,161	10,131
Fiscal 2016	0	1,805	7,605	9,411

Water

(Unit: m³)

	Water Consumption	Water Discharge
Fiscal 2015	63,129	54,228
Fiscal 2016	48,002	42,498

- * Water consumption represents the volume of water used less contribution to water conservation (water cultivation).

Waste

(Unit: tons)

	Waste Generated	Waste Reused/Recycled	Waste Landfilled
Fiscal 2015	5,302	5,247	0
Fiscal 2016	5,281	5,226	4

Chemical Substances

(Unit: tons)

	Handling Volume of Class 1 Substances	Handling Volume of Class 2 Substances	Handling Volume of Class 3 Substances	Handling Volume of Class 4 Substances	Total
Fiscal 2015	0	8	130	8,638	8,777
Fiscal 2016	0	10	119	7,459	7,588

Data for Fiscal 2014 and Earlier

* Data definitions and CO₂ conversion rates used for fiscal 2014 and earlier are different from those for fiscal 2015 and beyond.

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
Fiscal 2014	0	1,313	377	318	2,008

* 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	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
Fiscal 2014	56,346	51,058

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
Fiscal 2014	5,602	5,521	82

* "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
Fiscal 2014	0	3	121	7,239	7,364

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since fiscal 2011.

Environmental Data for Sites

Environment

Updated on August 23, 2017

Environmental Data for Sites (Pan Asia Region)

Greenhouse Gas

(Unit: t-CO₂)

	Scope 1		Scope 2	Total
	Non Energy-Related	Energy-Related	Energy-Related	
Fiscal 2015	1,615	10,642	90,498	102,755
Fiscal 2016	2,487	7,073	82,145	91,706

Water

(Unit: m³)

	Water Consumption	Water Discharge
Fiscal 2015	827,151	673,393
Fiscal 2016	984,281	792,993

- * Water consumption represents the volume of water used less contribution to water conservation (water cultivation).

Waste

(Unit: tons)

	Waste Generated	Waste Reused/Recycled	Waste Landfilled
Fiscal 2015	10,529	9,788	4,646
Fiscal 2016	9,698	8,837	649

Chemical Substances

(Unit: tons)

	Handling Volume of Class 1 Substances	Handling Volume of Class 2 Substances	Handling Volume of Class 3 Substances	Handling Volume of Class 4 Substances	Total
Fiscal 2015	0.58	220	985	166	1,372
Fiscal 2016	0.51	9	81	350	440

Data for Fiscal 2014 and Earlier

* Data definitions and CO₂ conversion rates used for fiscal 2014 and earlier are different from those for fiscal 2015 and beyond.

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
Fiscal 2014	85,337	4,946	86	6,584	96,954

* 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 2014	897,091	753,425

* 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 2014	12,066	10,859	1,208

* 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	0.97	11	536	14	563
Fiscal 2013	1.13	106	566	83	756
Fiscal 2014	0.74	214	983	140	1,338

* Chemical substances used represents the volume handled less the volume recycled.

* Classification of some substances has changed since fiscal 2011.

Environmental Data for Sites

Environment

Updated on August 23, 2017

Environmental Data for Sites (China Region)

Greenhouse Gas

(Unit: t-CO₂)

	Scope 1		Scope 2	Total
	Non Energy-Related	Energy-Related	Energy-Related	
Fiscal 2015	1,963	7,755	179,844	189,562
Fiscal 2016	1,278	6,196	59,256	66,730

Water

(Unit: m³)

	Water Consumption	Water Discharge
Fiscal 2015	1,047,163	768,593
Fiscal 2016	421,518	413,721

- * Water consumption represents the volume of water used less contribution to water conservation (water cultivation).

Waste

(Unit: tons)

	Waste Generated	Waste Reused/Recycled	Waste Landfilled
Fiscal 2015	8,623	7,814	0
Fiscal 2016	3,253	2,577	41

Chemical Substances

(Unit: tons)

	Handling Volume of Class 1 Substances	Handling Volume of Class 2 Substances	Handling Volume of Class 3 Substances	Handling Volume of Class 4 Substances	Total
Fiscal 2015	0.11	129	1,808	5,425	7,362
Fiscal 2016	0.27	2	37	1,664	1,703

Data for Fiscal 2014 and Earlier

* Data definitions and CO₂ conversion rates used for fiscal 2014 and earlier are different from those for fiscal 2015 and beyond.

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
Fiscal 2014	169,043	4,166	134	2,805	176,149

* 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 2014	1,018,316	751,897

* 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 2014	11,428	10,304	1,123

* 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 2014	0.39	136	1,593	5,612	7,342

- * 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 fiscal 2011.

Environmental Data for Sites

Environment

Updated on August 23, 2017

Emissions of Air and Water Pollutant (Worldwide)

Air Pollutant (Unit: Tons)

	NOx	SOx
Fiscal 2002	457	156
Fiscal 2003	351	52
Fiscal 2004	288	64
Fiscal 2005	274	59
Fiscal 2006	167	48
Fiscal 2007	182	35
Fiscal 2008	176	8
Fiscal 2009	174	11
Fiscal 2010	187	9
Fiscal 2011	163	9
Fiscal 2012	110	8
Fiscal 2013	132	10
Fiscal 2014	109	12
Fiscal 2015	133	8
Fiscal 2016	87	6

Water Pollutant (Unit: Tons)

	BOD	COD
Fiscal 2002	140	420
Fiscal 2003	142	337
Fiscal 2004	135	311
Fiscal 2005	142	158
Fiscal 2006	280	279
Fiscal 2007	205	113
Fiscal 2008	133	73
Fiscal 2009	141	39
Fiscal 2010	254	96
Fiscal 2011	252	62
Fiscal 2012	214	20
Fiscal 2013	210	15
Fiscal 2014	203	18
Fiscal 2015	288	12
Fiscal 2016	284	16

Environment

Environmental Data Collection Methods and Rationale

[Worldwide Data Collection System](#)

[Scope, Collection Period, and Accuracy of Compiled Data](#)

[Greenhouse Gas Related Data Collection Methods and Rationale](#)

[Resource Related Data Collection Methods and Rationale](#)

[Other Data Collection Methods and Rationale](#)

Environment

Updated on August 23, 2017

Worldwide Data Collection System

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 input data concerning energy, water, waste, chemical substances and environmental costs into the data collection system, 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

Updated on August 23, 2017

Scope, Collection Period, and Accuracy of Compiled Data

Collection Period: April 1, 2016-March 31, 2017

In principle, data for results was compiled in the period stated above. Estimates have been used, however, at some sites where the impact on overall results is deemed to be extremely minor.

Scope of Data Collection

Site data: All ISO 14001-certified sites as of March 31, 2017

Among Sony Group consolidated sites, all manufacturing sites, distribution sites with 100 or more employees, and non-manufacturing sites with 1,000 or more employees are, in principle, expected to obtain ISO 14001 certification.

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

Updated on August 23, 2017

Greenhouse Gas Related Data Collection Methods and Rationale

Greenhouse Gas Emissions from Sites

Quantity of power, heat, and fuel usage and quantity of greenhouse gases used for manufacturing process, within facility and others are collected.

CO₂ emissions from energy consumption (energy-related)

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 (non energy-related)

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 Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

CO₂ conversion rates

- Electricity

Japan: Rates for fiscal 2014 provided by the Federation of Electric Power Companies in Japan

Countries other than Japan: Rates for 2013 provided by the International Energy

Agency (IEA)

- Fuel and Heat

Worldwide: Rates based on Japan's Law concerning the Promotion of the Measures to cope with Global Warming

[Systems for Calculation, Reporting and Public Disclosure of Greenhouse Gas Emissions \(Only in Japanese\)](#)

[International Energy Agency \(IEA\) website](#)

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 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. In Japan, Sony uses the 2014 CO₂ conversion rate provided by the Federation of Electric Power Companies of Japan. Outside of Japan, it uses the 2013 country-specific CO₂ conversion rates provided by the International Energy Agency (IEA).

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. 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, North America and China and for business trips taken by employees from some electronics-related companies in Pan Asia. (In the case of Japan and North America, some music-related companies are included. Trips outside Japan 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.

Reducing Greenhouse Gas Emissions by Using Renewable Energy

Sony's efforts to reduce greenhouse gas emissions by using renewable energy include using electrical power produced from renewable energy sources, purchasing electrical power produced from renewable energy sources, and purchasing green energy certificates and other carbon offset credits. The greenhouse gas emissions reduction achieved by using renewable energy is calculated by multiplying the renewable energy used by the CO₂ conversion rate.

Environment

Updated on August 23, 2017

Resource Related Data Collection Methods and Rationale

Volume of Waste Generated at Sites

Total volume of industrial waste and non-industrial waste.

Volume of Waste Landfilled from Sites

Of the waste generated at sites, the weight sent to landfill.

Volume of Water Consumption/Discharged

- The volume of water consumption represents the total volume of water used at sites (municipal water, industrial water, well water); for municipal 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 rivers and to sewerage. 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.

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.

Volume of Reused/Recycled Materials

Total volume of reused/recycled materials and vegetable-based plastics used for products, accessories, manuals and packaging

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

Updated on August 23, 2017

Other Data Collection Methods and Rationale

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.

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.

Emissions of Air Pollutants (NOx, SOx)

Volume calculated by multiplying emission volume by emission concentration. 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

[List of ISO14001 Certification - Jurisdiction under Japan/East Asia Regional Environmental Office](#)

(As of March 31, 2017)

[List of ISO14001 Certification - Jurisdiction under Europe Regional Environmental Office](#)

(As of March 31, 2017)

[List of ISO14001 Certification - Jurisdiction under North America Regional Environmental Office](#)

(As of March 31, 2017)

[List of ISO14001 Certification - Jurisdiction under Latin America Regional Environmental Office](#)

(As of March 31, 2017)

[List of ISO14001 Certification - Jurisdiction under Pan Asia Regional Environmental Office](#)

(As of March 31, 2017)

List of ISO14001 Certification - Jurisdiction under China Regional Environmental Office

(As of March 31, 2017)

Environment

Updated on August 23, 2017

List of ISO14001 Certification - Jurisdiction under Japan/East Asia Regional Environmental Office

(As of March 31, 2017)

ISO14001 Global Environmental Management System (GEMS) Certification

Headquarters/Business Unit

Name of Organization	Acquired (Global EMS)
Sony Corporation HQ Environmental Office	2004/06
Sony Video & Sound Products Inc. / Sony Visual Products Inc.	2004/09
Sony Corporation Imaging Products and Solutions Sector Professional Solutions Group	2004/09
Sony Semiconductor Solutions Corporation	2004/10
Sony Corporation Imaging Products and Solutions Sector Digital Imaging Group	2005/01
Sony Interactive Entertainment Inc.	2004/06
Sony Mobile Communications, Inc.	2005/01

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Global Manufacturing & Operations Corporation	2004/07	4
Sony Storage Media And Devices Corporation	2004/08	4
Sony Semiconductor Manufacturing Corporation	2004/10	8
Sony DADC Japan Inc.	2004/10	3
Sony/Taiyo Corporation	2005/01	1
Sony Electronics of Korea Corporation	2005/04	2
Green Cycle Corporation	2013/02	1

Non-Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Corporation Technology Center	2004/07	9
Sony LSI Design Inc.	2004/11	2
Sony Assurance Inc.	2004/12	1
Sony Music Group	2004/12	3
Sony Customer Service (Japan) Inc. Togane Technology Site	2004/12	1
Sony Life Insurance Co., Ltd	2005/05	3
Jared Inc.	2005/07	6
Sony Taiwan Ltd.	2005/09	8
Sony Korea Corporation	2006/01	1
Frontage Inc.	2006/02	2
Sony Bank Inc.	2008/03	2
Sony Mobile Communications, Inc.	2015/01	2

Environment

Updated on August 23, 2017

List of ISO14001 Certification - Jurisdiction under Europe Regional Environmental Office

(As of March 31, 2017)

ISO14001 Global Environmental Management System (GEMS) Certification

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony DADC Austria GmbH	2004/10	2
Sony UK Technology Centre	2005/06	1
Sony DADC UK Ltd, Southwater	2009/01	1

Non-Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony DADC Germany GmbH (Distribution Centre)	2011/05	1
Sony DADC IBERIA S.L. (Distribution Centre)	2012/01	1
Sony Music Entertainment UK Limited	2012/03	1
Sony DADC Czech Republic, s.r.o.	2013/06	1
Sony DADC UK Ltd, Enfield Distribution Centre	2014/06	1

Environment

Updated on August 23, 2017

List of ISO14001 Certification - Jurisdiction under North America Regional Environmental Office

(As of March 31, 2017)

ISO14001 Global Environmental Management System (GEMS) Certification

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony DADC - Terre Haute	2005/03	1
Sony Service and Operations of America	2005/04	1
Sony DADC Brasil	2005/12	1

Non-Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony DADC Brasil (Distribution)	2005/12	1
Sony American Zone	2006/01	5
Sony Pictures Entertainment (SPE) Group	2006/01	4

Environment

Updated on August 23, 2017

List of ISO14001 Certification - Jurisdiction under Latin America Regional Environmental Office

(As of March 31, 2017)

ISO14001 Global Environmental Management System (GEMS) Certification

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Brasil Ltda.	2004/09	1

Environment

Updated on August 23, 2017

List of ISO14001 Certification - Jurisdiction under Pan Asia Regional Environmental Office

(As of March 31, 2017)

ISO14001 Global Environmental Management System (GEMS) Certification

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Technology (Thailand) Co., Ltd.	2004/10	2
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

Non-Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony India Pvt. Ltd.	2006/01	1
Sony India Software Centre Private Limited	2012/03	1

Environment

Updated on August 23, 2017

List of ISO14001 Certification - Jurisdiction under China Regional Environmental Office

(As of March 31, 2017)

ISO14001 Global Environmental Management System (GEMS) Certification

Manufacturing Sites

Name of Organization	Acquired (Global EMS)	Number of sites
Sony Digital Products (Wuxi) Co., LTD.	2004/09	1
Shanghai Suoguang Visual Products Co., Ltd.	2005/02	1
Sony Precision Devices (Huizhou) Co., Ltd.	2005/02	1
Shanghai Suoguang Electronics Co., Ltd.	2005/04	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 (China) Co., Ltd.	2005/03	9

Environment

Updated on August 23, 2017

Independent Verification Report

Purpose and Scope of Verification


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 2016, 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

 [Click to enlarge \(PDF\)](#)

**CSR Report 2017
Independent Verification Report**

To: Sony Corporation



Bureau Veritas Japan Co., Ltd.
System Certification Services Headquarters

Bureau Veritas Japan Co., Ltd. (Bureau Veritas) has been engaged by Sony Corporation (Sony) to conduct independent verification of its environmental performance data selected for inclusion in the CSR Report 2017, issued under the responsibility of Sony. The aim of this verification is to consider the reliability and accuracy of environmental performance data detailed in the Report and to provide a verification opinion based on objective evidence.

1. Verification Outline

Bureau Veritas conducted the following verification of environmental performance data for FY2016 (April 1, 2016 through March 31, 2017) based on agreement with Sony.

Scope of Verification	Sites Visited	Verification Methodology
The following environmental performance data through business operations of all ISO 14001-certified sites as of March 31, 2017 in Sony Group <ul style="list-style-type: none"> - Energy consumption (including fuel for motor vehicles) - CO₂ emissions from energy consumption - Emissions of PFCs and other greenhouse gases - Water consumption by source and discharge by destination - Water pollutant (BOD/COD) emissions 	<ul style="list-style-type: none"> - Sony's headquarters - Sony Storage Media Manufacturing Corporation Tagajo Site <p>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).</p>	<ul style="list-style-type: none"> - Review of documentary evidence produced by Sony's headquarters and the sites visited - Interviews with relevant personnel of Sony's headquarters and the sites visited - Site inspection and review of data monitoring procedures - Comparison between the reported data and supporting documentary evidence
Categories 4, 6 and 11 of Scope 3 GHG emissions accounted and reported in line with the GHG Protocol's 'Corporate Value Chain (Scope 3) Accounting and Reporting Standard' within the boundaries defined by Sony for each category	<ul style="list-style-type: none"> - Sony's headquarters - Sony Interactive Entertainment Inc. 	<ul style="list-style-type: none"> - Review of documentary evidence produced by Sony's headquarters - Interviews with relevant personnel of Sony's headquarters - Comparison between the reported data and supporting documentary evidence

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.

2. Findings


On the bases of our methodology and the activities described above:

- Nothing has come to our attention to indicate that the reviewed information within the scope of our verification is inaccurate and does not provide a fair representation of the performance for the defined period.
- It is our opinion that Sony has established appropriate systems for the collection, aggregation and analysis of quantitative data within the scope of our verification.

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 are for sustainability reporting verification only and we believe our verification assignment did not raise any conflicts of interest.

Greenhouse Gas Emissions Verification Statement

 [Click to enlarge \(PDF\)](#)



BUREAU VERITAS
August 3, 2017
Bureau Veritas Japan Co., Ltd.
System Certification Services Headquarters

GREENHOUSE GAS EMISSIONS VERIFICATION STATEMENT

To: Sony Corporation

Bureau Veritas Japan Co., Ltd. (Bureau Veritas) was engaged by the Sony Corporation (Sony) to conduct independent verification of the greenhouse gas (GHG) emissions reported by Sony in its CSR Reporting for the period of April 1, 2016 through March 31, 2017.

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, 2017 in Sony Group

2) Categories 4, 6 and 11 of Scope 3 GHG emissions accounted and reported in line with the GHG Protocol's 'Corporate Value Chain (Scope 3) Accounting and Reporting Standard' within the boundaries defined by Sony for each category:

- Category 4: CO₂ emissions from logistics (*1)
- Category 6: CO₂ emissions from employee business trips (*2)
- Category 11: CO₂ emissions from the electricity consumption during product use

(*1) Total CO₂ emissions from logistics include emissions arising from transportation of electronics products handled by the Sony Group 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, North America and China and for business trips taken by employees from some electronics-related companies in Pan Asia. (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. outside Japan 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, as per the 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 (market-based)	Scope 3
267 kt-CO ₂ e	1,117 kt-CO ₂ e	11,424 kt-CO ₂ e

The breakdown of Scope 3 emissions are as follows:

- Category 4: 231 kt-CO₂e
- Category 6: 97 kt-CO₂e
- Category 11: 11,097 kt-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 180 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

Updated on August 23, 2017

History of Environmental Activities at Sony

1970-

1976	April	Establishes Environmental Conference, chaired by the President
	April	Promotes prevention of hazardous materials use and occupational health and safety in Sony Group operations in Japan
	May	Establishes Environmental Science Center
	May	Hazardous waste materials and working environments of Group operations in Japan are evaluated

1980-

1985	April	Sony Corporation of America begins environmental audits
1989	March	Convenes special committee to study measures to eliminate CFC use

1990-

1990	August	President's Policy on the Environment is disseminated among Sony Corporation staff
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	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
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	Use of fluorocarbons for cleaning is completely phased out from the Sony Group's production processes worldwide
1994	February	Launches Sony Environmental Award program
	April	Establishes Corporate Environmental Affairs Department Establishes Center for Environmental Technologies (CET) at the Sony Research Center (operated 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 non-manufacturing 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 non-manufacturing sites in Asia to acquire ISO 14001 certification
1998	September	Establishes environmental R&D laboratory in the Environmental Center Europe, Germany
	November	Establishes the Green Management 2002 Sony Mid-Term Environmental Action Program
1999	February	Completes the process of acquiring ISO 14001 certification at all 38 manufacturing sites in Japan
2000-		
2000	April	Incorporates environmental factors into Network Companies' evaluations
	April	Formulates Guideline for the Environmental Risk Management
	October	Establishes the Sony Environmental Vision
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.
	April	Environmental evaluation standards are extended from Electronics to Game, Music and Pictures businesses
	September	Begins using the Green Power Certification System
	October	PS one game console shipments temporarily halted in the Netherlands due to containing cadmium above the legal limit
2002	March	Formulates Sony Technical Standards, SS-00259 "Management Regulations for the Environment-related Substances to be Controlled which are included in Parts and Materials"
	April	Completes ISO 14001 certification process at all manufacturing sites worldwide
	June	Initiates "Sony Group Environmental Month"
	July	Introduces Green Partner Environmental Quality Approval Program
2003	July	Revises Sony Mid-Term Environmental Targets (Green Management 2005)
	November	Revises Sony Environmental Vision and renames it "Sony Group Environmental Vision"
2006	March	Finishes putting in place the globally integrated environmental management system it commenced in fiscal 2004

	April	Establishes Green Management 2010
	July	Begins participation in World Wide Fund for Nature (WWF)'s Climate Savers Programme
2007	November	Use of renewable energy at Sony DADC Austria's Anif Plant reaches 100%
2008	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 use of 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-

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 in the Eco-Design and Sustainable Technologies category at the CES Innovation Awards 2013
2013	March	Sony Electronics Asia Pacific Pte Ltd. 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
	March	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 17 th Environmental Communication Awards in Japan in the environmental television advertisement category
	October	Sony EMCS Malaysia KL Tec selected as 2 nd runner up for the 2014 ASEAN Energy Awards in the Large Industry Category of the Energy Management in Building Industry for its Sustainable Energy Management Program
	December	Sony Electronics Inc. receives the Sustainable Materials Management from the United States Environmental Protection Agency for its initiatives for recycling waste from electronic goods
2015	May	Establishes Green Management 2020 environmental mid-term targets
	October	Sony EMCS Kohda Site receives 3 rd Green Society Award for environmental activities such as corporate greening and biodiversity protection
	October	Sony EMCS (Malaysia) KL Tec wins ASEAN Energy Award for second consecutive year

2016	March	Recognized for exemplary long-term goals in the Low-Carbon Cup 2016, an event supported by the Ministry of the Environment, the Ministry of Education, Culture, Sports, Science and Technology, and other Japanese organizations
	April	Sony Open in Hawaii golf tournament certified as Kela (Excellent) Level Green Event by State of Hawaii
	October	Angry Birds for a Happy Planet campaign featuring characters from The Angry Birds Movie by Sony Pictures Entertainment receives the award for Excellence in Advertising at the 2016 Environmental Media Awards

Note: Organization names appear as they were at the respective dates; some may not be current.

Updated on August 23, 2017

GRI Sustainability Reporting Standards and its Content Index

Sony's CSR reporting refers to international standards and guidelines related to CSR activity reporting.

Below GRI Sustainability Reporting Standards Content Index includes related information available on Sony websites.

Index No.	Index name	Related page
102-1	Name of the organization	Corporate Data Form 20-F Item4
102-2	Activities, brands, products, and services	Form 20-F Item4 Risk Management System Framework Crisis Management System Framework Sony's Approach to Supplier Relations Important Notice
102-3	Location of headquarters	Corporate Data Form 20-F Item4
102-4	Location of operations	Risk Management System Framework
102-5	Ownership and legal form	Crisis Management System Framework
102-6	Markets served	Sony's Approach to Supplier Relations

102-7	Scale of the organization	Form 20-F Item 6
102-8	Information on employees and other workers	Employee Data
102-9	Supply chain	Form 20-F Supply Chain Management
102-10	Significant changes to the organization and its supply chain	Form 20-F
102-11	Precautionary Principle or approach	Environment
102-12	External initiatives	Ethics and Compliance CSR at Sony
102-13	Membership of associations	Ethics and Compliance CSR at Sony
102-14	Statement from senior decision-maker	Management Message Form 20-F Item 3
102-15	Key impacts, risks, and opportunities	
102-16	Values, principles, standards, and norms of behavior	Sony Group Code of Conduct
102-17	Mechanisms for advice and concerns about ethics	Reporting Ethical Concerns Respect for Human Rights
102-18	Governance structure	Corporate Strategy, Business Strategy and Other Policies Governance Framework
102-19	Delegating authority	Corporate Governance
102-20	Executive-level responsibility for economic, environmental, and social topics	Corporate Governance
102-21	Consulting stakeholders on economic, environmental, and social topics	Corporate Governance
102-22	Composition of the highest governance body and its committees	Governance Framework

102-23	Chair of the highest governance body	Governance Framework
102-24	Nominating and selecting the highest governance body	Governance Framework
102-25	Conflicts of interest	Evaluation of the Board and the Committees
102-26	Role of highest governance body in setting purpose, values, and strategy	Corporate Governance
102-27	Collective knowledge of highest governance body	Relationship with Shareholders and Other Stakeholders
102-28	Evaluating the highest governance body's performance	Evaluation of the Board and the Committees
102-29	Identifying and managing economic, environmental, and social impacts	Corporate Governance
102-30	Effectiveness of risk management processes	Corporate Governance
102-31	Review of economic, environmental, and social topics	Corporate Governance
102-32	Highest governance body's role in sustainability reporting	CSR at Sony
102-33	Communicating critical concerns	Corporate Governance
102-34	Nature and total number of critical concerns	-
102-35	Remuneration policies	Form 20-F
102-36	Process for determining remuneration	Form 20-F
102-37	Stakeholders' involvement in remuneration	Internal Control and Governance Framework Relationship with Shareholders and Other Stakeholders

102-38	Annual total compensation ratio	-
102-39	Percentage increase in annual total compensation ratio	-
102-40	List of stakeholder groups	CSR at Sony Human Resources Quality and Services
102-41	Collective bargaining agreements	Form 20-F
102-42	Identifying and selecting stakeholders	-
102-43	Approach to stakeholder engagement	-
102-44	Key topics and concerns raised	CSR at Sony Human Resources Quality and Services
102-45	Entities included in the consolidated financial statements	Form 20-F
102-46	Defining report content and topic Boundaries	CSR at Sony
102-47	List of material topics	CSR at Sony
102-48	Restatements of information	-
102-49	Changes in reporting	-
102-50	Reporting period	About CSR Reporting
102-51	Date of most recent report	
102-52	Reporting cycle	
102-53	Contact point for questions regarding the report	CSR Contacts
102-54	Claims of reporting in accordance with the GRI Standards	About CSR Reporting

102-55	GRI content index	GRI Sustainability Reporting Standards and its Content Index
102-56	External assurance	Environmental Data
103-1	Explanation of the material topic and its Boundary	CSR at Sony
103-2	The management approach and its components	CSR at Sony Corporate Governance Ethics and Compliance Human Resources
103-3	Evaluation of the management approach	Responsible Supply Chain Quality and Services Environment Community Engagement
201-1	Direct economic value generated and distributed	Form 20-F
201-2	Financial implications and other risks and opportunities due to climate change	Form 20-F
201-3	Defined benefit plan obligations and other retirement plans	Form 20-F
201-4	Financial assistance received from government	-
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Careers
202-2	Proportion of senior management hired from the local community	Recruitment Employee Data
203-1	Infrastructure investments and services supported	Contributing to the International Community through Business Activities

203-2	Significant indirect economic impacts	Form 20-F
204-1	Proportion of spending on local suppliers	Procurement Activities
205-1	Operations assessed for risks related to corruption	Ethics and Compliance
205-2	Communication and training about anti-corruption policies and procedures	
205-3	Confirmed incidents of corruption and actions taken	
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	
301-1	Materials used by weight or volume	Overview of Sony's Environmental Impact
301-2	Recycled input materials used	Conserving Resources
301-3	Reclaimed products and their packaging materials	Product Recycling Policy and Performance Product Recycling Data
302-1	Energy consumption within the organization	Overview of Sony's Environmental Impact
302-2	Energy consumption outside of the organization	Greenhouse Gas Emissions
302-3	Energy intensity	Conserving Resources Overview of Environmental Impact and Eco-Efficiency
302-4	Reduction of energy consumption	Reducing Greenhouse Gas Emissions Overview of Environmental Impact and Eco-Efficiency
302-5	Reductions in energy requirements of products and services	Reducing Greenhouse Gas Emission Environmental Data for Products

303-1	Water withdrawal by source	Overview of Sony's Environmental Impact Reducing Water Consumption
303-2	Water sources significantly affected by withdrawal of water	-
303-3	Water recycled and reused	Reducing Water Consumption
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Guiding Principles for Biodiversity Conservation Initiatives and Case Examples
304-2	Significant impacts of activities, products, and services on biodiversity	-
304-3	Habitats protected or restored	Guiding Principles for Biodiversity Conservation Initiatives and Case Examples
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	-
305-1	Direct (Scope 1) GHG emissions	Overview of Sony's Environmental Impact Reducing Greenhouse Gas Emissions Greenhouse Gas Emissions
305-2	Energy indirect (Scope 2) GHG emissions	Overview of Sony's Environmental Impact Reducing Greenhouse Gas Emissions Greenhouse Gas Emissions

305-3	Other indirect (Scope 3) GHG emissions	Overview of Sony's Environmental Impact Reducing Greenhouse Gas Emissions Progress Toward Achieving Mid-Term Targets for Logistics Greenhouse Gas Emissions
305-4	GHG emissions intensity	Reducing Greenhouse Gas Emissions Overview of Environmental Impact and Eco-Efficiency
305-5	Reduction of GHG emissions	Reducing Greenhouse Gas Emissions (Sites) Reducing Greenhouse Gas Emissions (Products and Services) Progress Toward Achieving Mid-Term Targets for Logistics
305-6	Emissions of ozone-depleting substances (ODS)	Managing Chemical Substances
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Overview of Sony's Environmental Impact Managing Chemical Substances Environmental Data
306-1	Water discharge by quality and destination	Overview of Sony's Environmental Impact Environmental Data
306-2	Waste by type and disposal method	Overview of Sony's Environmental Impact Reducing Waste Generation Environmental Data

306-3	Significant spills	Managing Chemical Substances
306-4	Transport of hazardous waste	-
306-5	Water bodies affected by water discharges and/or runoff	-
307-1	Non-compliance with environmental laws and regulations	Managing Chemical Substances
308-1	New suppliers that were screened using environmental criteria	Responsible Supply Chain
308-2	Negative environmental impacts in the supply chain and actions taken	Responsible Procurement of Raw Materials for Environment and Human Rights Reducing Environmental Impact at Suppliers and Outsourcing Contractors
401-1	New employee hires and employee turnover	Form 20-F Employee Data
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	-
401-3	Parental leave	Diversity
402-1	Minimum notice periods regarding operational changes	-
403-1	Workers representation in formal joint management-worker health and safety committees	Occupational Health & Safety

403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Global Workplace Injury Statistics
403-3	Workers with high incidence or high risk of diseases related to their occupation	Occupational Health & Safety
403-4	Health and safety topics covered in formal agreements with trade unions	Basic Policy and Management System
404-1	Average hours of training per year per employee	Training Activities
404-2	Programs for upgrading employee skills and transition assistance programs	Training & Talent Development Communication
404-3	Percentage of employees receiving regular performance and career development reviews	Training & Talent Development
405-1	Diversity of governance bodies and employees	Employee Data Diversity Training & Talent Development
405-2	Ratio of basic salary and remuneration of women to men	Form 20-F
406-1	Incidents of discrimination and corrective actions taken	Reporting Ethical Concerns Human Rights and Equal Opportunities
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Supply Chain Management

408-1	Operations and suppliers at significant risk for incidents of child labor	Supply Chain Management
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Supply Chain Management
410-1	Security personnel trained in human rights policies or procedures	-
411-1	Incidents of violations involving rights of indigenous peoples	-
412-1	Operations that have been subject to human rights reviews or impact assessments	Respect for Human Rights
412-2	Employee training on human rights policies or procedures	Respect for Human Rights
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	-
413-1	Operations with local community engagement, impact assessments, and development programs	Contributing to the International Community through Business Activities
413-2	Operations with significant actual and potential negative impacts on local communities	Investor Relations
414-1	New suppliers that were screened using social criteria	Supply Chain Management
414-2	Negative social impacts in the supply chain and actions taken	Supply Chain Management
415-1	Political contributions	-

416-1	Assessment of the health and safety impacts of product and service categories	Product Quality and Quality Management
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Product Quality and Quality Management
417-1	Requirements for product and service information and labeling	Procurement Activities
417-2	Incidents of non-compliance concerning product and service information and labeling	-
417-3	Incidents of non-compliance concerning marketing communications	-
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Ethics and Compliance
419-1	Non-compliance with laws and regulations in the social and economic area	-