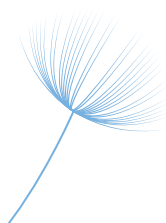
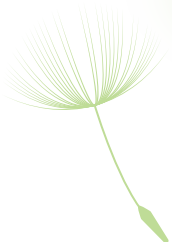
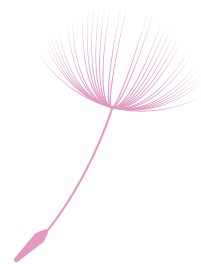
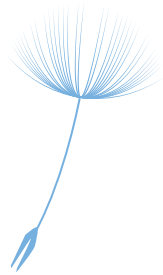
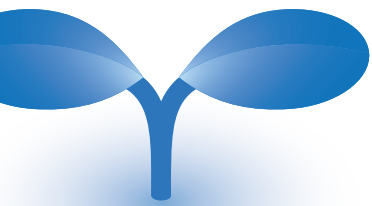


2018

SUSTAINABILITY REPORT



Changing the World
with 8K and AIoT

SHARP
Be Original.

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About the Cover



“Changing the World with 8K and AIoT” is a business vision for Sharp. By continuing to grow our business, we aim to shine even more brightly on the global stage in 2020.

This year’s cover design has echoes of last year’s dandelion seed motif. Floating skywards, the airborne seeds symbolize new Sharp businesses being dispersed into the world. This year, the seeds of new businesses have taken root and are set to flourish.

(Design by Araki, Design Strategy Studio, Branding Design Group)

Editorial Policy

◇ Policy for Information Disclosure:

The Sharp Sustainability Report 2018 discloses information on Sharp's corporate social responsibility (CSR) efforts, which contribute to creating a sustainable society.

◇ Period Covered:

Fiscal 2017 (April 2017 to March 2018)

However, some actual facts prior to and after this period, as well as subsequent policies, objectives, and plans, are also included.

◇ Coverage:

Sharp Corporation, along with its domestic and overseas subsidiaries and affiliates.

◇ Referenced Guidelines:

- GRI Sustainability Reporting Standards (GRI Standards), Global Reporting Initiative (GRI)
- Environmental Reporting Guidelines (2012 Version), Ministry of the Environment, Japan

Content indexes between this report and the following guidelines and principles are disclosed on Sharp's official website together with related information.

> [GRI Standards Content index](#)

> [United Nations Global Compact 10 Content Index](#)

> [ISO26000 Content Index](#)

◇ Scheduled Publication Data for Next Report:

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Business Philosophy and Business Creed

Sharp Will Continue to Fulfill Its Social Responsibility through Its Business Activities

Business Philosophy

We do not seek merely to expand our business volume. Rather, we are dedicated to the use of our unique, innovative technology to contribute to the culture, benefits and welfare of people throughout the world.

It is the intention of our corporation to grow hand-in-hand with our employees, encouraging and aiding them to reach their full potential and improve their standard of living.

Our future prosperity is directly linked to the prosperity of our customers, dealers and shareholders ...indeed, the entire Sharp family.

Business Creed

Sharp Corporation is dedicated to two principal ideals:

"Sincerity and Creativity"

By committing ourselves to these ideals, we can derive genuine satisfaction from our work, while making a meaningful contribution to society.

Sincerity is a virtue fundamental to humanity ... always be sincere.

Harmony brings strength ... trust each other and work together.

Politeness is a merit ... always be courteous and respectful.

Creativity promotes progress ... remain constantly aware of the need to innovate and improve.

Courage is the basis of a rewarding life ... accept every challenge with a positive attitude.

"Make products that others want to imitate." These words, spoken by Sharp founder Tokuji Hayakawa, exemplify his management concept of contributing to society through the company's technologies and manufacturing. This concept is realized by being the first to make products that meet the needs of a new era and by becoming a corporation that is known and trusted by society. In 1973, Sharp articulated this spirit in the company's business philosophy and business creed. This spirit has been passed down continuously over the generations, ever since the company's founding over a hundred years ago.

The business philosophy represents the image that Sharp aims to present. As stated in the words "contributing to the culture, benefits and welfare of people throughout the world," Sharp has always strived for mutual prosperity with society and stakeholders, ever since its founding. This philosophy is the foundation of CSR* today.

The business creed represents the beliefs and attitudes that all employees must hold fast to in order to realize the business philosophy. Sharp is dedicated to the two principal ideals of "Sincerity and Creativity." These ideals, which form the foundation of Sharp, involve thoroughly maintaining a customer's perspective and bringing forth inventive products.

Sharp will remain committed to fulfilling its social responsibility and to being a company that is known and trusted throughout society through business activities that abide by its business philosophy and business creed.

* Corporate Social Responsibility

Top Message

With 8K and AloT, we will continue creating new value in our own way and contributing to the development of global society.



J. W. Tai
Chairman, President & CEO



Last May, we formulated our Fiscal 2017–2019 Medium-Term Management Plan, and we are working to transform our businesses, markets, and operations based on the following concepts: “From Defense to Offense: From Structural Reform to Business Expansion” and “Reinventing Sharp: People-Oriented IoT, 8K Ecosystem.”

In fiscal 2017, the first year of this plan, we have seen steady returns as we expanded our business overseas—in particular, in ASEAN countries and China—and developed more efficient operational frameworks. Based on these achievements, we were able to relist on the Tokyo Stock Exchange’s first section in December 2017.

Going forward, we aim to fulfill our corporate responsibility as a first section-listed company by doubling down on compliance and achieving dramatic growth by way of swift yet accurate business activities.

The 8K Ecosystem and People-Oriented IoT

In September 2015, the United Nations adopted the SDGs, a set of 17 development goals for the world to achieve by the year 2030. We are currently pursuing business activities centered on our 8K ultra-high-definition imaging technology and AloT*, a combination of artificial intelligence (AI) and the Internet of Things (IoT), and in doing so, we will help achieve the SDGs.

For example, if our 8K technology can be used to realize remote medical care and distance education, people in every corner of the world can have access to advanced medical care and high-quality education. Furthermore, in the field of agriculture, if 8K can be used to develop systems for pest control and crop management, productivity will increase dramatically, thereby aiding those people living in countries suffering from food shortages.

Meanwhile, if AloT can be used to create smart homes and smart cities, we will be able to provide people with more comfort and safety in their daily lives. What’s more, if smart offices and smart factories that are much more productive than conventional ones can be developed, I believe we can contribute to sustainable development and the realization of a society where everyone can live more on their own terms.

This is precisely what Sharp is aiming to do with the “People-oriented IoT and the 8K Ecosystem” concept, and it embodies our vision of “Changing the world with 8K and AloT.”

* “AloT” is registered trademark of Sharp Corporation

Top Message

Business Transformation

Aiming to realize this kind of future, Sharp must step up efforts to transform its businesses.

For more than 100 years since our founding, based on the founding spirit of “Sincerity and Creativity” and our founder’s passion for manufacturing embodied in the slogan of “Make products that other companies want to imitate,” we have produced a string of highly original products that were first in the world or first in Japan, and we have contributed to creating new markets, making advances in technology, and to the development of society. Going forward, we will continue adhering to these principles to make good products.

We must strive to transform Sharp into a company that not only provides customers with good products, but also with original value and outstanding experiences through our services, platforms, and the entire Sharp “ecosystem.”

By realizing our vision, it is my intention to improve people’s quality of life and contribute to social progress.

Also, Sharp will continue supporting the United Nations Global Compact as a signatory* to the 10 Principles, which cover the areas of human rights, labor, environment, and anti-corruption.

* Signed in June 2009

“Be Original.” Corporate Motto

In November 2016, Sharp announced its “Be Original.” corporate motto. “Be Original.” is Sharp’s promise to our customers around the world that we will remain a brand that creates value that is rich in originality and that is uniquely Sharp.

We have infused two meanings into the word “original.”

1. Tokuji Hayakawa, Sharp’s founder, left us with a spirit of “Sincerity and Creativity.” This spirit will forever be with us and it will remain unchanged as the original foundation of the work we do.
2. Sharp is a company that is always there for people and that constantly creates new value. By offering various products and services that are uniquely Sharp, we are continuously creating “original products just for you”
— products and services that enable all of our customers to fulfill their wishes and dreams.

The period at the end represents our firm commitment to taking on challenges and initiatives with a strong sense of purpose.



Changing the World with 8K and AIoT



Business Vision: Changing the World with 8K and AIoT

Sharp's Vision for the Future

Sharp envisions a society in which people-oriented devices will enrich our lives as new partners. A future where 8K technology will bring about various innovations that will change people's lives.

Five Basic Strategies

Sharp is endeavoring to make this future a reality by transforming itself in three areas: business, markets, and operations. Specifically, Sharp is working to reinvent its business model, expand its business globally, and strengthen its business infrastructure, while also pursuing fundamental enhancements in its proprietary technologies and human resources. It is with these five basic strategies that Sharp seeks to transform itself into a company that delivers people-oriented IoT and an 8K Ecosystem, using these as vehicles through which to drive business expansion.



Business Promotion System

“ One SHARP ”

Sharp has defined four target business domains: 1) smart homes, 2) smart business solutions, 3) advanced display systems, and 4) IoT electronic devices. Further, Sharp has established two cross-organizational offices—the AIoT Business Strategy Office and the 8K Ecosystem Business Strategy Office. The entire Sharp Group is dedicated to realizing the business vision under its “One Sharp” concept.

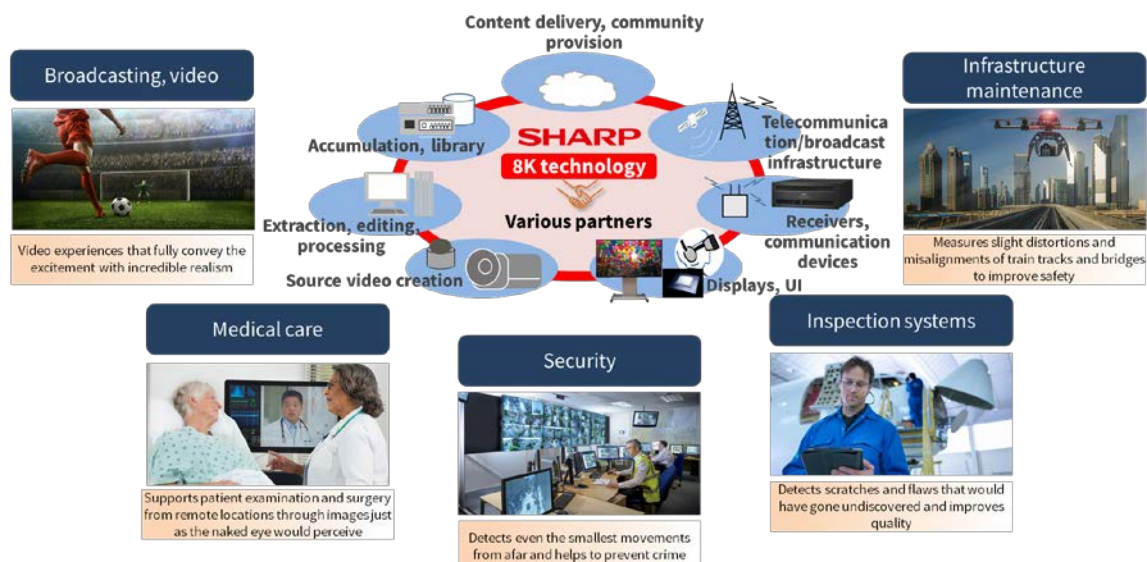




8K Ecosystem

8K has 16 times the resolution of full HD. This ultra-high definition offers viewers two unprecedented experiences. One is incredible realism. 8K produces images that are so lifelike, the viewer experiences an astonishingly realistic, immersive sensation. The other is new discoveries. 8K can display intricate details that were up to now impossible to reproduce. This allows 8K to be applied in never-before-seen usages.

The 8K Ecosystem is Sharp's strategy aimed at sparking innovations in society by creating the seeds of new industries centered on 8K ultra-high-definition technology. Specifically, Sharp is working with various business partners in building a value chain that covers everything from video image creation and processing to transmission and display. The goal is to achieve major innovations in various fields of industry, not only in broadcasting, but also medicine, security, inspection, and infrastructure maintenance.



8K-Driven Applications Already Underway in a Variety of Settings

The expected applications for ultra-high-definition 8K span a host of different areas.

Beginning with the Japanese Ministry of Internal Affairs and Communications, the list of organizations already undertaking field testing of 8K applications includes NHK (the Japanese public broadcaster), local government bodies, museums, corporations, and a variety of others. In the field of medical care, 8K technology is currently being utilized in endoscopic examinations, surgeries, remote medical diagnoses, and other procedures. Art galleries and museums, as well, are putting 8K technology to good use with their exhibit displays.

What’s more, the ultra-high-definition quality of 8K has proven useful in the area of disaster preparedness. For instance, immediately following the Kumamoto Earthquakes in 2016, aerial images and video taken by NHK were analyzed by experts to identify a previously undetected earthquake fault and fissures.

The applications for 8K are starting to move beyond just broadcasting and into a variety of different fields, and as a result Sharp’s 8K products are making their way into a variety of different contexts and situations.



8K tuner



8K monitor



8K professional camcorder

Example

Development of 70-Inch 8K Monitor for the Medical Care Field: A Rigid Endoscope System Utilizing 8K Technology

Sharp is part of a groundbreaking development in 8K Ecosystem applications within the field of medical care, delivering a 70-inch 8K monitor designed for use with an 8K rigid endoscope system*¹ developed by Kairos Co., Ltd. (President: Naoki Ueno; Head Office: Chiyoda-ku, Tokyo; hereafter, “Kairos”).

The 70-inch 8K monitor delivered by Sharp is being used as the display apparatus of an 8K rigid endoscope system, which was developed by Kairos and which began being deployed in medical facilities around November 2017. By combining Kairos’ 8K rigid endoscope, which is the smallest and lightest in the world, with Sharp’s monitor, which features an 8K LCD having 16 times the resolution of full HD, an 8K medical care environment is achieved from input to output.

Thanks to the system’s ultra-high resolution, equivalent to a visual acuity of 4.27*², it is expected that it can be used in microsurgery and small-incision surgery, as well as enable intraoperative pathological diagnoses based on observations at the cellular level.

The applications for 8K technology extend beyond the medical field into a diverse array of areas, and Sharp is working to realize these with an eye towards facilitating the rapid development of the 8K Ecosystem.

*¹ Rigid endoscope: An endoscope with lenses affixed to both ends of a cylinder. Examples include cystoscopes, thorascopes, and laparoscopes.

*² HD is considered to be equivalent to a visual acuity of 1.07.

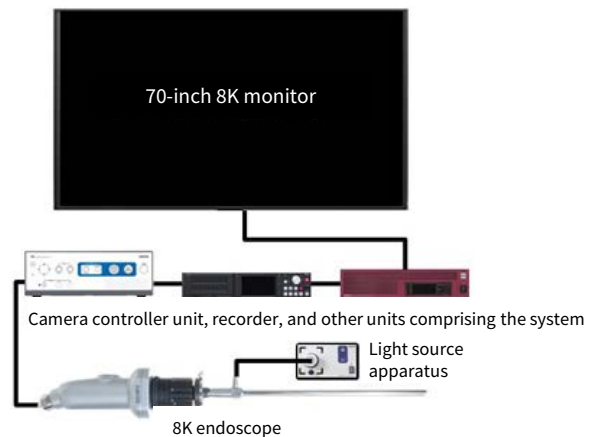
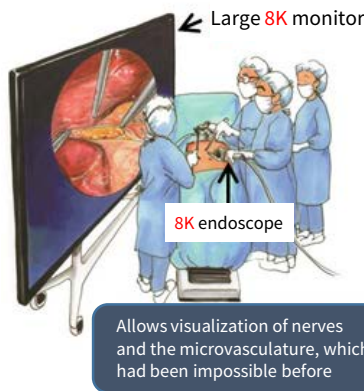
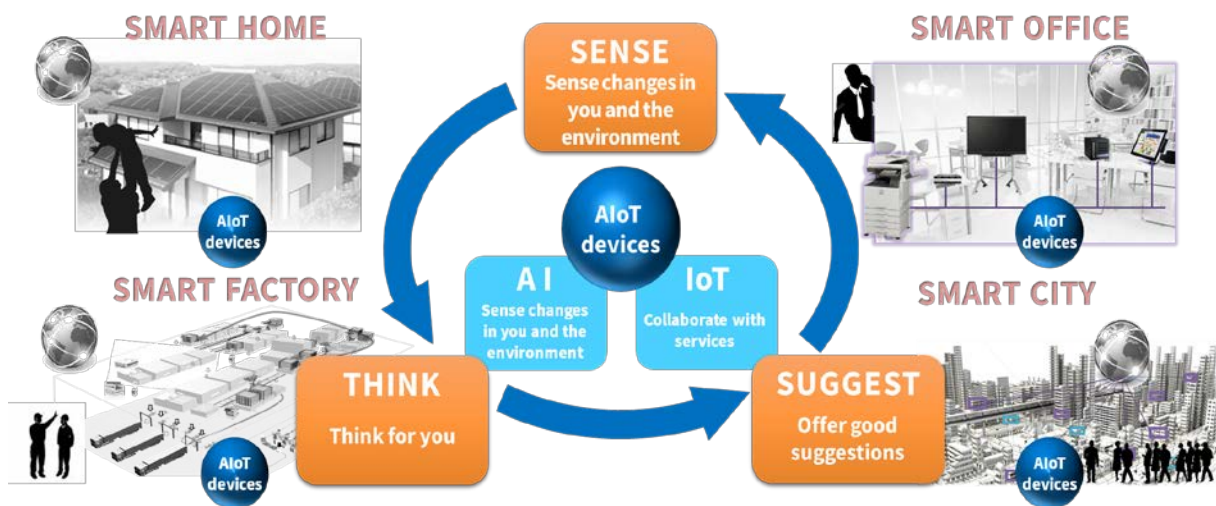


Image and configuration of 8K rigid endoscope



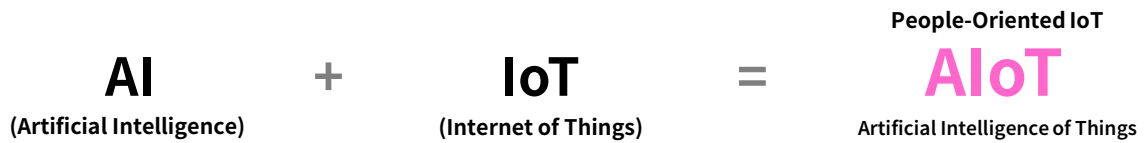
People-Oriented IoT

AIoT devices are devices that integrate AI (artificial intelligence) and IoT (the Internet of things). And when these AIoT devices serve as people’s new partners to detect changes in people and their environment, think about them, and connect with a variety of services via the Internet to make optimal suggestions, they become what Sharp calls “people-oriented IoT.” Sharp will extend this technology to various areas, such as smart homes, smart offices, smart factories, and smart cities, and it will aim to realize a smart society where people play the leading role.



AIoT is a registered trademark of Sharp Corporation.

Sharp came up with the word AIoT to represent the combination of AI (artificial intelligence) and IoT (Internet of things).



Every day in their homes, people use a variety of home appliances and IT devices. At Sharp, we're making these appliances and devices people-oriented and user-friendly by connecting them to the cloud and giving them AI capabilities.

AI can learn people's routines and preferences and thus provide them with appropriate services and suggest ways to use products. Appliances and devices are thus optimized to the needs of each individual. By having devices "converse" with their owners in a way that serves them and empathizes with them, an emotional bond is created between product and user.

The RoBoHoN mobile robot phone capable of carrying on conversations, the Healsio Deli food kit service for the Healsio superheated steam oven and Healsio Hotcook automatic cooker to provide the tastes of a professional kitchen at the press of a button, the Pet Care Monitor that informs you of your pet's health...these and many more innovations demonstrate the steady expansion of Sharp's AIoT.



Example

Field Testing of the RoBoHoN in English Language Classes for Children

A three-month field test of the RoBoHoN mobile robot phone was carried out with young elementary school children at the ALC Kiddy CAT English Classroom in Tokyo between May and August 2018. The RoBoHoN was installed with ALC's STEP English conversation teaching materials for elementary school children. The children learned English through role-playing making use of the RoBoHoN's voice recognition and speech production functions.

The RoBoHoN played a useful role in pronunciation and listening practice by offering responses in English when addressed with the proper accent and by asking questions of its own in English. Its ability to interact via hand and body gestures with the children made learning fun and enhanced their motivation to learn English.

As a result of this joint field testing conducted by ALC and Sharp, changes in the level of English proficiency, the amount of independently initiated speech, and other improvements were observed. Sharp aims to expand the number of classrooms utilizing RoBoHoNs, leading eventually to full-scale introduction.

For the future, Sharp is investigating taking the RoBoHoN beyond the classroom to introduce it into home study programs that will effectively support students' preparation and review efforts through one-on-one learning tailored to each students' situation.

All of this is part of Sharp's ongoing efforts to create new value in the field of education through the use of communicative robots.



RoBoHoN field testing

Sharp's Vision for the Future: Fiscal 2017–2019 Medium-Term Management Plan

Results for Fiscal 2017

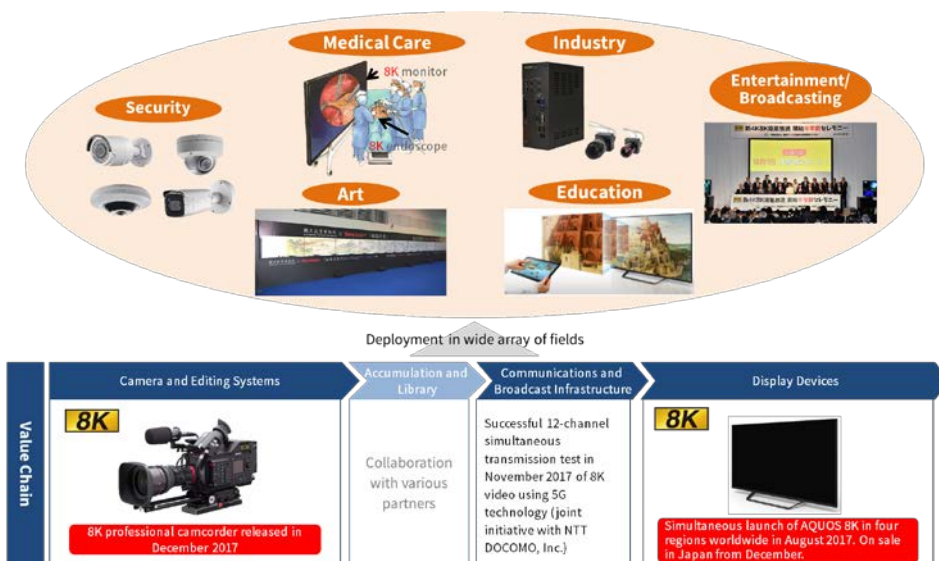
Reinvent the Sharp Business Model

In addition to its established hard infrastructure-centered business model, Sharp is incorporating services and platforms, as well as its entire 8K Ecosystem, into its efforts to transform itself into a company offering novel value to customers.

Concretely, in terms of Sharp's smart homes business, this involves not only expanding the range of AIoT devices but also the range of new AIoT services, such as COCORO MUSIC, COCORO GAME, COCORO PET, and Healsio Deli, as well as providing other companies with AIoT platforms built via this expansion initiative, to generate new business.



Within the 8K Ecosystem, Sharp is accelerating development of core products and technologies, such as AQUOS 8K and the 8K Professional Camcorder, as well as rolling out 8K technology-driven solutions with various partners in a wide array of fields, including not only broadcasting but also medical care, security, industry, education, art and more.



Further, with the aim of securing the outstanding human resources crucial to accelerating this business model transformation, and of generating new business via technological integration, in June 2018 Sharp made the decision to acquire Toshiba Client Solutions Co., Ltd.

In October 2018, Toshiba Client Solutions became a subsidiary of Sharp.

Sharp's Vision for the Future: Fiscal 2017–2019 Medium-Term Management Plan

Expand Business Globally

In fiscal 2017, Sharp undertook overseas business expansion centered on China and the ASEAN region, resulting in its overseas sales ratio exceeding 70%. In particular, Sharp's television business saw a more than two-fold increase in the number of units sold overseas thanks to expanded sales within China and the ASEAN region, reentry into the European market and other factors, resulting in more than 10 million Sharp brand TVs being sold worldwide. Overseas sales of home appliances, MFPs, signage, solar power generation equipment, and other such products also saw strong growth. At the same time, Sharp's device business saw significant growth in camera modules for smartphones, as well as in sales of sensor modules, semiconductors, and other proprietary devices. It also saw steady growth in medium-sized panels for tablets, in-vehicle displays, and other such equipment.

Moving forward, in its product business, Sharp is working to expand its overseas market-focused categories and lineup, as well as customers and sales channels; while for its device business, Sharp is focused on leveraging innovative device creation into new customer acquisition. Through these various initiatives, Sharp aims to expand its business globally and achieve 80% for its overseas sales ratio in the near future.

Strengthen the Sharp Business Infrastructure

Sharp has undertaken fundamental restructuring in line with the principles of fundamentally reviewing business processes, greatly expanding cost awareness, and thoroughly enforcing a merit-based rewards and demerits system for personnel, with the result being strict expenditure controls together with the creation of a highly efficient operations structure. For fiscal 2018 onward, as well, Sharp is undertaking further restructuring to put in place a more robust business infrastructure that can withstand and adapt to any environmental change.

Restructuring Principles	Main Initiatives
(1) Fundamentally review business processes	<ul style="list-style-type: none"> • Reorganize business units • Reorganize subsidiaries • Restructure IT systems • Utilize Hon Hai Group resources
(2) Greatly expand cost awareness	<ul style="list-style-type: none"> • Scrutinize and control expenditures via review of decision-making authority • Optimize factories/operations bases • Promote centralized purchasing • Review contracts disadvantageous to Sharp • Streamline overseas postings/dispatches and domestic/overseas business trips
(3) Thoroughly enforce a merit-based rewards and demerits system for personnel	<ul style="list-style-type: none"> • Implement role-appropriate treatment (abolish seniority system) • Incorporate variation into the remuneration system • Ensure fair personnel assessments • Pursue specialization • Perform personnel optimization

Policy on CSR Activities

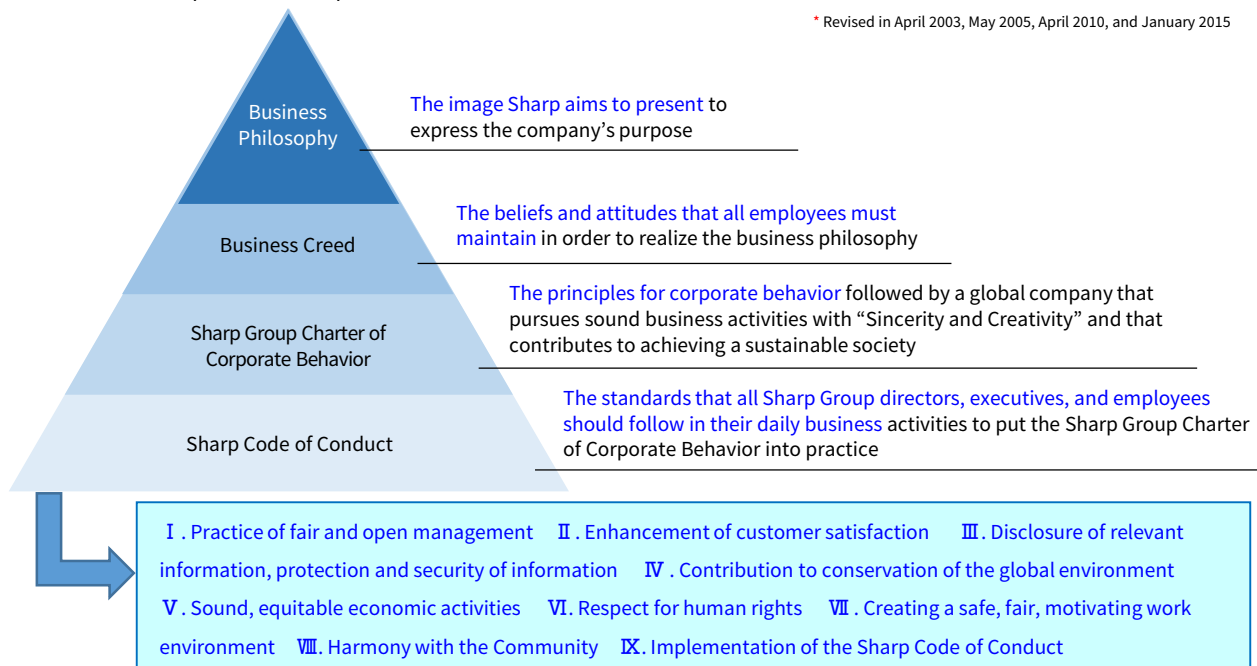
Sharp Group Charter of Corporate Behavior and the Sharp Code of Conduct

Sharp's CSR activities are founded on its Business Philosophy and Business Creed, condensed statements of the company founder's approach to management. His aim was to create a company that contributes to society and earns the people's trust by being the first to make products that meet the needs of a new era. In 1998, the company established the Sharp Business Standards and Action Guidelines to put the Business Philosophy and the Business Creed into practice. Since then, this document has been revised several times* to accommodate changes in the business environment, including changes in stakeholder expectations as well as the establishment of new laws and revisions to existing ones. This has become the Sharp Group Charter of Corporate Behavior outlining the principles of corporate behavior of all Sharp Group companies and the Sharp Code of Conduct outlining the standards of conduct for all directors and employees.

The Sharp Group Charter of Corporate Behavior stipulates nine principles to which Sharp must adhere as a global corporation that contributes to creating a society where sustainable growth is possible. Meanwhile, the Sharp Code of Conduct stipulates how all Sharp Group directors and employees should conduct themselves to put the Sharp Group Charter of Corporate Behavior into practice.

Sharp believes the basis for its CSR activities is the fact that all directors and employees follow the Sharp Code of Conduct in the execution of every task and are appropriate and sincere in their actions, including compliance with laws and the practice of corporate ethics.

* Revised in April 2003, May 2005, April 2010, and January 2015



Making Everyone Aware of the Sharp Group Charter of Corporate Behavior and the Sharp Code of Conduct

The Board of Directors issues resolutions regarding the adoption of the Sharp Group Charter of Corporate Behavior and the Sharp Code of Conduct by subsidiaries and affiliate companies in Japan and overseas and the revision thereof. In addition, internal memos are circulated and annual training sessions are held to ensure that employees are fully aware of these documents at those companies that have adopted them. In fiscal 2017, Sharp used e-learning to offer a compliance workshop based on the Sharp Code of Conduct for eligible employees at Sharp Corporation, 10 consolidated and non-consolidated subsidiaries in Japan, and seven affiliate companies as well as eligible labor union members. This served to ensure that tasks are being executed in accordance with the Sharp Code of Conduct and to instill in employees a mindset aimed at preventing problems related to human rights, compliance, and information security.

Related information: > [Sharp Group Charter of Corporate Behavior, Sharp Code of Conduct](#)

Policy on CSR Activities

Referencing Global Guidelines and Principles

Sharp’s CSR activities reference the following international guidelines and principles, including the 10 principles of the UN Global Compact that Sharp became party to in June 2009 and the Sustainable Development Goals (SDGs), a set of 17 goals for the year 2030 covering a range of issues including poverty, hunger, energy, climate change, and the promotion of peaceful societies. They were adopted by the United Nations in September 2015.

- 10 Principles of the UN Global Compact
- ISO 26000 (a set of international guidelines on corporate social responsibility)
- Sustainable Development Goals (SDGs)
- OECD Guidelines for Multinational Enterprises
- Universal Declaration of Human Rights
- United Nations Guiding Principles on Business and Human Rights
- Codes of conduct issued by the Responsible Business Alliance and other industry organizations

SUSTAINABLE DEVELOPMENT GOALS 17 GOALS TO TRANSFORM OUR WORLD



The 10 Principles of the UN Global Compact

Human Rights	<p>Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and</p> <p>Principle 2: make sure that they are not complicit in human rights abuses.</p>
Labour	<p>Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;</p> <p>Principle 4: the elimination of all forms of forced and compulsory labour;</p> <p>Principle 5: the effective abolition of child labour; and</p> <p>Principle 6: the elimination of discrimination in respect of employment and occupation.</p>
Environment	<p>Principle 7: Businesses should support a precautionary approach to environmental challenges;</p> <p>Principle 8: undertake initiatives to promote greater environmental responsibility; and</p> <p>Principle 9: encourage the development and diffusion of environmentally friendly technologies.</p>
Anti-Corruption	<p>Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.</p>

Related Information: > [United Nations Global Compact](#)

Policy on CSR Activities: Initiatives to Strengthen Social and Environmental Responsibility

Sharp SER* Policy

Coinciding with the transition to its new management structure, Sharp reviewed its CSR promotion structure in line with its new basic management policy. To outline its approach to CSR, Sharp formulated the SER Policy in December 2016 in order to fulfill the social and environmental responsibilities of the Sharp Group.

SER Policy

1. Value the rights of employees and ensure their health and safety.
2. Fulfill environmental responsibilities in business activities and manufacturing processes.
3. Build and operate an SER management system based on international standards, regulations, and client

* Social and Environmental Responsibility

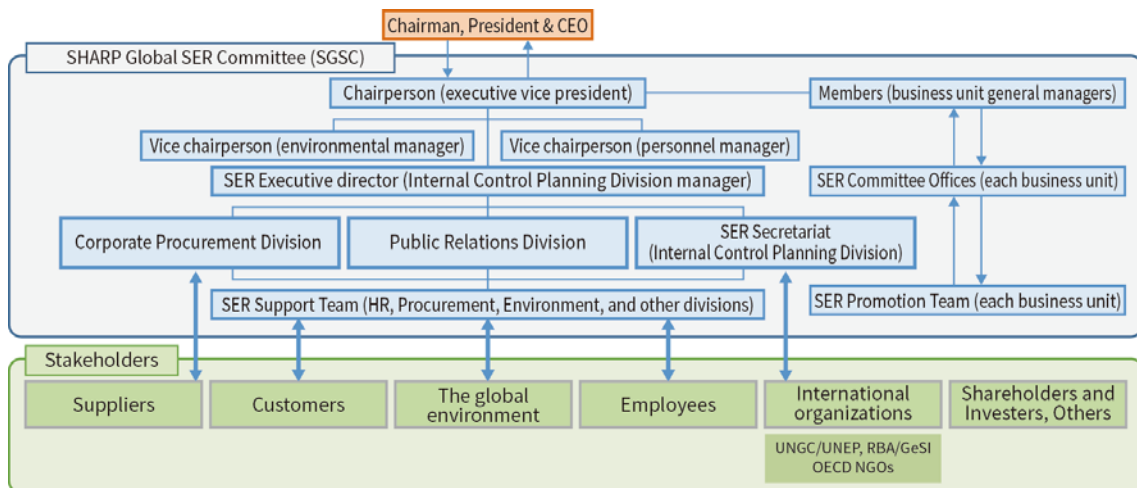
SER Management Promotion Framework

Chaired by an executive vice president, the Sharp Global SER Committee, which was established to implement the SER Policy, puts SER activities into practice throughout the Sharp Group. The committee formulates important annual guidelines, verifies and reviews the SER measures undertaken by each business unit, shares information on CSR trends, discloses information outside the company, and communicates with stakeholders.

To deliberate and decide on important matters relating to SER and to promote their companywide deployment, a regular SER Conference is held with the chairperson, vice chairperson, members, and secretariat of the Sharp Global SER Committee in attendance. Sharp has also formulated the Sharp SER Committee Operational Guidelines, which outline committee objectives, membership, operations, and other matters.

Going forward, Sharp, via the Sharp Global SER Committee, will effectively promote companywide SER initiatives, which emphasize safety, health, and environmental responsibility, make improvements that will enable the company to contribute to resolving the issues that the world faces, and steadily fulfill its corporate social responsibility.

Sharp SER Committee Organization Chart



Material Issues

The Sharp Global SER Committee has performed a material issue review. This review looked at the impact which Sharp’s business activities have on its stakeholders, and from this sought to identify sustainability-related material issues to be addressed while sorting out stakeholder feedback and expectations. The material issues identified were then incorporated into the SER management PDCA cycle of Sharp’s CSR promotion structure.

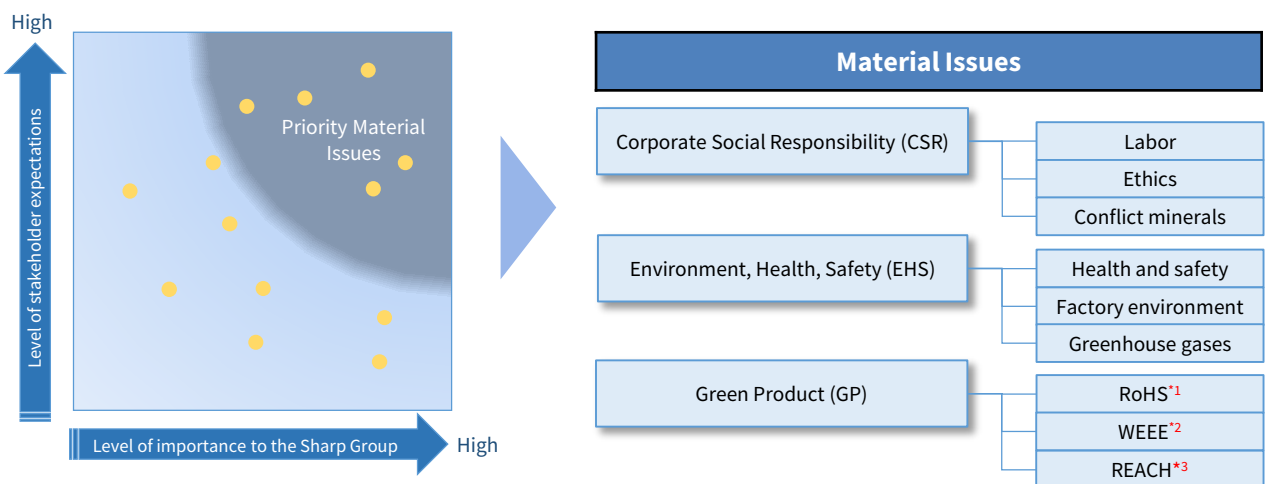


Confirming Major CSR Themes

Sharp has identified its major CSR themes by sorting out the opinions and expectations of various stakeholders (customers, local communities, business partners, shareholders, investors, and employees) in light of its business strategy, international trends, societal impact, various survey results, and trends among other companies.

Identifying Material Issues

The major CSR themes obtained were mapped along the two axes of “importance to society (level of stakeholder expectations)” and “level of importance to the Sharp Group,” and a priority ranking was assigned to each to enable nine material issues to be identified.



*1 An EU directive on the restriction on the use of certain hazardous substances in electrical and electronic equipment

*2 An EU directive on waste electrical and electronic equipment

*3 A set of EU regulations on the registration, evaluation, authorization, and restriction of chemicals















































Material Issues

SER Management Initiatives

The Sharp Global SER Committee, chaired by the Executive Vice President, draws up Company-Wide SER Priority Policy Guidelines each year in order to incorporate the identified material issues into specific policies. Each business unit's SER Committee uses the Company-Wide SER Priority Policy Guidelines to select those issues important to its unit's business and then creates and promotes SER policies (targets, key performance indicators, scope, action plans, etc.).

The Sharp Global SER Committee performs ongoing follow-up on the progress of implementation of each business unit's SER policies, and this progress is reviewed at the regularly held SER Conference. Also, the content of the SER Conference is reported accordingly to the company's board members. The Sharp Global SER Committee uses Sharp's management policies as a resource for finding business activity-driven solutions to material issues from a long-term perspective.

Company-Wide SER Priority Policy Guidelines (Excerpt)

Theme	Policy	Scope	SDGs
Labor, health, and safety	Restrict long working hours that can lead to health problems	All employees in Japan	 
Labor and ethics	Prevent harassment	All employees in Japan	 
Labor and ethics	Respect for human rights at overseas bases	All employees at overseas bases	  
Conflict minerals	Comply with and efficiently respond to relevant Japanese and overseas laws	Applicable business units	
General	Respond to survey and audit requests from clients	All production sites and consolidated production subsidiaries in Japan	         
General	Restructure supplier SER management system	Suppliers	         
Factory environment	Reduce and recycle waste	All production sites	  
Greenhouse gases	Suppress greenhouse gas emissions associated with business activities (Improve greenhouse gas emissions intensity)	All production sites	  
Greenhouse gases	Suppress greenhouse gas emissions associated with product use (Make Sharp products more energy-efficient)	Product-related business units	  
RoHS	Eliminate the use of newly restricted substances ¹ under the EU RoHS directive	All production sites	  
WEEE	Comply with requirements set by the waste electrical and electronic equipment recycling laws of each country, such as the EU WEEE directive	All production sites	  
REACH	Manage substances of very high concern ² , as stipulated by the EU REACH regulations	All production sites	  

¹ Four phthalate esters (DEHP, BBP, DBP, and DIBP) mainly used as plasticizers for resins

² Substances that may have serious effects on human health and the environment

Material Issues

SER Initiatives at Sharp Factories

Sharp believes that the key to global business expansion is to ensure it is accompanied by the creation of sustainable society through SER-related initiatives conforming to international standards.

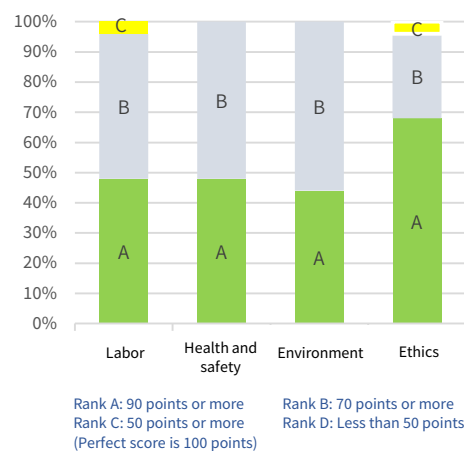
Since fiscal 2015, Sharp has been using the Sharp Supply-Chain CSR Deployment Guidebook, which was created in line with the RBA* Code of Conduct (an SER-related international standard), as the guideline for SER activities, including ongoing SER self-assessment surveys performed by Sharp production sites in Japan and overseas.

These surveys are carried out based on the RBA's Self-Assessment Questionnaire and serve as a review and assessment of the status of SER-related activities at Sharp's production sites. In fiscal 2017, the survey was carried out at 25 sites in Japan and overseas.

Following the survey, the answers to each question about activity status are scored (on a 100-point scale) according to Sharp's independent criteria, and the level of activity in each area is ranked from A to D. The assessment scores are shown at right, with almost all sites scoring well with 70 points or more. Feedback is provided to each site, and they are encouraged to undertake ongoing improvements.

The number of sites assessed in fiscal 2018 will be increased further with the aim of improving SER initiatives of the entire Sharp Group in line with international standards.

■ Area-Specific Assessment Ranking Distribution



* RBA: Responsible Business Alliance. Founded in 2004 by a group of leading electronics companies including Hewlett-Packard, IBM, and Dell, the RBA, formerly the Electronic Industry Citizenship Coalition (EICC), has a code of conduct covering the social, environmental, and ethical responsibilities in the global supply chain of its members in the electronics and a wide range of other industries.

Case Study

Undertaking an RBA VAP (Display Device Company)

Sharp's Display Device Company proactively engages in SER-related activities conforming to international standards in order to appropriately accommodate the SER activity-related requirements of clients.

In June 2018, an RBA VAP (Validated Audit Process) was conducted at the Kameyama and Mie Plants.

The VAP was conducted by an auditor dispatched from an RBA-certified auditing firm and was carried out in line with the RBA Code of Conduct. The audit looked at the company's activity status in the areas of labor (human rights), occupational health and safety, the environment, ethics, and management systems. The results of the audit showed that good efforts are being made in each of these areas.

Those areas which the audit highlighted for improvement are being addressed through appropriate action being undertaken in close communication with the RBA auditing program manager.

Sharp will continue to seek improvement in its SER-related initiatives conforming to international standards, using these initiatives as the means by which it can properly accommodate client requirements and achieve business growth balanced with the development of sustainable society.



RBA auditor (third from left) checks factory wastewater treatment equipment together with Sharp personnel

Stakeholder Engagement

Stakeholder Engagement

In order to ensure that, “Our future prosperity is directly linked to the prosperity of our customers, dealers and shareholders,” as stated in the company’s Business Philosophy, Sharp makes use of a variety of opportunities to communicate with its stakeholders to receive feedback, which it then seeks to incorporate into its corporate activities.

Sharp will continue to maintain and develop itself globally in a way that reflects the voices of its stakeholders.

Stakeholders	Issues to Address	Main Point-of-Contact Departments	Communication Methods
Customers	<ul style="list-style-type: none"> Ensuring product safety Making easier-to-use products Efforts aimed at universal design Enhancing customer satisfaction 	<ul style="list-style-type: none"> Business departments Sales departments Service departments Quality promotion departments 	<ul style="list-style-type: none"> Product information website Newspapers/media Usability tests Telephone inquiries to the Customer Assistance Center Questionnaires, interviews Daily after-sales service
Suppliers	<ul style="list-style-type: none"> Fair and impartial procurement activities Promoting CSR across the entire supply chain 	<ul style="list-style-type: none"> Procurement departments Business departments 	<ul style="list-style-type: none"> Daily procurement activities Basic Purchasing Principles Sharp Supply-Chain CSR Deployment Guidebook, Green Procurement Guidelines CSR/green procurement surveys, chemical substance content surveys, conflict mineral surveys
Shareholders and investors	<ul style="list-style-type: none"> Fair, timely, and appropriate information disclosure Addressing diversifying investor needs Handling SRI/ESG investment 	<ul style="list-style-type: none"> Securities and finance departments IR departments CSR promotion departments 	<ul style="list-style-type: none"> Shareholders’ meetings, management briefings Medium-Term Management Plan information sessions, financial results briefings Individual meetings with institutional investors and analysts Conferences held by securities companies Annual report, summaries of financial results, others Responding to SRI/ESG surveys Investor relations website
Employees	<ul style="list-style-type: none"> Preventing all types of harassment Strengthening trust between labor and management Training and education to support personal growth Developing diversity management Activities to support work-life balance Promoting occupational health 	<ul style="list-style-type: none"> HR departments General affairs departments 	<ul style="list-style-type: none"> Intranet All types of hotlines (internal reporting system) In-house training (e-learning, group training, others) Workplace satisfaction surveys Reinstatement support seminar Central Labor-Management Council Central Safety, Hygiene, and Health Committee Counseling with medical specialists or industrial counselors Counseling with outside specialized institutions
Local communities	<ul style="list-style-type: none"> Voluntary and ongoing community-based social contribution activities 	<ul style="list-style-type: none"> Departments in charge of social contribution Business departments Environmental promotion departments 	<ul style="list-style-type: none"> Educational support activities for children with disabilities Volunteer activities around the world
Global environment	<ul style="list-style-type: none"> Realization of low-carbon society Reducing environmental load from business activities Protecting biodiversity 	<ul style="list-style-type: none"> Environmental promotion departments Business departments 	<ul style="list-style-type: none"> Sharp Forest projects Cultivating/protecting rare and endangered plants on business sites Participating in environmental events Environmental education for local students Conservation activities for wetlands covered by the Ramsar Convention Clean-up and greening activities around business sites



Environmental Initiatives



0.5%
Final Landfill Disposal Rate



11.1%
Improvement rate of energy intensity of logistics

- > [Environmental Policy](#) P. 22
- > [Environmental Sustainability Management](#) P. 23
- > [Product Development](#) P. 30
- > [Product Manufacture](#) P. 34
- > [Logistics](#) P. 42
- > [Recycling](#) P. 44
- > [Biodiversity Protection / Communication with Local Communities](#) P. 51

Environmental Initiatives: Environmental Policy

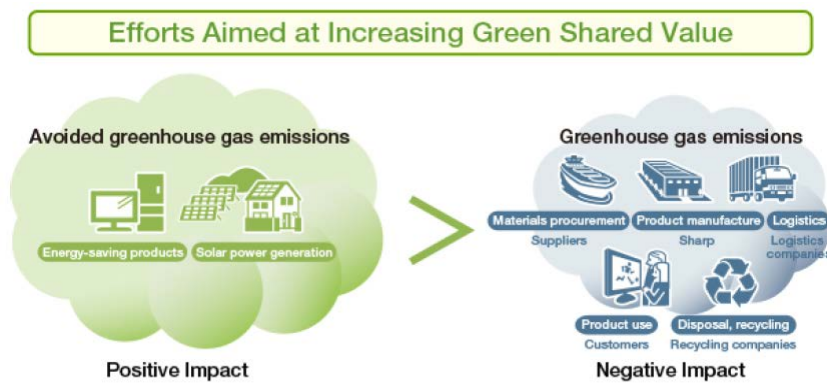
Increasing Green Shared Value

Sharp places the fulfillment of society’s needs regarding environmental matters in close alignment with its strategy for business growth, with a view to achieving success in both areas. Sharp defines the value thus created as “Green Shared Value” and it has established an environmental policy of increasing this value.

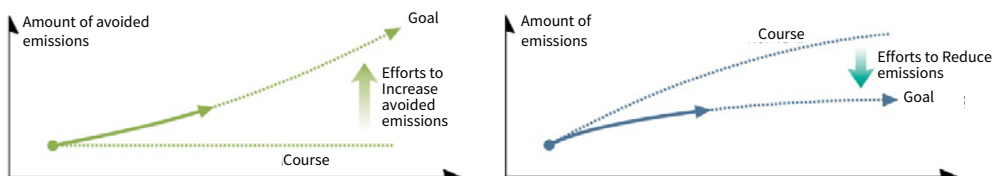
In an effort to foster a low-carbon society—a key environmental goal for all—Sharp is controlling its greenhouse gas (GHG) emissions in conformity with the GHG Protocol Corporate Value Chain (Scope 3) Standard. This covers emissions not only in product manufacture, but also throughout the entire supply chain, from materials procurement to product use.

With a view to increasing Green Shared Value, Sharp is furthering its environmental initiatives by striving always to make the positive impact of its avoidance of GHG emissions—achieved through customer use of energy-creating and energy-saving Sharp products—more than balance out the negative impact of GHG emissions from its business activities.

Specific actions include developing environmentally conscious products and devices, carrying out green procurement, saving energy in factories, reducing waste, and reusing and recycling on an ongoing, proactive basis.



■ **Avoided GHG Emissions and GHG Emissions (Conceptual Image)**



Achievements for Fiscal 2017

In fiscal 2017, Sharp’s positive impact (i.e., avoided GHG emissions) was equivalent to 29.5 million tons CO₂, which was higher than its negative impact (i.e., GHG emissions) of 29 million tons CO₂. Sharp will continue to develop energy-saving and energy-creating products and work for their widespread use, while pushing forward with more efficient use of energy in its business activities.

■ **Breakdown of Avoided GHG Emissions and GHG Emissions**

Avoided GHG Emissions (Positive Impact)	Thousand Tons CO ₂
Energy-saving products	20,650
Solar power generation	8,850
Total	29,500

GHG Emissions (Negative Impact)	Thousand Tons CO ₂
Materials procurement	3,590
Product manufacture	1,050
Logistics	170
Product use	24,180
Disposal, recycling	10
Total	29,000

Environmental Initiatives: Environmental Sustainability Management

Putting Environmental Sustainability Management into Practice

In accordance with internal environmental conservation guidelines established in line with Sharp’s Basic Environmental Philosophy, the Sharp Group Charter of Corporate Behavior, and the Sharp Code of Conduct, Sharp is pursuing environmental consciousness across all of its business activities.

Promoting Environmental Sustainability Management

Sharp Corporation has set up the Quality and Environmental Promotion Unit as an organization to decide on and promote environmental policies and other important items for the entire Sharp Group. The Quality and Environmental Promotion Unit refers critical policies, strategies, and measures relating to environmental sustainability management to the Sharp SER Committee, which is made up of senior executives, and gains its approval. Via the SER Committee*, the Quality and Environmental Promotion Unit fleshes out priority environmental measures and provides support for the environmental sustainability management and environmental activities carried out by Sharp in-house companies and business units.

Basic Environmental Philosophy

Creating an Environmentally Conscious Company with Sincerity and Creativity

The Sharp Group Charter of Corporate Behavior (excerpt)

Contribution to Conservation of the Global Environment

The Sharp Group will make efforts to further contribute to global environmental conservation by strengthening our development of proprietary technologies for protecting the global environment and by carrying out business activities in an environmentally conscious manner.

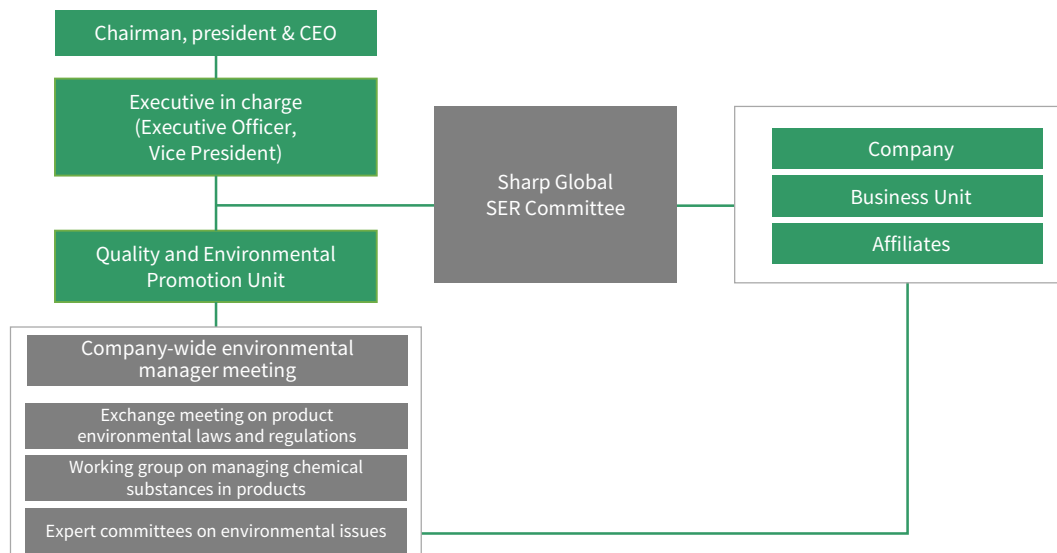
The Sharp Code of Conduct (excerpt)

Contribution to Conservation of the Global Environment

1. To Conserve the Environment
2. To Develop Environmentally Conscious Products and Services, and Conduct Our Business Operations in an Environmentally Conscious Manner

Sharp also holds company-wide environmental manager meetings. At these meetings, participants review and discuss environmental solutions and the progress being made on each of the environmental measures being taken at each in-house company, business unit, and base. In this way, Sharp has a system in place to put environmental sustainability management into practice across its entire organization. For example, at periodic information exchange meetings covering product environmental laws and regulations and chemical substance controls, members confirm that Sharp is in complete compliance. As well, working groups and expert committees work to solve company-wide issues.

System for Promoting Environmental Sustainability Management



*See page 16.

Environmental Initiatives: Environmental Sustainability Management

Environmental Education

Sharp places importance on fostering human resources as the foundation of its environmental sustainability management activities. In fiscal 2017, the company updated its environmental education curriculum to create a training program open to all employees.

As general environmental education, Sharp started environmental awareness training to allow all employees to acquire a wide range of environmental knowledge by learning globally occurring environmental problems, international environmental trends, and what Sharp is doing to protect the environment.

In addition, e-learning and classroom group training are open to all employees to learn about the various environmental laws and regulations around the world and chemical substance management.

Sharp will continue to improve and expand its environmental education curriculum by, for example, adding highly specialized learning so that programs are geared to the roles and duties of employees.



Environmental awareness training materials



Environmental seminar led by an outside instructor (Kameyama Plant)

Promoting an Environmental Management System

Sharp has been operating an environmental management system (based on ISO 14001) worldwide since 1995. The purpose of this system is to strengthen environmental sustainability management and improve the environmental awareness of employees.

ISO 14001 was revised in fiscal 2015. It now requires companies to further their efforts with a more strategic perspective—for example, by integrating their environmental activities with business activities. In response to the revision, Sharp is operating a more effective environmental management system that matches the particular needs of each base.

■ ISO 14001-Certified Bases

Region	Number of Bases
Japan	10
Americas	3
Europe	12
China	6
ASEAN, Middle East, Oceania	12
Total	43

(As of March 31, 2018)

Legal Violations, Accidents

In fiscal 2017, Sharp was not subject to any lawsuits or fines related to environmentally related legal violations. There were also no major environmentally related accidents.

Environmental Initiatives: Environmental Sustainability Management

Product and Plant Audits

Sharp regularly carries out a Green Product/Green Device Audit aimed mainly at ensuring compliance in product development. The company checks compliance with the environmental laws and regulations of each country and the reflection of environmentally friendly design in products, such as energy efficiency, resource savings, and recyclability. Sharp regularly carries out a Green Product/Green Device Audit aimed mainly at ensuring compliance in product development. The company checks compliance with the environmental laws and regulations of each country and the reflection of environmentally friendly design in products, such as energy efficiency, resource savings, and recyclability. Sharp conducts environmental safety operation audits at its plants, aimed at ensuring compliance and operational safety in environmental safety work. The company checks the operation of environmental safety work in each field, such as pollution prevention, waste disposal, and emergency response, as well as the status of compliance with environmental laws and regulations. In fiscal 2017, Sharp conducted on-site audits based on in-house audit guidelines that reflect the requirements of the RBA* international standard for electronics industry supply chains. Sharp is considering switching to audits that also focus on labor and ethics in the future.



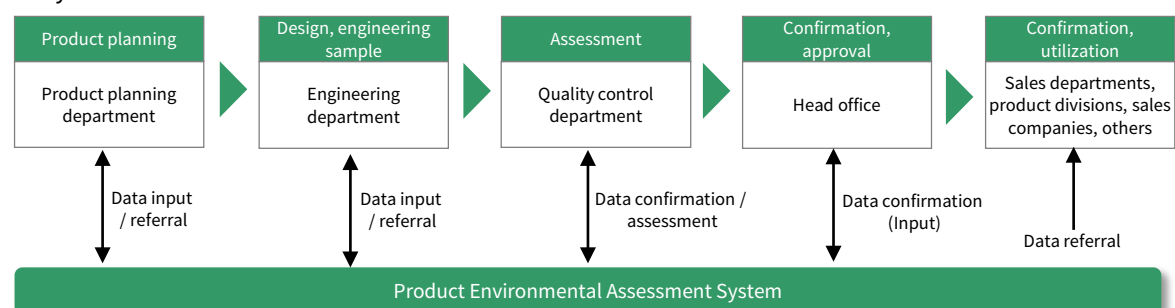
Environmental safety operation audit
(Yao Plant)

* RBA: Responsible Business Alliance. Founded in 2004 by a group of leading electronics companies including Hewlett-Packard, IBM, and Dell, the RBA, formerly the Electronic Industry Citizenship Coalition (EICC), has a code of conduct covering the social, environmental, and ethical responsibilities in the global supply chain of its members in the electronics and a wide range of other industries.

Product Environmental Assessment System

Sharp operates a product environmental assessment system to ensure compliance with environmental laws and regulations as well as to promote environmentally conscious product design. This system allows Sharp to keep a database of the development know-how and design data that all Sharp design and development bases possess on environmentally conscious products and devices. The database is used to raise design standards and to promote in-house standardization of life cycle assessments (LCA). This way, the system is contributing to the creation of environmentally conscious Sharp products and devices. Since fiscal 2016, Sharp has been strengthening the function for checking products' compliance with environmental laws and regulations.

■ System Flow



Environmental Performance Data Management System

To support environmental sustainability management, Sharp has established a system for managing data on Sharp's environmental performance. With high levels of precision and speed, this system compiles data on the environmental burden caused by Sharp's business activities via energy consumption, waste generation, and water usage, for example. This system is in operation at all Sharp bases worldwide.

By collecting this data, Sharp is able to effectively grasp the current state of its environmental sustainability management, identify problems, and formulate measures.

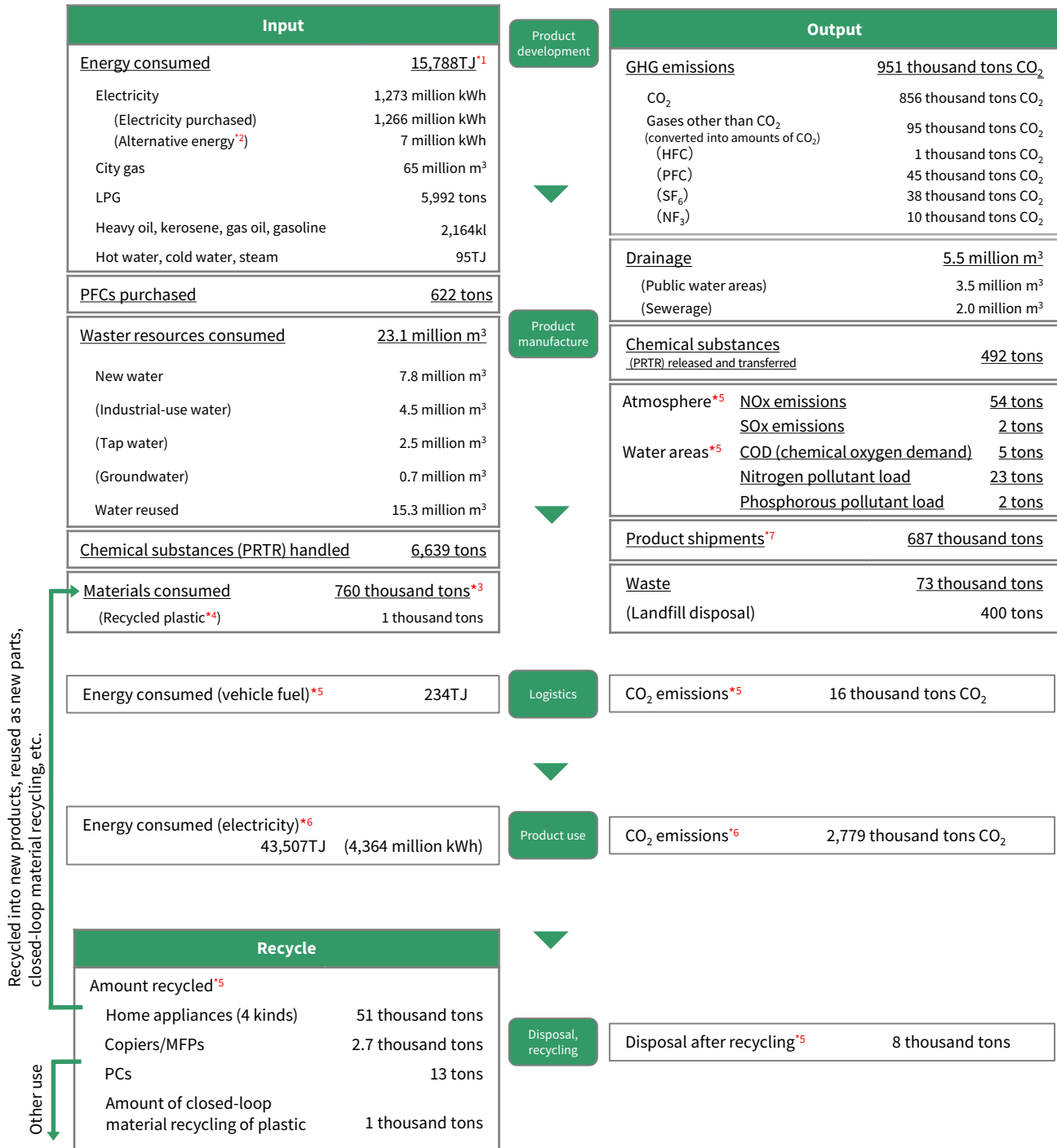
Environmental Initiatives: Environmental Sustainability Management

Material Balance

Sharp gathers data to gain an overview of the burden its business activities place on the environment. Measured items include the consumption of energy and materials in business activities, the emissions of greenhouse gases, and the generation of waste. Sharp then uses these values to reduce its environmental burden.

Material Balance in Business Activities (Fiscal 2017)

(The boundary of environmental performance data and calculation standards for each item are listed on pages 27 and 28.)



^{*1} TJ (terajoule) = 1012 Joules ^{*2} Amount of solar power generated; amount of green power certificates purchased.
^{*3} Total weight of product shipments and waste, etc. (estimate). ^{*4} Amount recycled through closed-loop plastic material recycling technology.
^{*5} In Japan. ^{*6} Annual energy used and amount of CO₂ emitted by products in the 13 major categories sold in the reporting year (estimate).
^{*7} Total weight of products in the 13 major categories sold in the reporting year and packaging materials used (estimate).

Environmental Initiatives: Environmental Sustainability Management

Boundary of Environmental Performance Data, Calculation Standards for Environmental Performance Indicators

The environmental performance data are calculated based on the following boundary and calculation standards.

< Period Covered, Coverage >

Please refer to the [editorial policy](#).

■ Calculation Standards for Environmental Performance Indicators

Environmental Performance Indicators		Unit	Calculation Method	
Input	Product manufacture	Energy consumed	TJ	Calculated based on the Act on the Rational Use of Energy (Energy Conservation Act) and the Japanese Ministry of the Environment's Greenhouse Gas Emission Calculation and Reporting Manual
		Water resources consumed	Million m ³	Consumption and recycled use of industrial-use water, tap water, and groundwater
		PFCs purchased	Tons	HFCs, PFCs, sulfur hexafluoride (SF6), and nitrogen trifluoride (NF3) purchased annually
		Chemical substances (PRTR) handled	Tons	Among the substances covered under the PRTR Law, the total amount of substances handled annually at each plant in quantities of 500 kg or more
		Materials consumed	Thousand tons	Total weight of products in the 13 major categories ^{*1} sold in the reporting year (estimate), plus waste, etc. generated
	Logistics	Energy consumed	TJ	Revised ton-km method
	Product use	Energy consumed	TJ (million kWh)	Estimate of annual energy used by products in the 13 major categories ^{*1} sold in the reporting year. Calculation based on each product's annual energy consumption rate (using a heat input per unit of 9.97 MJ/kWh).
	Product use	Home appliances (4 kinds) ^{*2}	Thousand tons	Amount of used home appliances (4 kinds) recycled
		Copiers/MFPs	Thousand tons	Amount of recycled copiers and MFPs
		PCs	Tons	Amount of recycled PCs
		Closed-loop plastic material recycling	Tons	Amount of recycled plastic used, which was produced through closed-loop material recycling

*1 LCD TVs, air conditioners, refrigerators, washing machines, air purifiers, microwave ovens, LED lights, Blu-ray Disc recorders, facsimiles, mobile phones, LCD monitors, copiers/MFPs, solar cells

*2 TVs (CRT TVs, flat-panel TVs), air conditioners, refrigerators/freezers, washing machines/dryers

Environmental Initiatives: Environmental Sustainability Management

Environmental Performance Indicators		Unit	Calculation Method
Output	Product manufacture	Greenhouse gas emissions	Thousand tons CO ₂ • CO ₂ emissions from purchased electricity Japan: Using CO ₂ emission coefficient by electric power company (adjusted) published by Japan's Ministry of the Environment and the Ministry of Economy, Trade, and Industry Overseas: Using GHG Protocol Calculation Tools (GHG emissions from purchased electricity) • CO ₂ emissions from consumed fuel Using emission coefficient published in the Ministry of the Environment's Greenhouse Gas Emission Calculation and Reporting Manual • Greenhouse gases other than CO ₂ Using global warming potential published in the 4th Assessment Report by the Intergovernmental Panel on Climate Change (IPCC)
		Drainage	Million m ³ Annual drainage into public water areas and sewer system
		Chemical substances (PRTR) released and transferred	Tons Among the substances covered under the PRTR Law, the total amount of substances (handled annually at one or more plant in quantities of 500 kg or more) that were released and transferred
		NOx emissions	Tons Annual emissions
		SOx emissions	Tons Annual emissions
		COD (chemical oxygen demand)	Tons Drainage into public water areas
		Nitrogen pollutant load	Tons Drainage into public water areas
		Phosphorous pollutant load	Tons Drainage into public water areas
		Waste, etc.	Thousand tons Industrial waste + general office waste + valuable resources recovered
		Final landfill disposal	Thousand tons Final landfill disposal of industrial waste + final landfill disposal of general office waste
	Product shipments	Thousand tons Total weight of products in the 13 major categories* sold in the reporting year, plus packaging material used (estimate)	
	Logistics	CO ₂ emissions Thousand tons CO ₂ Revised ton-km method	
	Product use	CO ₂ emissions Thousand tons CO ₂ Amount of CO ₂ emitted by products in the 13 major categories* sold in the reporting year, based on their energy consumption (estimate)	
Disposal, recycling	Disposal after recycling Tons [Weight of 4 kinds of home appliances, PCs, and copiers/MFPs collected] – [Weight recycled into new products or materials, or reused]		

* LCD TVs, air conditioners, refrigerators, washing machines, air purifiers, microwave ovens, LED lights, Blu-ray Disc recorders, facsimiles, mobile phones, LCD monitors, copiers/MFPs, solar cells

Environmental Initiatives: Environmental Sustainability Management

Greenhouse Gas Emissions Based on the GHG Protocol Initiative

Sharp calculates greenhouse gas emissions based on the GHG Protocol^{*1} and then works to limit those emissions resulting from customer use of Sharp products and from Sharp's business activities, including those in the supply chain.

^{*1} The GHG Protocol is an international standard for calculating greenhouse gas (GHG) emissions. It was jointly established by the World Business Council for Sustainable Development (WBCSD), a coalition of the world's leading companies, and the World Resources Institute (WRI), a United States-based think tank.

Greenhouse Gas Emissions by Scope 1/2/3 Categories Based on the GHG Protocol Initiative (Fiscal 2017)

Scope	Emissions (Thousand Tons CO ₂)	Notes
Scope 1 (direct GHG emissions from business activities)	264	Emissions from combustion of fuel, etc.
Scope 2 (indirect GHG emissions from energy usage in business activities)	687	Emissions from the use of electricity
Scope 3 (indirect GHG emissions from areas outside the scope of business activities)	32,405	Calculated for categories such as procurement, employee commuting and business trips, shipping and distribution, and product usage

Greenhouse Gas Emissions by Scope 3 Category Based on the GHG Protocol Initiative (Fiscal 2017)

Classification	Category	Emissions (Thousand Tons CO ₂)	Notes
Upstream	Purchased goods and services	4,350	CO ₂ emissions from the manufacture of materials procured for products in the 13 major categories*2 that the Sharp Group sold in the reporting year
	Fuel- and energy-related activities not included in Scope 1 or 2	70	CO ₂ emissions from transmission losses of electricity purchased by the Sharp Group
	Upstream transportation and distribution	30	CO ₂ emissions from transportation and distribution of materials procured by the Sharp Group
Sharp	Business travel	10	CO ₂ emissions from business travel by all employees of Sharp Corporation
	Employee commuting	20	CO ₂ emissions from commuting by all employees of Sharp Corporation
	Leased assets	—	Included in Scope 1 and 2 CO ₂ emissions
Downstream	Waste generated in operations	3	CO ₂ emissions from waste disposal and treatment by the Sharp Group
	Processing of sold products	90	CO ₂ emissions from processing at destination of Sharp Group products
	Downstream transportation and distribution	200	CO ₂ emissions from transportation and distribution of products manufactured by the Sharp Group
	Use of sold products	27,630	Lifetime CO ₂ emissions*3 from the use of products in the 13 major categories*2 that the Sharp Group sold in the reporting year
	End-of-life treatment of sold products	2	CO ₂ emissions from recycling 4 types of appliances*4 that Sharp Corporation sold in Japan
Total		32,405	

^{*2} LCD TVs, air conditioners, refrigerators, washing machines, air purifiers, microwave ovens, LED lights, Blu-ray Disc recorders, facsimiles, mobile phones, LCD monitors, copiers/MFPs, solar cells

^{*3} Annual power consumption of each product × number of units sold × product life × CO₂ emission coefficient

^{*4} TVs (CRT TVs, flat-panel TVs), air conditioners, refrigerators/freezers, washing machines/dryers

Environmental Initiatives: Product Development

Developing Environmentally Conscious Products and Devices

Developing Green Products

Sharp calls its environmentally conscious products “Green Products (GP)”. The GP Guidelines, which define development and design criteria in line with seven concepts, have been in use at all product design departments since fiscal 1998.

In developing products, Sharp sets specific objectives according to the GP Standard Sheet, which is formulated based on the GP Guidelines. In the trial manufacture and mass production stages, it determines how well the actual product has met these objectives.

The content of the GP Standard Sheet—the benchmark for development objectives—is revised each year in order to constantly improve the environmental performance of Sharp products.

Green Product Concepts

Energy Saving /
Energy Creating

Products with superb energy-saving / energy-creating performance

Improve the energy efficiency and reduce the energy consumption of products; other measures

Resource Conservation

Products designed to conserve resources

Reduce the amount of materials used; design products that conserve resources during use; extend the life span of products; other measures

Recyclability

Products designed for recycling

Design products that are easy to disassemble; use easy-to-recycle materials; other measures

Safe Use and Disposal

Products that can be used and disposed of safely

Do not use substances that negatively affect people’s health or the environment; other measures

Use of Green Materials and
Devices

Products that use green materials and devices

Use recycled materials / plant-based plastics; other measures

Environmental
Consciousness
Pertaining to Batteries, etc.

Products that use batteries, manuals, and packaging with enhanced environmental consciousness

Reduce product packaging; design products that allow easy removal of batteries; other measures

Showing Eco Information of
Products

Products that show their environmental performance and information

Acquire environmental labels (eco labels); implement LCA; other measures

Developing Super Green Products

Since fiscal 2004, Sharp has been certifying products that offer a particularly high level of environmental performance as “Super Green Products (SGP)”. In fiscal 2017, sales of those products reached 164.8 billion yen, with SGP sales accounting for 29% of all GP sales in Japan.

In fiscal 2016, Sharp revised the criteria for this certification. Products are certified if (1) they offer class-leading energy-saving or energy-creating performance, or (2) they offer significantly high environmental performance through the use of unique Sharp technology. This way, Sharp is aggressively pursuing the development of products that consume as little power as possible or that use resources to the least possible extent, as well as developing high-efficiency solar cells.

Examples of Super Green Products for Fiscal 2017



Top-loading washing machine/dryer
ES-PU11B-S



Digital MFP
MX-B455W



Cordless canister cyclonic vacuum cleaner
EC-AS500-P



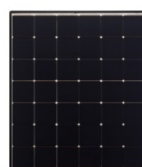
Humidifying air purifier
KI-HX75-W



Refrigerator
SJ-GX50D-T



Plasmacluster ion generator
IG-KC15-R



High-efficiency single-crystal module
NQ-225AG



Cloud battery storage system
JH-WB1711

Environmental Initiatives: Product Development

< Case Study >

SGP Developer Interviews

Sharp has the website “Going Green Everywhere,” which features interviews with product planning staff, engineers, designers, salespersons, and other staff involved in SGP development. The site conveys their commitment to environmentally conscious manufacturing and the difficulties they have faced. Through this site, Sharps aim to boost the added value of products by communicating the products’ appeal from an environmental perspective.

In fiscal 2017, the site featured Plasmacluster washing machine/dryers and in-vehicle Plasmacluster ion generators.



Plasmacluster washing machine/dryer development team

開発者インタビュー
聞いてなつとく！
ココにもエコ



In-vehicle Plasmacluster ion generator development team

Developing Green Devices

Sharp calls its environmentally conscious devices Green Devices (GD). To define guidelines for development and design based on seven concepts, Sharp established the GD Guidelines, which it began applying at all device design departments in fiscal 2004.

Sharp sets objectives according to the GD Standard Sheet and assesses how objectives have been met in a similar way to GP standards.

In fiscal 2013, Sharp revamped the GD assessment system by adding new criteria concerning forward-looking initiatives that take customer demands into consideration. The degree to which these criteria are satisfied is represented in points called GD Challenge Points. The assessment criteria are revised every year so that Sharp can continuously raise the environmental performance of its products such as LCD modules and sensors.

Green Device Concepts

- Energy Efficiency**

Devices with superior energy efficiency and that consume less energy
Reduce power consumption during operation and in standby mode; other measures
- Resource Conservation**

Devices designed to conserve resources
Reduce device weight or volume; other measures
- Recyclability**

Devices designed for recycling
Use standard plastic; design devices that are easy to disassemble; other measures
- Safe Use and Disposal**

Devices that can be used and disposed of safely
Manage usage of chemical substances contained in parts and materials; other measures
- Long Life**

Devices that make products last longer
Extend the life of the product with exchangeable parts and consumables (target: LCD devices); other measures
- Packaging**

Devices that use packaging with enhanced environmental consciousness
Reduce packaging; other measures
- Information Disclosure**

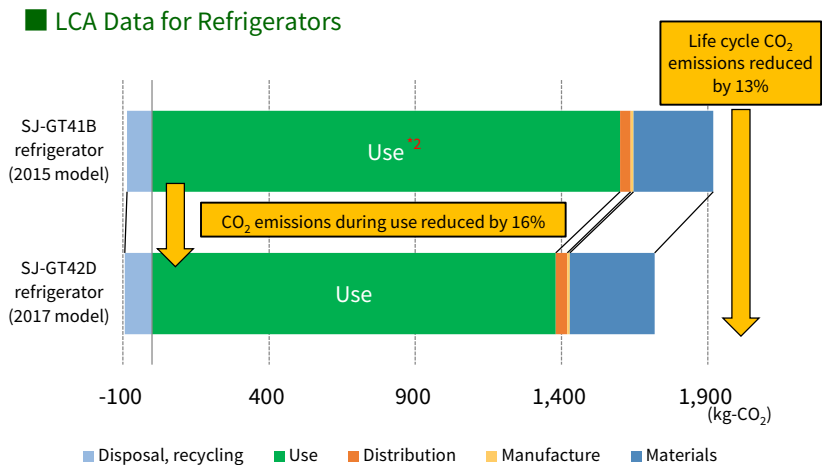
Devices that give environmental information
Provide information on chemical substances in devices; other measures

Environmental Initiatives: Product Development

Identifying and Reducing Environmental Impacts throughout the Life of Products

Sharp performs a life cycle^{*1} assessment (LCA) on its products to identify their impact on the environment throughout their service life. Converting this impact into CO₂ emissions provides a quantitative measure that Sharp uses in its efforts to reduce environmental impacts.

For example, refrigerators and other consumer electronics have a large impact during use. Thus, by focusing on improving their energy savings, overall environmental impact can be effectively reduced.



*1 The life of a product from materials and parts procurement to manufacture, distribution, use, disposal, and recycling.

*2 CO₂ emissions during use are calculated using a CO₂ emission coefficient (adjusted) announced by Japan's Electric Power Council for a Low Carbon Society (ELCS).

< Case Study >

Joint Crediting Mechanism Financing Program (JCM Model Project^{*3}) (Thailand)

In June 2017, Sharp signed an agreement to construct rooftop solar power systems for stores and warehouses of Big C^{*4}, one of Thailand's largest hypermarket retailers, with Thailand-based solar power company Impact Solar Limited^{*5}. The project involves the installation of solar modules totaling 27 MW on the rooftops of 28 Big C stores and warehouses. The initial 16 MW tranche began construction in July 2017, with operation starting in December, and full operation planned by the end of fiscal 2018.



Installation of rooftop solar modules

This project has been approved by the Financing Program for JCM Model Projects under the Joint Crediting Mechanism operated by the Ministry of Environment of Japan. With economic growth, energy consumption has risen rapidly in Thailand, and it has become a challenge to diversify energy resources and reduce damage to the environment and to seek alternate sources other than the current fossil fuels such as oil and natural gas. The expected annual generation capacity of this project is approximately 37,000 MWh, which will allow avoided greenhouse gas emissions of about 12,000 tons of CO₂ per year.

Sharp is also working on JCM model projects in other countries, helping Japan to meet its greenhouse gas emission reduction targets.

*3 A program for implementing CO₂ reduction projects that utilize Japan's superior technologies in developing countries. The program measures, reports on, and verifies the projects' greenhouse gas emission reduction effects. Based on the premise that the calculated amount of emission reductions will be counted as a reduction in Japan's emissions through the joint crediting mechanism, businesses are provided with facility subsidies of up to one-half of the initial investment cost.

*4 A supermarket chain operated by Big C Supercenter Public Company Limited with over 100 stores in Thailand. Head office: Bangkok, Thailand.

*5 Head office: Bangkok, Thailand.

Environmental Initiatives: Product Development

Managing Chemical Substances in Products

Sharp, in cooperation with suppliers, is rolling out controls for chemical substances in products, to reduce the environmental impact of products and to comply with chemical substance regulations in various countries. Whenever a new component is adopted, the supplier must submit a Report on Chemical Substances Contained in the Product as an attachment to delivery specifications. These reports provide information on the presence of substances such as those prohibited or conditionally prohibited by Sharp, and of ozone-depleting substances, enabling decisions to be made on use of the component.

An IT-based chemical substance content survey is also carried out when components are received from suppliers. The content survey examines those chemical substances subject to laws and regulations in each country and those designated by Sharp, and reports on the content in the component and the compliance with relevant laws and regulations. This is then used to disclose information required under those laws and regulations.

Related information: > [Green procurement](#)

Initiatives to Abolish Phthalates

Four types of phthalates were added as restricted substances under the EU's RoHS Directive^{*1} in June 2015, with their use being restricted from July 22, 2019. Sharp has set a company-wide target of abolishing the four types of phthalates by the end of 2018. Sharp is working to prohibit use in new components, assess use in existing components, and substitute those components found to contain these phthalates.

chemSHERPA Introduction Briefings

chemSHERPA^{*2} is an information sharing scheme developed by the Japanese Ministry of Economy, Trade, and Industry (METI) for the purpose of communicating information on chemical substances in products efficiently over the whole supply chain.

Sharp agrees with the aims of chemSHERPA and has installed it on its company IT system. Following a transition period from October 2017, the introduction of chemSHERPA was completed in April 2018.

The transition involved training for relevant personnel in Japan and overseas, and briefings for domestic suppliers.



chemSHERPA introduction briefing (Makuhari Building)

^{*1} An EU directive on the "Restriction on the use of certain Hazardous Substances." RoHS restricts the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB), and polybrominated diphenyl ether (PBDE) in electrical and electronic equipment entering the EU market after July 1, 2006. After July 22, 2019, the use of four additional substances will be restricted: bis(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP), and diisobutyl phthalate (DIBP).

^{*2} Conforms to IEC 62474, an international standard for the electrical and electronics industry on material declaration.

Environmental Initiatives: Product Manufacture

Curbing Greenhouse Gas Emissions

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<p>■ Energy intensity: Improve by 20% (baseline year: fiscal 2012)</p>	<p>■ Improved by 18% (baseline year: fiscal 2012)</p>	★
<p>Priority Objectives for Fiscal 2018</p>	<p>■ Energy intensity: Improve by 20% (baseline year: fiscal 2012)</p>	

Sharp Group Activities to Control Greenhouse Gas Emissions

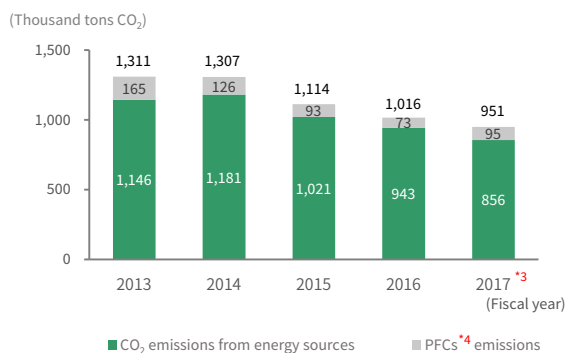
Sharp is taking active measures to curb greenhouse gas (GHG) emissions resulting from its business activities in an effort to contribute to the realization of a low-carbon society. The Sharp Group's GHG emissions in fiscal 2017 decreased by 6.4% (down 65,000 tons CO₂) compared to the previous fiscal year. However, the improvement rate of energy intensity was 18%, compared to the baseline year of fiscal 2012.

Each Sharp plant is strengthening efforts involving all equipment and systems—ranging from production lines to utility systems for supplying electricity, gas, and water—to boost energy efficiency and reduce GHG emissions. In particular, at the LCD and electronic component plants, the production, engineering, and environmental departments work together to reduce consumption of base-load energy. Efforts include installing inverters^{*1} and optimizing the air conditioning in clean rooms^{*2}. Going forward, Sharp will pursue further energy-saving measures and boost production efficiency in line with its business expansion.

*1 A device to control the number of motor rotations.

*2 A room where the temperature, humidity, and cleanliness are kept at controlled levels.

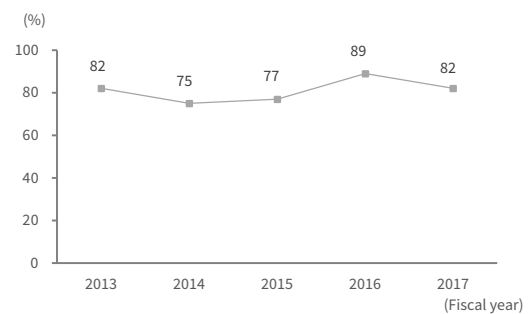
Amount of GHG Emissions



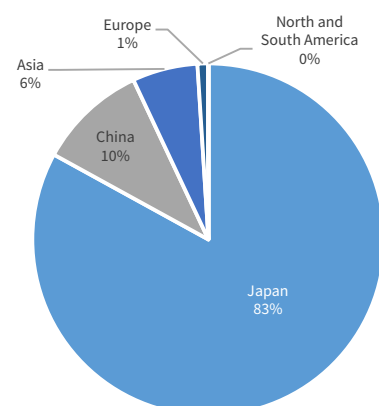
*3 For actual results starting in fiscal 2017, the coefficient associated with electricity purchased has been changed to the emission coefficient for each electrical power supplier.
 For fiscal 2017 results, the GHG emissions for the entire Sharp Group when applying the same coefficient as fiscal 2016 is 991,000 tons CO₂, and CO₂ emissions from energy sources is 896,000 tons CO₂.

*4 HFCs, PFCs, sulfur hexafluoride (SF₆), nitrogen trifluoride (NF₃)

Energy Intensity (Baseline Year: Fiscal 2012)



GHG Emissions by Region (Fiscal 2017)



Environmental Initiatives: Product Manufacture

< Case Study >

Reducing Greenhouse Gas Emissions by Using Renewable Energy (China)



Solar power system installed on the plant roof

NSEC, Sharp's production base in China, has been operating a 2.2 MW solar power system since October 2017. The amount of power generated by the approximately 8,000 solar modules on the factory roof accounts for about 25% of NSEC's annual electricity use. This is equivalent to the electricity used by about 560 average homes.*¹

Since the enactment of the Paris Agreement*² in November 2016, countries have been striving to reduce their greenhouse gas emissions, and the Chinese government in particular has been aggressive in adopting measures to incorporate renewable energy. With NSEC as a model case, Sharp is working to spread the use of renewable energy through solar power systems like this.

*¹ Based on a 4 kW solar power system for average homes.

*² An international framework for the reduction of greenhouse gases.

Environmental Initiatives: Product Manufacture

Minimizing and Recycling Waste

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
■ Final landfill disposal rate of 1.0% or less	■ Final landfill disposal rate 0.5%	★★★
Priority Objectives for Fiscal 2018	■ Final landfill disposal rate of 0.5%	

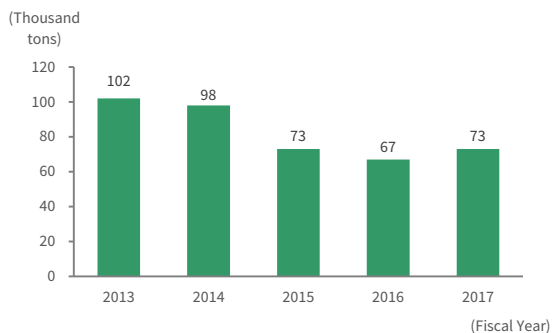
Curbing the Amount of Waste, etc. Generated by the Sharp Group

Sharp has been working to reduce waste and to recycle as much of it as possible in an effort to contribute to building a resource-recycling society. In fiscal 2017, the amount of waste, etc. generated by the Sharp Group increased by 10% (up 6,400 tons) compared to the previous fiscal year due to an increase in production volume. Meanwhile, the final landfill disposal rate decreased to 0.5% worldwide, thanks to company-wide, cross-organizational efforts including those by the SER Committee. In Japan, the final landfill disposal rate was 0.005%, marking the 17th consecutive year of achieving zero discharge to landfill* since fiscal 2001. Going forward, Sharp will strengthen waste reduction efforts at overseas bases and work to achieve zero discharge to landfill on a global scale.

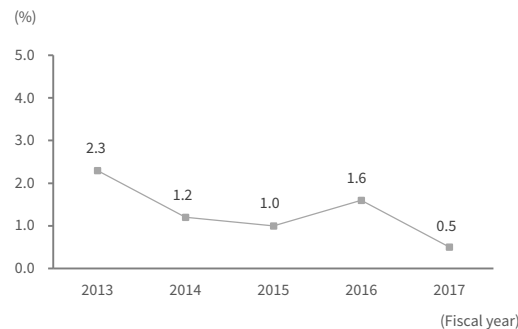
* Sharp defines "zero discharge to landfill" as a final landfill disposal rate of less than 0.5%.

Final landfill disposal rate (%) = Amount of landfill disposal ÷ amount of waste, etc. generated × 100.

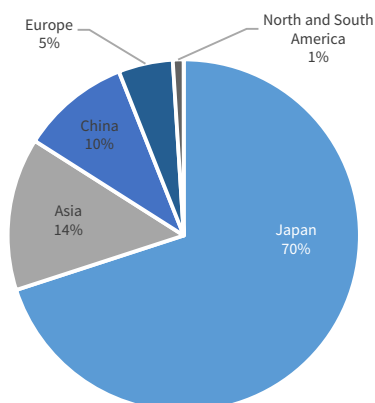
■ Amount of Waste, etc.



■ Final Landfill Disposal Rate



■ Waste, etc. by Region (Fiscal 2017)



Environmental Initiatives: Product Manufacture

Appropriate Storage and Management of PCB Wastes

In Japan, Sharp properly stores and manages waste PCB (polychlorinated biphenyls) in accordance with the Act on Special Measures Concerning Promotion of Proper Treatment of PCB Wastes.

< Case Study >

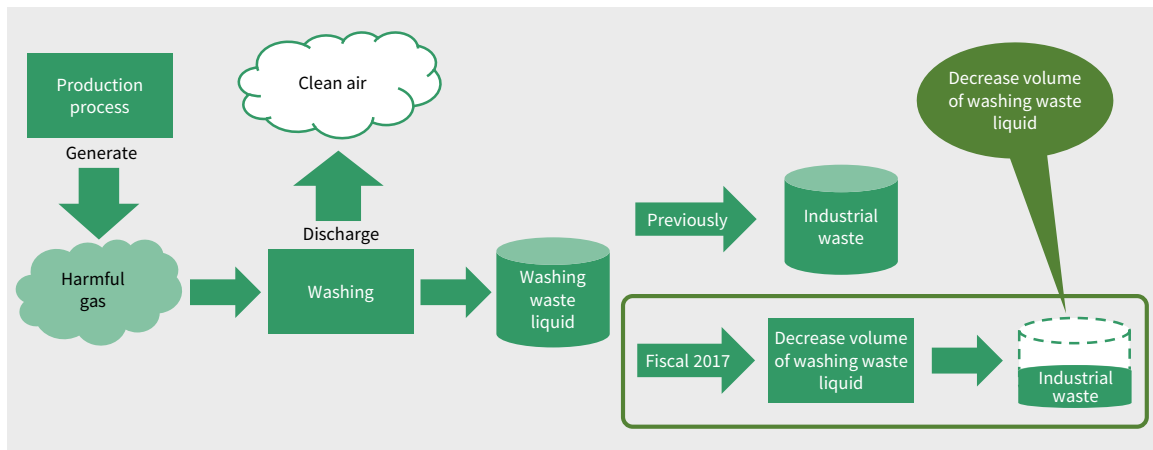
Concentrating and Reducing the Amount of Waste Liquid from Washing to Reduce Industrial Waste

Sharp's Mie Plant (Taki District, Mie Prefecture) strives to generate less industrial waste from the manufacturing process for LCDs. The harmful gas generated in the production process is washed using chemical liquid so that it can be discharged in a harmless state outside of the plant. However, the chemical liquid used for cleaning (washing waste liquid) is emitted as industrial waste. In fiscal 2017, a portion of this industrial waste liquid was evaporated and concentrated at an on-site facility to drastically reduce its volume. This reduced the amount of waste by 192 tons a year.



Evaporating and concentrating a portion of washing waste liquid at an on-site facility

Flow of processing washing waste liquid



Environmental Initiatives: Product Manufacture

Effectively Using Water Resources

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<p>■ Water intensity: Improve by 22% (baseline year: fiscal 2012)</p>	<p>■ Improved by 12% (baseline year: fiscal 2012)</p>	★
<p>Priority Objectives for Fiscal 2018</p>	<p>■ Water intensity: Improve by 20% (baseline year: fiscal 2012)</p>	

Sharp Group Reducing the Amount of New Water Used and Using More Recycled Water

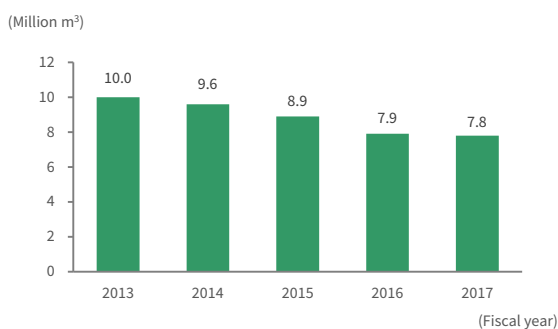
Sharp is striving to make effective use of water resources by reducing the amount of new water (i.e., water from the water supply system) it uses and by increasing the use of recycled water. The volume of new water used by the Sharp Group in fiscal 2017 decreased by 1% (down 0.1 million m³) compared to the previous fiscal year. However, the improvement rate of water intensity was 12%, compared to the baseline year of fiscal 2012.

The Kameyama Plant (Kameyama, Mie Prefecture, Japan) and the Mie Plant (Taki District, Mie Prefecture, Japan) require a large amount of water in the production process for LCDs. At both plants, Sharp has adopted a closed-loop water recycling system that recovers and reuses 100% of the water discharged from the production process. Through measures such as this, the Sharp Group is maintaining a recycling rate* of at least 60%.

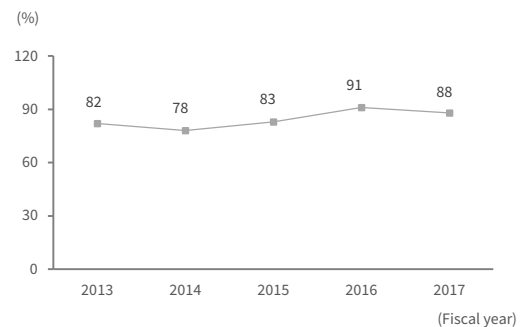
Looking ahead, Sharp will pursue further water-use efficiency and boost production efficiency in accordance with business expansion.

* Recycling rate = Amount recycled ÷ (amount of new water + amount recycled)

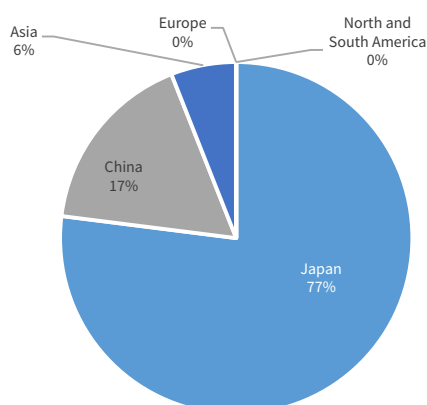
■ Volume of New Water Used



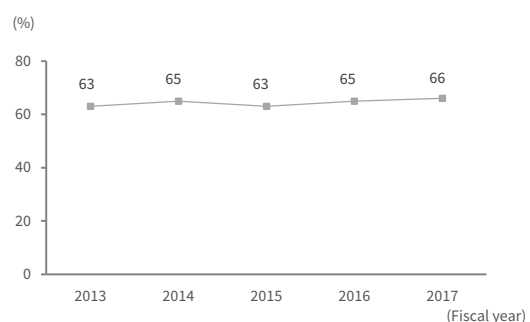
■ Water Intensity (Baseline Year: Fiscal 2012)



■ New Water Used by Region (Fiscal 2017)



■ Water Recycling Rate



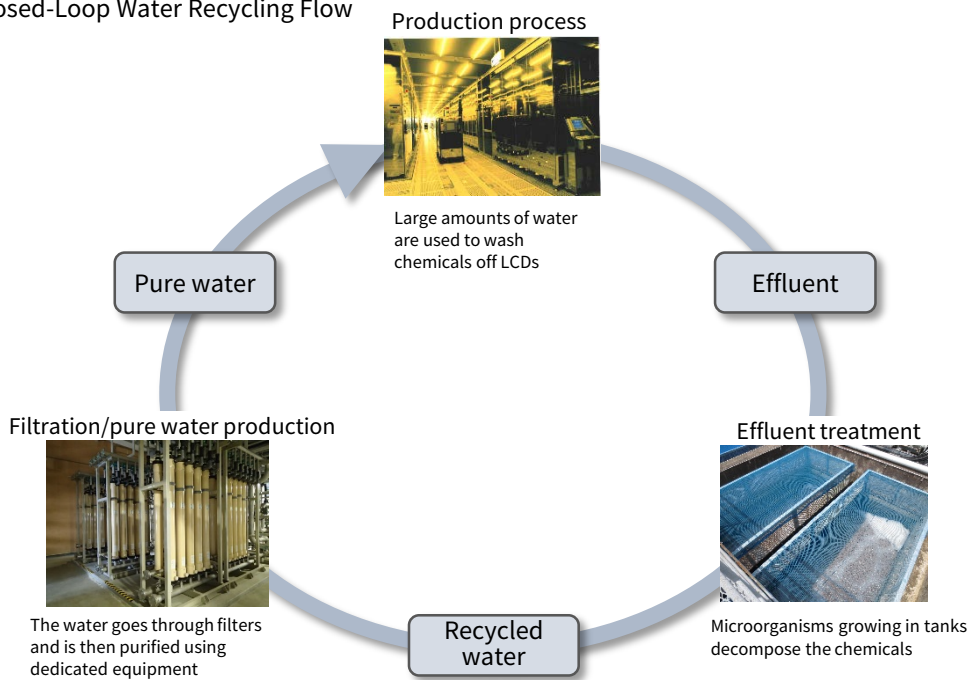
Environmental Initiatives: Product Manufacture

< Case Study >

Closed-Loop Water Recycling System

The Mie Plant (Taki District, Mie Prefecture) has adopted a closed-loop water recycling system to repeatedly recycle the large amount of water used for the production of LCDs. The water discharged from the production process contains chemicals that must not be released from the plant untreated. All of this water is collected and goes through steps such as biofiltration (the natural decomposition of chemicals using microorganisms) and filter filtration, before being purified with dedicated equipment. The resulting water is used repeatedly in production.

■ Closed-Loop Water Recycling Flow



< Case Study >

Reducing the Amount of New Water by Using Rainwater Tanks (Malaysia)

SMM, Sharp’s production base in Malaysia, is using rainwater tanks to reduce the amount of tap water it requires. Large tanks installed in the plant collect rainwater that is used in, for example, air conditioner cooling equipment and restrooms. This effort has reduced consumption of tap water by about 7,000 m³ a year.



Rainwater tanks installed in the plant

Environmental Initiatives: Product Manufacture

Effective Management of Chemical Substances and Risk Management

Sharp meticulously controls chemical substances used at its plants. When introducing new chemical substances and new handling equipment, Sharp uses its own process assessment system^{*1} to evaluate the hazardousness of these substances and establish safety measures. To ensure employees' safety and to minimize the environmental impact, employees handling these substances go through regular education and drills. They are also given regular health checks. Sharp also monitors and reports the release and transfer of chemical substances covered by the Japanese PRTR Act^{*2}. Of these PRTR chemicals, 16 were handled in Japan and nine overseas^{*3} in quantities of 500 kg or more by one or more plants during fiscal 2017.

^{*1} An in-house system for preliminarily assessing and confirming the safety, environmental load, and other factors of chemical substances and their handling equipment.

^{*2} PRTR: Pollutant Release and Transfer Register. A system that mandates the collection and dissemination of information, such as the amount of harmful chemicals discharged and transferred.

^{*3} Sharp defines target substances based on laws in Japan.

PRTR Data for Japan (Fiscal 2017)

(kg)

PRTR No.	Chemical	Amount Handled	Amount Discharged		Amount Transferred		Amount Consumed		Amount Removed
			Into Atmosphere	Into Public Water Areas	Into Sewerage	Into Waste, etc.	Contained in Products	Recycled	
20	2-Aminoethanol	3,022,704	404	168	0	29,245	0	2,613,581	379,306
44	Indium and its compounds	12,391	0	0	0	3,346	372	8,673	0
71	Ferric chloride	99,421	0	0	0	0	0	82,800	16,621
82	Silver and its water-soluble compounds	550	0	0	0	0	532	18	0
232	N, N-dimethyl formamide	13,317	0	0	0	0	0	0	13,317
272	Copper salts (water-soluble, except complex salts)	11,217	0	0	0	10,680	0	0	537
343	Pyrocatechol	1,694	0	0	0	1,694	0	0	0
368	4-tert-butylphenol	714	12	0	0	702	0	0	0
374	Hydrogen fluoride and its water-soluble salts	529,729	427	0	0	405,128	0	71,833	52,341
401	1,2,4-benzenetricarboxylic 1,2-anhydride	675	0	0	0	32	643	0	0
405	Boron compounds	1,606	0	0	0	1,445	0	161	0
407	Polyoxyethylene alkyl ether	1,060	0	28	0	142	0	0	890
412	Manganese and its compounds	22,121	0	0	0	0	22,121	0	0
438	Methylnaphthalene	19,081	95	0	0	0	9,351	0	9,635
448	Methylenebis (4,1-phenylene) diisocyanate	411,770	0	0	0	0	411,770	0	0
453	Molybdenum and its compounds	10,541	0	0	0	1,911	316	8,314	0
Total		4,158,591	938	196	0	454,325	445,105	2,785,380	472,647

Overseas PRTR Data (Fiscal 2017)

(kg)

PRTR No.	Chemical	Amount Handled	Amount Discharged		Amount Transferred		Amount Consumed		Amount Removed
			Into Atmosphere	Into Public Water Areas	Into Sewerage	Into Waste, etc.	Contained in Products	Recycled	
31	Antimony and its compounds	4,170	0	0	0	42	2,776	1,352	0
104	Chlorodifluoromethane	25,425	87	0	0	0	25,338	0	0
291	1,3,5-tris (2,3-epoxypropyl)-1,3,5- triazine-2,4,6 (1H,3H,5H)-trione	3,463	0	0	0	35	2,305	1,123	0
300	Toluene	5,068	5,068	0	0	0	0	0	0
355	Bis (2-ethylhexyl) phthalate	11,600	0	0	0	10,600	0	1,000	0
384	1-bromopropane	1,883	1,256	0	0	0	0	0	627
392	N-hexane	1,143	1,143	0	0	0	0	0	0
413	Phthalic anhydride	2,409	0	0	0	24	1,604	781	0
448	Methylenebis (4,1-phenylene) diisocyanate	2,425,403	0	0	0	18,373	2,407,030	0	0
Total		2,480,564	7,554	0	0	29,074	2,439,053	4,256	627

Environmental Initiatives: Product Manufacture

Managing Environmental Load into Air and Water Areas

Sharp properly manages pollutants that affect air and water quality by establishing voluntary standards that are stricter than those set forth in laws and regulations and stricter than those agreed upon with local communities. It also actively conducts risk communication with local communities.

< Case Study >

Analyzing Plant Wastewater Samples (Fukuyama Plant)

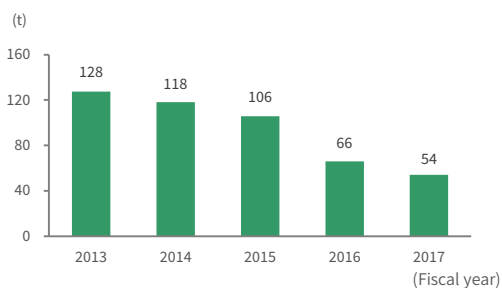
Sharp's Fukuyama Plant (Fukuyama, Hiroshima Prefecture) collects and analyzes plant wastewater in collaboration with local residents and Fukuyama city officials as part of its risk communication activities. The collected wastewater undergoes individual analyses by the three parties. The results are then shared and used for an exchange of views. This also provides Sharp the opportunity to foster good relations with all relevant parties.



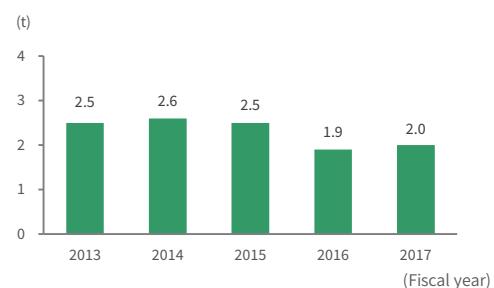
Wastewater sampling and analyses by three parties

Atmospheric Emissions in Japan

■ NOx Emissions

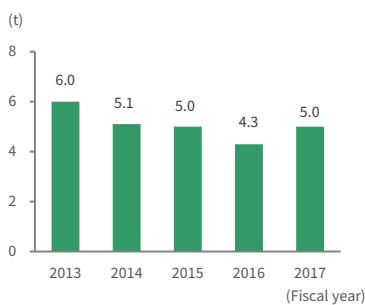


■ SOx Emissions

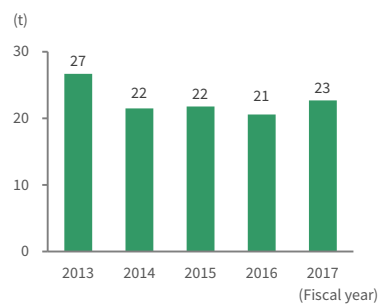


Emissions into Water Areas in Japan

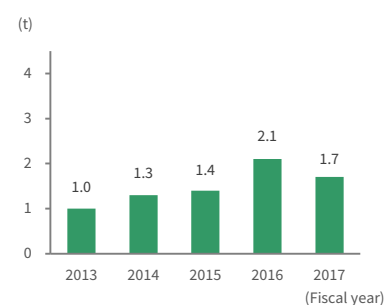
■ COD (Chemical Oxygen Demand)



■ Nitrogen Pollutant Load



■ Phosphorous Pollutant Load



Risk Management of Soil and Groundwater Pollution

Sharp set in-house standards in 1999 to minimize the risk of environmental pollution and accidents caused by chemical substances. It also strives to prevent such incidents from occurring by taking multi-layered leakage prevention measures at facilities that handle chemical substances. For plants where chlorine solvent contamination was found in the past, Sharp regularly notifies local government authorities and others of the cleanup progress.

Environmental Initiatives: Logistics

Reducing Logistics-Related Environmental Impact

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<p>■ Energy intensity: Improve by average of 1% each year (average for fiscal 2013 to 2017)</p>	<p>■ Energy intensity: Improved by average of 11.1% each year (average for fiscal 2013 to 2017)</p>	<p>★★★</p>
<p>Priority Objectives for Fiscal 2018</p>	<p>■ Energy intensity: Improve by average of 1% each year (average for fiscal 2014 to 2018)</p>	

Reducing the Environmental Impact of Logistics in Japan

Sharp observes a rule set forth in the Japanese Act on the Rational Use of Energy (Energy Conservation Act) that requires specified shippers to reduce energy intensity by 1% or greater per year. All Sharp Group companies in Japan are working to reduce the environmental impact and costs associated with logistics by improving transport and load efficiencies and by shifting to environmentally friendly modes of transport (modal shift)^{*1}.

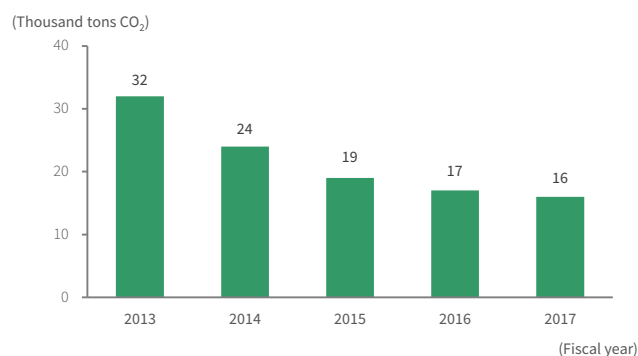
In fiscal 2017, Sharp Group greenhouse gas (GHG) emissions from shipping activities in Japan were 16 thousand tons (down 5% from the previous fiscal year). For Sharp Corporation, energy intensity was improved by an average of 11.1% for the most recent five years (fiscal 2013 to 2017). Sharp is steadily shifting from conventional trucking to more environmentally friendly modes of transport, such as shipping (non-international coastal trading vessels) and rail (Japan Railways containers). And, by unloading imported goods at harbors chosen for their proximity to their main sales locations, Sharp is reducing re-transport between distribution centers. These efforts enable Sharp to reduce the environmental impact of its distribution activities.

For shipment of mobile phones, Sharp has been certified with an Eco Rail Mark^{*2} by the Ministry of Land, Infrastructure, Transport, and Tourism and the Railway Freight Association.

*1 To shift freight transport from conventional trucking to more environmentally friendly modes of transport, such as rail and shipping.

*2 Products or companies that use a certain amount of rail transport for freight are given Eco Rail Mark certification. The mark is used on items such as product packaging and brochures to inform the public that a company uses environmentally friendly modes of transport.

■ GHG Emissions from Freight Shipments (Japan)



Proactive use of freight rail transport for mobile phone shipments

Environmental Initiatives: Logistics

Reducing the Environmental Impact of International Logistics

Sharp has a wide range of initiatives to reduce the amount of GHGs that are emitted as a result of international shipping. The company is reducing airfreight volume as it switches to environmentally friendly modes of transport, and it is also improving load efficiency. Further, it is reviewing shipping routes and switching to harbors that are closer to the final destinations for products. Sharp is also switching to suppliers located closer to its factories.

In fiscal 2017, GHG emissions from international transport by Sharp reached 186 thousand tons CO₂, up 34% over the previous fiscal year, on the back of increased sales of LCD TVs in China.

< Case Study >

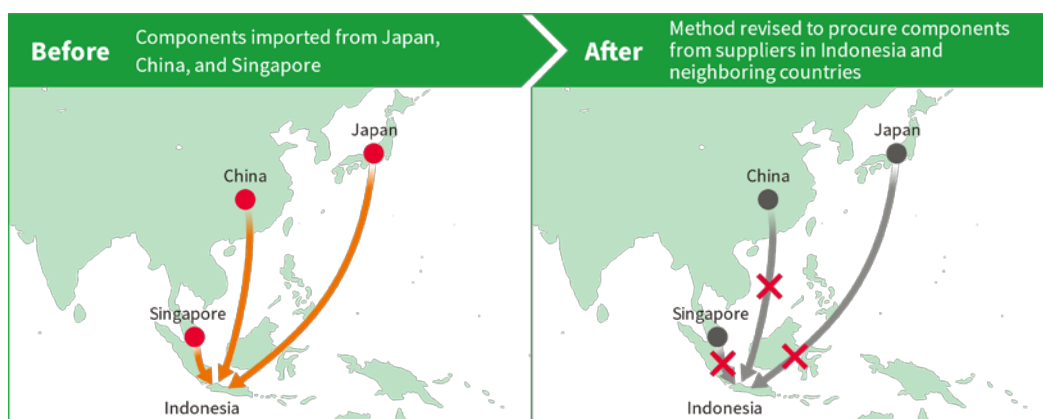
Reducing the Environmental Impact of Distribution (Indonesia)

At SSI, Sharp's Indonesian production base, low-impact transportation initiatives are being undertaken. In order to export products and import components, SSI is using schedule management to minimize the number of trips that need to be made by trucks between the airport and the plant and increasing load efficiency by carrying the maximum volume of cargo each trip. Also, whereas SSI traditionally received almost all of the components it uses from Japan, China, and Singapore, it is now switching over to domestic procurement or procurement from suppliers in neighboring countries as a way of lessening environmental impact and distribution cost as well as contributing to the local economy.



Minimizing the number of truck trips

■ Component Procurement Switchover



Environmental Initiatives: Recycling

Expanding the Recycling of Used Products

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<ul style="list-style-type: none"> Improve and expand high-efficiency recycling line for flat-panel TVs; raise value of recovered materials 	<ul style="list-style-type: none"> Introduced color sorting machinery into flat-panel TV recycling line; improved efficiency of non-ferrous metal sorting and quality of recovered materials 	★★
<p>Priority Objectives for Fiscal 2018</p>	<ul style="list-style-type: none"> Achieve high efficiency from washing machine recycling line 	

Recycling 4 Kinds of Home Appliances in Japan (Air Conditioners, TVs, Refrigerators, and Washing Machines)

As a member of the B Group^{*1} for home appliance recycling, Sharp has constructed—and is operating—a highly efficient recycling system consisting of 19 recycling plants in Japan. In fiscal 2017, Sharp collected 1.6 million units (up 7% over the previous fiscal year) of the four types of appliances covered by the Home Appliance Recycling Act. The processed and recycled weight amounted to 51,000 tons (up 4% over the previous fiscal year). For all four appliance types, the B Group’s rate of recycling exceeded the legally stipulated levels.

*1 The B Group consists of Sharp Corporation, Sony Corporation, Hitachi Appliances, Inc., Fujitsu General Ltd., Mitsubishi Electric Corporation, and other companies.

Sharp Corporation’s Recycling Results for 4 Home Appliance Types (Fiscal 2017)

Note: All figures are rounded off to the nearest whole number.

	Unit	Air Conditioners	CRT TVs	Flat-Panel TVs	Refrigerators/ Freezers	Washing Machines/ Dryers	Total
Units collected from designated collection sites	Thousand units	243	139	461	374	380	1,600
Processed and recycled units	Thousand units	242	136	449	369	373	1,570
Processed and recycled weight	Tons	9,872	3,263	8,582	22,615	14,192	58,526
Recycled weight	Tons	9,333	2,493	7,709	18,069	13,202	50,808
Recycling rate	%	94	76	89	79	93	—
Legally required recycling rate	%	80	55	74	70	82	—

Improving Recycling Efficiency

Sharp and Kansai Recycling Systems Co., Ltd.^{*2} have joined forces to make effective use of resources and to improve recycling efficiency, and this includes introducing color sorting machinery into the flat-panel TV recycling line in fiscal 2017. The flat-panel TVs are crushed, and magnets are used to sort the ferrous materials from the non-ferrous materials, after which, instead of the typical sorting by hand of copper and aluminum from the non-ferrous materials, the color sorting machinery now automates this process. This automation contributes to greater operational efficiency and an improvement in quality in recovered materials.

*2 A consumer electronics recycling company established in Japan with joint investment from Sharp, Mitsubishi Materials Corporation, and four other companies.



Color sorting machinery for sorting out copper and aluminum

Reusing and Recycling Copiers and MFPs in Japan

Sharp is reusing and recycling copiers and MFPs collected both through Sharp distribution channels and through common industry channels. The company is also collecting used toner cartridges and remanufacturing them to the same quality standard of new products, thus assuring that customers will always get the same high quality. Sharp designs its toner cartridges for easy reuse and recycling. This ensures durability and reduces the amount of time needed to reprocess used cartridges.

Environmental Initiatives: Recycling

< Case Study >

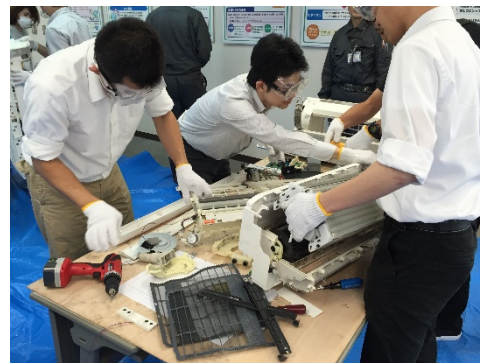
Design-for-Recycling Training

Sharp is committed to developing and designing products with consideration for their easy collection and recycling. To promote easy-to-recycle product design, Sharp has been conducting design-for-recycling training, aimed mainly at personnel responsible for product planning and design. In fiscal 2017, 25 people took part in training for recycling LCD TVs and home appliances.

This training program incorporated lectures, factory tours, and exchanges with employees involved in dismantling operations. Participants received hands-on experience in dismantling actual products collected at the recycling plant. At the end of the training, participants shared their views, mentioning any difficulties they encountered when dismantling products and discussing how products could be made easier to recycle. The knowledge and experience gained during this training is reflected in the planning and design of new products.



Lecture on design-for-recycling



Hands-on training in dismantling an air conditioner



Hands-on training in dismantling an LCD TV



Participants touring a recycling line

Environmental Initiatives: Recycling

Environmental Technologies That Contribute to a Sustainable, Recycling-Based Society

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<ul style="list-style-type: none"> Develop technology for the practical application of recycled plastic material (recovered composite PP^{*1}) 	<ul style="list-style-type: none"> Established and put into practical use technologies for improving the properties of, and performing repeated recycling of, recycled plastic material (recovered composite PP). Adopted for refrigerator handgrips 	★★
<p>Priority Objectives for Fiscal 2018</p>	<ul style="list-style-type: none"> Develop technology that adds extra value (flame retardancy) to recycled plastic material (recovered composite PP) 	

*1 In addition to the main materials, polypropylene (PP) recovered from components with large amounts of metallic, different resin, etc., additives.

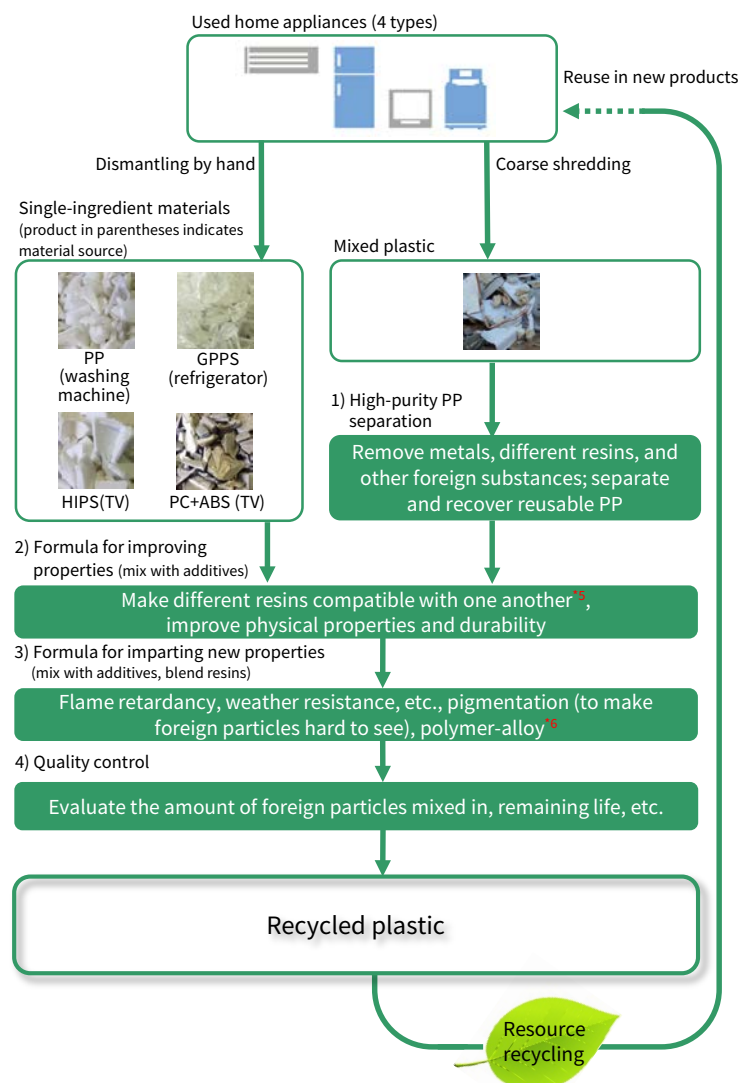
Expanding Closed-Loop Plastic Material Recycling Technology

Sharp and Kansai Recycling Systems Co., Ltd.^{*2} jointly developed closed-loop plastic material recycling technology. This technology enables the repeated recovery of plastic from used consumer electronics products as well as the reuse of that plastic in parts of new consumer electronics products for the Japanese market. This technology has been in practical use since fiscal 2001 and the enactment of the Act on Recycling of Specified Kinds of Home Appliances (Home Appliance Recycling Act) in Japan.

The development of new technologies has enabled Sharp to increase the volume of recyclable plastic year after year. These technologies include the following: (1) a technology for recovering high-purity PP (polypropylene) from mixed plastic parts and parts that contain metal; (2) a technology for improving the properties of recovered PP/HIPS^{*3} and PC+ABS^{*4} materials so that their quality is on a par with that of new materials; (3) a technology that gives materials added value by imparting properties such as flame retardancy, weather resistance, and an antibacterial property, with the aim of expanding applications for recycled plastic; (4) a quality-control technology for ensuring optimal quality.

Thanks to the development and introduction of these technologies that integrate everything from recovery to quality control, Sharp has been able to establish closed-loop material recycling to produce high-grade recycled plastic.

Recycling Plastic Recovered from the 4 Types of Home Appliances



*2 A consumer electronics recycling company established in Japan with joint investment from Sharp, Mitsubishi Materials Corporation, and four other companies.

*3 High-impact polystyrene (general-purpose polystyrene [GPPS] given impact resistance by adding rubber).

*4 A polymer alloy of polycarbonate and acrylonitrile, butadiene, and styrene (a resin given new properties as a result of mixing in several types of polymers).

*5 Blending multiple types of resins which are uniformly and finely dispersed into one another.

*6 A resin given new properties as a result of mixing in several types of resins.

Environmental Initiatives: Recycling

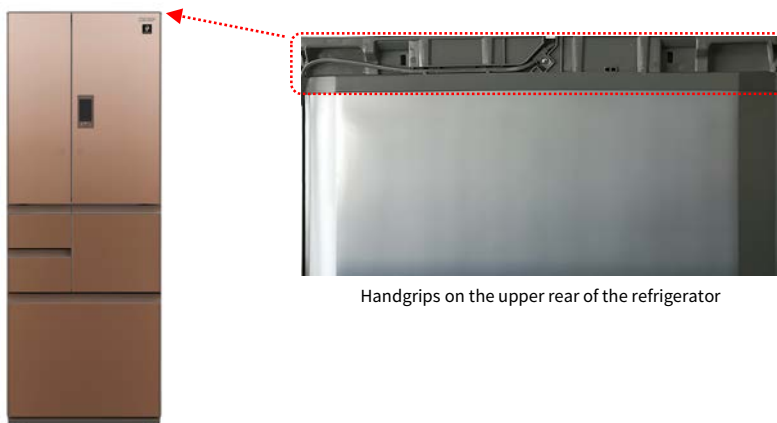
Developing New Recycled-Plastic Material

In fiscal 2017, Sharp developed recycling technology that enables composite materials primarily composed of PP to be recovered from used home appliances, to separate and recover the useful PP in a highly pure form from those materials, and then to reuse this PP in components for new home appliances.

Prior to fiscal 2017, composite materials primarily composed of PP were difficult to recycle, due to the fact that they were mixed together with multiple types of plastic and metals. They were thus used in fuels, miscellaneous goods, daily necessities, and other such items. With this new technology, composite materials primarily composed of PP are finely crushed, and the differences in physical properties (specific weight, shape, etc.) of the materials contained in the crushed powder are used to separate them so that the useful PP can be recovered in a highly pure form. Sharp then uses its proprietary property-improvement technology to process the recovered PP into a material whose properties (physical properties, durability) are equivalent to those of new plastic materials. Further, foreign particle control technology is used to enable some of this material to be used in external components, thereby expanding the scope of application of recycled plastic materials. These recycled plastic materials are put to use in refrigerators sold in Japan as products conforming to the Home Appliance Recycling Act.

For the future, Sharp is developing new technology based on this technology with the aim of giving recycled plastic materials high added value (e.g., flame retardancy, weather resistance, etc.).

■ Example of Recovered Composite PP Recycled Plastic Usage



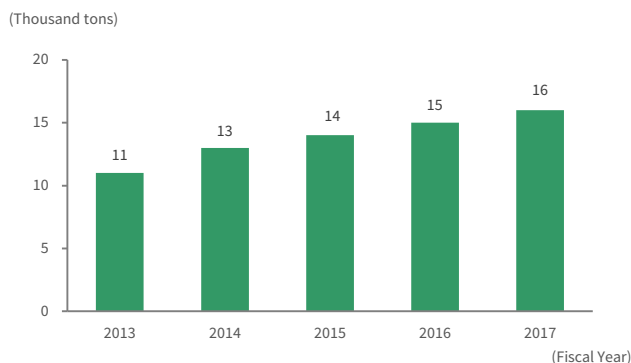
Amount of Recycled Plastic Used and Examples of Recycled Plastic Use

■ Amount of Recycled Plastic Used

In order to increase the amount of recycled plastic that it uses, Sharp is working to expand the number of plastic varieties and Sharp product applications for which recycled plastic is used.

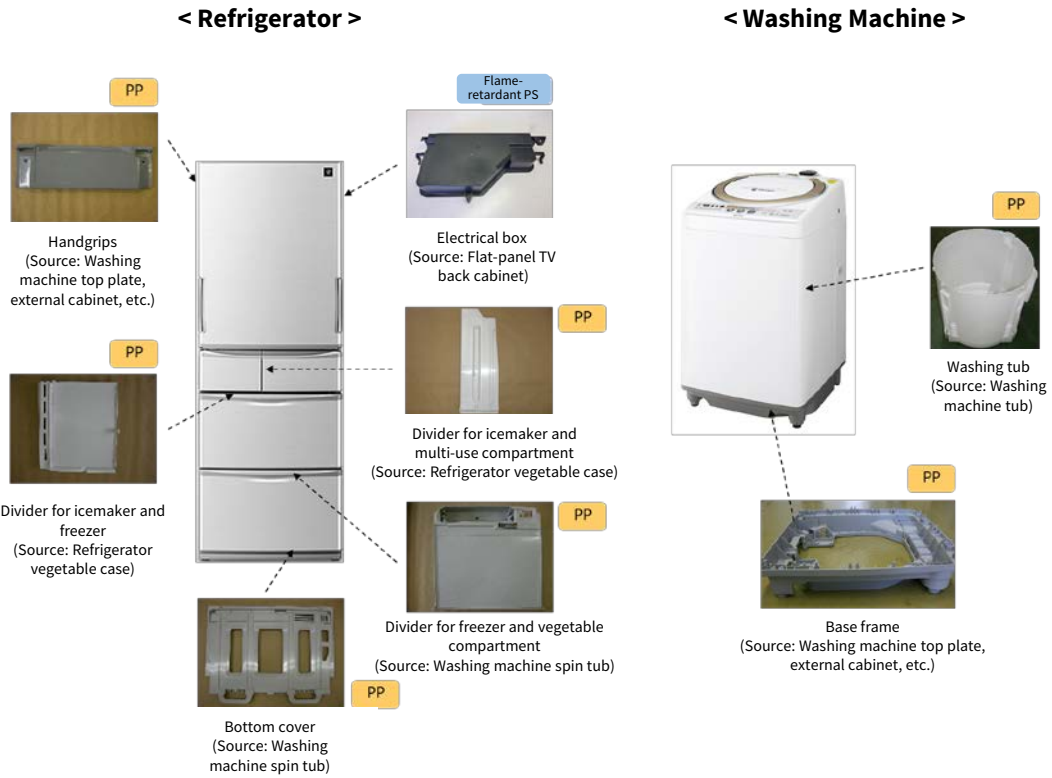
In fiscal 2017, the cumulative total (from fiscal 2001 to 2017) for closed-loop material recycling technology-derived plastic usage reached 16,000 tons.

■ Amount of Recycled Plastic Used (Cumulative)



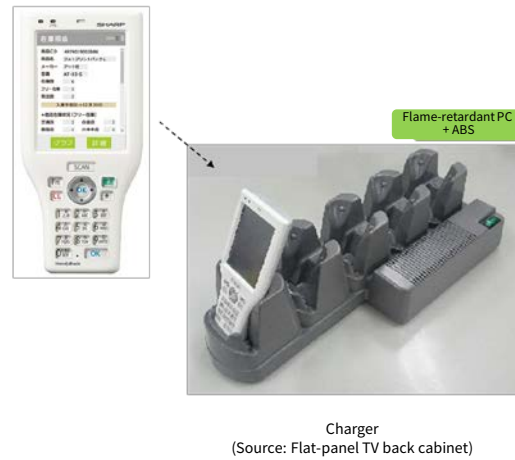
Environmental Initiatives: Recycling

Examples of Recycled Plastic Use



< In-Vehicle Plasmacluster Ion Generator >

< Professional-Use Handheld Device (Handy Terminal) >



Environmental Initiatives: Recycling

Sharp Awarded the 44th (Fiscal 2017) Iwatani Naoji Memorial Award

Sharp was awarded the 44th (fiscal 2017) Iwatani Naoji Memorial Award sponsored by the Iwatani Naoji Foundation for its “Remaining Life Assessment Technology^{*1} for Home Appliance Waste Polypropylene Recycled Material Using the Degradation Induction Period^{*2} Method.”



From left, top row: Research collaborators IoT Health and Environment Systems BU Domestic CS Control Group (Recycling Technology) Engineer Tatsuya Arai, Subsection Chief Akihide Toda, Section Chief Yoko Fukushima (Representative Researcher), Engineer Hiromitsu Ueda, Kansai Recycling Systems Co., Ltd. President Hideyuki Tanba (on loan from Sharp)

A certificate and medal were presented to Sharp on March 7, 2018 at an awards ceremony held at the Industry Club of Japan’s hall in Tokyo’s Chiyoda Ward.

The aim of the Iwatani Naoji Memorial Award is to encourage scientific and technological developments that improve the lives of people in Japan. It does this by recognizing outstanding energy and environment-related technological developments, which also contribute to industrial growth.

Sharp’s “Remaining Life Assessment Technology for Home Appliance Waste Polypropylene Recycled Material Using the Degradation Induction Period Method” quickly performs degradation diagnosis and life improvement assessment of used plastic recovered from home appliance recycling plants. With the development of this technology, the time required for preparation of recycled plastic has been reduced from several months to around 30 minutes, thereby facilitating the mass production of recycled plastic while also ensuring stability of quality.

This award represents positive recognition of the fact that this technology will help in opening up the path for Japan to achieve its crucial goal of turning waste plastic into a recyclable resource.

^{*1} See the following page for more information.

^{*2} Period over which additives are effective and being consumed.



Iwatani Naoji Memorial Award medal

Environmental Initiatives: Recycling

Remaining Life Assessment Technology Using the Degradation Induction Period Method

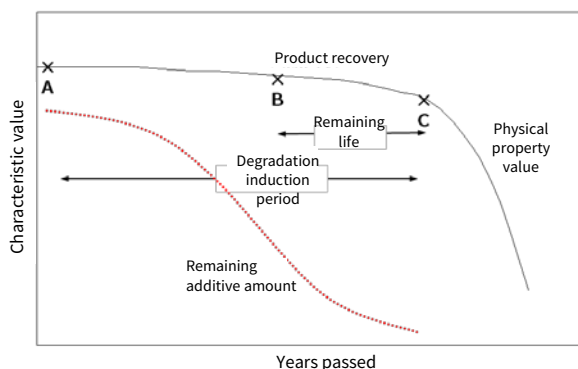
While Sharp was working to develop closed-loop material recycling technology for plastic, with the goal of making it possible to reuse all used plastic, attention was paid to the additives that are put into plastic to prevent their degradation over time from oxidation and other processes. These additives undergo oxidation themselves in order to prevent oxidation of the plastic. Also, because the additives degrade before the plastic does (see the figure below), the remaining life of the plastic is determined by the amount of additives which remain in them. In other words, by figuring out how much of an additive has been lost, it is possible to know how much new additive should be put into the plastic to enable it to be reused as component materials in home appliances.

However, performing the measurements and assessments needed to figure this out via conventional methods can take roughly two months, thus rendering such an approach impractical.

Now, thanks to cumulative research and development based on the mass of data and expertise built up over many years, Sharp has succeeded in developing a technology to allow accurate measurement and assessment to be carried out in a mere 30 minutes.



This technology, therefore, makes it possible to reuse used plastic repeatedly.

■ Deterioration of Plastic with Time



Source: Journal of the Society of Rubber Science and Technology, Japan

■ Measurement and Assessment of Recycled Plastic

	Testing Method	Temperature	Assessment Time
New assessment method	 Test sample: Pellet Remaining life calculated from correlation of the amount of additive consumption and the degradation induction period	210 degrees Celsius Resin can be heated to a temperature below its thermal decomposition	<u>20-30 min.</u>
Conventional method	 Test sample: Test piece Accelerated testing at high temperature; physical properties measured after arbitrary amount of time	140-150 degrees Celsius Temperature at which test piece does not change shape	<u>Approx. 2 months</u> Accelerated testing: Equivalent to 10 years ≒ 1,200 hours (50 days) + Physical properties measurement: 1 day

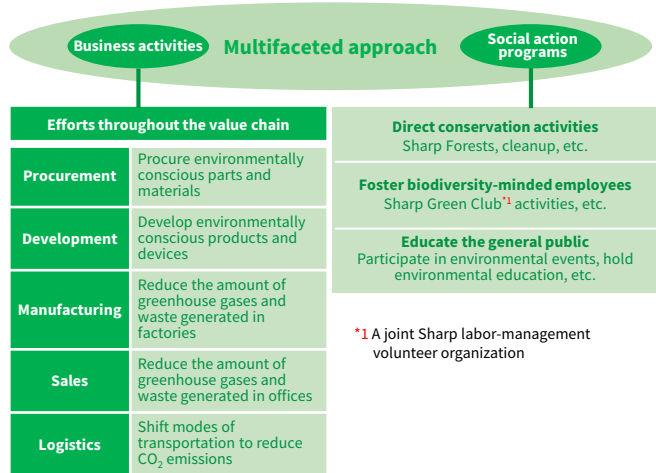
Environmental Initiatives: Biodiversity Protection / Communication with Local Communities

Protecting Biodiversity

Biodiversity Protection through Business and Social Action Programs

While Sharp’s business activities impact biodiversity, the company also benefits from the resources that biodiversity provides. That is why the Sharp Group is carrying out a multifaceted approach in which it protects biodiversity through business activities and social action programs at worldwide bases. Based on the Sharp Group Policy on the Sustainable Support of Biodiversity, Sharp formulated the Sharp Biodiversity Initiative in fiscal 2009. The Initiative describes biodiversity in an easy-to-understand manner, and it outlines concrete measures for business activities and social action programs that take biodiversity into account.

Sharp’s Efforts for Protecting Biodiversity



< Case Study >

Preserving Biodiversity (Tenri Plant)

The Tenri Plant (Tenri, Nara Prefecture) is working to preserve biodiversity of the kofun (ancient burial mounds) area on its grounds. Sasayuri (*Lilium japonicum*) is a rare wildflower, which has diminished in number due to overdevelopment and overharvesting. It was found growing wild on the burial mounds. Sharp has been carrying out regular maintenance of the area, such as removing withered bamboo and weeds, to nurture and protect the flowers.



Maintenance of the area where wild sasayuri grow



Sasayuri (“bamboo lily”), a rare wildflower

Environmental Initiatives: Biodiversity Protection / Communication with Local Communities

< Case Study >

Overseas Biodiversity Protection Activities (SATL)

SATL, a production subsidiary in Thailand, is protecting biodiversity in partnership with the local community. Activities to protect biodiversity and preserve the environment involve the release of artificially reared birds and the release of cultivated fish into local waterways. In fiscal 2017, approximately 20 birds and 10,000 fish were returned to nature.



Releasing birds



Releasing fish

Communication with Local Community

Sharp is committed to communicating with local communities through plant tours, planning of and participation in events, and providing environmental education. The Mie Plant (Taki District, Mie Prefecture) and the Kameyama Plant (Kameyama, Mie Prefecture) jointly participated in the Summer Eco-Fair 2017, an environmental event organized in part by the Mie Prefecture Environmental Study Information Center, exhibiting on the theme of preservation of endangered species. In addition, the SATL production base in Thailand held environmental lectures at an aquarium for local students, where employees taught about environmental issues such as biodiversity protection.



Joint exhibition on the preservation of endangered species



Environmental education at an aquarium

In fiscal 2017, the Mie Plant received an Excellence Prize in the environmental report category of the 21st Environmental Communication Awards, sponsored by Japan's Ministry of the Environment and the Global Environmental Forum. This was the fourth consecutive year (seventh time) for the Mie Plant to receive the award.



Award ceremony



Social Initiatives



2.45%
Employment Rate of the Disabled in Japan (as of June 2018)



94.9%
Percentage of customers giving high marks to service personnel



16,386 persons
Number of participants in environmental conservation activities in fiscal 2017

- > [Fair and Impartial Procurement Activities](#) P. 54
- > [Quality / Customer Satisfaction](#) P. 57
- > [Communication with Shareholders and Investors](#) P. 68
- > [For Local Communities](#) P. 71
- > [Efforts Related to Human Rights](#) P. 74
- > [Human Resource Development / Personnel System](#) P. 76
- > [Diversity Management](#) P. 78
- > [Activities to Support Work-Life Balance](#) P. 82
- > [Promoting Occupational Safety and Health](#) P. 84

Social Initiatives: Fair and Impartial Procurement Activities

Determining Procurement from the Standpoint of Providing Equal Opportunity and Fair Evaluation

Sharp aims for sustainable growth and mutual prosperity with all of its suppliers. To this end, Sharp emphasizes maintaining impartiality and fairness in all purchasing activities and chooses who it will procure local parts, materials, and equipment from by providing Japanese and overseas suppliers with an equal opportunity to do business with Sharp. This opportunity includes a fair evaluation of whether a supplier meets Sharp’s requirements for quality, standards, and performance.

Close Communication and Mutual Understanding

To ensure sustainable growth and mutual prosperity with its suppliers, Sharp is going beyond initiatives related to the quality, price, and delivery of parts and materials. Sharp is also seeking to fulfill its social responsibilities over a wide range of areas across the entire supply chain. These areas include product safety, environmental protection, human rights and labor, and health and safety.

Sharp’s basic concept, concrete policies, and requests to suppliers pertaining to procurement activities are set out in the Basic Purchasing Principles. And in the Sharp Supply-Chain CSR Deployment Guidebook, which is based on the Basic Purchasing Principles, Sharp clearly declares the implementation of CSR initiatives—such as complying with all laws, regulations, and social standards, and protecting the environment—as one of its procurement policies. Specifically, these include elimination of child/forced labor and discrimination, as well as compliance with labor-related laws, such as those dealing with employees’ right to organize and their right to collective bargaining. Sharp also asks its business partners to actively promote such activities.

To deepen the understanding between Sharp and its business partners, Sharp communicates actively with supplier sales representatives on a daily basis.

Basic Purchasing Principles

Basic Procurement Concept

1. Sharp’s procurement activities are conducted in an open and impartial manner, with a fair evaluation given to suppliers in and outside Japan.
2. Sharp will comply with all laws and regulations, and achieve mutual prosperity with suppliers.
3. Sharp will fulfill social responsibility such as the conservation of the environment through its procurement activities.
4. Sharp pursues optimal quality and cost to the fullest.

Basic Purchasing Principles Requests to Suppliers

- ① Compliance with laws and social standards that are applicable in countries and regions where suppliers do business
- ② Promotion of sound business operations
- ③ Consideration for the environment
- ④ Securing optimal quality and cost
- ⑤ Stable supply of parts and materials
- ⑥ Leading technology
- ⑦ No disclosing of confidential information

- Compliance with laws related to manufacture and distribution of material
- Compliance with laws related to labor
- Compliance with laws related to health and safety and arrangement of proper labor environment
- Prohibition of child and forced labor
- Prohibition of discrimination based on race and sex and respect for the dignity of each employee
- Compliance with environmental laws
- Prohibition of bribery and unfair acts

Related information: > [Basic Purchasing Principles](#)

Related information: > [CSR procurement](#)

Social Initiatives: Fair and Impartial Procurement Activities

Promoting CSR across the Entire Supply Chain

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-evaluation*
<ul style="list-style-type: none"> Revamp supply chain CSR management system and test it at certain production bases 	<ul style="list-style-type: none"> Trial introduction of two types of supply chain CSR management systems completed at production bases in China and ASEAN countries (8 sites) 	★★
<p>Priority Objectives for Fiscal 2018</p>	<ul style="list-style-type: none"> Full-scale roll out and expansion of supply chain CSR management systems 	

Promoting Awareness among Suppliers and Conducting Surveys

To help its suppliers gain an understanding of Sharp's CSR philosophy and to promote CSR-related measures among suppliers, Sharp has formulated and distributed its own Sharp Supply-Chain CSR Deployment Guidebook. The Basic Parts Purchase Agreement also includes articles on CSR initiatives, based on the guidebook, that suppliers are requested to follow.

Furthermore, Sharp is raising the level of CSR initiatives throughout the supply chain. Sharp continues to conduct CSR/green procurement surveys of suppliers, based on the guidebook. Suppliers who are given low marks are requested, among other efforts, to submit a corrective action plan.

In fiscal 2015, Sharp fully revised the content of its guidebook to conform with the global-standard EICC^{*1} Code of Conduct. Since then, it has revised the guidebook as needed in line with revisions to the RBA^{*1} Code of Conduct. In this way, Sharp strives to comply with the increasingly sophisticated international standards for CSR.

In fiscal 2017, Sharp continued to implement CSR/green procurement surveys of some business units. At the same time, it completed the trial introduction of two types of supply chain CSR management systems^{*2} at production bases in China and ASEAN countries^{*3} in an effort to assess the status of suppliers' CSR and other initiatives in a more multifaceted and efficient manner.

In fiscal 2018, Sharp will begin the full-scale roll out of supply chain CSR assessments using the new systems. It plans to expand the adoption of these systems to other regions and other sites.

Going forward, Sharp will continue to further promote CSR initiatives throughout the entire supply chain.

*1 Responsible Business Alliance. An influential international organization promoting CSR in the supply chain. It changed its name from Electronic Industry Citizenship Coalition (EICC) in October 2017.

*2 The two systems are (1) Sharp Supplier SER Management System and (2) Scorecard System.

*3 The eight production bases are (1) SOCC (China), (2) SATL (Thailand), (3) SMTL (Thailand), (4) SOEM (Malaysia), (5) SMM (Malaysia), (6) SEID (Indonesia), (7) SSI (Indonesia), and (8) SPC (Philippines).

Social Initiatives: Fair and Impartial Procurement Activities

Responsible Mineral Procurement Initiatives

Sharp respects the spirit of the Dodd-Frank Wall Street Reform and Consumer Protection Act of the United States, which came into effect in July 2010. It makes it a basic policy to not procure or use conflict minerals, and it takes appropriate action in line with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

Basic Policy on Conflict Minerals

For the purpose of not being complicit in the human rights abuses and environmental disruptions, etc. associated with conflicts in the Democratic Republic of the Congo, any raw materials, parts, products, etc. which include any conflict minerals mined illegally in the Democratic Republic of the Congo or in an adjoining country shall neither be procured nor used.
In addition, appropriate measures, etc. to that effect shall be taken.

Since fiscal 2012, Sharp has been participating in the Responsible Minerals Trade Working Group of the Japan Electronics and Information Technology Industries Association (JEITA). In this capacity, Sharp has been collaborating with the RMI^{*1} and with the Japanese automotive industry to conduct conflict mineral surveys, as requested by client companies. Surveys use the industry-standard conflict minerals reporting template (CMRT^{*2}).

Recently, the scope of minerals and regions subject to the responsible mineral procurement demanded of companies is expanding. This is due to legal frameworks such as the Dodd-Frank Act and the EU's new Conflict Minerals Regulation. Also, from a CSR perspective, there is a need to include issues such as child labor and environmental destruction at mining sites.

In fiscal 2017, Sharp explained recent trends at a conflict minerals survey briefing for suppliers sponsored by JEITA's Responsible Minerals Trade Working Group, which Sharp has continued to take part in, and it requested suppliers' cooperation with the survey. Sharp also enhanced the precision of surveys by continuously improving its own survey system.

In fiscal 2018 again, Sharp will continue to expand and improve due diligence efforts in line with the OECD guidance, while taking into consideration new trends in mineral procurement so that it can procure minerals in a responsible manner.

*1 RMI: Responsible Minerals Initiative. JEITA is a partner association.

*2 CMRT is a free, standardized reporting template developed by the RMI.

Related information: > [Dealing with the Conflict Minerals Issue](#)

Audits and Education to Ensure Full Compliance with the Subcontract Act

To comply with the Subcontract Act (Act Against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors) in Japan, Sharp Corporation and its affiliated companies implement compliance checks and in-house education on an ongoing basis.

As in past years, Sharp encouraged internal voluntary reporting of compliance issues and further strengthened precautionary measures to prevent the recurrence of problems. In-house companies, business units, material purchase departments, Head Office groups, and domestic affiliated companies conducted self-audits in which they checked how well they were complying with the Subcontract Act.

Sharp also held internal training sessions for domestic affiliated companies and performed periodic internal audits to raise awareness among employees of the importance of complying with the Subcontract Act.



An in-house Subcontract Act training session

Social Initiative: Quality

Ensuring Quality and Safety

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<ul style="list-style-type: none"> Expand basic training on quality and strengthen efforts to improve product usability 	<ul style="list-style-type: none"> Carried out systematic basic training on quality on a regular basis (39 courses, approx. 6,900 participants), fostered quality thinking, and boosted quality-related techniques Improved thoroughness of usability testing, and teamed up with public institutions on joint research that quantitatively tests ease of use, thus contributing to improved products 	★★
Priority Objectives for Fiscal 2018	To achieve quality that meets our customers' needs, Sharp will tackle issues across the entire company and improve our quality-related technical capabilities.	

Basic Stance and Vision on Quality

To gain customer trust and improve customer satisfaction, the Sharp Group meets customer needs and demands and offers high-quality products and services that are safe, reliable, and environmentally friendly.

Quality Philosophy

To respond to society's needs and make products that satisfy our customers, we keep the slogan "Quality First" in mind at all times.

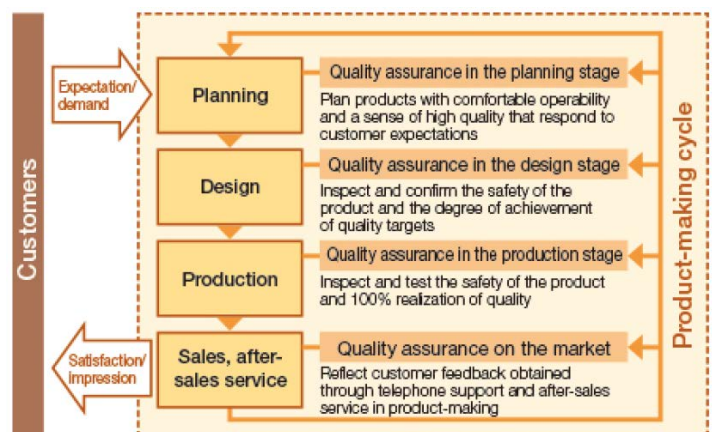
Quality Slogan

Quality First in Heart and mind

Quality Assurance System

Sharp specifies the quality levels it provides to customers, thus ensuring that all employees in product planning, design, production, sales, and after-sales service aim for the same targets in their ongoing pursuit of quality improvement.

In addition to all Sharp plants in Japan, all production sites of consolidated subsidiaries in Japan and abroad have obtained the international ISO 9001 certification of quality management. They have also adopted the SHARP Corporation Standards—the Sharp Group's proprietary quality assurance standards. And they conduct various quality assurance activities at each stage of the product-making process, from planning, design, and manufacture to testing/evaluation and marketing.



Social Initiative: Quality

Quality Policy

In line with the Quality Policy stipulated in Sharp Corporation’s company rules (Quality Assurance Basic Rules), the Sharp Group makes and implements quality plans aimed at achieving the quality targets it has set.

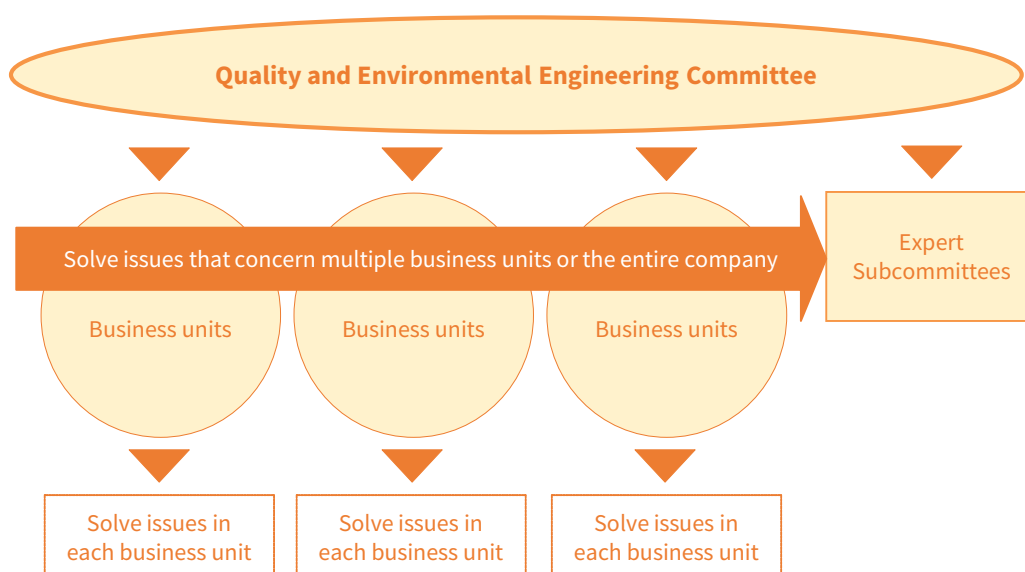
Quality Policy

Provide high quality and attractive products that customers can continuously use them with safety and satisfactory.

- (1) Observe laws and regulations and place top priority on safety and reliability.
- (2) Pursue convenience and comfort from ease of use.
- (3) Squarely face with voice of the customer and reflect it in products

Efforts to Improve Quality

The Sharp Group has established the Quality and Environmental Engineering Committee as a new way to advance quality and environmental technologies. The committee’s aim is to share information related to quality and environmental issues arising in new products, and lead company-wide research and improvement efforts among business groups in order to assure quality in new technology areas such as the 8K ecosystem, AIoT, and robotics. Within the Quality and Environmental Engineering Committee are Expert Subcommittees made up of experts from the various business units. These Expert Subcommittees work towards prompt solutions to issues that concern multiple business units or the entire company.

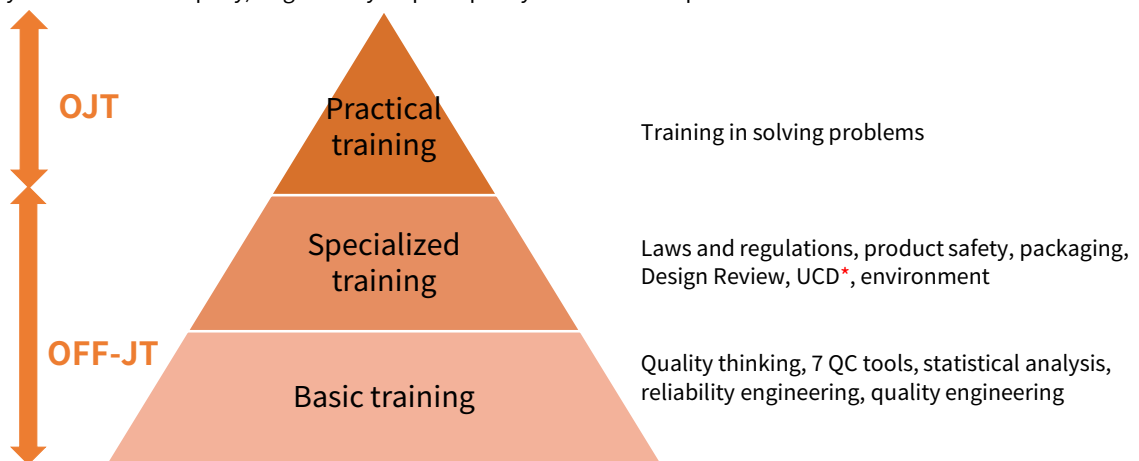


Social Initiatives: Quality

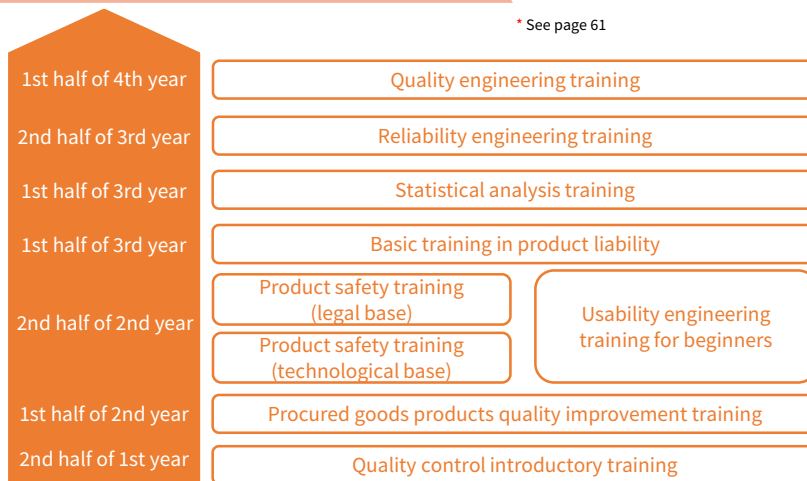
Fostering Quality Experts

Based on its Quality Philosophy, Sharp works to foster quality thinking and boost quality-related techniques by carrying out systematic quality-related education with the aim of making products that customers can use with safety and peace of mind.

In particular, the company is stepping up basic training through programs that allow young employees (in their first four years with the company) to gradually acquire quality-related techniques.



* See page 61



System for practical QC training

Training takes a number of forms depending on the goals of participants. Besides an e-learning program and videoconference classes that help maximize learning efficiency, there are group training courses to improve practical skills, which are carried out at various company factories.

In fiscal 2017, there were 39 courses in quality training, with a total of approximately 6,900 participants.



Group exercise

Training form	No. of courses	No. of participants
E-learning	20	5,886
Group training	19	1,021
Total	39	6,907

Fiscal 2017 training courses and number of participants

Social Activities: Quality

Ensuring Product Safety

Sharp Voluntary Product Safety Action Policy

Keenly aware that product safety assurance is the most important aspect of a company’s business and one of its social responsibilities, Sharp strives to provide customers with safety and peace of mind. It does this by prioritizing the safety of the products it manufactures and sells and by making safety-related information public. To this end, the company has formulated voluntary action guidelines on product safety in efforts to earn an even higher level of trust from society.

Efforts to Ensure Product Safety

Sharp strives to ensure its products are safe, abiding not just by laws, regulations, and official standards of countries around the world, but also by its own in-house safety standards that it has set for all its products. To ensure complete and high levels of safety even in cases where unforeseen defects arise, the company has in-house standards that stipulate items like fireproof construction and testing for abnormal movement. These standards are revised as needed and are taught to all relevant employees in design, quality, and other departments so that they are understood and followed thoroughly.

Sharp also has a safety assurance promotion system through which it implements prompt and appropriate emergency responses in the case of product defects.

Sharp will continue to step up efforts to promptly respond to social changes and legal revisions regarding product safety so that customers can use Sharp products with peace of mind.



An in-house training session

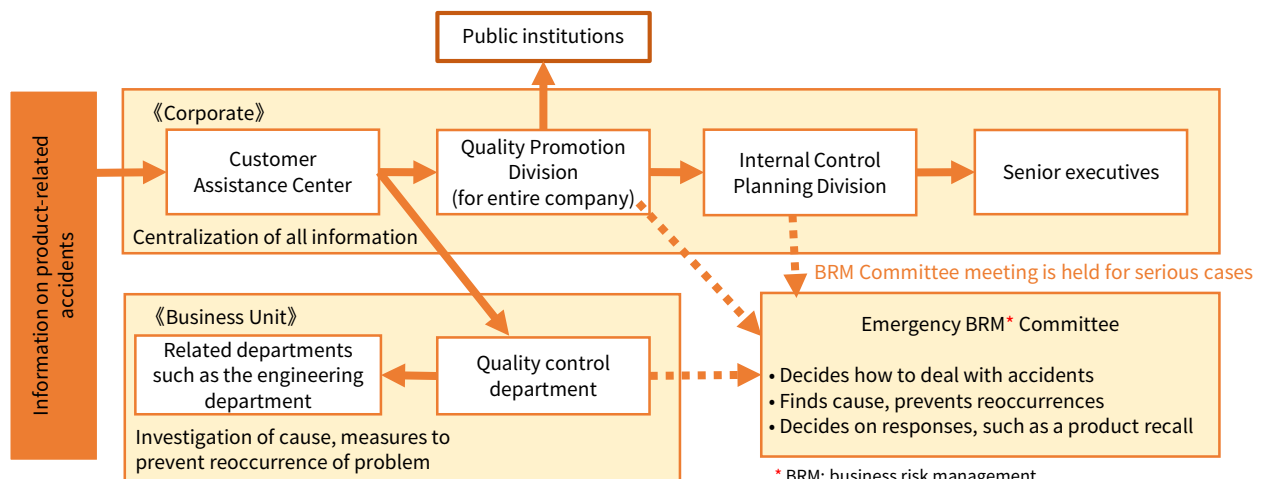
Information Disclosure and Response When Problems Occur

If an accident caused by a Sharp product occurs on the market, the company immediately gathers information on the accident and analyzes it to determine the cause. If it is determined that there is a risk of harm or damage to the customer, information is promptly disclosed via media such as newspapers and the Sharp website, and all appropriate measures are taken to ensure the safety of customers.

For major product-related accidents stipulated in the Consumer Product Safety Act, the Sharp website has a list of information on major product-related accidents for which the cause is thought to be the product itself. There are 21 such cases.*

* Number in fiscal 2017

Flow for dealing with product-related accidents



Social Initiatives: Quality

Making Easier-to-Use Products

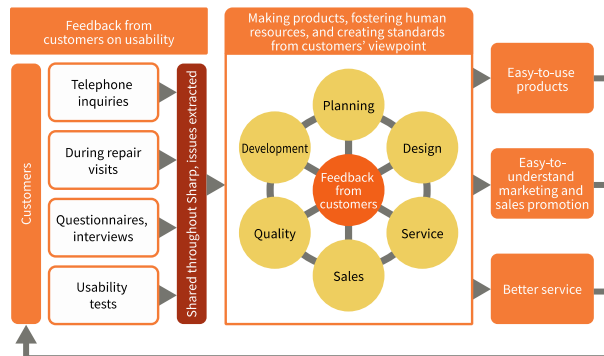
Practicing User-Centered Design

Sharp practices user-centered design (UCD) in order to deliver products that customers find easier to use. UCD is a concept—as outlined in the international ISO 9241-210 standard—to deliver products and services that satisfy customers by seeing things from their perspective, understanding their needs, and reflecting them in product design. Sharp has its own UCD Basic Policy and the Eight Principles of UCD based on this concept and shares them across the all Sharp Group. Sharp investigates customers' latent dissatisfaction and needs as part of its product development process and reflects those findings in the specifications and design of its products. By repeatedly going through evaluations and improvements, Sharp is bringing forth products and services that customers find easy to use and attractive.

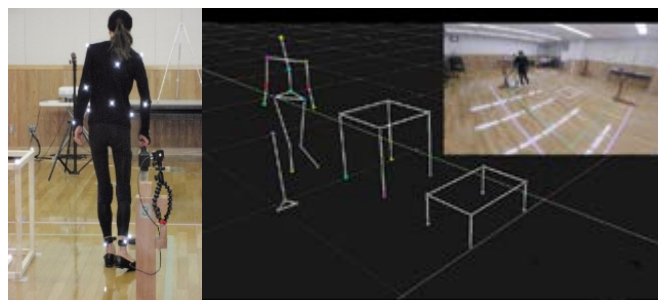
Investigating Customers' Dissatisfaction and Needs and Reflecting Them in Product Design

In user-centered design (UCD), Sharp collects customer feedback on ease of use through various methods and applies it to product manufacturing. Sharp collects information on how customers interact with products via telephone inquiries to the Customer Assistance Center, repair visits, questionnaires, interviews, and usability tests (observing how customers actually use Sharp products).

This information is shared among the relevant departments, while protecting the anonymity of the customer. The feedback is used to understand, from a user's point of view, challenges related to planning, design, development, quality, sales, service, and other areas.



Conducting a usability test on a washing machine



Analyzing the movements involved in using a vacuum cleaner

< Voice >

Comments from Participants in Usability Tests

- I'm pleased for this opportunity for consumers like us to express our opinions and requests. It was a meaningful day. (Customer, woman in her 50s)
- It's great that we were able to quickly confirm, via a usability test, the effectiveness of improvements we made to an existing model. I now know that we must continue to conduct such tests. (Sharp product planning staff member)

Social Initiatives: Quality

Efforts in Universal Design

In line with the aforementioned UCD Basic Policy, Sharp also takes into consideration universal design, so many more customers—regardless of nationality, age, gender, or disability—can comfortably use its products and services. As of June 2018, 159 models of 14 Sharp products had been recognized as universal design home appliances by the Association for Electric Home Appliances in Japan.

To continue the aforementioned activities company-wide, Sharp works extensively to foster human resources through training. The company is striving to raise awareness of universal design among employees by having them take part in activities in which able-bodied people experience what it is like to live like a physically disabled person.



Experiencing what it feels like to be physically disabled, with the cooperation of volunteers from Sakai Municipal Social Welfare Council



Participants discuss how to make a Sharp product easier to use while one person wears an eye mask to simulate vision impairment

<Case Study>

Sharp Corporation Receives Grand Prize in Good Practice Awards from Japan Ergonomics Society

The Sharp cordless canister vacuum cleaner won the Grand Prize in the Good Practice Awards from the Japan Ergonomics Society. The previous model of the vacuum cleaner, which plugged into a socket, had user issues that were solved through questionnaires and usability tests. The result was the new cordless model, which is also the world's lightest*. The judging panel lauded Sharp for using ergonomics to develop a vacuum cleaner that reduces the burden on users.

Sharp will continue to create products boasting greater ease of use.



The Good Practice Awards logo



Prize certificate



Commemorative plaque



The award-winning cordless canister vacuum cleaners (EC-AS Series, EC-AP Series)



* For power-brush-type, canister vacuum cleaners. Standard weight (total of main unit, battery, hose, pipe, and suction part): 2.9 kg. According to Sharp. As of February 5, 2018.

Social Initiatives: Customer Satisfaction

Enhancing Customer Satisfaction

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<ul style="list-style-type: none"> ■ Increase customer satisfaction by enhancing service technical skills and customer response skills 	<ul style="list-style-type: none"> ■ Enhanced service technical skills and communication skills <ul style="list-style-type: none"> ▶ Japan <ul style="list-style-type: none"> • Held training based on actual customer response cases at service bases nationwide • Held 3rd Service Technical Skills Contest ▶ Overseas <ul style="list-style-type: none"> • Held air conditioner service training in Egypt • Developed smartphone service apps and promoted them in ASEAN 	★★
<p>Priority Objectives for Fiscal 2018</p>	<ul style="list-style-type: none"> ■ Increase customer satisfaction by improving service quality 	

Basic Stance on Customer Satisfaction

< Providing Products and Services That Offer Peace of Mind and Satisfaction >

Sharp always thinks from the customer’s point of view and, as a rule, develops and provides products and services with the customer in mind. To ensure that customers can continue to use Sharp products for many years with peace of mind, Sharp strives to improve its products and its sales and after-sales services by reflecting the opinions of customers.

Sharp will continue to pursue customer satisfaction (CS) so that customers choose Sharp now, next time, and every time.

CS Slogan

Building a relationship of trust through quality and service so that customers choose Sharp now, next time, and every time.

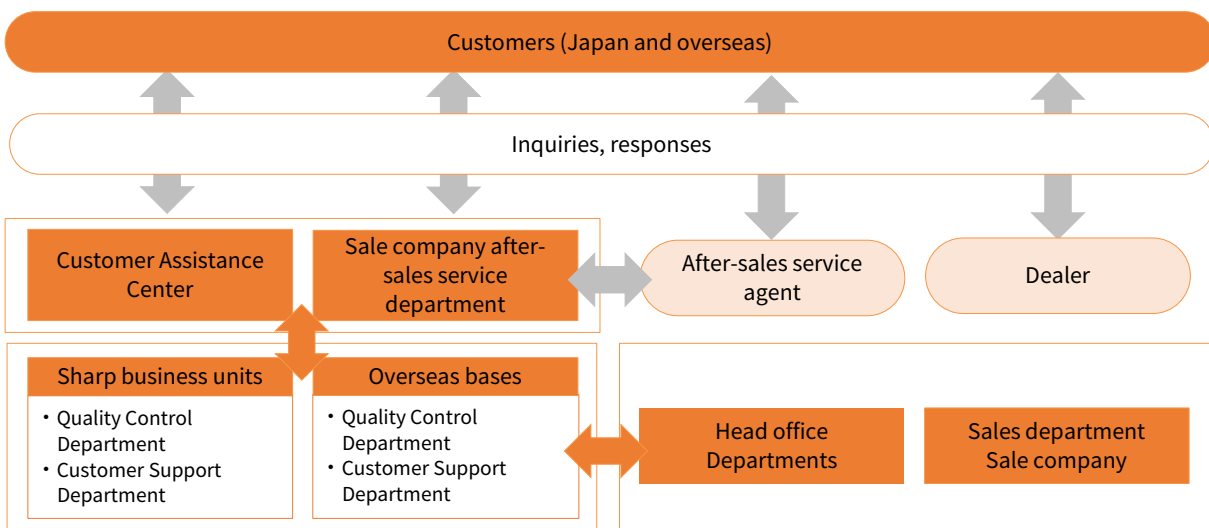
Related information: > [Sharp Group Charter of Corporate Behavior](#)

After-Sales Service Promotion System

Sharp has an after-sales service system that can handle all kinds of customer inquiries, whether it’s instructing them how to use products or repairing products that are not working properly.

Centered on Sharp Corporation’s Customer Assistance Center and after-sales service departments at Sharp sales companies, the entire Sharp Group worldwide collaborates to provide high-quality, fast, accurate and friendly service that truly satisfies customers.

Flowchart



Social Initiatives: Customer Satisfaction

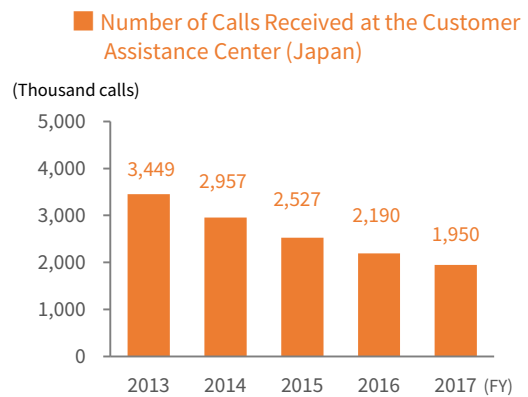
Aiming for Customer-Oriented Services

< Customer Assistance Center >

At the Customer Assistance Center, which responds to a wide range of customer inquiries concerning Sharp products from even before purchase, Sharp is constantly striving to be customer-oriented in its response.

To ensure that Sharp is able to understand the customers' situation and their problems with the product or service, and is able to respond promptly and accurately to customer inquiries, staff at the Customer Assistance Center undergo training that involves using the actual products. Staff are also trained to speak to customers in an easy-to-understand manner.

Subjects that are difficult to convey by telephone (such as air conditioner filter maintenance) can be referenced on the Sharp website, where instructional videos are available. These and other ongoing efforts to improve access to service assistance ensure that customers have a wealth of information and help regarding after-sales service.



Repair and Servicing System (in Japan)

Repair of Sharp products in Japan is carried out by Sharp Marketing Japan Corporation, Customer Service Company. The entire company works together to satisfy customers and realize its slogan: “Seeing customers smile makes us happy.” To this end, service engineers, who work out of 93 service bases*1 all over Japan and are familiar with local customers, provide after-sales service that truly satisfies customers.

Service inquiries are accepted every day of the year*2. The company puts special effort into prompt response to problems with home appliances that are indispensable to daily life.

*1 As of June 2018

*2 Business days vary from region to region

Enhancing Service Technical Skills (in Japan)

< Case Study >

Service Technical Skills Contest

Sharp Marketing Japan Corporation, Customer Service Company works constantly to enhance its service technical skills so that it can respond to problems with customers' products as quickly as possible.

In fiscal 2017, the company held the 3rd Technical Skills Contest, where 14 participants who had qualified through regional contests pitted their service technical skills against one another. There were two events testing abilities starting with basic repair skills: participants repaired Healsio ovens individually and drum-type washer/dryers in pairs. They were given an overall score that took into account the accuracy and safety of their work, the time it took, and their knowledge of home appliances.

The relationship with customers does not end once they buy a product and take it home; it goes on for as long as they use the product. Sharp must endear itself to customers so that they use products for a long time and want to purchase Sharp again. This spirit is always front and center in the minds of service engineers—the front line of Sharp's relationship with customers.



Service Technical Skills Contest

Social Initiatives: Customer Satisfaction

Enhancing Service Technical Skills (Overseas)

< Case Study >

Air Conditioner Service Training for Dealers in Egypt

For five days from October 29 to November 2, 2017, Sharp Marketing Japan Corporation, Customer Service Company held air conditioner installation and service training for 12 service personnel from Sharp dealers in Egypt. To expand air conditioner sales will require training service engineers to acquire outstanding installation-related skills. The training in Egypt included lectures on the meticulous service techniques practiced in Japan, and classes on a wide range of other topics, including new product information, the proper use of service tools, and ensuring the safety of service engineers.

The 12 service engineers who underwent Sharp training then went on to become instructors in training for approximately 750 employees of dealers and service subcontractors.

Sharp will continue to boost the quality of after-sales service by holding service training at overseas bases whenever possible.



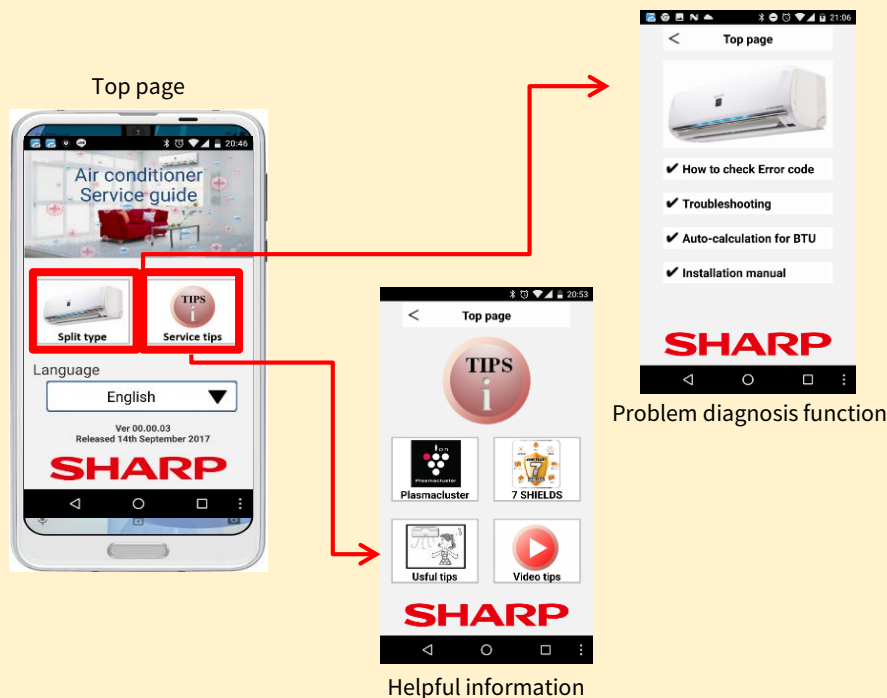
Service engineers training session

< Case Study >

Service App for Air Conditioner Repairs

Sharp developed a smartphone app for assisting with fast and accurate repair of inverter air conditioners in ASEAN countries. The app has a diagnostic function that recognizes product error codes.

The app also has a function that helps service engineers and installation staff give simple explanations to customers on Plasmacluster ion technology and “7 Shields,” a designation for products that have passed seven reliability tests ensuring high quality. The app works in four languages: English, Indonesian, Vietnamese, and Thai.



Social Initiatives: Customer Satisfaction

Applying Customer Feedback to the Making of Products

Sharp strives to provide customers with truly satisfying experiences by manufacturing products that reflect their opinions.

The company does this by analyzing the many inquiries and opinions the Customer Assistance Center receives to find out exactly what customers are unsatisfied with. This information is then shared with the product development departments. In addition, members of the Customer Assistance Center join in the product development process to ensure customer opinions are reflected in products.

As one example of how a product was improved, customers using a large Sharp refrigerator said it was difficult to put in and take out items from the door shelves. In response, the door shelves, previously vertically straight up, were made at a slant so that items leaned outwards. This made the refrigerator more convenient for users.

Sharp will continue to have the Customer Assistance Center, the gateway to customer opinions, work closely with product development departments in order to provide the market with products that bring increasingly greater satisfaction.

■ Refrigerator improved by reflecting customer opinions



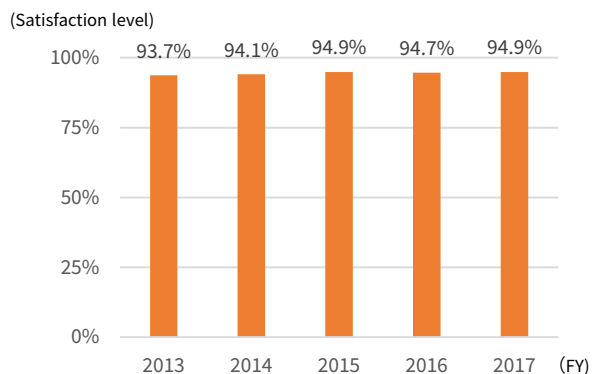
The door shelves were made at a slant so that items leaned outwards

Social Initiatives: Customer Satisfaction

Customer Questionnaire (in Japan)

In Japan, all customers who are visited by service engineers are given a postcard questionnaire on which they can write their opinions on the entire service process, from initial inquiry and appointment to product repair. To make it easier for customers to respond to surveys, in fiscal 2017 the questionnaire was made available on the Sharp website. More than 300,000 customer opinions and inquiries are received every year. Sharp will continue to pass on customers' valuable opinions to relevant company departments, closely analyze problems, and use the information gathered to improve service mechanisms and manufacturing.

Percentage of customers giving high marks to service personnel



< Voice >

After-Sales Service Puts a Smile on Customers' Faces (in Japan) — Passing Down Skills from One Sharp Generation to the Next

The backbone of Sharp's after-sales service is made up of the service engineers of Sharp Marketing Japan Corporation, Customer Service Company. These engineers didn't acquire their skills overnight—their transformation into first-rate service engineers that customers rely on was a long process that involved gradually building up experience.

When service engineers show up at a customer's home, they are rarely greeted by smiles. Many customers are dissatisfied and complain, and they ask why the product broke down. Some of them even speak angrily and scold the service engineers, both on the phone and at their homes. In response, service engineers must listen sincerely to customers. If the customer requests repair, it is important to fix the problem the same day. During and after repair, the service engineer converses with the customer and puts them at ease.

I would like to pass down this sort of attitude and other things I have learned from my predecessors to younger staff so that each successive generation of service engineers offers progressively high levels of service.

Service engineers who learn from their more experienced colleagues in turn pass on their knowledge to new service engineers. I believe this results in progressively higher ratings of Sharp service from customers, and subsequently more and more people who want to buy Sharp products.

I hope that service engineers will polish their skills and tackle their work with more confidence in order to provide customers with even greater satisfaction. This is the most important thing they can do.



Tatsuya Hayakawa
Section Chief, Kyoto Service Center,
Sharp Marketing Japan Corporation, Customer Service Company

Social Initiatives: Communicating with Shareholders and Investors

Communicating with Shareholders and Investors

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<ul style="list-style-type: none"> Enhance IR communications by holding management briefings 	<ul style="list-style-type: none"> Besides holding management briefings, stepped up IR communications by holding analyst briefings for each financial results announcement and continuing to take part in conferences 	★★
<p>Priority Objectives for Fiscal 2018</p>	<p>Enhance IR communications by senior executives by having them participate whenever possible in conferences</p>	

IR Disclosure Policy

Sharp discloses information to shareholders and investors in a fair and timely manner, in order to increase trust in its IR activities and to ensure a proper assessment of Sharp's corporate value in capital markets.

Sharp discloses information designated under the laws and regulations of Japan, and it also adequately discloses other information, such as business overview, management policy, and strategy.

Related information: > [IR disclosure policy](#)

Communicating with Investors

In fiscal 2017, besides holding one-on-one meetings with institutional investors and analysts when necessary, Sharp held Medium-Term Management Plan briefings and financial results briefings. In addition, Sharp senior executives took part whenever possible in conferences sponsored by securities companies, where they summarized financial results and explained and answered questions on management improvement measures and progress.

Sharp will continue to use IR activities to help a wide range of investors gain a proper understanding of Sharp's management situation and its efforts towards achievement of the Medium-Term Management Plan. At the same time, senior executives will lead more thorough IR activities.

General Shareholders' Meeting, Management Briefings

Sharp holds ordinary general shareholders' meetings earlier than many other Japanese companies, sends out early notices of the meetings, and discloses notices of the meetings before they are sent out. It also strives to create an environment that enables shareholders to easily exercise their voting rights. Efforts include participating in an electronic voting platform (for institutional investors), posting English notices about the meetings on its website, and allowing shareholders to exercise voting rights via the Internet.

Also, after the general shareholders' meetings, Sharp holds management briefings to exchange opinions with shareholders on topics which are not limited to the agenda of the general shareholders' meetings.

Social Initiatives: Communicating with Shareholders and Investors

IR Activities Designed to Meet the Diversifying Needs of Investors

In response to diversifying needs, Sharp makes every effort to properly disclose a wide range of information promptly and accurately, and enhance its communication with shareholders and investors in Japan and overseas.

Detailed financial information is disclosed in IR documents that include summaries of financial results and presentation materials. In addition to updating and expanding information on the IR website, Sharp has improved the site's search capability and viewability. Sharp also strives to provide information needed by investors in a timely manner, including financial materials and reports given at briefings. There is also a site for individual investors, where they can easily access relevant information presented in an easy-to-understand format.



Investor relations website

2017 Annual Report

Related information: > [Investor relations](#)
> [Annual Report](#)

Preventing Insider Trading

Sharp has effectuated regulations restricting insider trading, established strict controls on undisclosed material facts (“insider tips”), and instituted restrictions on the buying and selling of stocks and other securities. Sharp has also implemented in-house training related to insider trading. This training includes, among other approaches, an educational campaign on the corporate intranet that targets Sharp Group employees in Japan with the aim of preventing insider trading by Sharp Group directors, audit and supervisory board members, executive officers, or employees.

In addition, given the importance of disclosure, when “material facts specified in the Financial Instruments and Exchange Act” and/or “important company information that should be disclosed in a timely manner as stipulated by securities exchanges” is generated, Sharp does its utmost to promptly disclose and publicize the relevant details. Further, regarding media and analyst coverage, Sharp deals with it while fully honoring the spirit of disclosure and remaining attentive so as not to violate insider-trading regulations.

Social Initiatives: Communicating with Shareholders and Investors

ESG* Indexes

* Environmental, Social and Governance

As of June 2018, Sharp is included in the following ESG indexes

FTSE4Good Developed Index

An ESG index that assesses corporate social responsibility initiatives from an ESG perspective, operated by FTSE International Ltd., part of the London Stock Exchange Group. Sharp has been included in this index for nine consecutive years.



FTSE Blossom Japan Index

An ESG index reflecting the performance of Japanese companies that demonstrate strong ESG practices, operated by FTSE. The Government Pension Investment Fund (GPIF) of Japan uses this as a stock index for ESG investments. Sharp has been included in this index for two consecutive years.



MSCI ESG Leaders Indexes

ESG indexes operated by MSCI Inc. They are composed of companies that have the highest ESG rated performance in each sector.



2018 Constituent
MSCI ESG
Leaders Indexes

MSCI Japan ESG Select Leaders Index

An ESG index for Japanese companies operated by MSCI. The GPIF uses this as a stock index for ESG investments.



2018 Constituent
MSCI ジャパンESG
セレクト・リーダーズ指数

Morningstar Socially Responsible Investment Index (Japan)

Developed jointly by Morningstar Japan K.K. and the Center for Public Resources Development, a specified non-profit organization. An ESG index that uses the stock prices of a select 150 companies assessed to have a social focus from the 4,000 public listed companies in Japan. Sharp has been included in this index since 2003.



Social Initiatives: For Local Communities

Promoting Social Contribution Activities

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<ul style="list-style-type: none"> Continue to have the Sharp Group participate in local social contribution activities 	<ul style="list-style-type: none"> Total number of participants in environmental conservation activities: 16,386 (including family members), total number of activities: 1,015 Career education provided to total of 1,389 students at special- needs schools 	★★
<p>Priority Objectives for Fiscal 2018</p>	Continue to collaborate with local communities to solve social problems, with employees taking the lead role in conducting activities that benefit communities	

Based on its business philosophy of “contributing to the culture, benefits, and welfare of people throughout the world,” Sharp contributes to regional advancement as a member of the communities where it does business. To help foster a relationship of mutual prosperity with communities, Sharp employees take the initiative in carrying out voluntary and ongoing social contribution activities centered on the environment, education, and social welfare.

Environmental Conservation Activities

Sharp carries out activities led by Sharp Green Club (SGC)*, a volunteer organization composed of Sharp and its labor union. This group pursues environmental conservation activities at business sites and sales and service bases in Japan. SGC’s activities include the following: Sharp Forest projects conducted in seven areas to protect biodiversity and regenerate *satoyama* (areas that lie between the foot of a mountain and arable land); and efforts to protect wetlands in accordance with the Ramsar Convention at four locations. In addition, Sharp bases carry out activities such as cleanups and tree-planting in collaboration with locals as part of their commitment to communities. In fiscal 2017, 1,015 such activities were conducted with the participation of a total 16,386 people (Sharp executives, employees, family members, and others). Looking ahead, Sharp will continue to contribute to local areas by conducting community-based activities.

* A joint Sharp labor-management volunteer organization that conducts activities such as forest preservation and cleanups.

< Case Study >

The Wakakusayama Green Campaign is held every year for the purpose of protecting Japanese silver grass, a plant native to Mount Wakakusayama in Nara, and ensuring succession of the Yamayaki (mountain burning), a traditional event held every January. In the fiscal 2017 edition held on May 20, employees of the three plants in Nara Prefecture (in Nara, Katsuragi, and Tenri) and their families (132 people), joined others in planting Japanese silver grass and pruning Chinese tallow trees.



On November 26, 2017, a group of 21 Sharp volunteers consisting of employees and their families carried out reed cutting on the banks of a freshwater pond as part of efforts to protect the Yatsu-higata tidal flat in Chiba Prefecture.

Reeds absorb nitrogen and phosphorous in the water as they grow; they can reach almost two meters high in just two or three months. Leaving the reeds that provide a windbreak and nesting place for birds but cutting others prevents the tidal flat from eutrophication.



Social Initiatives: For Local Communities

Educational Support Activities for Disabled Children

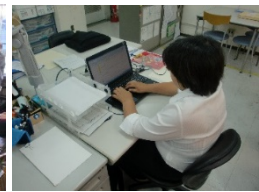
Since fiscal 2012, Sharp Corporation and Sharp Tokusen Industry Co., a Sharp special subsidiary*, have been working together to enhance career education activities conducted at special-needs schools and similar organizations for disabled students. The aim of these activities is to foster a career-minded perspective in students and motivate them to work and achieve greater self-sufficiency. The following courses are provided.

* A subsidiary that has made special efforts supporting the employment of disabled people, as defined in Japan's Act on Employment Promotion, etc. of Persons with Disabilities (for example, improving facilities where the disabled work).

- **Workplace tour:** Visit the workplace of disabled employees and attend a lecture
- **Workplace experience:** Experience work and attend a lecture
- **School visit:** Disabled Sharp employee visits school to give a lecture and lead group work



A classroom during a school visit



A participant in a workplace experience

In fiscal 2017, a cumulative total of 568 students took workplace tours and 144 visited Sharp Tokusen for workplace experience. In addition, disabled Sharp employees went to 28 schools (677 students) to give classes.

<Voice>

Comment from Principal of School That Sharp Visited

We are grateful to Sharp Tokusen Industry for providing our students with workplace experience, and for visiting our school to lead lessons and give career advice. During the school visits, Sharp Tokusen employees consider the situation of each of our students as they give easy-to-understand talks full of concrete examples and explain things like the purpose of working and the joys of working. In lessons for our upper-grade students, instructors give examples of the kind of jobs available at manufacturing companies, and talk about the problems and uncertainties that face people in the working world. The lessons provide students the valuable opportunity to think about the qualities required to work and to build an ongoing career.

In order to ensure that students with intellectual disabilities can get a job after graduation, in 2006, we launched as the first school in Osaka Prefecture to be a high school for special-needs education offering vocational subjects. We continue our educational efforts by collaborating with relevant institutions so that each one of our students gains the motivation and the abilities to join the working world upon graduation. To this end, we are constantly grateful to Sharp Tokusen for providing us with this wonderful opportunity. All teachers and staff members at our school wish Sharp Tokusen continued success and growth.



Yoichi Hasegawa
Principal, Osaka Prefectural
Tamagawa High School for
Special-Needs Education

<Voice>

Comment from Instructor at School Visit

To make the school visit lesson as enjoyable as possible for students, I try to make it pleasant by giving quizzes and other questions to students. However, besides simply being nice to the students, I try to add some tension to the class. By being an instructor in these lessons, I have come in contact with students of differing personalities, and I have improved my skills in dealing with problems and with people. So it has all in all taken my communication skills and manners to the next level. I want to use this experience as an instructor to better myself in my job at Sharp Tokusen by sharing with my colleagues the joy of personal growth that I have experienced.



Kazuki Honda
Sharp Tokusen Industry Co.

Social Initiatives: For Local Communities

Activities around the World

At Sharp bases around the world, employees take on a range of social problems through activities such as tree-planting, forest rejuvenation, and releasing young fish into the wild to protect and foster biodiversity, as well as local cleanups. Sharp will continue to be firmly rooted in the community as it carries out social contribution activities in every way possible.

< Case Study >

SMM

On September 30, 2017, employees of SMM, Sharp’s production base in Malaysia, students from UTHM*, and local residents (150 people in total) planted trees and picked up litter in the Clean & Healthy Campaign.

* Universiti Tun Hussein Onn Malaysia



< Case Study >

SSI

On October 7, 2017, Sharp’s Indonesian production base SSI joined a local logging company in holding an event called “Plant Mangroves to Save Our Coast.” The 19 participants consisting of employees and their families planted mangrove trees and carried out other environmental conservation activities.



< Case Study >

SPC

On October 7, 2017, employees from Sharp’s Philippines sales and production company SPC teamed up with a local multi-purpose union to hold a cleanup activity in a historic area of Manila Bay to help restore it to its original beauty.



< Case Study >

SEID

SEID, Sharp’s sales and production base in Indonesia, strives to raise awareness of the environment and biodiversity among young people by taking its Sharp Mobile Station (SMLS) around the country.

Below was the fiscal 2017 schedule:

- April 22, 2017, Banjarmasin
- May 6, 2017, Samarinda, East Kalimantan
- July 29, 2017, Padang, West Sumatra
- October 30, 2017, Lombok, West Nusa Tenggara



Social Activities: Efforts Related to Human Rights

Efforts Related to Human Rights

Guiding Principles on Human Rights

The Sharp Group Charter of Corporate Behavior and the Sharp Code of Conduct stipulate that the Sharp Group, in all of its business activities, respects the fundamental human rights and the individuality of each employee.

Sharp Group Charter of Corporate Behavior (excerpt)

- The Sharp Group respects fundamental human rights and does not engage in discriminatory actions or human rights violations in any of its business activities. The Sharp Group does not sanction child labor or forced labor.

Sharp Code of Conduct (excerpt)

- 1) We respect—and will not violate—fundamental human rights and the dignity of individuals in all business activities. If it becomes evident that any of our business activities, products, or services has a negative impact on human rights, we will take corrective action.
- 2) We do not allow child labor or any form of forced labor, and we support initiatives for the effective abolition of such labor practices.
- 3) With respect to all corporate activities—including employment practices concerning recruitment, salary, promotion, and training opportunities—we do not discriminate based on nationality, race, ethnic group, color, sex, health status, pregnancy, sexual orientation, age, marital status, religion, creed, social status, birth, property, bodily feature, physical or mental disability, political opinion, and the like.
- 4) We will refrain from all unacceptable acts and behavior, including any kind of abuse, mocking, verbal insult, sexual harassment, or power harassment.
- 5) On the basis of international standards and applicable laws, we respect employees' right to the freedom of association—for example, their right to join a union, carry out protests, participate in workers' councils, and the like—without being subjected to retaliation, intimidation, or harassment.

Activities Related to Respect for Basic Human Rights and Personal Dignity

In Japan, new employees and career-track employees learn about Sharp's philosophy on human rights by studying the Sharp Group Charter of Corporate Behavior and the Sharp Code of Conduct. In addition, each site carries out ongoing human rights awareness activities that include human rights training. A total of 26 sessions were held in fiscal 2017.

Overseas, Sharp sites carry out human rights-related activities to ensure they are in compliance with local laws and regulations.

Social Activities: Efforts Related to Human Rights

Preventing Workplace Harassment

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
Hold a hearing in the department of managers who did not rate a high enough score on power harassment questions on the workplace satisfaction surveys, and implement corrective measures	Held hearings and implemented measures in relevant departments	★
Hold training in each production site and affiliate on the theme of preventing power harassment in the workplace	Held training for approximately 2,000 managers at production sites and affiliates on the theme of preventing power harassment in the workplace	★★
Priority Objectives for Fiscal 2018	<ul style="list-style-type: none"> • Hold e-learning in preventing power harassment in the workplace • Encourage the holding of training on the theme of preventing harassment (power, sexual) in the workplace at production sites and affiliates 	

Workplace harassment is an unforgivable action that harms people’s dignity and hinders their ability to achieve their potential. It also disrupts order in the workplace and stops work from getting done, not to mention has the potential to negatively impact a company’s reputation among the public.

Sharp strives to promptly find and solve harassment-related problems and thus eradicate harassment in a number of ways: through fact-finding surveys and improvement measures, employee training, harassment response guidelines, and a harassment consultation service (in-house and external).

Good Labor-Management Relationship That Prioritizes Dialogue and Respect for Employee Rights

Sharp respects employees’ right to organize and the right of collective bargaining based on the laws of each country or region, and it works to strengthen its trusting relationships with labor unions.

In Japan for example, we recognize that labor agreements between the company and the union give the union the right to organize, the right to bargain collectively, and the right to take collective action.

Under labor agreements, Sharp provides periodic opportunities for labor-management meetings, such as the Central Labor-Management Council, which involves top executives from both sides, and labor-management meetings at each production site and affiliate. In addition, labor and management periodically meet to exchange opinions and information regarding issues in the company management situation and the work environment. For items that will have a major effect on the working conditions of union members, both sides meet for discussions before action is taken.

In Europe, Sharp holds European Works Council meetings every year to review managerial issues throughout Europe. In China, companies are obligated to hold meetings with employee representative assemblies to decide on issues such as employee working conditions. In line with relevant local laws, Sharp strives to build cooperative labor-management relationships.

Social Initiatives: Human Resource Development, Personnel System

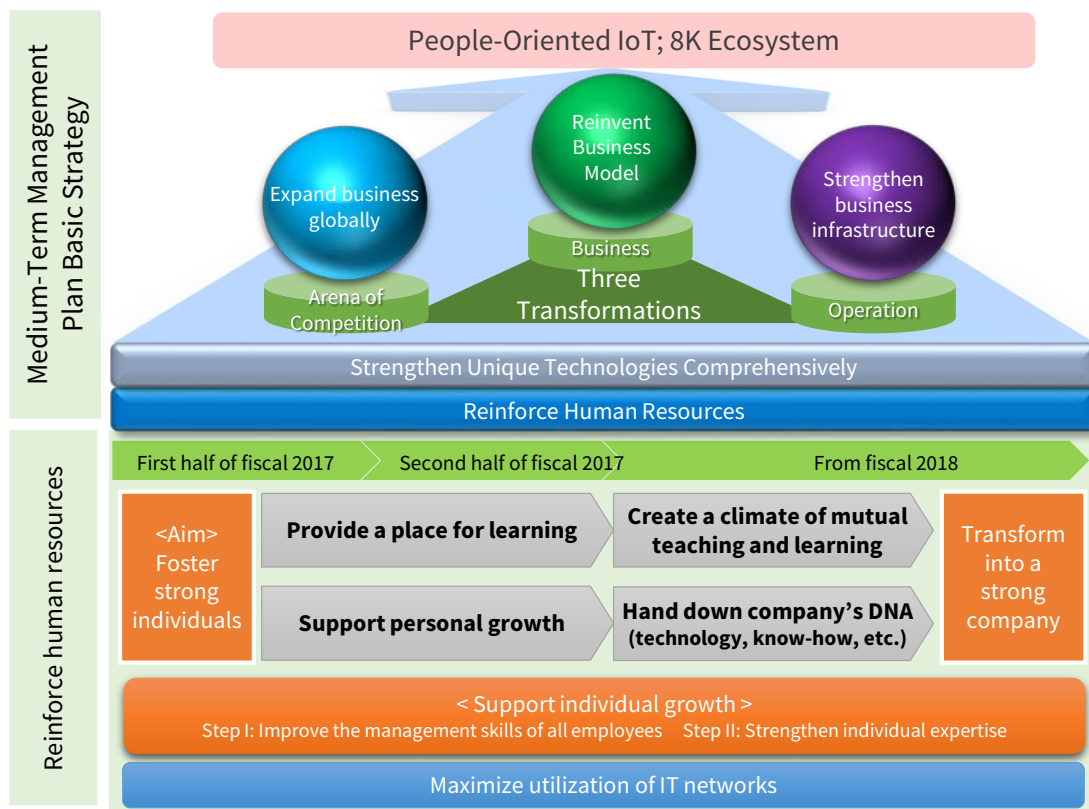
Human Resource Development

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<ul style="list-style-type: none"> Hold new training in management skills improvement in order to support personal growth 	<ul style="list-style-type: none"> Held 38 courses of e-learning Held eight study sessions for employees 	★★★
Priority Objectives for Fiscal 2018	<ul style="list-style-type: none"> Hold specialized training (technical) with the aim of improving employees' level of expertise 	

Personnel, Education, and Training System for Fostering Strong Individuals

In fiscal 2017, Sharp enhanced training and education to support personal growth to produce “strong individuals.” Sharp established training opportunities (e-learning, group training, etc.) for all employees who wish to participate and supported employees who are voluntarily working towards personal growth.



In June 2017, we began new training in management skills improvement as the first step in training to support the personal growth of employees. The training is available on e-learning, making it easy for employees to brush up their knowledge and skills anywhere, even at home, on a computer or smartphone. The main themes of the training include strengthening corporate governance, ensuring thorough compliance, and acquiring basic business knowledge and business skills. The training also includes group study sessions that bring together employees at all major Sharp bases in Japan via videoconference, with employees possessing specialized knowledge taking turns being the instructor for these sessions.

By holding such training on an ongoing basis, Sharp is creating a corporate culture in which employees teach and learn from each other and through which the company can grow increasingly stronger by fostering and strengthening its human resources.

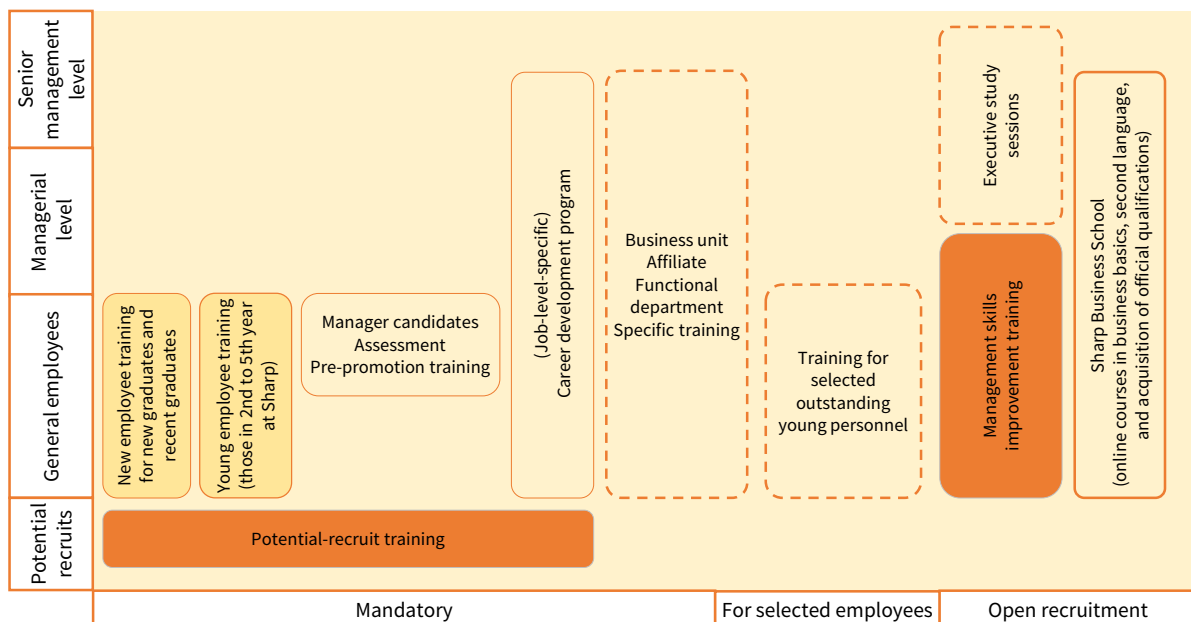
Social Initiatives: Human Resource Development, Personnel System

Job-Level-Specific Human Resource Development

In its job-level-specific training, Sharp stresses human resource development of young employees. In training courses for young employees, participants undergo training starting from when they are first selected to join Sharp and up until they have been with Sharp anywhere from two to five years, undergoing learning in which they acquire skills and thinking relevant to the various stages of their careers.

Candidates for promotion take manager promotion assessment training and manager candidate training as part of Sharp's efforts to systematically strengthen its management capabilities.

Besides mandatory job-level-specific training, Sharp has other human resource development programs, such as business unit-specific training, training for selected employees, and open-recruitment training.



Personnel System

Talent Development and Motivation-Boosting Programs

- **Employee Evaluations and Compensation**

Sharp uses a merit-based system to compensate employees based on their job performance and job assessment. To ensure fair evaluations, employees have an interview with their managers at the beginning, middle, and end of each evaluation term, at which time both sides confirm how well the employee is doing in terms of progress towards targets, contribution to the company, and job results.

Evaluation results are given to employees every half year along with explanations of the evaluations with the aim of contributing to employees' growth.

- **Personnel Declaration System**

All employees submit a career development plan along with a self-assessment of their job aptitude. Sharp then stores this information—along with records of interviews with supervisors—in a personnel database. This provides an overview of how employees are progressing with respect to their career goals, and it allows Sharp to effectively develop human resources.

- **Step-Up Campaign (Qualification Acquisition Encouragement Plan)**

To support employee self-development, Sharp offers monetary rewards to employees who have acquired qualifications, with the amount depending on the difficulty of acquiring the qualification. This plan covers about 200 qualifications, including some for field-specific techniques and skills, some directly related to daily duties, and some for language skills.

Social Initiatives: Diversity Management

Developing Diversity Management

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<ul style="list-style-type: none"> ■ Promote measures in line with action plan for Act on Promotion of Women's Participation and Advancement in the Workplace ■ Maintain 2.4% employment rate for the disabled 	<ul style="list-style-type: none"> ■ Promote measures in line with action plan for Act on Promotion of Women's Participation and Advancement in the Workplace <ul style="list-style-type: none"> • Percentage of female managers 3.3% as of April 1, 2018 (same as previous year) ■ Maintained employment rate for the disabled <ul style="list-style-type: none"> • 2.45% as of June 1, 2018 	★★
Priority Objectives for Fiscal 2018	<ul style="list-style-type: none"> ■ Promote measures in line with action plan for Act on Promotion of Women's Participation and Advancement in the Workplace ■ Maintain 2.4% employment rate for the disabled 	

Concepts Underlying the Diversity Program

- 1) Diversity management is a human resources strategy for utilizing a diverse range of employees; it is also a business strategy.
- 2) At Sharp, diversity is built upon the company's business philosophy.
- 3) Formulate and pursue programs aimed at capitalizing on the unique individual attributes of various employees—including women, non-Japanese employees in Japan, the disabled, and retirees—and promote their active participation in the company.
- 4) Consistently promote diversity.
- 5) As a foundation for promoting diversity, strive to ensure that systems supporting the balance between work and family life become widespread and take root.
- 6) Work to build a corporate environment that accepts diversity.



Promoting Activities of Female Employees

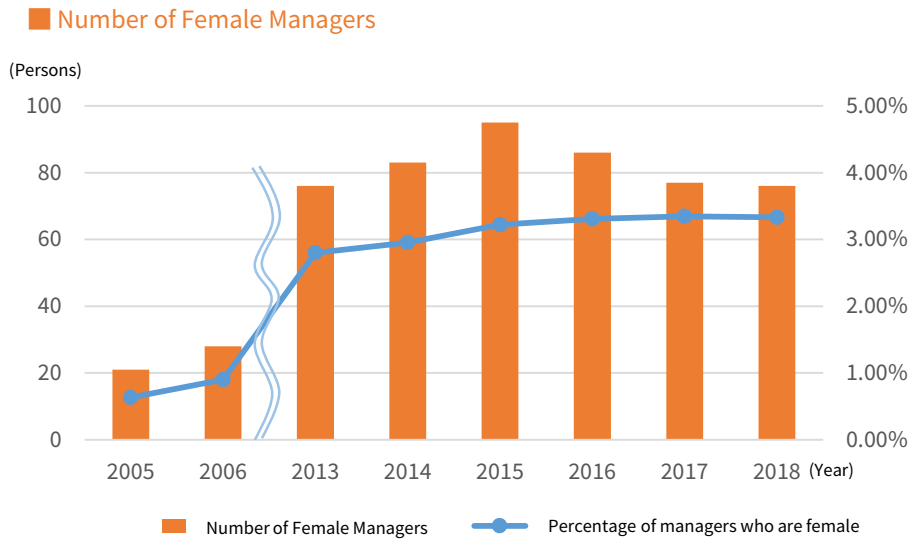
Sharp formulated an action plan based on Japan's Act on Promotion of Women's Participation and Advancement in the Workplace, which came into effect in April 2016. In line with this action plan, Sharp is working to raise the percentage of women in all job categories and increase the number of women in managerial positions. This will enable it to achieve further diversity in its workforce and contribute to society through better products and services. To this end, Sharp has set the following goals and is actively pursuing further engagement of its female employees.

Goal	Deadline
<ul style="list-style-type: none"> • Have at least 5% of managers be women • Have at least 20% of all employees use systems for flexible work styles 	By the end of fiscal 2019

Social Initiatives: Diversity Management

Expanding the Duties of Female Employees

In an effort to expand the roles of women in the workplace, from fiscal 2014 to fiscal 2016 Sharp implemented strategic training for female sales personnel. Besides measures such as sales upskilling training and networking events for new employees and their more experienced colleagues, in fiscal 2016 Sharp created a handbook to facilitate information sharing among female sales representatives and their supervisors.



Social Initiatives: Diversity Management

Sharp Corporation Personnel Composition

		(persons)		
		Men	Women	Total
Directors, audit and supervisory committee members		9	0	9
Employees	Executive officers	6	1	7
	Manager	2,199	75	2,274
	General staff	9,691	1,263	10,954
	(): New employees who are graduates of universities and technical colleges	(261)	(47)	(308)
Subtotal		11,896	1,339	13,235
Total		11,905	1,339	13,244
Ratio		89.9%	10.1%	100.0%

(As of April 2, 2018)

Ratio of Men and Women at Major Overseas Subsidiaries

Base		Directors, managers		Non-supervisory employees (permanent employees)		Total	
		Men	Women	Men	Women	Men	Women
SEC (US)	Sales, production	87.6%	12.4%	72.7%	27.3%	73.7%	26.3%
SEE (UK)	Sales, production	82.0%	18.0%	70.9%	29.1%	72.9%	27.1%
SEID (Indonesia)	Sales, production	83.2%	16.8%	68.6%	31.4%	69.3%	30.7%
SATL (Thailand)	Production	74.1%	25.9%	29.0%	71.0%	29.7%	70.3%
SMM (Malaysia)	Production	88.0%	12.0%	43.2%	56.8%	44.4%	55.6%
SOCC (China)	Production	84.7%	15.3%	27.4%	72.6%	31.0%	69.0%
NSEC (China)	Production	59.5%	40.5%	64.6%	35.4%	64.2%	35.8%
WSEC (China)	Production	60.4%	39.6%	43.5%	56.5%	44.4%	55.6%

(As of March 31, 2018)

Supporting Employees Returning from Maternity or Childcare Leave

To support employees returning from childcare leave, Sharp has held reinstatement support seminars every year since fiscal 2014. These seminars involve an explanation of the company's current circumstances and incorporate various support systems related to childbirth and nursing. As well, female employees who have returned to work after taking childcare leave share their experiences and provide advice on how to balance work and child rearing. Attendees are also given the opportunity to build networks with other working mothers. These seminars help to resolve anxiety about returning to work and encourage active participation in the workplace. Starting in fiscal 2016, supervisors of employees returning to work have also been taking part in these seminars in order to help returning employees think about and take action on their career at Sharp.

In fiscal 2018, Sharp introduced two new systems: one for subsidizing the fees for non-registered daycare facilities, and one for giving one-off payments to employees making an early return from childcare leave. The goal is to support employees who are eager to advance their careers after returning to work from maternity leave or childcare leave.

Social Initiatives: Diversity Management

Expanding Opportunities for Non-Japanese Employees in Japan

With the globalization of business, Sharp is working globally to secure and systematically train human resources who can meet the needs of each workplace. In recent years, Sharp has promoted greater employment of international students and people of other nationalities residing in Japan. As of April 2018, there are approximately 170 non-Japanese employees from 14 countries working in various departments.

Reemployment of Retirees

In 2001, Sharp introduced a professional employee system that reemploys employees who have reached the mandatory retirement age of 60. This stems from the company's stance on promoting the utilization of senior employees who have a strong work ethic. It also takes into consideration employees who wish to give back and contribute to society through the skills and knowledge they have accumulated over many years. Sharp reviewed its standards in response to the revised Act on Stabilization of Employment of Elderly Persons, which came into effect in April 2013. Sharp now reemploys, until the age of 65, any interested employees who have reached the mandatory retirement age of 60.

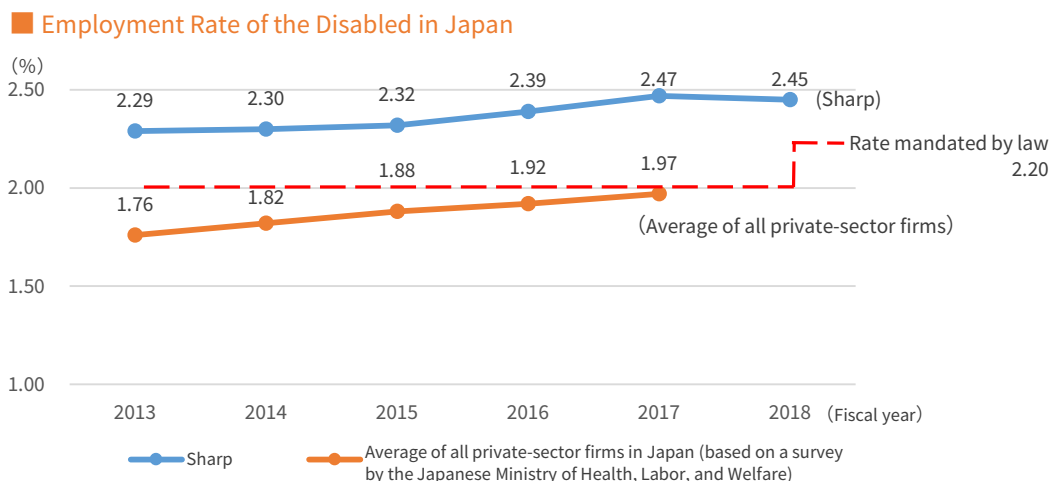
Promoting Employment of the Disabled

Ever since Sharp founder Tokuji Hayakawa established the "accumulation of community service" as one of the "Five Accumulations of Competency,"* Sharp has been actively involved in social service and welfare. The entire Sharp Group makes efforts to promote the employment of the disabled and to create a better work environment for these employees.

Specifically, Sharp launched a recruitment website addressing the employment of disabled people. This website contains information on initiatives to hire such individuals to work in the Sharp Group. Sharp is also striving to make the working environment more accessible for disabled employees. For example, during training sessions attended by hearing-impaired participants, there are support measures such as voice recognition software and PC note-taking (a method for conveying audio information by entering it into the keyboard of a PC) so that voice communication is converted into text for participants to read and understand.

As of June 1, 2018, the Sharp Group employed approximately 340 disabled persons. The percentage of disabled employees among all employees was 2.45%, well over the 2.2% rate mandated by law (as stated in the Act on Employment Promotion etc., of Persons with Disabilities).

* Accumulation of trust, accumulation of capital, accumulation of community service, accumulation of human resources, and accumulation of trading partners



Social Initiatives: Activities to Support Work-Life Balance

Activities to Support Work-Life Balance

In line with its promotion of diversity, Sharp supports its employees by creating a rewarding, safe, and healthy workplace. Sharp gives employees a choice of work styles—allowing them to select the style that best suits them at various stages in their lives—thereby helping them achieve a work-life balance that will enable them to lead rich lives both at work and at home.

Specifically, Sharp is expanding support programs focusing on childcare and nursing care, and it is distributing guidebooks and providing other information to promote use of the programs. In addition, to help employees achieve an efficient working style that offers satisfaction both at the company and at home, Sharp continuously promotes initiatives like the No Overtime Day and encourages employees to plan for and take their annual paid vacation days.

These efforts have earned high appraisal from outside the company, with Sharp receiving certification from the Japanese Ministry of Health, Labor, and Welfare based on the Act on Advancement of Measures to Support Raising Next-Generation Children.



Work-Life Balance Guidebook and Nursing Care Guidebook

Promoting Childcare Leave for Male Employees

To create a more employee-friendly workplace, Sharp has made efforts to establish a support system and environment in which both male and female employees can participate in child rearing. Japan is undergoing a low birth rate, diversifying work and life styles, and an increase in double-income households. In light of this, Sharp is expanding and improving its childcare leave system and encouraging more male employees to take part in child rearing. As a result, many male employees have taken childcare leave.

Sharp will continue to support its employees' active participation in childcare and in family life with their children.

Social Initiatives: Activities to Support Work-Life Balance

Work-Life Balance Support Programs (Main Programs and Participation at Sharp Corporation)

(Persons)

Program Name	Description	Participation		
		Fiscal 2015 (): Men	Fiscal 2016 (): Men	Fiscal 2017 (): Men
Childcare Leave ^{*1}	Allows leave until the child turns two years old. (The 10-day period beginning at the start of the childcare leave is treated as a period with pay.) < Fiscal 2017 > Return to work rate Men: 100% Women: 94.5% Retention rate ^{*2} Men: 94.3% Women: 97.8%	195 (129)	148 (101)	153 (104)
Reduced-Hours Employment during Childbearing/Childcare	A system by which an employee can reduce work time by up to three hours per day (in units of 30 minutes) during pregnancy. Also allows a female/male employee to work under the same reduced-hours employment system until the last day of March after her/his child has reached the sixth year of elementary school.	24	15	14
Childcare Support Work Program	Allows flexible work schedules (work day start and end times) until the last day of March after the child has reached the sixth year of elementary school. This allows an employee to shorten working hours up to an average of three hours per day in one-hour units.	426	358	366
Nursing Care Leave ^{*1}	Allows an employee to take leave to care for a family member requiring permanent nursing care for a total of two years (can be divided up).	8	7	6
Nursing Care Support Work Program	Allows flexible work schedules (work day start and end times) during a six-month period in order to carry out nursing care. (Can be changed if necessary.) This allows an employee to shorten working hours up to an average of three hours per day in one-hour units.	5	6	9
Other Programs	Multipurpose Leave, Multipurpose Leave Taken in One-Hour Units (or half-day units), Staggered Commuting Hours for Pregnant Woman, Guaranteed Reemployment after Childbearing/Childcare, Reemployment after Returning from a Spouse's Overseas Transfer, Reemployment after Nursing Care, Reduced-Hours Employment or Reduced Weekly Working Days for Nursing Care, Subsidies for Families of Single Employees Conducting Nursing Care, Paternity Leave, Daycare Adaption Leave, Travel Expense Subsidies for Single Employees Returning Home for Nursing Care, Nursing Care Leave (in half-day units), Nursing Leave (in half-day units), Home Helper Expense Subsidies, Leave of Absence or Annual Paid Holidays for Fertility Treatment, Fertility Treatment Financing System, Reduced-Hours Employment for Career Development Support, Volunteer Leave, Subsidy for Fees of Non-Registered Daycare Facilities, One-off Payments for Employees Making an Early Return from Childcare Leave, Subsidy for Fees for Sick Children Daycare and Extended Daycare			

*1 Personnel evaluations conducted while an employee is on childcare leave or nursing care leave will never work against the employee in terms of receiving a raise, promotion, or bonus.

*2 Percentage of employees still working 12 months after returning to work.

Social Initiatives: Promoting Occupational Safety and Health

Promoting Occupational Safety and Health

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation *
<ul style="list-style-type: none"> ■ Prevent physical and mental health issues and disorders caused by overwork by reducing long work hours ■ Eliminate severe accidents; reduce work accidents and company car accidents ■ Promote efforts for health management (Healthy Sharp 23*) 	<ul style="list-style-type: none"> ■ Strengthened measures to reduce long work hours, significantly reduced number of employees working long hours Promoted comprehensive measures to avoid, detect early, treat early, and prevent reoccurrence of mental health issues and disorders, such as by doing a stress check of all employees as a primary prevention measure ■ No severe work accidents or environmental accidents However, due to the increase in work accidents caused by carelessness, eradication of such accidents was added to the priority objectives for fiscal 2018. Number of company car accidents were roughly the same as the previous fiscal year ■ Strengthened health check follow-ups and health maintenance and improvement guidance Promoted measures to prevent health problems through health management (Healthy Sharp 23); for example, held health education meetings, non-smoking campaigns, and company-wide walking events to prevent lifestyle diseases 	★★★
<p>Priority Objectives for Fiscal 2018</p>	<ul style="list-style-type: none"> ■ Eliminate severe accidents, reduce work accidents (in particular, eradicate work accidents caused by carelessness) ■ Prevent health problems caused by overwork ■ Continue promoting health management (Healthy Sharp 23) 	

* See Page 86

Sharp Group Basic Policies on Safety and Health

Basic Philosophy

The Sharp Group regards protecting the safety, security, and health of employees all over the world as indispensable to its business activities, and is dedicating appropriate management resources in a spirit of Sincerity and Creativity, in order to achieve a safe and pleasant working environment.

Basic Policy

1. Legislative Compliance

In addition to strict compliance with legislation related to safety and health in each country and region, all Group companies must comply with in-house standards established in line with the standard Group policy, with the aim of improving levels of safety and health.

2. Establishment of Management Organization

The Sharp Group has established a management organization to deal with safety and health, with clearly delineated roles, authority, and responsibilities, and is promoting activities at the structural level.

3. Establishment and Operation of Management System

The Sharp Group has established an occupational safety and health management system, and is engaged in continuous evaluation and improvement of its activities, with a view to eliminating potential hazards and risks to safety and health in the workplace.

4. Implementation of Education and Training

The Sharp Group is endeavoring to raise awareness of safety and health and to promote voluntary activities by implementing for all employees the education and training required to improve safety and health.

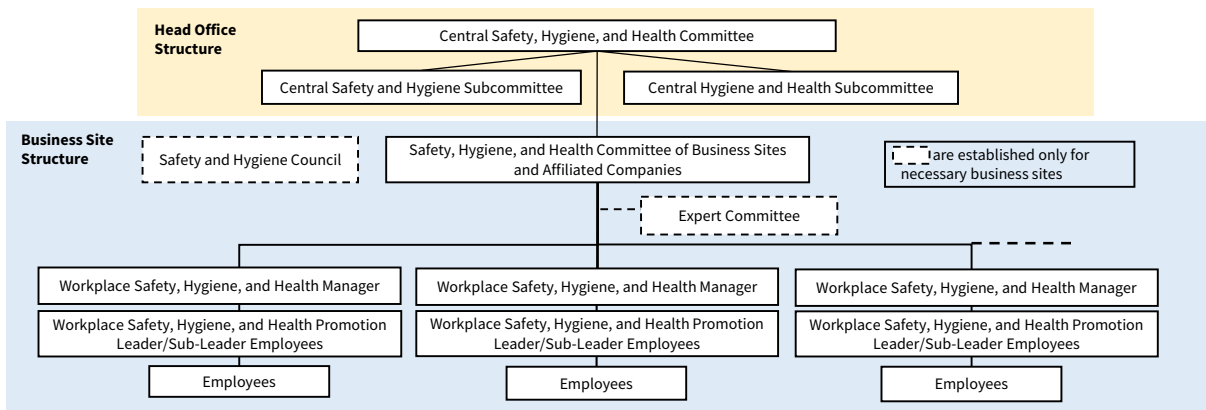
5. Setting Targets and Full Employee Participation in Practical Activities

The Sharp Group sets targets for preventing accidents and improving employees' health, and is striving to meet these targets by means of practical activities in which all employees participate.

Social Initiatives: Promoting Occupational Safety and Health

Organization Promoting Safety, Hygiene, and Health

At Sharp, promoting and maintaining the health of its employees and their families has been added to the framework of safety and health activities. In order to show Sharp’s commitment to maintaining and improving health, it calls the names of its organizations and activities “safety, hygiene, and health” instead of “safety and health,” and it has established an organizational system to promote safety, hygiene, and health.



Aiming for a Secure, Safe, and Healthy Workplace

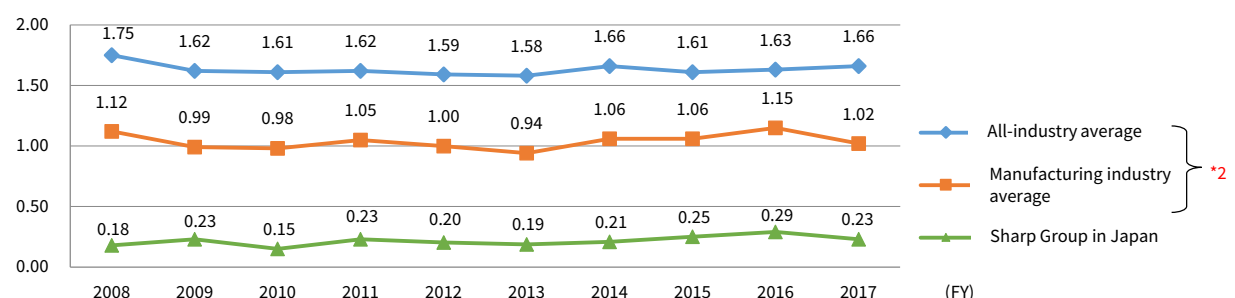
In order to ensure that activities for the maintenance and improvement of safety, hygiene, and health go smoothly at each business site, Sharp holds Central Safety, Hygiene, and Health Committee meetings that bring the company and the labor union together to decide basic measures for safety, hygiene, and health from a company-wide perspective. The Committee formulates annual company-wide policies, decides on goals and priority items, and communicates these to each business site.

Moreover, a Safety, Hygiene, and Health Committee consisting of labor and management representatives at each business site and affiliated company holds a monthly meeting to report and discuss safety, hygiene, and health activities and decide on improvement measures. The contents of the meetings are relayed to the workplace safety, hygiene, and health managers to make these activities well established within each workplace.

Sharp has also established and is promoting an occupational safety and health management system in an effort to further address the potential risk of accidents in the workplace and to firmly set in motion proactive safety activities that prevent or reduce risks. In addition, the company is working to reduce work accidents by strengthening abidance with work rules so that it can prevent hazardous substance-related accidents—which could lead to severe accidents—and eradicate careless accidents.

As a result of these continuing measures, the Sharp Group’s industrial accident rate (frequency rate of industrial accidents leading to lost work time^{*1}) in Japan in fiscal 2017 was 0.23. This rate is far below the national averages for the manufacturing industry (1.02) and all industries (1.66).^{*2}

Annual Industrial Accident Rates (Frequency Rate of Lost-Worktime Industrial Accidents)



*1 Indicator that represents the incidence of industrial accidents per million work hours (one day or more of suspended operations).

*2 Averages for all industries and the manufacturing industry are based on a 2017 survey by the Japanese Ministry of Health, Labor, and Welfare.

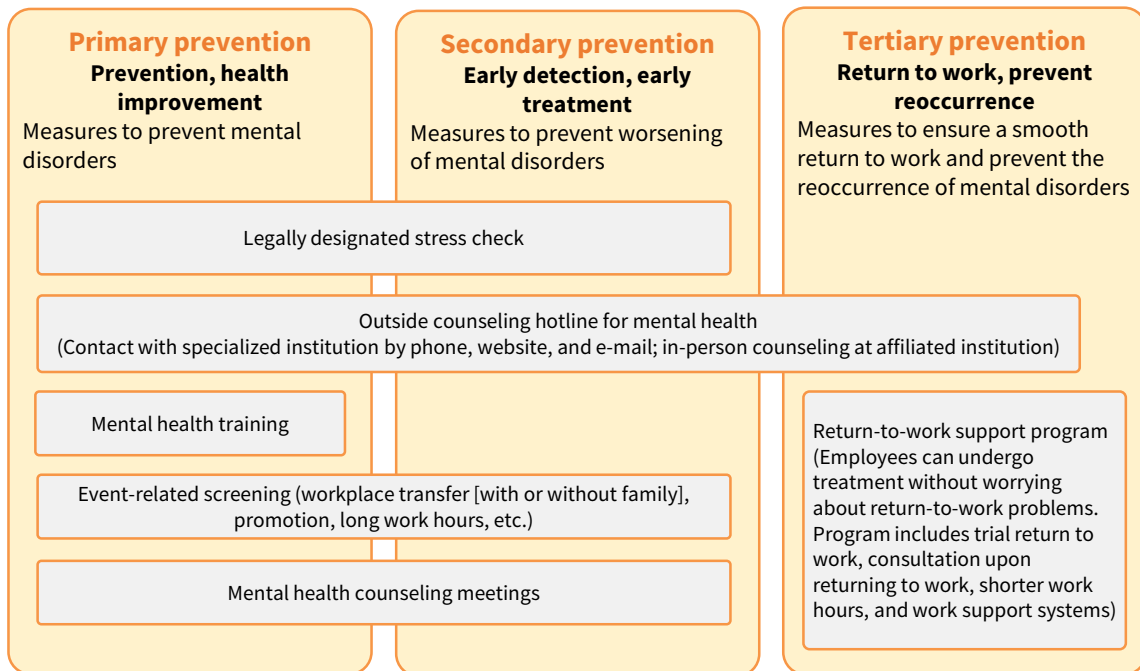
Social Initiatives: Promoting Occupational Safety and Health

Enhancing Mental Health Care and Promoting the Healthy Sharp 23 Initiative

Revisions to Japan’s Industrial Safety and Health Act made it mandatory starting in December 2015 for companies to have a system for employee stress checks. Sharp carried out extensive stress checks even at business sites with 50 employees or fewer that are legally obligated to comply with this rule to allow for the prevention, early detection, early treatment, and prevention of reoccurrence of mental disorders. In addition, Sharp’s comprehensive efforts include providing counseling with medical specialists and industrial counselors at business sites, and a system for counseling with outside specialized institutions.

The company also conducts various training and educational activities to deepen employees’ knowledge of mental health care and to have them acquire methods for dealing with mental health issues.

■ **Measures to Prevent Employees’ Mental Disorders**



Sharp’s Business Philosophy states that it will “contribute to the culture, benefits, and welfare of people throughout the world.” To this end, Sharp has launched a health management initiative called Healthy Sharp 23 under which the company is conducting a wide range of activities aimed at achieving specific health targets by the end of March 2023.



“Mr. Get,” the mascot for the Healthy Sharp 23 initiative

Healthy Sharp 23 Targets (by March 31, 2023)

1. Reduce the percentage of employees who have a BMI of 25 or higher to 20% or less (Reduce the percentage of obesity to one in five people, from the present one in four people)
2. Lower the smoking rate to 12% or less of employees
3. Regular exercising for 35.6% or more of employees
4. Reduce the total amount of sick leave associated with mental health issues and disorders by 25% compared to fiscal 2013
5. Eliminate constant excessive work hours

Social Initiatives: Promoting Occupational Safety and Health

Preventing Health Problems Caused by Overwork

Sharp strives to create a work atmosphere in which all employees can work in good health and thus use their talents to the fullest. The company strives to eliminate long work hours and prevent health problems caused by overwork by, for example, strictly controlling overtime work, establishing upper limits for overtime work hours, and setting a stricter standard than that mandated by law for employees working long hours to consult with and receive guidance from a physician.

■ Upper limits for overtime work hours

Upper limits for overtime work hours are designated in units of one month, six-month average, and one year. These upper limits apply to both general staff and managers. Every month, the number of hours of overtime per employee is calculated and those who have worked long hours are given individual guidance in efforts to eradicate long work hours.

■ Consultation and guidance from physician for employees working long hours

Sharp has set a stricter standard than that mandated by law for employees working excessively long hours (over 80 hours per month) to receive consultation and guidance from a physician. The goal is to prevent health problems due to overwork through measures such as limiting an employee's number of work hours.



Governance

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- > [Risk Management](#) P. 92
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Governance: Corporate Governance

Corporate Governance

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self Evaluation*
<ul style="list-style-type: none"> Shift to a company with an Audit and Supervisory Committee and restore the executive officer system in order to strengthen supervisory functions and flexibility of business execution 	<ul style="list-style-type: none"> Strengthened supervisory functions over the Board of Directors and enhanced flexibility in decision-making by transitioning to a company with an Audit and Supervisory Committee Enabled rapid management decision-making by restoring the executive officer system and holding Executive Management Committee as needed with executives as members 	★★
<p>Priority Objectives for Fiscal 2018</p>	<ul style="list-style-type: none"> Establish a human resource pool (co-CEOs) including external personnel with a view to future CEO appointments, and seek to implement rapid decision-making by allocating project management responsibility to the chair/president or co-CEOs by field of business or region Strengthen audit functions by increasing the full-time members of the audit and supervisory committee from 1 to 2 	

Basic Policy

Sharp’s basic policy on corporate governance is to maximize corporate value through timely and appropriate management while ensuring transparency, objectivity, and soundness supported by the concept, “Our future prosperity is directly linked to the prosperity of our customers, dealers and shareholders...” as stated in the company’s Business Philosophy. Based on this policy, Sharp is strengthening the supervisory function over the Board of Directors and enhancing the flexibility of decision-making by appointing outside director and operating an Audit and Supervisory Committee. Sharp has also introduced an executive officer system that clearly separates supervisory and decision-making functions from business execution functions, thereby creating a structure that steadily facilitates nimble and efficient business execution. Further, Sharp is implementing deep-rooted enhancements to individual fields of business and operations by establishing a divisionalized management system in which each business unit assumes responsibility for their earnings, to be regulated by the President’s Office and the Corporate Strategic Planning and Control Group at the head office.

In addition, Sharp has formulated the Sharp Group Charter of Corporate Behavior as action guidelines for all directors, executives, and employees to raise their awareness of compliance, and it is working for its permeation across the entire Sharp Group.

Corporate Governance System

< Supervisory and Decision-Making Functions >

Sharp Corporation Board of Directors Meetings are held on a monthly basis in principle to make decisions on matters stipulated by law and on management-related matters of importance, and to supervise the state of business execution. The Board of Directors comprises internal directors who are experts in the fields of business of the Sharp Group and outside directors appointed from talent with high specialism and abundant experience in fields such as social and economic trends and management. Sharp has established a voluntary Nominating Committee and Compensation Committee as advisory committees to the Board of Directors. The Nominating Committee recommends candidates for directorships to the Board of Directors and the Compensation Committee determines the value of remuneration and bonus packages for directors undertaking a role on the Board of Directors. Further, as a strategy to enhance corporate governance, each committee chairperson is an outside director.

Similarly, Sharp has established an Internal Control Committee to serve as an advisory committee to the Board of Directors. The Internal Control Committee discusses basic policy, consolidation and operation of internal control and internal audits, reports to the Board of Directors, and makes decisions on arising matters.

■ Composition of Supervisory and Decision-Making Functions

	All Members (Persons)	Internal Directors (Persons)	Outside Directors (Persons)	Non-directors (Persons)	Chairperson / Committee Chair
Board of Directors	9	6	3	0	Chairperson: Chair/President
Nominating Committee	4	2	2	0	Committee Chair: Outside director
Compensation Committee	4	2	2	0	Committee Chair: Outside director
Internal Control Committee	9	3	3	3	Committee Chair: Outside director

Governance: Corporate Governance

< Business Execution Functions >

Sharp holds an Executive Management Committee comprising executives as a committee to discuss matters which are key to company-wide management and business operations, convening in a timely manner of which will allow rapid management decision-making. Sharp has also established a human resource pool (co-CEOs) including external personnel with a view to future CEO appointments, and allocates project management responsibility to the chair/president or co-CEOs by field of business or region.

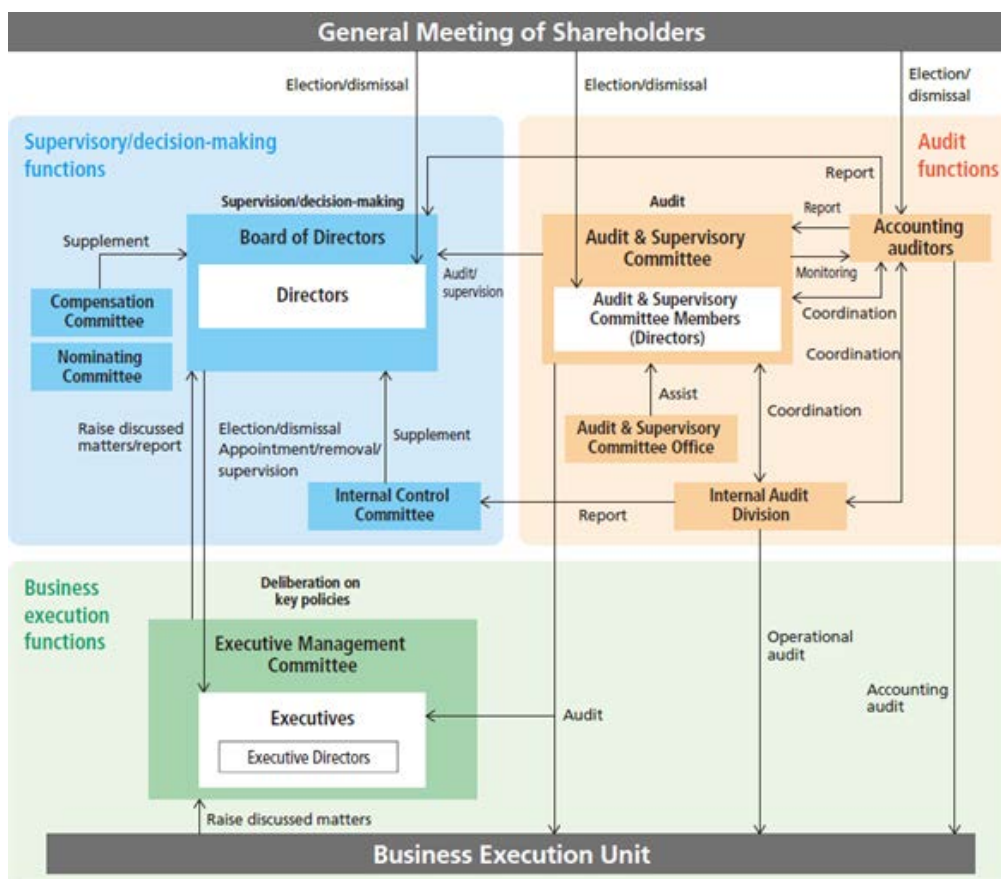
< Audit Functions >

The Audit and Supervisory Committee is composed of three directors of audit and supervisory committee, all of whom are outside directors with a high level of expertise, and two of whom have specialisms to an appropriate extent in finance or accounting. Further, two members are independent members and two are full-time members of the audit and supervisory committee.

The Audit and Supervisory Committee exchanges opinions periodically with the representative directors, directors, accounting auditors, and the head of the internal audit division, and seeks to attain legality, propriety, and efficiency in business execution. Sharp has also established an Audit and Supervisory Committee Office composed of employees with specialisms in specific fields such as accounting and law, which supports the Audit and Supervisory Committee. Sharp receive proposals for operational improvements from its accounting auditor, PricewaterhouseCoopers Aarata LLC.

To preserve the independence of the internal audit division from the business execution divisions, an Internal Audit Division has been established directly under the jurisdiction of the Chair/President. It makes defined proposals on operational and business improvements through audits of the propriety of business execution and the fairness and efficiency of management, as a means of increasing management efficiency and supporting the internal control system.

■ Corporate Governance System of Sharp Corporation (as of June 20, 2018)



Governance: Internal Control

Internal Control

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<ul style="list-style-type: none"> Thoroughly develop and maintain various measures related to internal control, based on Basic Policy for Internal Control; complete those measures as initially scheduled Continue intensive efforts to resolve material issues (problems) in each internal control area, and submit Internal Control Report in June 2018 	<ul style="list-style-type: none"> Completed measures as initially scheduled through continuous operation of those measures Reviewed measures and conducted intensive efforts to resolve material issues (problems), and submitted Internal Control Report in June 2018 	★★
Priority Objectives for Fiscal 2018	<ul style="list-style-type: none"> Thoroughly develop and maintain various measures related to internal control, based on Basic Policy for Internal Control; complete those measures as initially scheduled Continue intensive efforts to resolve material issues (problems) in each internal control area, and submit Internal Control Report in June 2019 	

As one way to ensure that its corporate governance is functioning effectively, Sharp is developing and maintaining its internal control system to ensure that the entire Sharp Group engages in fair and appropriate business practices based on the provisions of Japan's Companies Act and of the Internal Control Reporting System falling under the Financial Instruments and Exchange Act.

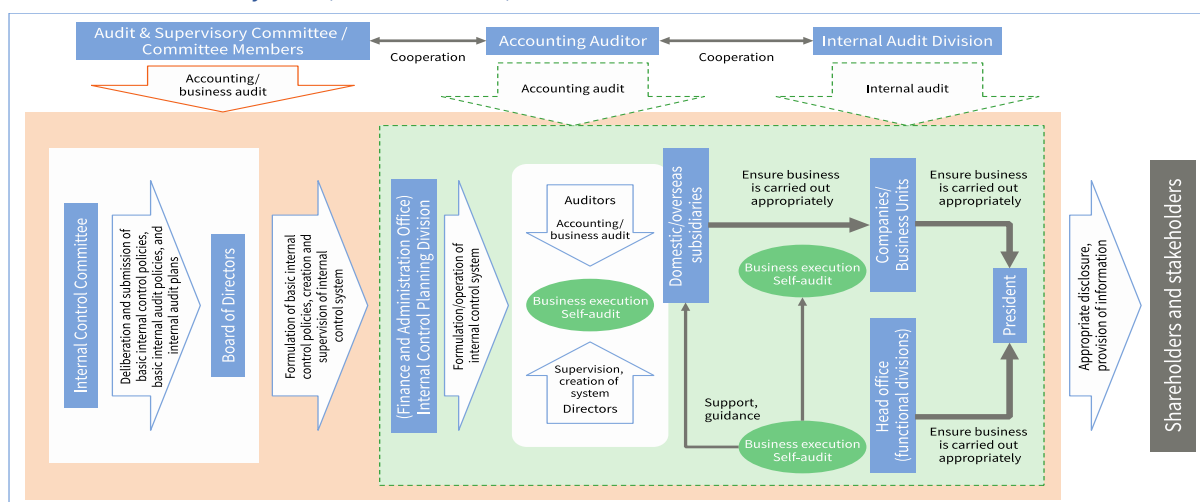
In response to the enactment of the Companies Act in 2006, the Board of Directors passed a resolution to adopt a basic policy related to the development and maintenance of systems necessary to ensure the propriety of business practices (Basic Policy for Internal Control). The company is working to properly maintain and operate those systems. In accordance with this policy, Sharp also established the Internal Control Committee to serve as an advisory panel to the Board of Directors. The Internal Control Committee discusses various policy measures related to the internal control system, while also affirming their operational status.

In June 2017, Sharp revised its Basic Policy for Internal Control. It thoroughly affirmed the development and operational status of various measures in line with this Basic Policy, and made sure the measures were established across the company. And in response to the Financial Instruments and Exchange Act, the Sharp Group has been evaluating the effectiveness of its internal control system with respect to financial reporting. It has also taken steps to reduce various business risks through the sound operation of its internal control system.

In fiscal 2017, Sharp implemented various measures to boost the control functions of each internal control area as well as the efficiency with which internal control system effectiveness is evaluated. Sharp also mounted intensive efforts to resolve critically important items and submitted an Internal Control Report in June 2018.

For fiscal 2018, Sharp will identify and work towards solutions for important processes and related IT systems for each business unit, by responding rapidly and flexibly to accelerated structural reforms including affiliated companies in Japan and overseas, to enhance the effectiveness of the internal control system.

Internal Control System (As of June 2018)



Governance: Risk Management

Risk Management

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
Practice efficient risk management by having risk management-related rules firmly established	Reviewed specific risks, which could have a major impact on management based on the Rules of Business Risk Management. Worked to enable more efficient risk management to respond to changes in the business environment and market.	★★
Priority Objectives for Fiscal 2018	Improve the efficiency of risk management by optimizing and firmly establishing response rules in the event a major risk is actualized	

Management Based on the Rules of Business Risk Management

Sharp believes risk management is essential to fulfilling its corporate social responsibility, which entails meeting the expectations of stakeholders through the sustainable development of business.

To this end, Sharp has formulated the Rules of Business Risk Management as a basic approach to risk management. In the Rules, risk items that could have a major impact on management are identified and managed as “specific risks” through the creation of a risk management system. For each specific risk, a functional department responsible for risk management across the entire company and a company/business unit responsible for risk management in their respective business domains collaborate to minimize risks and to prevent risks from actually occurring. Specific risks are periodically reviewed, scored, and ranked in order of priority so that Sharp is able to respond to changes in the business environment and market.

Response to Actualization of Major Risks

The Rules of Business Risk Management prescribe rules for emergency response, detailing responses if a major risk incident does come to pass. Taking prompt and appropriate action when an emergency situation occurs works to minimize loss and to prevent the damage from spreading not only across the company, but also to society at large. These emergency rules also specify action items to be implemented to ensure prompt and appropriate information disclosure to stakeholders.

In fiscal 2018, Sharp is further improving the efficiency of risk management by optimizing and firmly establishing response rules in the event a major risk is actualized.

Promoting BCPs

Sharp’s major plants and group companies have formulated BCPs (business continuity plans). This effort is intended to expedite the continuation or early recovery of business in a large-scale disaster, such as an earthquake or an outbreak of an infectious disease. By regularly reviewing BCPs and holding training sessions, Sharp works to maintain and improve the business continuity capacity of the organization.

Basic policies for BCPs shared across the Sharp Group are “First priority to human life,” “Proactive program and program for recovery from disasters,” and “Support for local community and business connections.” Sharp seeks to maintain and improve the business continuity performance of its organization through reviews to account for organizational and business changes and through drills. If, in the event of a major disaster, a significant impact on its business activities is anticipated, Sharp will establish an emergency headquarters at the head office to support and work with Sharp sites in affected areas and to implement an initial response focused on ensuring the safety of employees and their families and a business continuity and recovery response.

Going forward, Sharp will continue to work towards business continuity management.

Governance: Compliance

Compliance

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<ul style="list-style-type: none"> ■ Strengthen compliance-promotion system ■ Hold compliance training and audits, and put in place rules 	<ul style="list-style-type: none"> ■ Promoted compliance through close collaboration within the Group ■ Implemented training, auditing, and coordination of rules on compliance in each category of laws and regulations 	★★
Priority Objectives for Fiscal 2018	<ul style="list-style-type: none"> ■ Enhance global compliance ■ Respond to international privacy protection, including GDPR* 	

* See page 95

System to Promote Compliance

Sharp defines compliance as “observing social codes of conduct and company regulations, including laws and corporate ethics.” Accordingly, Sharp is pursuing management practices that give priority to compliance.

The person most responsible for leading compliance at Sharp is the general manager of the Corporate Strategic Planning and Control Group. This person is in charge of formulating basic policies for compliance and making sure these policies are firmly established within the company. Meanwhile, the person responsible for leading compliance for the entire Sharp Group is the general manager of the President’s Office. This person is in charge of devising concrete measures for compliance and thoroughly implementing them. As well as affirming the implementation status of compliance measures, he or she draws up corrective measures where necessary and makes sure they are thoroughly executed. Under these two general managers, the general managers of the business units are responsible for compliance within their respective organizations. The business unit general managers are also responsible for guiding and supervising compliance measures at subsidiaries and affiliated companies (hereinafter referred to as “affiliates”) under their business units.

Promoting compliance at each affiliate is the responsibility of the affiliate president.

Among the laws and regulations that pertain to business execution, some are considered to be critically important and capable of affecting the entire Sharp Group. For each of these material categories of laws and regulations, the company sets up a dedicated legal department. The aim is to achieve thorough compliance with these laws and regulations. Each legal department fully understands the content of the critically important law and studies the effects it could have on the business of the entire Sharp Group and on operations shared by different departments. It then reviews—as needed—business operations and processes, revises company regulations, formulates or revises routine operation standards, and communicates these changes to executives and employees.

In the event a compliance-related risk is actualized, Sharp will implement an emergency response in accordance with the Basic Rules for Compliance and the Rules for Business Risk Management, and take comprehensive corrective measures and prevent recurrence.

Compliance Training

As a means of promoting compliance, the Sharp Group has formulated the Sharp Group Compliance Guidebook, which states defined standards for matters to be observed, matters which are prohibited, and actions to be taken for all executives and employees, and publishes and disseminates this throughout the company.

Sharp also periodically carries out compliance training (including e-learning) on the Sharp Code of Conduct and material categories of laws and regulations (such as competition laws, anticorruption, and personal information protection).

Governance: Compliance

Consultation Hotline for Compliance Issues

Sharp Corporation and its affiliated companies in Japan have set up a hotline to provide counseling services for problems in the workplace, such as compliance issues. The company has also set up a competition law hotline, which serves as a contact point specifically for issues related to competition laws. These hotlines are accessible inside the company and externally (via an outside law firm providing legal counsel) to enable employees and temporary staff—as well as employees of business partners*—to ask questions or request a consultation in line with the spirit of Japan’s Whistleblower Protection Act. Sharp also has a consultation service dedicated to addressing workplace harassment (which includes sexual harassment, pregnancy discrimination, and abuse of authority).

In fiscal 2017, the compliance hotline received about 60 reports and requests for consultation. As a result, a violation by an employee was revealed, and the person received disciplinary action after being deliberated by the disciplinary committee.

The Sharp Code of Conduct clearly stipulates that the privacy of individuals who report compliance violations or seek consultation will be strictly protected and that those persons will suffer no unfavorable treatment or penalties.

Similar reporting and consultation services have been set up at Sharp’s major overseas bases, and early actions are being taken to resolve problems.

* Only the compliance hotline is available for use by employees of business partners.

Preventing Corruption in All Forms and Dealing Properly with Donations

The Sharp Group Charter of Corporate Behavior and the Sharp Code of Conduct contain provisions that strictly prohibit any form of corrupt behavior, such as extortion or direct or indirect bribes of money, goods, or services. The Group Charter and Code of Conduct also stipulate that donations must be handled in a proper manner.

In March 2015, Sharp instituted rules of conduct governing both executives and employees, with a view to preventing corrupt practices such as bribery. By setting up a clear system of checks, the company is working to prevent acts of bribery. Particular attention is paid to the employment of third parties such as agents and consultants, providing or exchanging gifts or entertainment to government employees, and participation in associations, with defined issues for relevant departments to confirm. Sharp sets up a consulting department for providing internal approval for each issue above. Sharp also prepares internal guidebooks and training materials for use by employees to ensure compliance with relevant laws, such as Japan’s Unfair Competition Prevention Act and the US Foreign Corrupt Practices Act (FCPA), and implements internal training. No violations occurred in fiscal 2017.

In Japan, Sharp prevents illegal payoffs and improper expenditures through a system of compulsory reviews that check legality, reasonableness, and transparency. In place since December 2008, this system serves to assess the propriety of monetary disbursements such as donations and contributions made by Sharp Corporation and its affiliated companies.

The Sharp Code of Conduct states, “Regarding political donations, we will observe all applicable laws and regulations and we will ensure transparency and proceed in strict conformance with internal company rules when making such donations in line with the company policy to build a healthy and responsible relationship with politics and government.” Based on this policy, any political donations abide by relevant laws and follow the necessary internal procedures.

In March 2014, Sharp further tightened the assessment criteria to ensure fairer reviews. In fiscal 2017, there were 32 cases of such reviews.

Governance: Compliance

Management of Personal Information

Domestic Response

In Japan, the revised Act on the Protection of Personal Information came into full force in May 2017. The strict management of personal information is demanded now more than ever. In response, Sharp holds annual e-learning on personal information protection for all employees in Japan in order to properly manage personal information and prevent incidences of data leaks across all departments. Sharp also holds training at each business site.

While the acquisition, provision to third parties, and joint use of personal information all require internal approval, Sharp has created a more effective system for personal information protection by defining the appropriate department from which to obtain approval. In addition, Sharp operates a unique system for registering customer personal information, which involves confirming the appropriateness of the acquisition, storage, management, use, and disposal of personal information as well as its current status. Comprehensive personal information management is ensured through self-checks linked into the system and on-site audits of specific departments responsible for management of personal information.

Global Response

On May 25, 2018 the General Data Protection Regulation (GDPR) came into effect in the European Union (EU).

In response, Sharp collaborated with its affiliates in Europe and carried out a survey across the Sharp Group and a risk analysis and assessment covering the acquisition and processing of personal data in the EU. Sharp has entered into Standard Contractual Clauses (SCC) specified by the EU authorities on the movement of data outside the EU between each site within the Sharp Group. Sharp is also preparing privacy policies and updating internal rules. Sharp captures changes to other personal information protection laws similar to those in the EU, for example in Asia, as they are introduced. Sharp carries out research and analysis on each country's personal information protection law, and promotes a global compliance strategy for the handling of personal information.

Compliance with Competition Laws

Basic matters relating to compliance with cartel rules under competition laws required of employees in their duties are set forth in the Antimonopoly Act Compliance Manual (Action Guidelines). To raise awareness amongst employees, Sharp has prepared a guidebook summarizing the key points of competition laws for each field of business, and it carries out periodic internal training. Sharp also raises awareness internally of case studies relating to competition laws from within Japan and internationally as well as information on major revisions to the laws. Sharp prevents actualization of competition law-related risks in transactions with business partners by reviewing all contracts and consulting with its legal department when approving new contracts.

Sharp maintains the effectiveness of the compliance program by confirming the circumstances of matters such as transactions and contacts with competitors in each field, and the legal department captures competition law risks by having the business departments report on the risks in these transactions and contacts. This enables Sharp to capture how likely competition law risks (such as cartel activities or bid-rigging) are to occur in a certain business area, and to prevent actualization of said risks. No violations occurred in fiscal 2017.

Governance: Compliance

Exclusion of Antisocial Forces

Fundamental Stance on the Exclusion of Antisocial Forces

As a matter of basic policy, Sharp prevents or excludes any association with antisocial forces without exception, and deals with them in a resolute manner. It has established specific guidelines in the Sharp Group Charter of Corporate Behavior under the section entitled “Practice of Fair and Open Management,” as well as clearly stipulated in the Sharp Code of Conduct that Sharp shall seek to exclude antisocial forces by being “cooperative in the maintenance of social order, and will not engage in antisocial activity.”

Activities Aimed at Excluding Antisocial Forces

Sharp Corporation has established Rules for Excluding Antisocial Forces, which serve as the basis for Sharp’s efforts to prevent antisocial transactions, as well as Sharp’s preparation and updating, as needed, of such resources as manuals for dealing with antisocial forces.

In order to facilitate its handling of antisocial forces, Sharp maintains a system of prompt communication and cooperation with the police, legal advisors, and other external experts, from whom it regularly obtains information, which is then thoroughly disseminated and managed amongst the Sharp Group. Sharp also works to raise employee awareness by conducting once-a-year compliance training, which includes how to deal with antisocial forces.

In addition, Sharp Corporation and its affiliated companies in Japan take other steps to exclude antisocial forces, such as including a stipulation of antisocial forces exclusion in all basic agreements for ongoing transactions and concluding memorandums containing the equivalent stipulation with existing suppliers.

Governance: Intellectual Property Protection

Intellectual Property Protection

Intellectual Property Strategy and Management System

Sharp regards its intellectual property strategy as one of its critically important management strategies, and it is promoting it together with its business strategy and R&D strategy. By aggressively obtaining patents, Sharp is boosting the superiority of its product and device businesses and strengthening its business foundation. The company's intellectual property department was spun off into ScienBiziP Japan Co., Ltd. (SBPJ) in 2016, with a view to making it a profit center of Sharp. Because SBPJ is well versed in Sharp's products, technologies, and businesses, it can offer a high level of specialized service and improved efficiency. SBPJ gives Sharp more driving force in its intellectual property management, generating strong patents and economic value from Sharp's state-of-the-art technologies.

Regarding patent applications, Sharp defines core technology areas with respect to each business and strategically files patent applications that are tightly coupled with its business development. Sharp is also acquiring useful patents invented in cooperation with other companies or derived from the activities of alliances, such as industry-university cooperation. In addition, Sharp is filing applications and registering rights for designs and trademarks globally under its brand strategy.

Protecting Intellectual Property

Sharp maximizes the use of its intellectual property by linking it to its business strategy and R&D strategy. It is also firmly committed to protecting its own intellectual property rights, while also respecting the intellectual property rights of others. While Sharp takes an amicable approach to resolving issues of infringement, it is the company's policy to seek the judgment of a third party, such as the courts, when its intellectual property rights are not respected.

Sharp is also working to bolster protection for trade secrets and to prevent unauthorized disclosure of production technologies and manufacturing know-how, particularly those that are unique or critically important to Sharp. Further, counterfeit Sharp-brand products have had a growing impact in overseas markets in recent years, and Sharp is taking measures to counter these imitations through cooperation with industry groups and with regulatory authorities taking enforcement actions.

Governance: Information Security

Information Security

* Self-evaluation: ★★★ Achieved more than targeted / ★★ Achieved as targeted / ★ Achieved to some extent

Fiscal 2017 Objectives	Fiscal 2017 Achievements	Self-Evaluation*
<ul style="list-style-type: none"> ■ Be reviewed for maintaining ISO 27001 certification ■ Develop system to prevent sending e-mail to wrong destination; use it to reduce such occurrences 	<ul style="list-style-type: none"> ■ Maintained ISO 27001 certification ■ Introduced a system to prevent employees from sending e-mail to wrong destination, and contributed to the prevention of such occurrences 	★★
<p>Priority Objectives for Fiscal 2018</p>	<ul style="list-style-type: none"> ■ Continue to maintain ISO 27001 certification ■ Develop a training system to tackle targeted e-mail attacks and fraudulent e-mail; carry out training for all employees 	

Sharp is working to ensure information security by setting forth a Global Basic Policy on Information Security for the safe and appropriate management and use of information and information systems.

As part of its efforts to enhance information security, Sharp also acquired ISO 27001 (IS 635826) certification on June 30, 2015 and has secured an appropriate information security management system.

■ Summary of Certification Activities

Organization Name	Sharp Corporation
Scope of Certification	<ul style="list-style-type: none"> • Planning, management and operation of call center service • Taking care of users' complaints • Administration and operation of a web site to sell digital books • Administration and operation of an affiliated web site • Customer satisfaction service in photovoltaic generation system and energy related businesses • Implementation of in-company information management
Certification Number	IS 635826
Certifying Body	BSI Group Japan K.K.
Initial Certification Date	June 30, 2015

Related Information: > [Global Basic Policy on Information Security](#)

Information Security Measures

In Japan, online sessions on information security are provided annually to all employees. In fiscal 2017, employees continued to learn about targeted e-mail attacks using actual incidents that occurred outside the company as case studies. This helped raise employees' awareness of and preparedness for such threats in their daily work. In fiscal 2018, Sharp will roll out its own training system and provide training to all employees. Sharp is also continuing with strengthening measures, such as a vulnerability assessment of publicly accessible websites. It is also addressing the issue of information leaks caused by targeted cyber-attacks as well as the accessing of illicit websites. The company is putting in place hacking countermeasures and using log analysis for early detection of fraudulent actions. To verify company-wide information security measures, Sharp also implements information security self-checks, and seeks to maintain and improve its level of information security.

Governance: Export and Import Control

Export and Import Control

Security Export Control

Missiles and nuclear threats, terrorist attacks in various regions, and other such issues have made global security unpredictable. This has necessitated the implementation of even stricter export controls. Sharp was one of the first companies in Japan to consistently engage in export control, an approach which dates back to the Cold War, when COCOM regulations were in effect.

In the past, it was obvious which cutting-edge technologies could be applied for military purposes. But today, with the advance of technology, there is an increasing number of cases of consumer-use technologies and products being diverted for use in a military or weaponry context. Manufacturers are required to pay the utmost attention when exporting products and components and transferring technologies.

In line with the Japanese Foreign Exchange and Foreign Trade Act (Foreign Exchange Act), each Sharp Group company, including domestic and overseas subsidiaries, has a system in place for secure export control based on the Sharp Code of Conduct and Sharp Compliance Program on Export Control. Through this system, Sharp strictly monitors goods and technologies that fall under local export control regulations, while rigorously screening the destination and the end use of Sharp products and technologies. Sharp strives for legal compliance by responding rapidly to revisions whenever laws are revised due to changes in international circumstances. In addition to observing the Foreign Exchange Act, Sharp also complies with the Export Administration Regulations of the United States on re-exporting US-origin products. These regulations are also applicable in countries outside of the US.

The key to Sharp's stringent export control is education. Sharp has various education programs that foster awareness of export control for all employees.

Sharp will maintain and further improve these systems to secure comprehensive export control.

Trade Control

Exporting and importing require proper control in compliance with the Customs Act and the Customs Tariff Act of Japan. In particular, there is a strong need for appropriate logistics control regarding the safety of goods for export and import. This is to prevent illegal cross-border trade in weapons by international terrorist groups and to ensure border control of illegal drugs, a major social issue.

Regarding export, Sharp has been certified as an AEO (authorized economic operator) exporter*. It strives for appropriate export standards by strictly observing laws and regulations in the control of distribution, security, protocols, and other procedures in the export of goods. This provides the advantage of reducing the time required for customs procedures and contributes to ensuring the safety of the global supply chain. When it comes to export/import items other than AEO exports—for example, international courier/mail or hand luggage carried by business trip travelers and visitors—Sharp has in place a system to ensure compliance with relevant export/import laws and regulations. As well as strengthening its internal control organization, Sharp reviews and updates current internal operational rules, makes a database of export/import records, and conducts thorough training.

Sharp will continue to conduct appropriate export/import control.

* An exporter recognized by the Japan Customs as having a system for security control and compliance in place.

Outline of Sharp Group

Sharp's business activities comprise "electric and electronic application equipment" (i.e., end-user consumer products and information electronics) and "Electronic Components" (i.e., key components of electronic products). By undertaking the development both of key devices based on proprietary technologies and of products in which these devices and technologies are applied, Sharp aims to inspire and impress its customers. The company is working actively to develop its business by pioneering new markets and by bringing forth never-before-seen, uniquely featured products and devices.

◇ Corporate Name	: Sharp Corporation
◇ Head Office	: 1 Takumi-cho, Sakai-ku, Sakai City, Osaka 590-8522, Japan Tel. +81-72-282-1221
◇ Representative	: J.W. Tai, Chairman, President & Chief Executive Officer
◇ Founding	: September 15, 1912
◇ Capital Stock	: 5 billion yen (as of March 31, 2018)
◇ Employees	: Consolidated: 52,548 (As of June 30, 2018) <ul style="list-style-type: none"> • Japan : 18,902 (Sharp Corporation 13,142/ other Consolidated 5,760) • Overseas: 33,646 (Consolidated)
◇ Operations	: Mainly manufacturing and sales of telecommunications equipment, electric and electronic application equipment, and electronic components.

Main Data

(Millions of yen)

	Fiscal 2013	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017
Main Sales	2,927,186	2,786,256	2,461,589	2,050,639	2,427,271
Domestic sales	1,150,091	968,449	750,499	654,012	656,144
Overseas sales	1,777,095	1,817,807	1,711,090	1,396,627	1,771,127
Operating Profit	108,560	-48,065	-161,967	62,454	90,125
Profit before Income Taxes	45,970	-188,834	-231,122	-587	89,416
Profit Attributable to Owners of Parent	11,559	-222,347	-255,972	-24,877	70,225
Net Assets	207,173	44,515	-31,211	307,801	401,713
Total Assets	2,181,680	1,961,909	1,570,672	1,773,682	1,908,660
Capital Investment	49,434	62,653	45,240	77,733	119,356
R & D Expenditures	132,124	141,042	130,120	106,107	100,536

 Related Information: > [Financial Data](#)

Main Products

Smart Homes



RoBoHoN Mobile Robotic Phone



Smartphone AQUOS R2



Wearable device funband



Plasmacluster washing machine



Healsio superheated steam oven



Pet Care Monitor



Industrial Solar Power System



Residential Solar Power System



Cloud Storage Battery System

mobile phones, electronic dictionaries, calculators, facsimiles, telephones, network control units, refrigerators, superheated steam ovens, microwave ovens, small cooking appliances, air conditioners, washing machines, vacuum cleaners, air purifiers, fans, dehumidifiers, humidifiers, electric heating equipments, Plasmacluster ion generators, beauty equipments, solar cells, storage batteries etc.

Smart Business Solutions



Digital MFP



Information display



Touch display BIG PAD

POS system equipments, electronic registers, business projectors, information displays, multi function printers, various options / consumables, various software etc.

Main Products

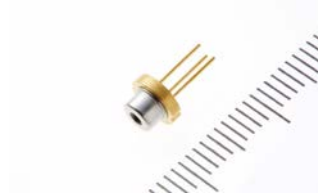
IoT Electronics Devices



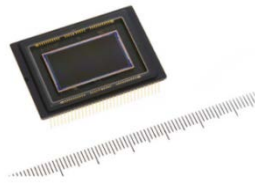
8K professional camcorder



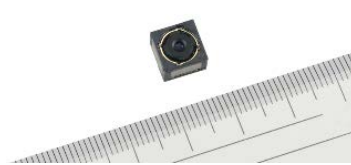
Professional network camera



Green laser diode



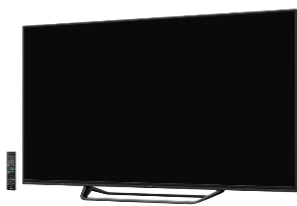
CCD image sensor



CMOS Camera module

camera modules, camera module manufacturing facilities, sensor modules, proximity sensors, dust sensors, CMOS / CCD sensors, semiconductor lasers, in-vehicle cameras, FA equipments, washing machines etc.

Advance Display Systems



8K LCD TV



8K tuner



Blu-ray disc recorder



8K LCD monitor



Free-form Display



Display with transparent NFC* Antenna

* Near Field Communication

LCD TVs, Blu-ray disc recorders, IGZO liquid crystal display modules, CG silicon liquid crystal display modules, amorphous silicon liquid crystal display modules etc.

SHARP
Be Original.

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