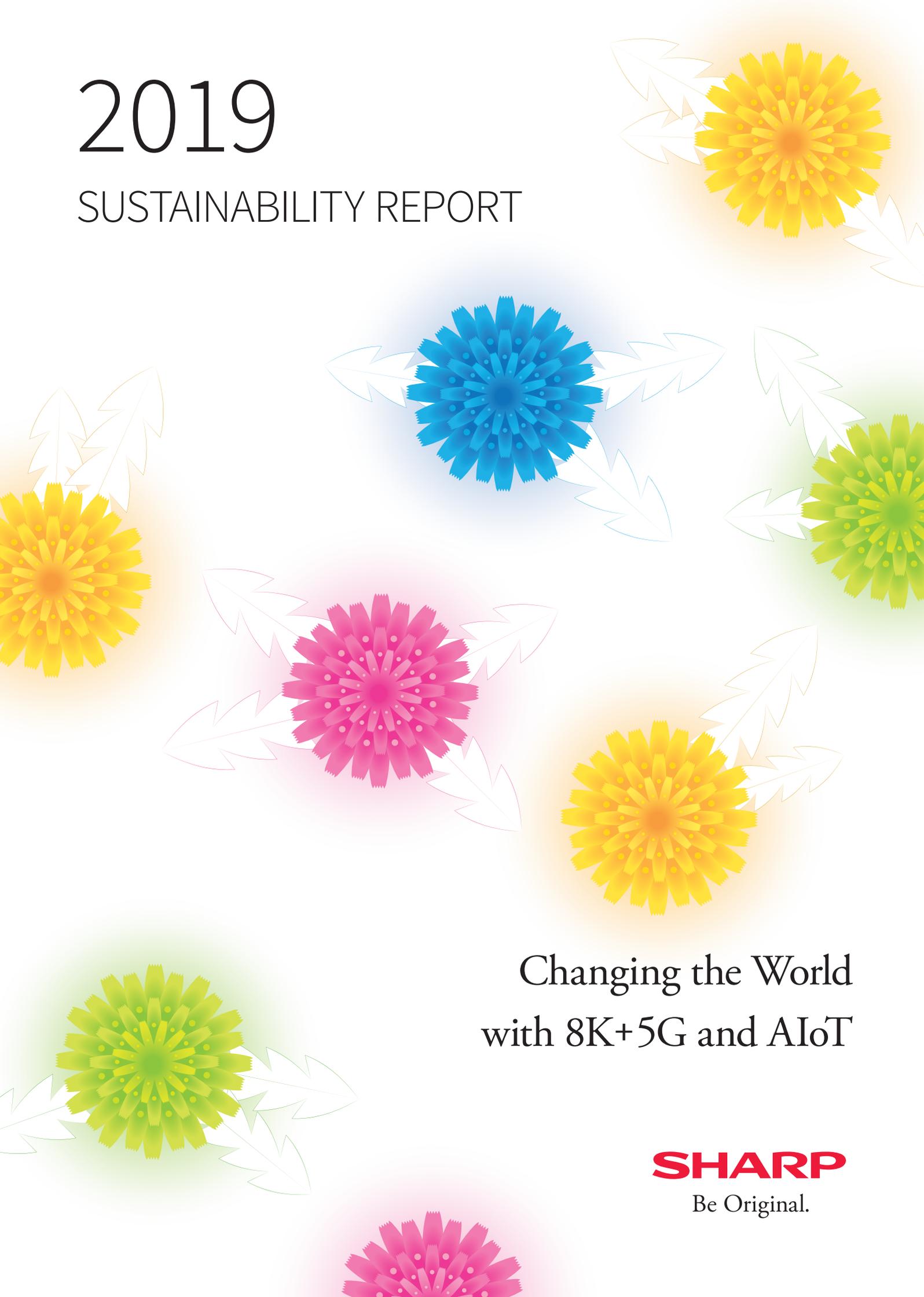


2019

SUSTAINABILITY REPORT



Changing the World
with 8K+5G and AIoT

SHARP

Be Original.

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About the Cover



“Changing the world with 8K + 5G and AIoT.” Under this bold new vision, Sharp is growing its business so that we can shine even more brightly on the global stage in 2020. This year’s cover depicts dandelions in full bloom. They symbolize the dispersed seeds of Sharp businesses, flourishing around the world.

Design by Araki,
Communication Design,
Branding Design Unit

Editorial Policy

◇ Policy for Information Disclosure:

The Sharp Sustainability Report 2019 discloses information on Sharp's corporate social responsibility (CSR) efforts, which contribute to creating a sustainable society.

◇ Period Covered:

Fiscal 2018 (April 2018 to March 2019)

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 (2018 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](#)

◇ Environmental Data:

We share detailed environmental data on greenhouse gases, waste, water, and more on the Sharp Corporation website.

> [Environmental Data](#)

◇ Scheduled Publication Data for Next Report:

September 2020 (published annually since 1999)

◇ Inquiries:

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Corporate Strategic Planning and Control Group, Sharp Corporation

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Business Philosophy and Business Creed

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

Business Philosophy	Business Creed
<p>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.</p>	<p>Sharp Corporation is dedicated to two principal ideals: "Sincerity and Creativity" <small>By committing ourselves to these ideals, we can derive genuine satisfaction from our work, while making a meaningful contribution to society.</small></p>
<p>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.</p>	<p>Sincerity is a virtue fundamental to humanity ... always be sincere.</p>
<p>Our future prosperity is directly linked to the prosperity of our customers, dealers and shareholders ...indeed, the entire Sharp family.</p>	<p>Harmony brings strength ... trust each other and work together.</p>
	<p>Politeness is a merit ... always be courteous and respectful.</p>
	<p>Creativity promotes progress ... remain constantly aware of the need to innovate and improve.</p>
	<p>Courage is the basis of a rewarding life ... accept every challenge with a positive attitude.</p>

“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

Embracing Sharp's Business Vision of "Changing the World with 8K+5G and AloT^{*1}" to Accelerate Business Innovation and Help Address the Challenges Facing the International Community



J. W. Tai
Chairman, President & CEO



At Sharp, "Changing the world with 8K+5G and AloT" is our business vision, and we are pursuing this vision with business innovations that focus on turning the 8K+5G Ecosystem and AloT World into full-fledged businesses. Specifically, we are accelerating our transition to a business model under the motto of "Technology Up, Quality Up, Value Up." This business model is built around not only the creation of highly competitive equipment and devices but also systems that integrate hardware, software, and cloud services, as well as solutions. We are also using this process to further strengthen and expand both our B2C and B2B business.

In terms of global business expansion, we have made steady progress in growing business in Japan, ASEAN countries, and Europe. Moving forward, we are pursuing even greater growth via a global, multipolar (five poles) framework, which is focused on actively intensifying the rate of business expansion in Japan, ASEAN countries, and Europe, as well as business development in China and the Americas.

At the same time, the international community is accelerating the pace of efforts aimed at addressing the various challenges which face it, as evidenced by, among other things, the United Nations' adoption of the 17 Sustainable Development Goals (SDGs) for 2030 and the greenhouse gas reduction targets of the Paris Agreement framework. Coinciding with these efforts, Sharp adopted SHARP Eco Vision 2050 in February 2019 as a new, long-term environmental vision focused on the year 2050. Through the various initiatives and policies that we implement to turn this vision into reality, we seek to ensure that Sharp's clean energy production will exceed its energy consumption, and that the environmental impact of our corporate activities will be minimal, all for the sake of contributing to the realization of a sustainable society.

Also, Sharp will continue supporting the United Nations Global Compact as a signatory^{*2} to the 10 Principles, which cover the areas of human rights, labor, environment, and anti-corruption, as well as help in addressing such global challenges as conflict minerals and protecting human rights.

Fiscal 2019 is the final year of Sharp's transformation for the next 100 years. As we work to ensure our thorough transformation in the three areas of business, competitive markets, and operations, we are building a firm business foundation to support Sharp's sustained growth as well as contributing to addressing the various challenges facing the international community via 8K+5G and AloT. And through all of this, we ensure that the future of Sharp will be one of dramatic growth.

^{*1} AloT is a word coined by Sharp, combining the words AI (artificial intelligence) and IoT (Internet of things).

"AloT" is registered trademark of Sharp Corporation.

^{*2} Signed in June 2009



Be Original.

From the beginning, Sharp has been driven by originality.
We originate technologies that enhance lifestyles,
Inspire innovations that support individual expression,
And create products that let you be you.
There is only one Sharp.
There is only one you.

SHARP

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.

8K+5G Ecosystem

Changing the World with 8K+5G and AIoT

AIoT WORLD

Business Vision “Changing the World with 8K+5G and AIoT^{*}”

Sharp’s vision is to change the world with 8K+5G and AIoT. We aim to build an 8K+5G Ecosystem and AIoT World to produce new value that only we can by working with various business partners and leveraging our unique innovative technologies in 8K, 5G, AI, IoT, and robotics. We will achieve innovation in the fields of smart homes, smart offices, entertainment, education, health, security, industry, and automobiles and attain sustained growth.

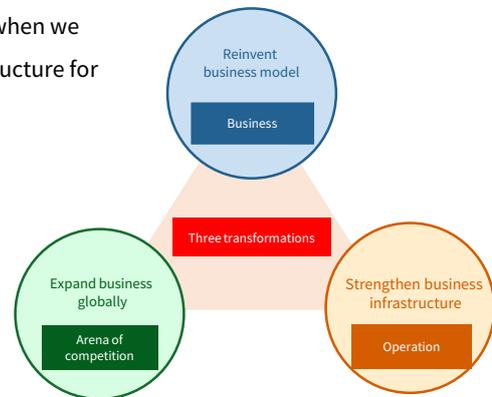


^{*} AIoT is a word coined by Sharp, combining the words AI (artificial intelligence) and IoT (Internet of things).
“AIoT” is registered trademark of Sharp Corporation.

Our Transformation Over the Next 100 Years

We view the three-year period from fiscal 2017 to 2019 to be the time when we will work on the following initiatives to build a robust business infrastructure for the future:

- ① Reinvent the Sharp business model (Business transformation)
- ② Expand business globally (Market transformation)
- ③ Strengthen the Sharp business infrastructure (Operation transformation)

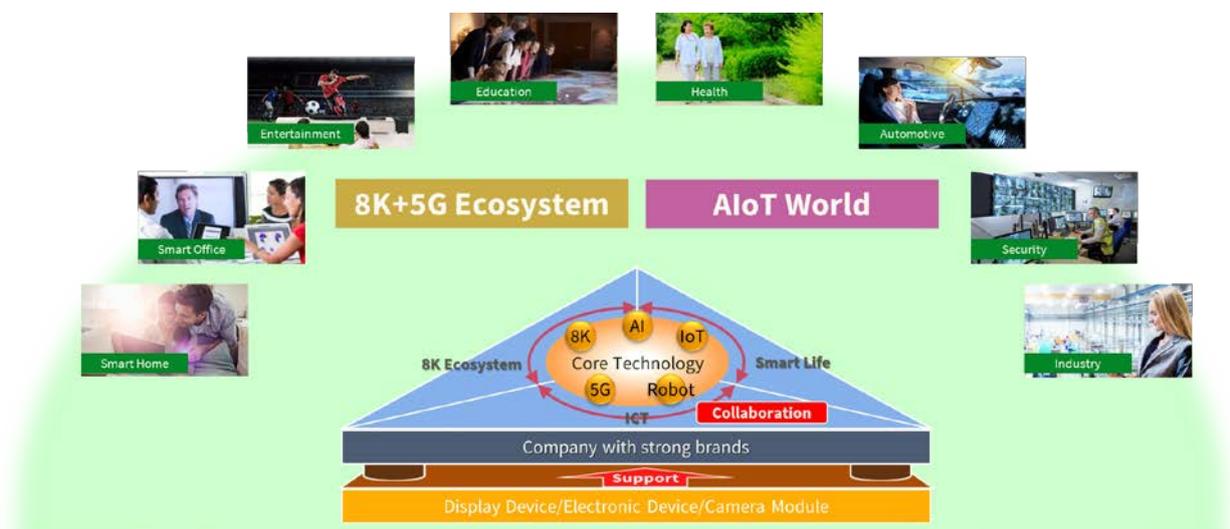


Specifically, this has entailed the recapturing of our market share in the first year of fiscal 2017 by filling out product categories and lineups and expanding customer bases and sales routes so that we could make great steps to grow our business globally. In fiscal 2018, we worked towards strengthening our profitability by improving the quality of our products and business under the policy of shifting from quantity to quality. In fiscal 2019, the final year, we aim to create highly competitive products and devices based on the key words of “Technology Up, Quality Up, Value Up”, while we also reinvent our business model to a system that fuses software, hardware and cloud services, and one that offers solutions.

Through these efforts, Sharp will not only continue to expand our current primary B2C operations, but also to further strengthen and expand our B2B operations. By increasing the ratio of that business segment, we hope to gain more certain sustained growth in the future.

Restructuring the Business Promotion System

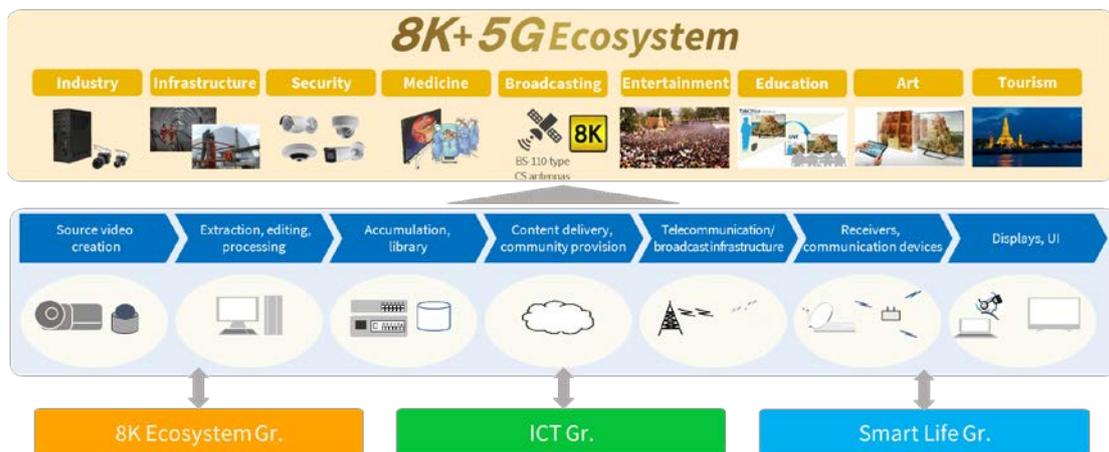
In July 2019, we restructured our business promotion system into the three business groups of Smart Life, 8K Ecosystem, and ICT, with the aim of further accelerating the reinvention of our business. We will further strengthen the vertical links between our device business segment, the driving force behind Sharp’s innovation, and our product business segment, which forges our brand, while also shoring up the horizontal links between these three business groups, so we can act as “One Sharp” to build an 8K+5G Ecosystem and AIoT World soon.





Reinvent the Sharp Business Model: 8K+5G Ecosystem

Sharp will work with various partners to create an entire value chain—from shooting and transmission to the display of video—centered on 8K ultra-high-definition technology and 5G next-generation telecommunication technology. Sharp will also aim to build an 8K+5G Ecosystem to spur innovation in not only the broadcasting field, but also a wide variety of other fields, like industry, medicine, and security.



To achieve these ends, Sharp is working on the development of products and technologies core to constructing an 8K+5G Ecosystem, such as the world’s first 8K TV AQUOS 8K and an 8K professional camcorder. We plan to bring further products to the market in the future, such as a specialized 8K monitor customized to meet the needs of customers in specialist fields, like medicine, architecture, and design, along with a compact 8K video camera, a 5G smartphone, and an 8K computer.

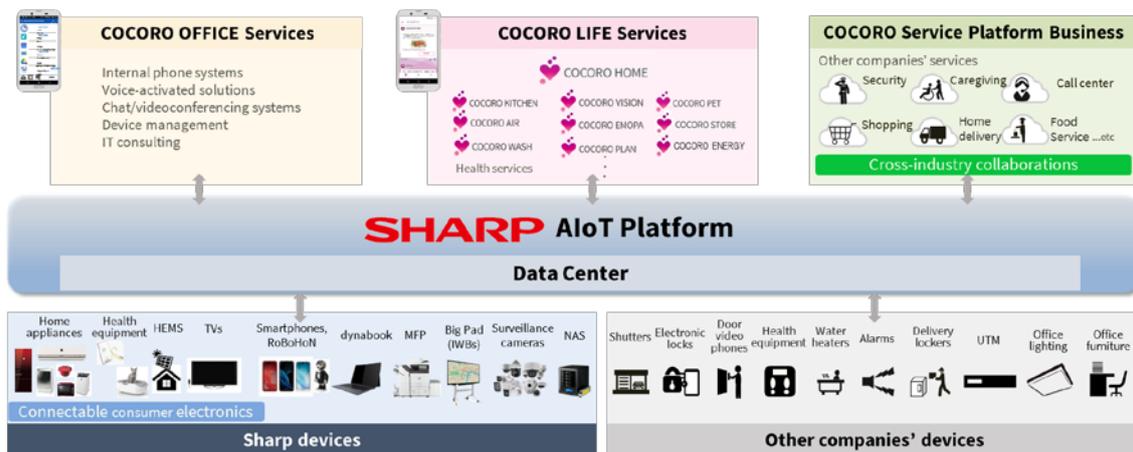
Moreover, Sharp works closely with various partners on these devices and technologies. For example, we are specifically reviewing cooperative endeavors with partners for supplementing technologies and sales routes that we do not possess so that we may establish an 8K business infrastructure in the broadcasting field. In the field of infrastructure maintenance, we are working with railway operators in the development of a new train inspection system. In the field of sports, beginning with the introduction of 8K monitors and 8K cameras to stadiums, Sharp is also proposing sports team solutions and security solutions, as well as transmission solutions that show 8K images from multiple viewpoints to increase the viewing pleasure of sporting events by transmitting images to stadium monitors and public viewing monitors. We will push forward to build innovative 8K+5G solutions with our partners in a variety of fields, as we spread its use around the world.



AIoT WORLD

Reinvent the Sharp Business Model: AIoT World

Sharp will seek to further link the devices and services we offer with those of other companies, centered primarily around AIoT platforms that enable the conversion of devices to AIoT (AI + IoT), while we also create new solutions that can build an AIoT World to further enrich the lives of people everywhere.



To accomplish these goals, Sharp is vigorously pushing forward to convert our devices to be AIoT compatible. As of July 30, 2019 we have expanded the total number of AIoT-compatible B2C devices to approximately 270. We are also making steady progress in our initiatives with our services, such as starting the new COCORO HOME smart home service and the COCORO ENERGY cloud-based HEMS service.

We will be shifting our business focus from smart homes to both smart homes and smart offices. We will also grow our own devices and services as well as expand efforts in the four business realms of AIoT devices, COCORO LIFE services, COCORO OFFICE services, and the AIoT platform business to strengthen links with the devices and services of other companies.

Specifically, in the AIoT device business, we will be moving forward to create innovative products and convert Sharp devices to be AIoT compatible. In the COCORO LIFE service business realm, we will expand the number of COCORO Members in the service, and accelerate the creation of attractive smart life services. In the COCORO OFFICE service business sector, we will work on providing unique solutions customized to match the needs of individual customers, while in the AIoT platform business sector, we will leverage the unique qualities of the AIoT platform to develop full-fledged alliances with various partners, while also pushing forward with connections with the platforms of other companies. With these initiatives we hope to swiftly expand the world of AIoT, and create smart homes and smart offices in a short time frame the way that only Sharp can.

Expand Business Globally

Sharp has gone from a Japan-centered business model to one that has expanded business to ASEAN countries, China, Europe, America, and other global regions. The results of this one aspect of our transformation for the next 100 years are clearly evident from the past two years.

Specifically, in the ASEAN countries, as a result of expanding our product categories and lineups, creating products catering to local needs, and extensively strengthening public relations, we have increased product sales by approximately 1.6 fold over the past two years. Moreover, in Europe, our re-entry into the TV business and strengthening of our home appliance business have yielded expanded sales of roughly 1.4 fold. We have moved to create further added value in our products and services in Japan as well, thereby leading to the steady development of our business.

In the future, Sharp will further accelerate the expansion of businesses in these regions. We will also continue to actively expand business in China, which is currently propelling forward structural reforms under a policy of “from quantity to quality”, and, also in America, where, beginning with our re-entry into the TV market in the second half of this fiscal year, we are beginning the full-fledged deployment of our brand business. With these efforts, we aim to have overseas sales account for 80% of total sales in the near future.



Contributing to the SDGs through Business

Sharp aims to provide new value to the world and offer solutions to global social challenges by bringing to life our business policies of 8K+5G Eco System and AIoT* World.

Each business unit (BU) has created medium- to long-term slogans in their own realm of business themed on the contributions they will make to achieving the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015, in an effort to both expand their business and produce solutions to social challenges.

* AIoT is a word coined by Sharp, combining the words AI (artificial intelligence) and IoT (Internet of things).
“AIoT” is registered trademark of Sharp Corporation.



The Links Between Sharp’s Business and the SDGs – Smart Life Group -

Smart Appliances & Solutions BU

Offering support through AIoT for a safe, healthy, and comfortable lifestyle. Yielding a smart life for the near future through people-oriented AIoT.

In our aim to help create a healthy and comfortable life, Smart Appliances & Solutions supplies customers globally with a variety of household appliances and professional-use products, such as air conditioners, refrigerators, washing machines, microwave ovens, and air purifiers.

We offer users a safe, healthy, and comfortable lifestyle in a variety of ways by applying AIoT* to conventional household appliances to match their lifestyle and preferences, such as proposing healthful food recipes, ensuring safe and comfortable indoor air environments, and reducing household chores.

Further, we carry out eco-friendly practices at the development stage on a continuing basis, such as the development of low-power-consumption technology, low-resource-use design, and the active use of recycled plastics. In the production stage, we establish numerical objectives for each factory and work to

achieve them in an effort to reduce the consumption of electricity and gas by the factories, as well as reductions in the volume of waste produced.

Smart Appliances & Solutions will continue to use its unique creativity to develop eco-friendly technology while advancing the evolution of AIoT to realize a safer, healthier, and more comfortable smart life for customers.

*AIoT is a word coined by Sharp, combining the words AI (artificial intelligence) and IoT (Internet of things). AIoT is a vision of how products and services will connect to artificial intelligence via the cloud and become a people-oriented existence.



Sharp Energy Solutions Corporation (SESJ)

Providing eco-friendly, energy-producing solar power systems to countries around the world to help solve the pressing energy challenges we face.

Making people’s lives even better by providing energy solutions (systems and services) that can make clever use of electricity.

This year marks the 60th anniversary of Sharp’s journey in solar power systems, which began from this observation made by Sharp’s founder, Tokuji Hayakawa: “If we could find a way of generating electricity from limitless solar heat and light, that would benefit humankind to an extent we can scarcely imagine.”

SESJ has remained true to these words, and works consistently from development to sales, installation, and after-sales service in its domestic and overseas energy solutions business to contribute to achieving the SDGs.

Specifically, through the expanding installations of solar power systems on rooftops of housing and factories to mega-solar projects, we are working to

achieving goals 7 and 13 of the SDGs. (See page 34 for examples.)

With a view towards promoting the use of renewable energy sources, we are also working to create smart homes that merge with people-oriented IoT home appliances. We are also creating new solutions, like self-consumption systems that efficiently link sower power systems with storage batteries and systems to cut peak demand to help achieve goals 11 and 12 of the SDGs. (See page 33 for examples.)



Solar power plant (Quang Ngai, Vietnam)



The Links Between Sharp's Business and the SDGs – Smart Life Group -

Camera Module BU

Expanding business and solving social issues through the innovation of camera technology from simply taking pictures to recognizing what's in them.

Camera Module develops and sells camera modules for primarily smartphones. The smartphone market has entered a period of low growth; however, with compound-lens cameras on smartphones, this field still retains the possibility for growth in the future.

Developments in AI allow for expanded new uses through the merger of cameras and AI, with expectations placed on technological innovation towards cameras that go beyond simply taking pictures but also having recognition capabilities. AI cameras are already in use for biometric authentication, surveillance, automotive applications, and monitoring uses. Further use in all types of infrastructure is anticipated for the future.

Camera Module is also working on 3D sensing technology. By adding 3D information to image data, we are working to improve sensing precision and strengthen security. We are also considering applications in the field of entertainment, such as with

VR and AR.

Camera Module will continue to work to improve the basic performance of camera modules, and will leverage the technology that has been developed with smartphones to work towards 8K compatibility, miniaturization, and other applications outside of smartphones. By applying this technology to other fields, such as medicine with 8K endoscopic cameras that can visualize arteries that were not visible before, or in surveillance with miniaturized AI surveillance cameras that can automatically detect intruders, we will contribute to building a safer and more reliable society.



Camera modules and products that use them



Sharp Fukuyama Semiconductor Co., Ltd. (SFS),
Sharp Fukuyama Laser Co., Ltd. (SFL)

Helping to create a people-oriented society through devices that serve as the technological infrastructure for 8K and AIoT.

SFS and SFL create the various key devices that underpin Sharp's unique products. We currently develop and sell the devices and modules that are the technological infrastructure for 8K and AIoT.

8K technology is not simply limited to TV broadcasting. Because it handles an overwhelmingly large amount of data, there are other anticipated applications for it in various industrial fields, such as infrastructure maintenance, safety monitoring, and remote medicine. Moreover, sensors are an indispensable part to achieving an AIoT society.

In addition to LSI (8K SoC), needed for 8K image processing, and CMOS image sensors (8K CIS), the entry point for images, we have an assortment of products, including various sensors, semiconductor wafers, laser devices with the three primary colors of

red, green, and blue that allow for full-color image projection.

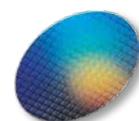
These businesses drive industrial and technological innovation, and through the contributions we make to building a healthy and comfortable society for all, we are working to improve the social value of our company.



8K SoC



8K CIS



Semiconductor wafer



Sensors



Laser devices



The Links Between Sharp's Business and the SDGs – 8K Ecosystem Group -

Business Solutions BU

Providing smart office solutions to boost client productivity and efficiency, and helping to create a better work environment.

Business Solutions provides smart office solutions that contribute to improved work efficiency, centered on MFPs and peripheral equipment such as the BIG PAD e-blackboard and TeleOffice videoconferencing system. Up to now, MFPs focused primarily on the input/output of paper-based information. However, as work styles diversify, MFPs are transforming into comprehensive business task-support equipment that work better with cloud-based data and aim to create a work environment of optimal efficiency, regardless of the task at hand. In addition to MFPs, Sharp offers a wide range of hardware, including display products, PCs, and smartphones all indispensable to office work. We aim to give back to society by improving workspace environments with total solutions that involve proposals on device usage and business task improvement.

Along the journey to create the future we all look

forward to, Business Solutions will work to respond to the needs of society for improvements to work environments, mitigation of personnel shortages, and increased office productivity. We will not only continue with the technological development of hardware, but also work to optimize service platform and application solutions. In the future, we will go beyond simply improving office information security and task efficiency; we will contribute to the creation of a more pleasant work environment that will form the foundation of our new information society.



MX-6171 digital full-color MFP
Note: Photo shows optional equipment.



TV Systems BU

Building an 8K+5G Eco System and AloT World through the development and expanded sales of AV products to provide solutions for a more convenient and comfortable lifestyle.

TV Systems BU works on product development daily to create and provide new solutions to enhance the audio-visual experience.

Since producing the world's first 8K UHD display in 2011, we have worked to develop technology to display vivid, detailed images and to reduce costs to make 8K available as a consumer product. This has culminated in the release of the AQUOS 8K AX1 Series—the world's first* LCD TV with a built-in 8K tuner—ahead of the December 1, 2018 start of new 8K broadcasting in Japan.

We have also worked on the development of products in new genres in the field of audio as well. The AN-SX7A AQUOS Sound Partner wearable neck speaker, released in March 2019, is worn below the ear, rather than covering it, and allows the listener to be enveloped in the sound without shutting out ambient

sounds. Development on this product began in 2013, and repeated trial-and-error efforts were made until superb sound quality and wearability were achieved. We will continue to develop carefully thought-out products to provide solutions for exciting new lifestyles.

* World's first TV to include a receiver for NHK BS 8K broadcasting, which began in December 2018.



8T-C80AX1
8K LCD TV



AN-SX7A
Sound Partner



The Links Between Sharp's Business and the SDGs – 8K Ecosystem Group -

Display Device Company

Aiming to build an 8K+5G Ecosystem and AIoT World with the IGZO^{*1} display. Offering solutions—through high-definition, energy-efficient, environmental durability, high-speed drive technology—to the social challenges of healthcare, education, infrastructure, and self-driving, as they evolve in an AIoT society.

We currently develop, manufacture, and sell display modules for a variety of uses. Among these an LCD that utilizes IGZO, an oxide semiconductor that we were the first in the world to successfully mass produce^{*2} in March 2012, is notably characterized by its 1) high definition, 2) high-speed drive, 3) low power consumption, and 4) versatility in design, and has been widely embraced by the market.

The evolution of IGZO continues daily to yield the high-speed, high-data-capacity, high-quality display that will be required in an age of 8K+5G. There will be expectations for the creation of innovative displays in every aspect of our lives. These include ultra-high-speed professional-use monitors in medicine and broadcasting allowing a smooth, high-definition display; mobile device and outdoor signage displays

with ultra-low power consumption and high luminosity; and in-vehicle devices with entirely new designs. We are also committed to creating an AIoT society for all by developing the technology for OLED displays, which are expected to grow in use in the future.

^{*1}An oxide semiconductor comprising indium, gallium, zinc, and oxygen.
^{*2}Mass produced through joint development with Semiconductor Energy Laboratory Co., Ltd.



Outdoor signage (smart bus stop)



Corporate Research & Development BU

Creating the newest and finest technology in the world that will make an impact on society. Using this as a starting point for the creation of an entirely new ecosystem that will contribute to a sustainable society.

Corporate Research & Development is the core team in developing the technology to pave the way for Sharp in the future. We create unique technology seminal to new business, and we are working on the construction of an entirely new ecosystem. Our efforts are most focused on building an ecosystem centered on 8K+5G-related technology. In this field, we wield significant competitive edge, such as possessing numerous patents compliant with high-quality wireless communication standards, signified by the 695 patents (5% of global market share and ranked 8th as of May 15, 2019^{*}) in the 5G standards patent family indispensable to 5G products. We also have diverse 8K-related technologies.

Leveraging this technological capacity, Corporate Research & Development collaborates with various partners in the 8K value chain—from video creation and processing to transmission and display—while advancing the construction of this new ecosystem and

being the first to create locally optimized 8K solutions. Moreover, by combining 5G's benefits of being able to send large amounts of data at ultra-high speeds, multiple simultaneous connections, and low-delay/high-reliability transmission, we will contribute to solving social challenges across a wide spectrum of fields, like video, broadcasting, medicine, security, education, and infrastructure maintenance. We will use these efforts to work towards creating a safe and reliable society for all and to achieving goals 3, 4, 7, 8, and 9 of the SDGs.

^{*}According to research by a third-party institute.

Collaborate with partners across the entire value chain to reinvent business through the early establishment of the 8K+5G Ecosystem



The Links Between Sharp's Business and the SDGs – ICT Group -

Mobile Communication BU

Using communication technology to build a society where everyone has an equal opportunity to find decent work and education.

Mobile Communication aspires to be a people-oriented business unit that leverages communication technology to keep on producing new value and providing products and services, such as smartphones and mobile phones, that inspire people around the world to live more joyful lives.

Modern-day Japan is facing a variety of challenges and changes ahead, such as a diminishing workforce due to low birthrates and an aging population, health issues due to overwork, and diversifying work styles due to accommodation of births, childcare, and family care. Moreover, with a view of the digitization of education promoted by the Japanese government and the comprehensive 2020 enforcement of new education requirements, the shift to ICT learning environments in Japan is underway.

In response to these and in anticipation of the start of

the 5G service in spring 2020, we will leverage the technology and knowledge we have built in our business so far to provide added-value solutions. These include shifting work styles towards teleworking to liberate people from time and location constraints, and piquing the interest and fascination children have in learning by creating a mutual and cooperative learning model that allows them to autonomously and cooperatively learn in an easy-to-understand classroom environment.



5G pre-service smartphone



Wi-Fi Station mobile router for NTT DoCoMo

AIoT Cloud Inc. , Sharp Cocoro Life Inc.

Linking a diverse range of hardware and services to an AIoT platform that was developed in AIoT home appliances to yield entirely new value and contributing to the creation of the smart life of the future.

AIoT Cloud Inc. and Sharp Cocoro Life Inc. will offer platforms that have been developed through AIoT home appliances, such as cloud and voice-activated functions, as well as the office cloud solutions used within Sharp to other companies, thereby contributing to the creation of a smart life.

In the B2C field, we will provide an open platform using the COCORO HOME smartphone app, which enables the living of a smart life, to connect to not only Sharp home appliances, but the devices and services of other companies, thereby providing services that contribute to solving social challenges, such as taking care of the elderly and reducing home chores in dual-income households.

Moreover, in the B2B field, we will provide to other companies office cloud solutions already in use within Sharp offices, such as internal phone systems and chat/videoconferencing systems. By providing support for more efficient business operations, this will contribute to the important social challenge of reforming work styles.



AIoT platform

The Links Between Sharp’s Business and the SDGs – ICT Group -

Dynabook Inc.

Changing the world by creating real, people-oriented computing that serves the interests of society, and generating new added value and services. Working towards solutions that make a more comfortable world.

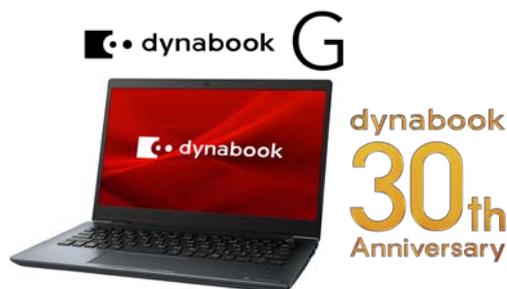
Dynabook has developed, manufactured, sold, and offered support and services for PC and system solution products as a member of the Sharp Group since October 2018.

Accompanying the change to our current company name as of January 1, 2019, we established a new vision—“Changing the world through computing and services”—and are strengthening the technology that supports the fusion of hardware (“dynabook as a Computing”) and software (“dynabook as a Service”) as we expand our business globally.

The contributions of our business and services to the SDGs spans across the fields of education, energy, decent work and economic growth, industrial and technological innovation, infrastructure, and recycling. We have utilized the power-saving technology we have cultivated up to this point to create a battery drive system that lasts for 19 hours. Additionally, we

promote waste reduction and recycling in an effort to reduce our environmental footprint.

We offer optimal devices and solutions to meet the various needs of our customers, such as the introduction of a new education paradigm that uses tablets in classrooms, as well as adapting to diversifying work styles, like telecommuting and mobile work. Moreover, we also offer various services that respond to the challenges our customers face, such as comprehensive support through life-cycle management—from planning the introduction of computers to their updating and removal.



30th anniversary model—a true PC

CSR Management

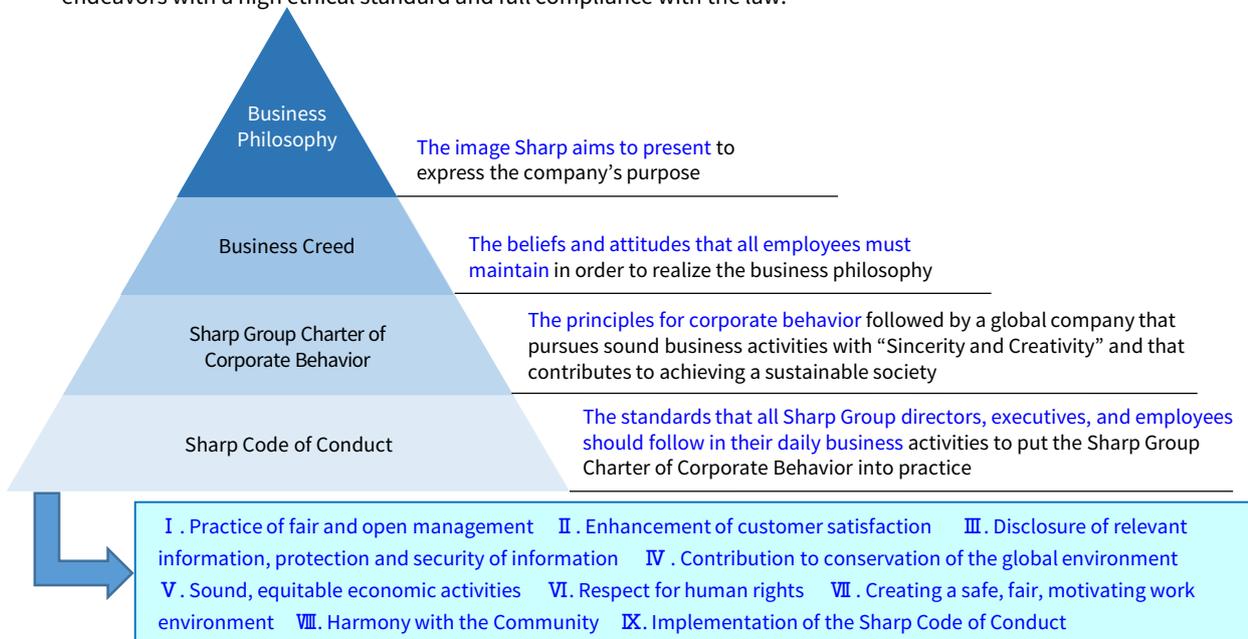
Basic Policy on CSR

It has been Sharp's business philosophy since its founding to "contribute to the culture, benefits and welfare of people throughout the world" and to understand that "our future prosperity is directly linked to the prosperity of our customers, dealers and shareholders." Based on this business philosophy Sharp has continued to meet the expectations of society and its stakeholders, and these aspirations for sustained mutual growth of the company and society are maintained as its basic philosophy behind Sharp's CSR (corporate social responsibility).

Related information: > [Business Philosophy and Business Creed](#)

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

To concretize its business philosophy and business creed, the company has set out the Sharp Group Charter of Corporate Behavior to serve as the principles of behavior for Sharp Group companies, and the Sharp Code of Conduct to serve as a standard for all directors and employees. Sharp works to ensure that these guidelines permeate the Group as fundamental CSR policies, and that the Group takes appropriate and sincere action in all of its business endeavors with a high ethical standard and full compliance with the law.



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

Resolutions and revisions regarding the adoption of the Sharp Group Charter of Corporate Behavior and the Sharp Code of Conduct are issued by the boards of directors of Sharp Corporation and its main subsidiaries and affiliate companies in Japan and overseas.

These documents have been periodically reviewed and revised* 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. In addition, internal notices are circulated and annual training sessions are held to ensure that employees are fully aware of these documents. At overseas subsidiaries and affiliate companies that have adopted the Sharp Group Charter of Corporate Behavior and the Sharp Code of Conduct, Sharp translates these documents into the local languages to ensure the entire Group becomes fully aware of them.

In fiscal 2018, Sharp used e-learning to carry out a compliance workshop based on the Sharp Code of Conduct for eligible employees at Sharp Corporation, 12 consolidated and non-consolidated subsidiaries in Japan, and seven affiliate companies as well as eligible labor union members.

This training aimed to engrain a mindset in participants to prevent problems from occurring. It covered the importance of conducting business activities thoroughly in line with the Sharp Code of Conduct. It also covered a wide range of themes, including the whistleblowing system, prohibitions on child labor, protection of young/student workers, competition laws, eliminating bribery and corruption, protection of personal information, and information security.

*Revisions: April 2003; May 2005; April 2010; January 2015

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

CSR Management

Sustainability Policy, Vision, and Strategy

In line with Sharp's basic philosophy and policy towards CSR and amidst its CSR efforts spanning a broad scope, Sharp defined the topics considered particularly important in mitigating impacts on society and the environment as its SER (Social and Environmental Responsibility) and formulated its SER Policy in August 2016.

SER Policy

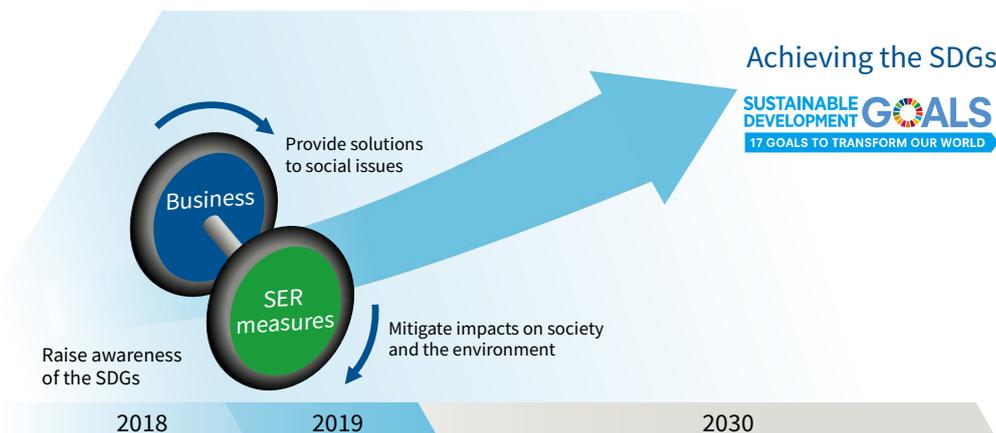
1. Value the rights of employees and ensure their health and safety.
2. Fulfill environmental responsibilities in business activities and manufacturing processes.
3. Build and operate an SER management system based on international standards, regulations, and client.

Furthermore, beginning in fiscal 2018, Sharp has positioned its role to contribute to the achievement of the Sustainable Development Goals (SDGs)—adopted by the UN in September 2015 with major expectations placed on corporations—in its medium- to long-term vision, and is moving forward with those efforts.



Beginning in fiscal 2019, Sharp is accelerating its efforts towards this medium- to long-term vision through a two-pronged approach of creating solutions to social problems through business and technological innovation, and reducing the social and environmental toll of its business activities through the promotion of actionable SER measures in line with the SER Policy. Sharp's fundamental strategy remains contributing to the achievement of the SDGs while also continuing to respond to ESG* investments.

* Environmental, social, governance



CSR Management

CSR Management Promotion Framework

In 2016, Sharp created and is currently running the Sharp Global SER* Committee to integrate the SER Policy to the level of actionable measures and manage them along a PDCA cycle.

The Sharp Global SER Committee is chaired by Sharp Corporation's executive vice president and is vice-chaired by the environmental manager and personnel manager. Moreover, all in-house company presidents and business unit general managers serve as committee members, and the related divisions of the Sharp Head Office participate as the support team.

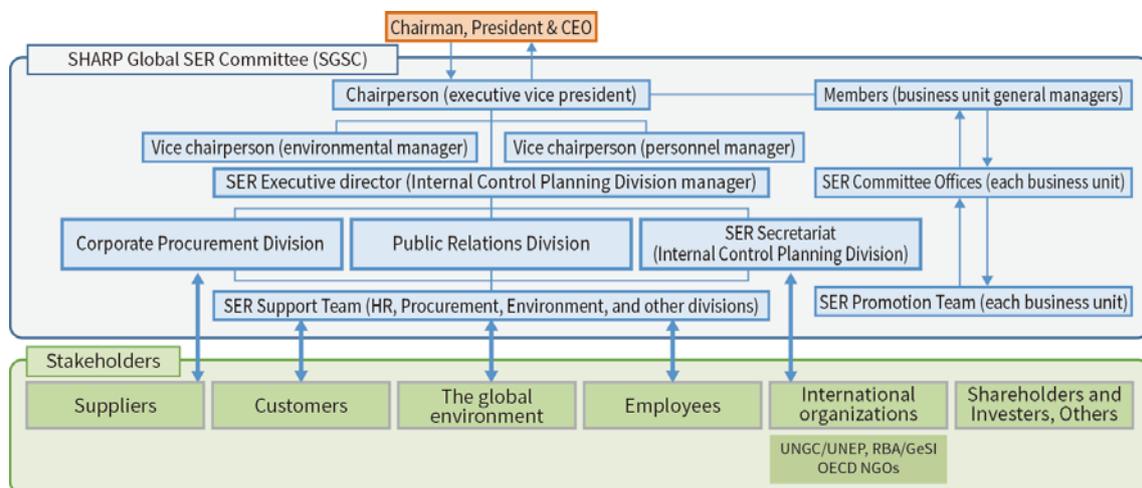
The convening body of the Sharp Global SER Committee, the SER Conference, meets biannually to engrain SER policies and visions into the Sharp Group, discuss crucial measures, confirm and review the progress of business activities and SER measures aimed at achieving the SDGs in each in-house company and business unit, and share the latest global trends in social issues.

Also, the content of the SER Conference is reported, as needed, to the company's board members, and the Conference manages efforts towards solutions to social issues through business activities of the Sharp Group while coordinating management and business policies from a medium- to long-term perspective.

In the in-house companies and business units, SER Committee Offices and SER Promotion Teams have been established under the supervision of the in-house company president or business unit general manager. These organizations promote business that contributes to achieving the SDGs, select annually formulated important SER measures closely linked to business, and determine key performance indicators in their work towards solutions for social issues.

* Social and environmental responsibility

Sharp SER Committee Organization Chart



As of March 2019

Material Issues

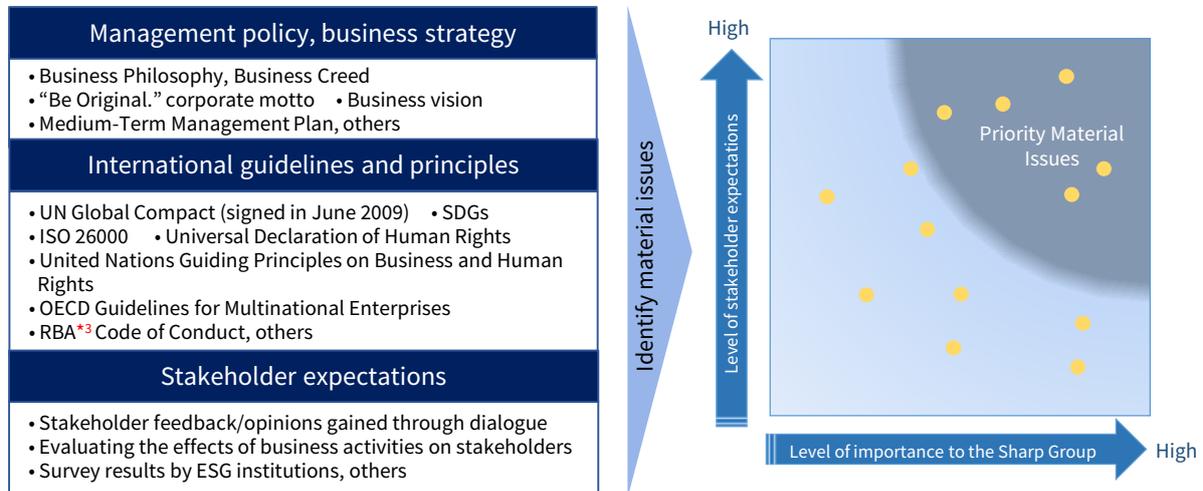
In recent years, there has been a spate of international long-term goals announced that seek solutions for social issues at the global level, such as the Sustainable Development Goals (SDGs) and the Paris Agreement*1. Expectations continue to grow for companies to put forth an effort towards these goals.

Against this backdrop, Sharp, in its aim to contribute to achieving these goals to solve global-level social issues, is identifying and making efforts on material issues for the Sharp Group from a medium- to long-term perspective.

In identifying the material issues, the more crucial issues were selected after reviewing management policy, business strategy, the SDGs, and international guidelines such as the UN Global Compact, as well as the opinions and expectations of various stakeholders, the effect of Sharp's business activities on stakeholders, and the results of various surveys by ESG*2 survey institutions. The major CSR themes selected were mapped along the two axes of "importance to society (level of stakeholder expectations)" and "level of importance to the Sharp Group," and the issues to be prioritized were identified.

Moreover, Sharp is positioning the strengthening of governance as the basis for all of its corporate activities. It is organizing the identified material issues along the two perspectives of offering solutions to social issues through innovation and reducing the social and environmental impact of its business activities.

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



<p>Solutions to social issues through innovation</p> <p>Constructing an 8K + 5G Ecosystem</p> <p>Provide solutions in the fields of medicine, security, inspection, and infrastructure maintenance using ultra-high-definition 8K</p> <p>Expanding people-oriented AIoT*4</p> <p>Expand the various applications for AI and IoT-capable devices to offer a safe, convenient, and comfortable smart lifestyle</p> <p>Utilizing ICT</p> <p>Utilize computing to provide remote support systems in factories, conference, solutions, and education solutions</p>	<p>Reducing the social and environmental impact of Sharp's business activities</p> <p>Labor and human rights</p> <ul style="list-style-type: none"> • Health and safety of employees • Preventing harassment • Respect for human rights <p>Environment</p> <p>Efforts towards SHARP Eco Vision 2050 long-term environmental vision*5</p> <ul style="list-style-type: none"> • Climate change (achieving a carbon-free society) • Resource recycling (achieving a circular economy) • Safety and security (thorough management of chemicals) <p>Supply Chain Management</p> <ul style="list-style-type: none"> • ESG risk management across the entire supply chain • Responsible mineral procurement
<p>Strengthening governance</p> <p>Corporate governance, risk management, compliance, information security, others</p>	

*1 An international framework for the prevention of global warming agreed on at the 21st yearly session of the Conference of the Parties to the 1992 United Nations Framework Convention on Climate Change (COP21), held in Paris in 2015. The agreement was to hold the increase in the global average temperature to well below 2°C above pre-industrial levels.

*2 Environmental, social, governance

*3 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.

*4 AIoT is a word coined by Sharp, combining the words AI (artificial intelligence) and IoT (Internet of things). "AIoT" is registered trademark of Sharp Corporation.

*5 See page 26

Material Issues

Monitoring Material Issues

Sharp is monitoring the integration of identified material issues at the level of specific and measurable actionable policies.

Regarding solutions to social issues through innovation, in addition to monitoring progress using financial indicators as has been previously given in the Medium-Term Management Plan, Sharp has established a medium- to long-term vision for each in-house company and business unit to contribute to achieving the SDGs. Sharp has begun to report and confirm this progress at the SER Conference.

For the reduction of the social and environmental impact of Sharp's business activities, each year Sharp formulates company-wide SER priority policy guidelines. Each in-house company and business unit selects priority measures that are crucial to their operations, sets SER measures (including goals, KPIs, scope, and action plans), makes efforts to achieve them, and conducts self-assessments each quarter.

The Sharp Global SER Committee performs ongoing follow-ups on the progress of implementation of the SER measures for each in-house company and business unit. Company-wide progress is shared and evaluated at the SER Conference, the convening body of the SER Committee.

The fiscal 2018 SER measures progressed largely as planned in all in-house companies and business units. However, the topics with remaining issues and the measures to be taken for improvement are being reviewed at the SER Conference.

Moreover, regarding the strengthening of governance, in addition to confirming the status of efforts at company-wide meetings for each of the topics, the responsible divisions for each topic sets and pushes forward with annual goals. The goals and achievements are disclosed on the relevant pages of the "Governance" section of the Sharp Sustainability Report.

Fiscal 2018 Company-Wide SER Priority Policy Guidelines

SER Measures	Scope	Related SDGs
Restrict long working hours that can lead to health problems	All employees in Japan	 
Prevent harassment	All employees in Japan	 
Respect for human rights at overseas bases	All employees at overseas bases	  
Comply with and efficiently respond to relevant Japanese and overseas laws related to conflict minerals	Applicable business units	
Carry out SER performance survey/audit at Sharp plants based on international SER standards (RBA* ¹ Code of Conduct)	All production sites and consolidated production subsidiaries in Japan	    
Restructure supplier SER management system	Suppliers	    
Reduce and recycle waste	All production sites	  
Suppress greenhouse gas emissions associated with business activities (Improve energy use efficiency)	All production sites	  
Suppress greenhouse gas emissions associated with product use (Make products more energy-efficient)	Product-related business units	  
Comply with EU RoHS Directive* ² , WEEE Directive* ³ , and REACH* ⁴	All business units	    

*¹ 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.

*² RoHS: Restriction of Hazardous Substances. An EU directive on the restriction on the use of certain hazardous substances in electrical and electronic equipment.

*³ WEEE: Waste Electrical and Electronic Equipment. An EU directive on waste electrical and electronic equipment.

*⁴ REACH: Registration, Evaluation, Authorisation, and Restriction of Chemicals. A set of EU regulations on the registration, evaluation, authorization, and restriction of chemicals.

Material Issues

SER Risk Evaluation in Line with International Standards

Sharp believes that to ensure global business expansion is accompanied by the creation of a sustainable society, it is extremely important to conform to SER international standards.

Since fiscal 2015, the Sharp Group 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. It has been carrying out ongoing SER self-assessment surveys of 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 2018, the survey was carried out at 31 plants 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. Feedback is then provided to each site, and a summary of the assessment results are reported at the SER Conference.

The assessment scores of fiscal 2018 are shown in the graph at right (by area), with almost all sites scoring well with 70 points or more (B rank). No problems have been identified that pose an immediate, large SER risk for the Sharp Group as a whole.

Moreover, for some plants, interviews regarding response content are being conducted through site visits and teleconferences by representatives from the relevant head office divisions.

Constant improvement is being encouraged for inadequate efforts and latent risks that have been identified through interviews.

<Area-Specific Assessment Ranking Distribution>



Rank A: 90 points or more Rank B: 70 points or more
Rank C: 50 points or more Rank D: Less than 50 points
(Perfect score is 100 points)

Examples of latent risks identified through site visits/interviews

- Education and training regarding ethics not being given to workers regularly (ASEAN production base)
- Inadequate framework to determine supplier SER efforts and evaluate risks (Europe production base)
- Facility BCP (business continuity plan) not being regularly reviewed (domestic production base)

In fiscal 2019, Sharp will make improvements, such as adding governance documentation to self-assessment survey forms, with the goal of promoting further understanding of the SER international standards of site personnel through responses to surveys. It will work towards increasing continuous efforts in line with international standards while mitigating SER risks throughout the entire Group.

* 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.

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 suitably discloses information, verifies that it is responding to the needs and expectations of shareholders by opening various channels of communication, and makes use of the feedback it receives in its corporate activities.

Sharp will continue to incorporate the voices of its stakeholders in the improvements made to its corporate activities.





Environmental Initiatives



3%

Improvement rate of energy intensity of logistics



20%

Improve the processing efficiency of the washing machine recycling line

- > [Environmental Vision](#) P. 26
- > [Climate Change](#) P. 28
- > [Resource Recycling](#) P. 36
- > [Safety and Security](#) P. 45
- > [Environmental Management](#) P. 48
- > [Biodiversity Protection/Communication with Local Communities](#) P. 54
- > [Environmental Data](#) P. 56

Environmental Initiatives: Environmental Vision

SHARP Eco Vision 2050 Long-Term Environmental Vision



From “Increasing Green Shared Value” to SHARP Eco Vision 2050

Based on “Increasing green shared value,” the environmental policy Sharp established in fiscal 2013, Sharp has worked toward its environmental target of making 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 across the entire supply chain. In fiscal 2018, Sharp’s positive impact (i.e., avoided GHG emissions) was equivalent to 30.012 million tons CO₂ and its negative impact (i.e., GHG emissions) was 28.171 million tons CO₂. This was the result of Sharp’s ability to build an environmental management system in which positive impact can consistently exceed negative impact.

Meanwhile, the world is becoming aware of the need to take on increasingly serious environmental problems, such as climate change, resource depletion, and ocean plastic. This awareness is accelerating global action aimed at solving these social problems; for example, the Sustainable Development Goals (SDGs^{*1}) and the Paris Agreement^{*2}, a framework for reducing greenhouse gases.

As a global company, Sharp is determined to solve such social problems. Based on its Basic Environmental Policy of “Creating an Environmentally Conscious Company with Sincerity and Creativity”, Sharp has updated its environmental policies and formulated SHARP Eco Vision 2050, a long-term vision with 2050 as the target year. Under this vision, Sharp is taking on the challenge of realizing a sustainable global environment by providing the world with clean energy, while at the same time minimizing the environmental impact caused by greenhouse gases, waste, and other by-products of its business activities.

To this end, Sharp has set goals in three fields of action: climate change, resource recycling, and safety and security. A particularly important goal is in the field of climate change, where based on the 2°C target^{*3} stipulated in the Paris Agreement, Sharp aims for the long-term decrease of greenhouse gas emissions.

In addition to working to protect the environment through business activities such as technological development and the provision of products and services, Sharp is aiming to solve social problems and continuously raise corporate value by deepening ties with stakeholders.

*1 Adopted by the United Nations in 2015, the SDGs are a set of 17 development goals for the world to achieve by 2030 in order for society to realize sustainable development.

*2 An international framework for the prevention of global warming agreed on at the 21st yearly session of the Conference of the Parties to the 1992 United Nations Framework Convention on Climate Change (COP21), held in Paris in 2015.

*3 A goal to limit the increase in the global average temperature to well below 2°C above pre-industrial levels.

Environmental Initiatives: Environmental Vision

Long-Term Environmental Goals

To bring about SHARP Eco Vision 2050, we have stipulated long-term goals in three fields of action. In pursuing these goals, we will strive to create more clean energy than the total amount of energy consumed in Sharp's entire supply chain, while minimizing the environmental impact of our business activities.



Climate Change

Sharp has up to now striven to use less energy in its business activities and to make products that are increasingly more energy efficient so as to reduce the amount of energy consumed by households and society as a whole.

We began developing solar cells after founder Tokuji Hayakawa said, "All the products we make use electricity. As our company grows, we will need more electricity, so why don't we make electricity ourselves?" Since then, we have spent more than half a century working to spread solar power generation.

It is precisely because Sharp makes products that use electricity that we have a responsibility to reduce the environmental impacts resulting from this electricity use.

By striving to reduce energy consumption and create clean energy, Sharp is taking on the challenge of achieving the following two goals by 2050 and thus realizing a carbon-free society.

Goal

- Create more clean energy than the total amount of energy consumed in Sharp's entire supply chain.
- Achieve net zero CO₂ emissions in Sharp business activities.



Resource Recycling

Sharp has up to now provided the world with all kinds of value through the creation of new products. At the same time, we have used many finite resources to do so.

Sharp should continue to provide its stakeholders with all kinds of value by making the most efficient use of finite resources around the globe.

By making more efficient use of resources and continuing to offer maximum value with minimal resources, Sharp is taking on the challenge of achieving the following two goals by 2050 and thus realizing a recycling-oriented society.

Goal

- Use no newly extracted resources* for making products.
- Achieve zero final disposal to landfill of waste generated in Sharp business activities.



Safety and Security

Sharp uses various chemicals in production processes in its factories, and the products themselves contain various chemicals. Such chemicals must be strictly managed because some of them can have negative effects on people's health, the natural environment, or ecosystems.

Sharp's business activities must not have a negative effect on people's health, the natural environment, or ecosystems.

As well as complying with current international standards, Sharp has established its own even stricter in-house standards. Under these far-sighted standards, we thoroughly manage relevant chemicals with the goal of eliminating any negative effects that chemicals may have on people's health, the natural environment, or ecosystems.

Goal

- Properly manage chemicals in order to protect people's health, the natural environment, and ecosystems.

* Excludes those not suitable for recycling from an environmental standpoint.

Environmental Initiatives: Climate Change

Relationship between Climate Change and Business

Climate-Related Risks and Opportunities

There are a number of efforts, including the Paris Agreement, underway to realize a carbon-free society. In 2017, the Task Force on Climate-related Financial Disclosures (TCFD) was established by the Financial Stability Board (FSB), an organization promoting international financial stability. The TCFD has released recommendations for disclosing information on the risks and opportunities of climate change for companies.

Sharp considers the risks and opportunities of climate change to be important managerial issues. It has established the Sharp Global SER Committee as a means of governance over risks and opportunities. This committee, comprising senior executives such as heads of Sharp in-house companies and business units, makes medium- and long-term assessments of risks and opportunities. In line with the risk items stipulated by the TCFD, Sharp tackles climate-related risks by classifying them into two: risks associated with shifting to a carbon-free economy, and the risks of the physical impacts of climate change. It also positions as opportunities the alleviation of climate change through the provision of products and services and works to take advantage of these opportunities.

Risks Associated with Shifting to a Carbon-Free Economy

Sharp has production bases in Japan, China, other parts of Asia, North America, and Europe. Under current regulation trends, there is a possibility of impacts from a carbon tax. Due to factors such as high interest in the climate change problem since the enactment of the Paris Agreement, there is a chance of an increase in taxes in Japan in the form of taxes to counter global warming. In Japan, Sharp's production bases account for about 75% of energy used by all Sharp domestic facilities, meaning there is a risk of a major impact. In response to this risk, Sharp is making production more efficient and energy-saving in order to minimize the burdens of cost. And because failure to comply with standards and regulations on product energy efficiency means a risk of losing sales opportunities, besides thorough compliance with existing standards and regulations, Sharp keeps abreast of changes in laws and whenever possible takes part in opportunities for policy making.

Risks of the Physical Impacts of Climate Change

There is a potential risk that the larger scale of natural disasters—bigger typhoons and heavier rainfall—resulting from climate change will affect Sharp production bases and suppliers. There is the risk that disaster-stricken production bases will experience operation stoppages and disruptions to employees' daily lives, and that suppliers will become unable to deliver goods, resulting in risk to business continuity. Sharp has several production bases in Southeast Asia that are susceptible to floods; flooding in 2011 in Thailand resulted in damage to factories such as those producing home appliances. Besides carrying out reinforcement work on buildings susceptible to flood damage, Sharp is taking measures such as ensuring it has multiple suppliers and creating a manual for what to do in case of natural disasters.

Climate-Related Opportunities

Sharp believes that working to alleviate climate change through business activities will bring the company new opportunities. One of the goals of SHARP Eco Vision 2050, the long-term environmental vision, is to create more clean energy than the total amount of energy consumed in Sharp's entire supply chain, which the company is progressing toward by expanding clean energy. Sharp is also aggressively developing environmentally conscious products, including ones with greater energy performance, as part of efforts to provide the world with highly efficient products and services.

Environmental Initiatives:  Climate Change

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 2018)

Category	Emissions (Thousand Tons CO ₂)	Notes
Scope 1 (direct GHG emissions from business activities)	265	Emissions from combustion of fuel, etc.
Scope 2 (indirect GHG emissions from energy usage in business activities)	812	Emissions from the use of electricity
Total of Scope 1 and Scope 2	1,077	
Scope 3 (indirect GHG emissions from outside the scope of business activities)	1. Purchased goods and services	3,305 Emissions from the manufacture of materials procured for products in the 8 major categories ^{*2} that the Sharp Group sold in the reporting year
	2. Capital goods	152 Emissions from the construction, manufacture, and transportation of Sharp Group capital goods (such as equipment, machinery, buildings, facilities, and vehicles)
	3. Fuel- and energy-related activities (not included in Scope 1 or 2)	99 Emissions from the procurement of fuels (natural resource extraction, manufacture, and transportation) consumed in the generation of electricity and heat the Sharp Group procures from other companies
	4. Upstream transportation and distribution	200 Emissions from the transportation of Sharp Group parts and materials and products manufactured
	5. Waste generated in operations	3 Emissions from waste disposal and treatment by the Sharp Group
	6. Business travel	11 Emissions from business travel by all employees of Sharp Corporation
	7. Employee commuting	11 Emissions from commuting by all employees of Sharp Corporation
	8. Upstream leased assets	— Included in Scope 1 and 2 CO ₂ emissions
	9. Downstream transportation and distribution	33 Emissions from the transportation (from retailers to end consumers) of products in the 8 major categories ^{*2} that the Sharp Group sold in the reporting year
	10. Processing of sold products	79 Emissions from processing at destination of Sharp Group products
	11. Use of sold products	27,489 Emissions ^{*3} from the use of products in the 8 major categories ^{*2} that the Sharp Group sold in the reporting year
	12. End-of-life treatment of sold products	3 Emissions from recycling 4 types of appliances ^{*4} that Sharp Corporation sold in Japan
	13. Downstream leased assets	— Not applicable
	14. Franchises	— Not applicable
	15. Investments	— Not applicable
Scope 3 total	31,385	
Scope 1 + 2 + 3 total	32,462	

*2 LCD TVs, air conditioners, refrigerators, washing machines, air purifiers, microwave ovens, 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:  Climate Change

Curbing Business Activity-Linked Greenhouse Gas Emissions

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<p>■ Energy intensity: Improve by 20% (baseline year: fiscal 2012)</p>	<p>■ Improved by 17% (baseline year: fiscal 2012)</p>	★
<p>Priority Objectives for Fiscal 2019</p>	<p>■ Energy intensity: Improve by 20% (baseline year: fiscal 2012)</p>	

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

Sharp Group Activities to Control Greenhouse Gas Emissions

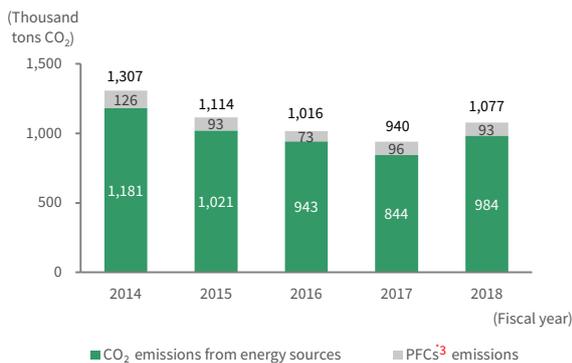
Sharp is taking active measures to curb greenhouse gas (GHG) emissions resulting from its business activities in an effort to contribute to the realization of a decarbonized society. The Sharp Group's GHG emissions in fiscal 2018 increased by 14.6% (up 1,077,000 tons CO₂) compared to the previous fiscal year due to an expansion of the tabulation range resulting from the acquisition of a subsidiary. The improvement rate of energy intensity was 17%, compared to the baseline year of fiscal 2012.

Each Sharp production base 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.

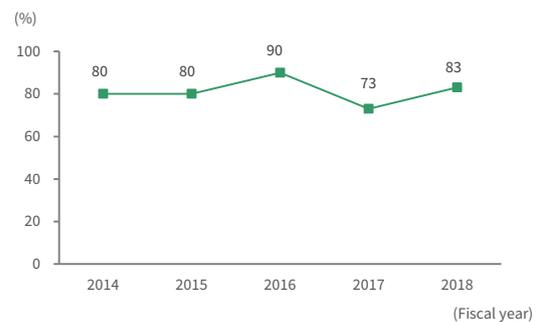
*2 A room where the temperature, humidity, and cleanliness are kept at controlled levels.

■ Amount of GHG Emissions

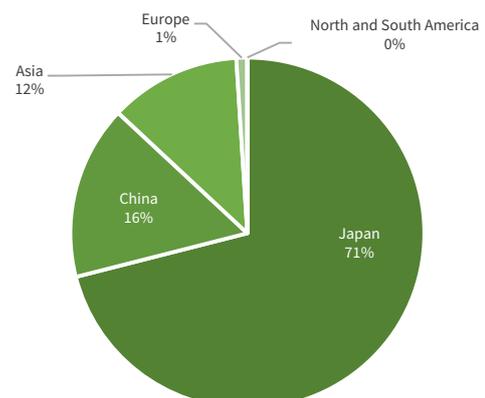


*3 HFCs, PFCs, sulfur hexafluoride (SF₆), nitrogen trifluoride (NF₃)

■ Energy Intensity (Baseline Year: Fiscal 2012)



■ GHG Emissions by Region (Fiscal 2018)



Environmental Initiatives:  Climate Change

< Case Study >

Kameyama Plant Wins ECCJ Chairman’s Prize for Energy-Saving Activities at 2018 Energy Conservation Grand Prize

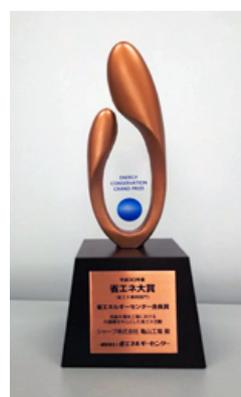
The Kameyama Plant (Kameyama, Mie Prefecture) was awarded the ECCJ Chairman’s Prize in the Energy-Saving Initiatives category at Japan’s 2018 Energy Conservation Grand Prize program for its energy conservation activities centered on outdoor-air processing units. Organized by the Energy Conservation Center, Japan (ECCJ) and supported by the Ministry of Economy, Trade and Industry (METI), this awards program is intended to contribute to the spread of energy conservation thinking in society and to spur the diffusion of energy-saving products. Awards are given to products and business models that excel in energy conservation.

As a result of energy savings promoted across the organization through the unified efforts of the production technology department and the environmental department, the Kameyama Plant achieved a reduction in energy consumption equivalent to 5,485 kiloliters of crude oil a year. It also attained an energy reduction of 7.2% across the entire plant through some 194 measures of various kinds over a three-year period.

This is the second award for the Kameyama Plant after it received the METI Minister’s Prize in the same category at the 2014 Energy Conservation Grand Prize.

Main Measures Related to Outdoor-Air Processing Units

- Installation of inverters
Inverters were installed in the outdoor-air processing units. This ameliorated pressure loss of the airflow-adjusting dampers, thereby reducing electricity consumption.
- Increased amount of heat recovery
More heat was recovered by channeling heat during winter months and from heavy-thermal-load systems to cold water coils, thereby reducing the burden of water heating/cooling.
- Improvements to pressure loss
Pressure loss was ameliorated by increasing the number of outside-air processing units and reducing the airflow of each unit, thereby reducing electricity consumption.
- Reuse of water screen/dehumidifier condensate water
Water screen/dehumidifier condensate water drained from the outside-air processing units was reused, thereby reducing the burden of water cooling and the amount of water used overall.



Award certificate and trophy

Environmental Initiatives:  Climate Change

Utilizing Renewable Energy

Sharp has introduced PV systems to its domestic and overseas production bases and is advancing the use of renewables to do its part to create a decarbonized society. In fiscal 2018, Sharp generated 9.04 million kilowatt-hours of electricity. This is equivalent to the annual energy consumption amount*¹ of roughly 3,000 average households in Japan. Sharp will continue to work hard at reducing carbon emissions even further in the future.

*¹ Calculated from data from the Federation of Electric Power Companies of Japan



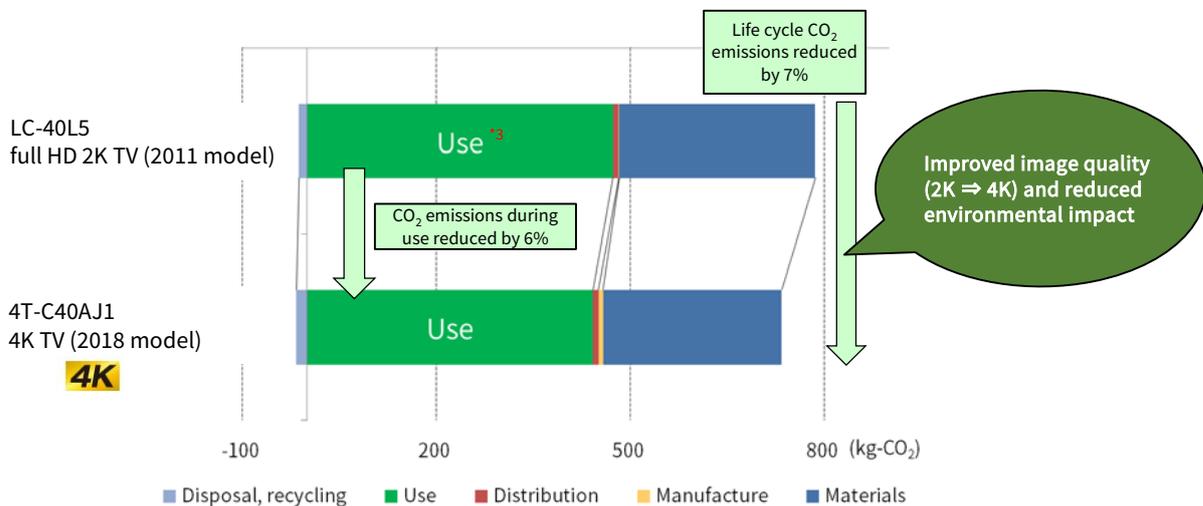
Solar power systems installed on the roofs of Sharp production bases (left: Kameyama Plant; right: NSEC in China)

Identifying and Reducing Environmental Impacts throughout the Life of Products

Sharp performs a life cycle*² 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, LCD TVs 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.

LCA Data for LCD TVs



*² The life of a product from materials and parts procurement to manufacture, distribution, use, disposal, and recycling.

*³ 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).

Environmental Initiatives:  Climate Change

< Case Study >

Sharp's Smart Storage Battery System Wins ECCJ Chairman's Prize at 2018 Energy Conservation Grand Prize

Sharp's Smart Storage Battery System (JH-FBCC01/JH-FBCC02/JH-FBCC03) was awarded the ECCJ Chairman's Prize in the Products and Business Model category at Japan's 2018 Energy Conservation Grand Prize program. Organized by the Energy Conservation Center, Japan (ECCJ) and supported by the Ministry of Economy, Trade and Industry (METI), this awards program is intended to contribute to the spread of energy conservation thinking in society and to spur the diffusion of energy-saving products. Awards are given to products and business models that excel in energy conservation.

The Smart Storage Battery System is installed in factories, office buildings, and commercial stores, where it carefully controls the charge and discharge of electricity from the storage battery in response to usage conditions. Normally, facilities that use a high volume of electricity enter into high-voltage service contracts^{*1} with electric utilities, and their base fees are set^{*2} based on the maximum usage amount (peak demand^{*3}) for the previous year. This system was awarded the prize for its ability to discharge electricity from the storage battery when electricity consumption rises, thereby controlling peak demand and helping to reduce base fees. It was also highly praised for its ability to minimize conversion loss by sending the direct current generated by the PV cells straight to the storage battery without going through a transformer, like an inverter or converter.

*1 A contract to receive power supply at a voltage of 6,000 V or more (voltage during transmission varies by electric utility).

*2 May differ depending on electric utility and service contract details.

*3 Of the average electricity consumption for every 30 minutes, the highest value for a month.



JH-FBCC02 Smart Storage Battery System
Left: Storage battery; Center: Hybrid power conditioner; Right: Electricity meter

Environmental Initiatives:  Climate Change

< Case Study >

Vietnam's First^{*1} Mega Solar Power Plant Starts Operation

On September 2018, the first mega solar power plant in Vietnam began commercial operation in Thua Thien Hue Province. This plant was a joint construction project involving Sharp Energy Solutions Corporation (SESJ)^{*2}, the Thanh Thanh Cong Group (TTC Group)^{*3}, and the Gia Lai Electricity Joint Stock Company^{*4} operating under the umbrella of the TTC Group. A completion ceremony was held at the site on October 2018. The ceremony was attended by officials from the Industry and Trade Ministry, officials from the Home Affairs Ministry, and others.

The new plant has an output of approximately 48 MW-dc. This is equivalent to the amount consumed in a year^{*5} by 32,628 average Vietnamese households. Under a joint project with the TTC Group and others, Sharp also constructed two other solar power plants in Vietnam: one in Binh Thuan Province and one in Long An Province. Each of these plants have a capacity of approximately 49 MW-dc and began operating in May 2019. Sharp remains committed to spreading renewable energy in Vietnam.

*1 As of October 10, 2018; based on Sharp research.

*2 SESJ is a subsidiary of Sharp Corporation, specializing in energy solutions such as the sales of PV systems and the installation of electrical equipment.

*3 The TTC Group is a conglomerate that operates in various sectors, including real estate, energy, agriculture, and education.

*4 Gia Lai Electricity plays a key role in the TTC Group's renewable energy business, including photovoltaic, hydropower, and wind power.

*5 Calculated at 1,887 kWh per household per year.



Operating solar power plant

Environmental Initiatives:  Climate Change

Reducing Logistics-Related Environmental Impact

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<p>■ Energy intensity: Improve by average of 1% each year (average for fiscal 2014 to 2018)</p>	<p>■ Energy intensity: Improved by average of 3% each year (average for fiscal 2014 to 2018)</p>	<p>★★★</p>
<p>Priority Objectives for Fiscal 2019</p>	<p>■ Energy intensity: Improve by average of 1% each year (average for fiscal 2015 to 2019)</p>	

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

Reducing the Environmental Impact of Logistics in Japan

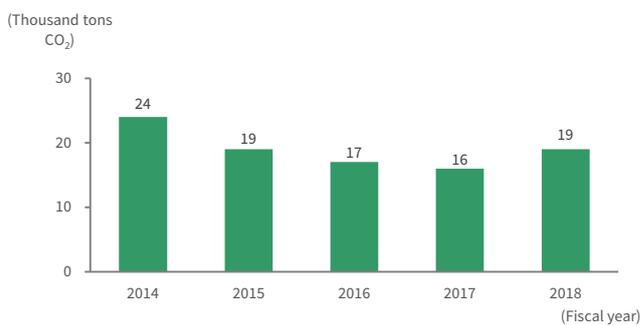
Sharp observes a rule set forth in the Japanese Act on the Rational Use of Energy (Energy Conservation Act) that requires specified shippers to reduce energy intensity by 1% or greater per year. All Sharp Group companies in Japan are working to reduce the environmental impact and costs associated with logistics.

In fiscal 2018, Sharp Group greenhouse gas (GHG) emissions from shipping activities in Japan were 19 thousand tons (an increase of 16% from the previous fiscal year). However, for Sharp Corporation, energy intensity was improved by an average of 3% for the most recent five years (fiscal 2014 to 2018). Sharp is steadily implementing a modal shift^{*1}, a change 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 shipments, 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)



Eco Rail Mark certification

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 2018, Sharp's GHG emissions from international transport were 157 thousand tons, a decrease of 16% from the previous fiscal year.

Environmental Initiatives:  Resource Recycling

Minimizing and Recycling Business Activity-Linked Waste

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
■ Final landfill disposal rate of 0.5% or less	■ Final landfill disposal rate 0.6%	★
Priority Objectives for Fiscal 2019	■ Final landfill disposal rate of 0.5% or less	

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

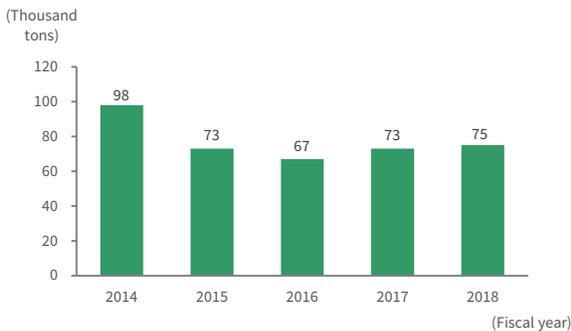
Curbing the Amount of Waste, etc. Generated by the Sharp Group

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 2018, the amount of waste, etc. generated by the Sharp Group increased by 3% compared to the previous fiscal year to 75,000 tons, due to an expansion of the tabulation range resulting from the acquisition of a subsidiary. Additionally, the amount of recycling fell by 1% from the previous fiscal year to 71,000 tons. Furthermore, the final landfill disposal rate remained at 0.6%. In Japan, as a result of continuously advancing efforts, such as recycling waste and waste liquids and turning them into valuable resources, the final landfill disposal rate was 0.02%, marking the 18th consecutive year of achieving zero discharge to landfills* since fiscal 2001. Going forward, Sharp will strengthen waste reduction efforts at overseas bases and aim 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.

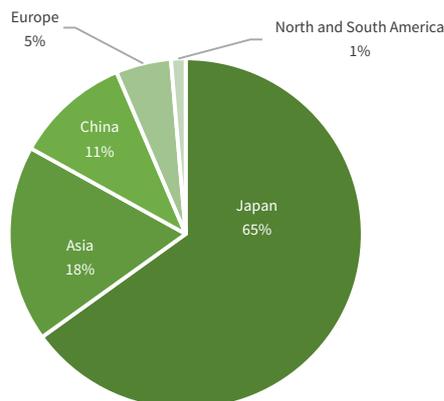
■ Amount of Waste, etc.



■ Final Landfill Disposal Rate



■ Waste, etc. by Region (Fiscal 2018)



Environmental Initiatives:  Resource Recycling

< Case Study >

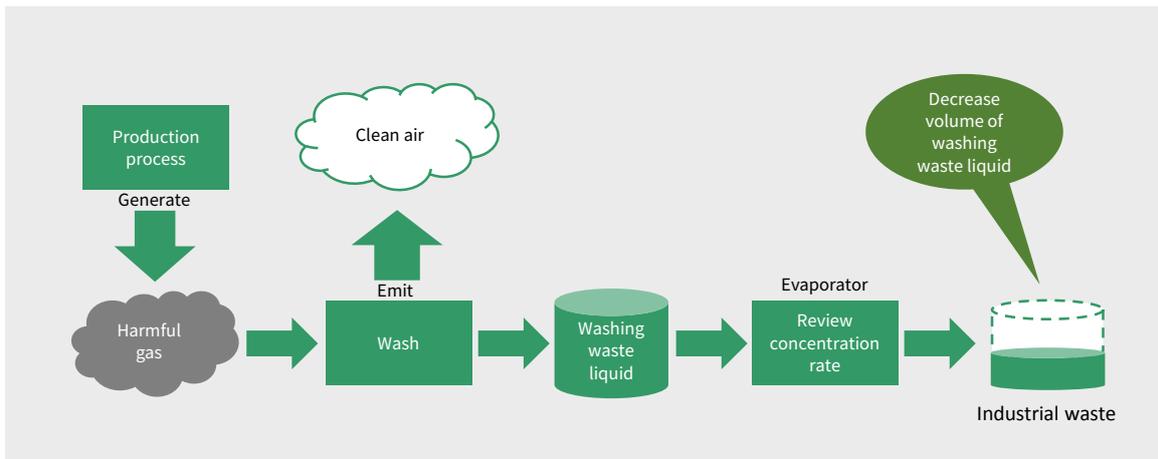
Reviewing the Concentration Rate of Waste Liquid from Washing to Reduce Industrial Waste

Sharp's Kameyama Plant (Kameyama, Mie Prefecture) strives to reduce industrial waste from the manufacturing process for LCDs. The harmful gas generated in the production process is washed using purified water. The resulting waste liquid contains a large amount of fluorine. This waste liquid is then reduced in volume via an evaporator and emitted as industrial waste. In 2018, Sharp reviewed the concentration rate of the evaporator. After increasing the rate step by step, it was able to reduce the amount of waste by 2,400 tons a year.



Reducing the volume of washing waste liquid via an evaporator

■ Flow of processing washing waste liquid



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. Sharp is on track to finish treating PCB waste to make it harmless by the legally set March 31, 2027 deadline.



Drums containing waste PCB



Unloading waste PCB

Environmental Initiatives:  Resource Recycling

Expanding the Recycling of Used Products

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<ul style="list-style-type: none"> ■ Achieve high efficiency from washing machine recycling line 	<ul style="list-style-type: none"> ■ Upgraded washing machine recycling line and raised processing efficiency by approx. 20% 	★★
Priority Objectives for Fiscal 2019	<ul style="list-style-type: none"> ■ Recycle waste refrigerator parts into valuable resources 	

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

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 2018, Sharp collected 1.871 million units (up 17% 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 59,000 tons (up 16% 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 Global Life Solutions, Inc., Fujitsu General Ltd., Mitsubishi Electric Corporation, and other companies.

■ Sharp Corporation’s Recycling Results for 4 Home Appliance Types (Fiscal 2018)

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	299	140	574	432	424	1,871
Processed and recycled units	Thousand units	301	144	573	433	424	1,877
Processed and recycled weight	Tons	12,347	3,393	10,551	25,737	16,230	68,259
Recycled weight	Tons	11,720	2,531	9,269	20,412	15,263	59,198
Recycling rate	%	94	74	87	79	94	—
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. The recycling plants have been receiving an increasing number of used front-loading washing machines, which take more than twice as long to process as conventional top-loading washing machines. In response, Kansai Recycling Systems upgraded the washing machine recycling line in fiscal 2018 in order to shorten disassembly time for all washing machines. The recycling line was built to reduce burden on workers and improve safety. This was accomplished by newly adding automatic conveyors, partly automating transport and separation of recovered items, and newly adding a dedicated disassembly workbench for front-loading washing machines, which are heavy and have a complex structure. This upgrading shortened the average disassembly time on the washing machine recycling line by approximately 20%, thus boosting efficiency.



The upgraded washing machine recycling line

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

Environmental Initiatives: Resource Recycling

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.

Recycling Used Products Overseas

< North America >

In 2007, Sharp's American manufacturing and sales subsidiary SEC (based in New Jersey) established MRM^{*1} to manage recycling of AV products. Growing nationwide efforts have seen a total of 1,400 collection points established for used products. MRM operates in accordance with the laws and regulations of each state and recycled a total of 54,431 tons of used products in fiscal 2018.

^{*1} Electronic Manufacturers Recycling Management Company, LLC is a joint venture with Panasonic Corporation of North America and Toshiba America Consumer Electronics, LLC.

< Europe >

The EU WEEE Directive^{*2} (2012/19/EU) stipulates that the manufacturer is responsible for collecting and recycling products shipped within the EU. Each Sharp European sales company collaborates with established recycling entities in the EU sales region to meet this requirement. Efforts are also made to reduce the volume of landfill waste by taking into account regulations governing packaging materials and batteries.

^{*2} Waste Electrical and Electronic Equipment Directive

< Vietnam >

In Vietnam, the introduction of a recycling law in 2017 has obliged manufacturers and importers to establish a collection scheme for products sold within the country. Sharp's Vietnamese sales subsidiary SVN (based in Ho Chi Minh City) collects used products at collection points established in Vietnam and ensures they are processed appropriately by licensed recyclers for proper disposal.

< India >

In India, a recycling law (E-Waste Management Rules 2016) was enforced by the Ministry of Environment, Forest and Climate Change in 2016, which imposed extended producer responsibility on manufacturers and other parties. Sharp's Indian sales subsidiary SBI (based in New Delhi) has partnered with 3R Recycler Pvt. Ltd. to promote the proper disposal of used products.

Environmental Initiatives:  Resource Recycling

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

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<ul style="list-style-type: none"> Develop technology that adds extra value (flame retardancy) to recycled plastic material (recovered composite PP¹) 	<ul style="list-style-type: none"> Established basic formula for making recycled plastic (recovered composite PP) flame retardant 	★★
<p>Priority Objectives for Fiscal 2019</p>	<ul style="list-style-type: none"> Develop technology for the practical application of recycled flame-retardant polypropylene 	

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

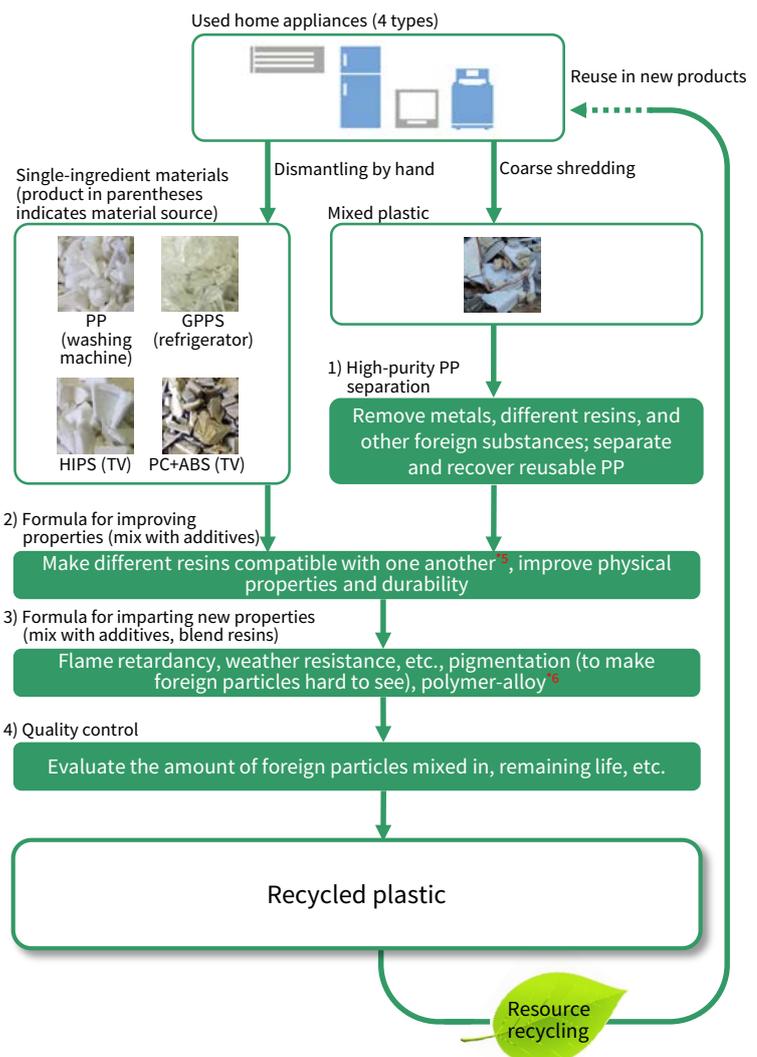
Expanding Closed-Loop Plastic Material Recycling Technology

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/HIPS³ and PC+ABS⁴ 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



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

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 uniformly and finely dispersed into one another at the molecular level.

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

Environmental Initiatives:  Resource Recycling

Developing Recycled-Plastic Material with Added Value

In response to the increasing seriousness of pollution from used plastic, the world has embarked on numerous initiatives such as the UN Sustainable Development Goals (SDGs)^{*1}. Countries are making laws regarding the recycling of used plastic and strengthening restrictions on importing plastic waste. In Japan, the Plastic Resource Recycling Strategy^{*2} was formulated and systems are gradually being put in place for recycling used plastics. The social situation surrounding used plastic has drastically changed as it becomes increasingly important to properly dispose of and recycle the material.

Against this background, Sharp is working on new initiatives toward creating more uses for recycled plastics; not only through horizontal recycling, in which recovered plastics are made as good as new material and used in the same parts as originally used, but also through upgrade recycling, in which the recycled plastic is given added value with flame retardancy, weather resistance, or high stiffness.

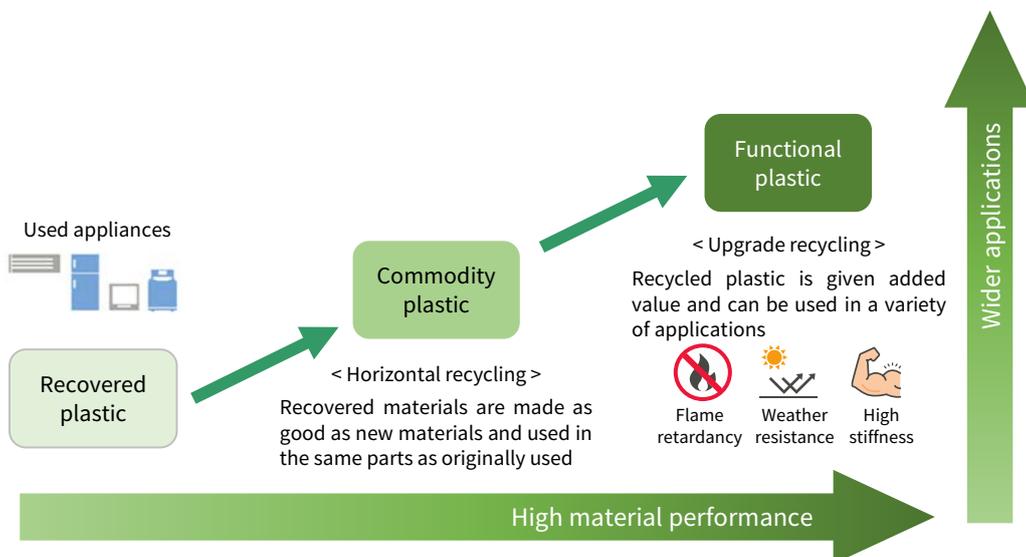
In fiscal 2018, Sharp succeeded in developing the basic technology for giving flame-retardant properties to polypropylene (PP) recovered from used refrigerators, washing machines, and air conditioners. Up to now, it had been necessary to use metals or expensive engineering plastics^{*3} for parts requiring high flame retardancy, such as those used around the power switch or heater. With the practical application of this technology, recycled plastics can be used as alternate materials on such parts, creating promise for lighter and cheaper products that are also more environmentally conscious. Sharp will steadily move ahead developing mass-production technology with the goal of achieving it sometime in fiscal 2019.

*1 Adopted by the United Nations in 2015, the SDGs are a set of 17 goals for the sustainable development of society to be achieved by 2030.

*2 Formulated on May 31, 2019 by the Japanese government, it aims to address a wide range of issues, such as restrictions on resources and waste, ocean plastic, global warming, and restrictions in Asian countries on the importing of waste. The strategy's basic principle is "3Rs + Renewable".

*3 Plastic with engineered characteristics for mechanical strength and heat resistance.

■ Used Plastic Recycling Method

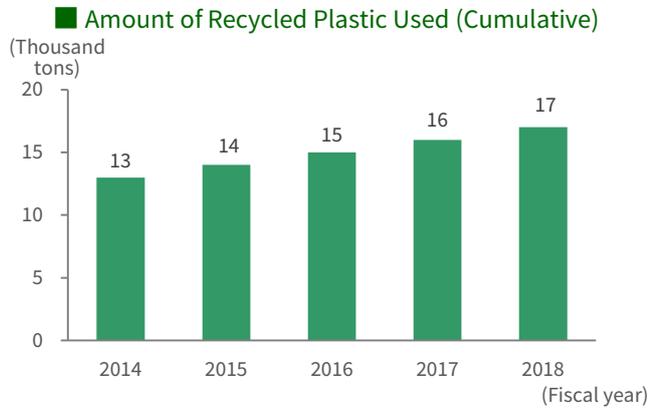


Environmental Initiatives:  Resource Recycling

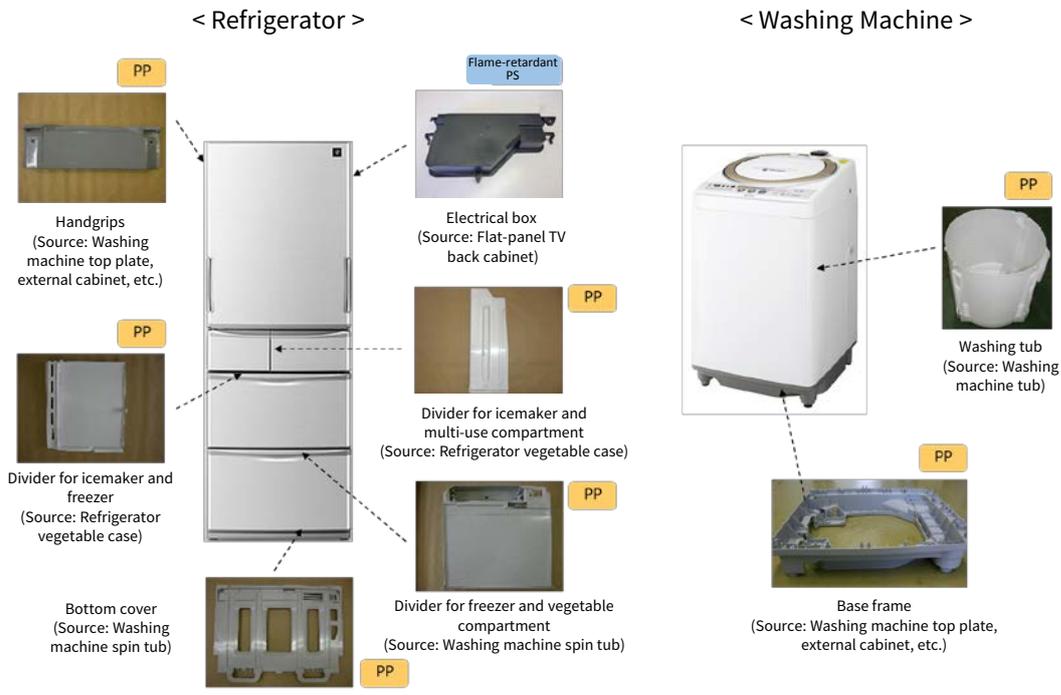
Amount of Recycled Plastic Used and Examples of Recycled Plastic Use

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 2018, the cumulative total (from fiscal 2001 to 2018) for closed-loop material recycling technology-derived plastic usage reached 17,000 tons.



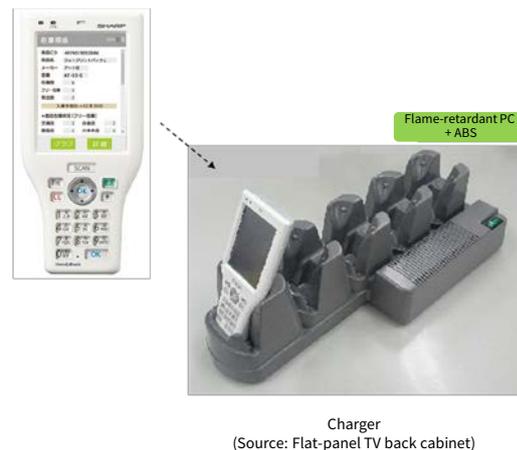
Examples of Recycled Plastic Use



< In-Vehicle Plasmacluster Ion Generator >



< Professional-Use Handheld Device (Handy Terminal) >



Environmental Initiatives:  Resource Recycling

Effectively Using Water Resources

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<p>■ Water intensity: Improve by 20% (baseline year: fiscal 2012)</p>	<p>■ Water intensity: Improved by 15% (baseline year: fiscal 2012)</p>	★
<p>Priority Objectives for Fiscal 2019</p>	<p>■ Water intensity: Improve by 20% (baseline year: fiscal 2012)</p>	

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

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

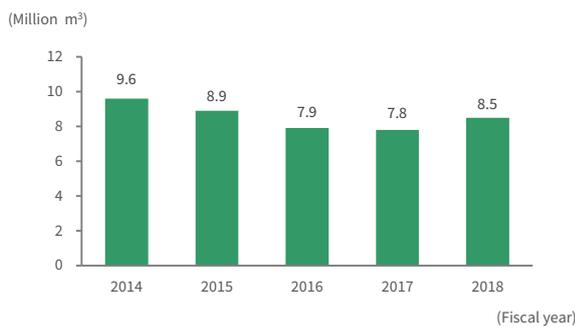
Sharp is striving to make effective use of water resources by reducing the amount of new water (i.e., water from the water supply system) it uses and by increasing the use of recycled water. The volume of new water used by the Sharp Group in fiscal 2018 increased by 9% compared to the previous fiscal year to 8.5 million m³ because of the larger scope of operations due to factors such as mergers and acquisitions. The improvement rate of water intensity was 15%, compared to the baseline year of fiscal 2012.

To minimize the effects on business continuity of the risk of water shortages, Sharp assesses water risk at its plants using the Aqeduct assessment tool developed by the World Resources Institute (WRI). 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. All of the water discharged from the production process is collected and reused via a closed-loop recycling system adopted at both plants. Through measures such as this, the Sharp Group is maintaining a recycling rate^{*1} of at least 60%.

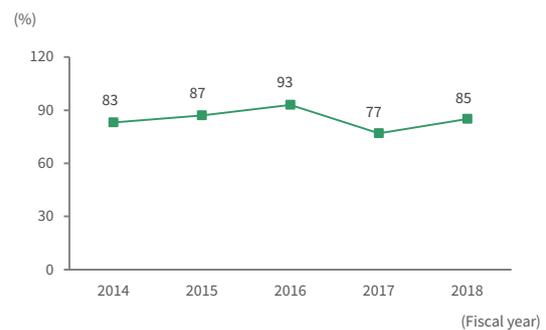
Looking ahead, Sharp will pursue further water-use efficiency and boost production efficiency in accordance with business expansion.

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

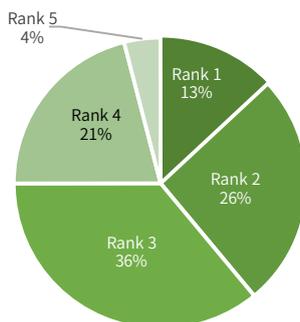
■ Volume of New Water Used



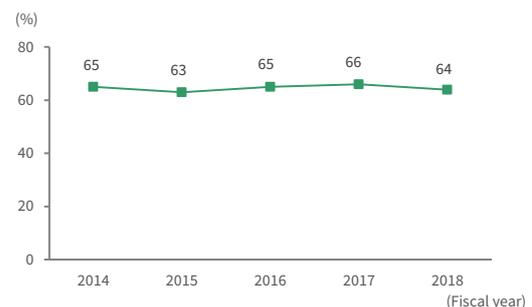
■ Water Intensity (Baseline Year: Fiscal 2012)



■ Volume of New Water Used by Water Stress Rank^{*2} (Fiscal 2018)



■ Water Recycling Rate



*2 Under Aqeduct, each region is assigned a water stress score. There are five levels, from rank 1 (low risk) to rank 5 (high risk).

Environmental Initiatives:  Resource Recycling

Water Used and Drainage by Region (Fiscal 2018) (m³)

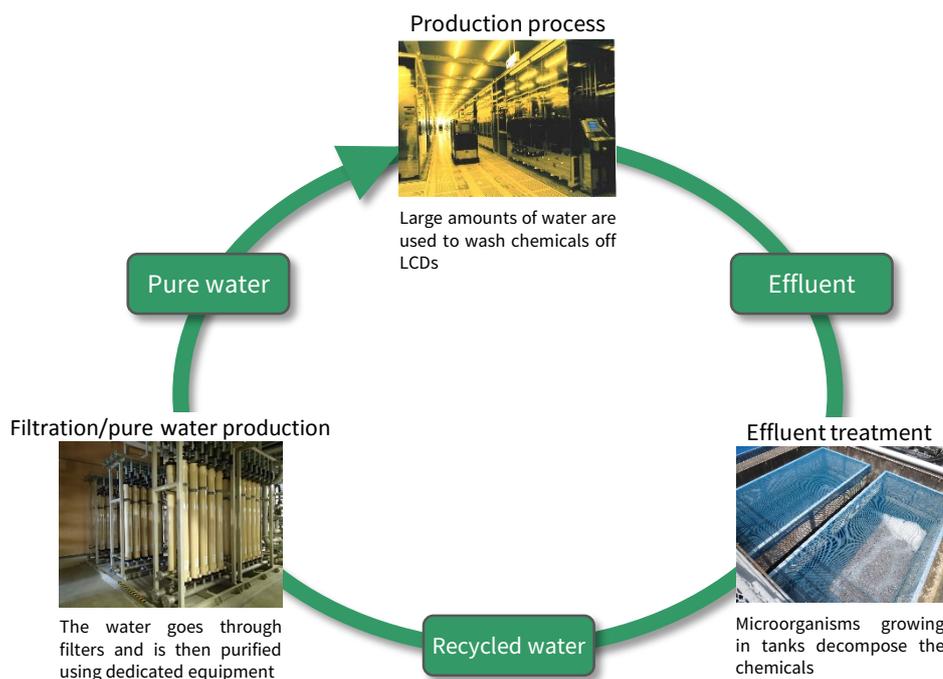
Region	Water Used					Drainage			
	Industrial-use water	Tap water	Ground water	Water reused	Total	Sewerage	Freshwater area	Seawater area	Total
Japan	4,527,805	810,206	506,454	14,921,464	20,765,929	589,918	1,744,203	1,552,416	3,886,537
Asia	0	886,337	11,426	71,869	969,632	449,826	150,805	0	600,631
China	0	1,714,244	7,184	138,892	1,860,320	1,514,223	0	0	1,514,223
North and South America	0	5,766	0	0	5,766	5,766	0	0	5,766
Europe	0	15,904	0	0	15,904	15,338	0	0	15,338
Total	4,527,805	3,432,457	525,064	15,132,225	23,617,551	2,575,071	1,895,008	1,552,416	6,022,495

< 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.

Water Recycling Flow



Environmental Initiatives:  Safety and Security

Effective Management of Chemical Substances and Risk Management

Sharp meticulously controls chemical substances used at its production bases. 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 eight overseas^{*3} in quantities of 500 kg or more by one or more plants during fiscal 2018.

*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 2018)

(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	
1	Zinc water-soluble compounds	1,303	0	0	0	509	0	794	0
20	2-Aminoethanol	2,641,429	209	143	0	15,820	0	2,242,888	382,369
44	Indium and its compounds	14,450	0	0	0	3,901	433	10,116	0
71	Ferric chloride	93,767	0	0	0	0	0	70,578	23,189
164	HCFC-123	1,105	180	0	0	0	0	0	925
232	N, N-dimethyl formamide	17,112	0	0	0	0	0	0	17,112
272	Copper salts (water-soluble, except complex salts)	7,110	0	0	0	6,739	371	0	0
343	Pyrocatechol (also called catechol)	2,079	0	0	0	2,079	0	0	0
374	Hydrogen fluoride and its water-soluble salts	413,909	943	0	0	321,097	0	61,041	30,828
401	1,2,4-benzenetricarboxylic 1,2-anhydride	623	0	0	0	24	599	0	0
405	Boron compounds	1,471	0	0	0	1,323	0	148	0
407	Polyoxyethylene alkyl ether	530	0	16	0	0	0	0	514
412	Manganese and its compounds	22,831	0	0	0	0	22,777	54	0
438	Methylnaphthalene	18,889	94	0	0	0	11,987	0	6,808
448	Methylenebis(4,1-phenylene) diisocyanate	516,748	0	0	0	0	516,748	0	0
453	Molybdenum and its compounds	13,278	0	0	0	1,702	398	11,178	0
Total		3,766,635	1,426	159	0	353,194	553,313	2,396,797	461,746

Overseas PRTR Data (Fiscal 2018)

(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	1,784	0	0	0	18	1,188	578	0
104	Chlorodifluoromethane	2,850	10	0	0	0	2,840	0	0
291	1,3,5-tris(2,3-epoxypropyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione	1,258	0	0	0	13	837	408	0
300	Toluene	3,603	3,603	0	0	0	0	0	0
355	Bis(2-ethylhexyl) phthalate	7,600	0	0	0	7,600	0	0	0
392	N-hexane	15,900	15,900	0	0	0	0	0	0
413	Phthalic anhydride	1,006	0	0	0	10	670	326	0
448	Methylenebis(4,1-phenylene) diisocyanate	2,927,268	0	0	0	4,145	2,923,123	0	0
Total		2,961,269	19,513	0	0	11,785	2,928,658	1,313	0

Environmental Initiatives:  Safety and Security

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.

Atmospheric Emissions in Japan

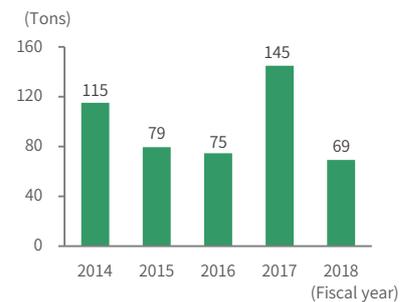
■ NOx Emissions



■ SOx Emissions



■ Volatile Organic Compounds (VOCs) Emissions

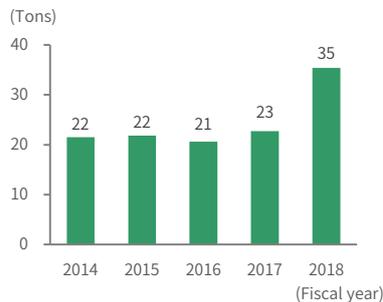


Emissions into Water Areas in Japan

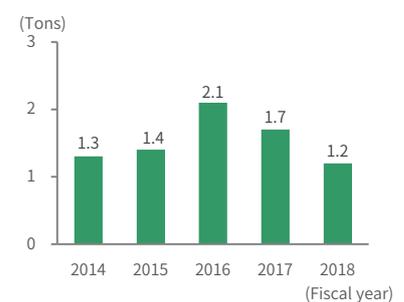
■ COD (Chemical Oxygen Demand)



■ Nitrogen Pollutant Load



■ Phosphorous Pollutant Load



< Case Study >

Analyzing Plant Wastewater Samples (Nara Plant)

Sharp's Nara Plant (Yamato-Koriyama city) collects and analyzes plant wastewater in collaboration with Yamato-Koriyama city officials as part of its risk communication activities. The collected wastewater undergoes individual analyses. 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

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:  Safety and Security

Managing Chemical Substances contained in Products

In order to reduce environmental impacts of its products and to comply with chemical substance regulations in countries around the world, Sharp has established in-house standards that take into consideration current standards as well as the trends towards regulations that may occur in the future, and works closely with its suppliers in managing the chemical substances in products. Sharp classifies the chemical substances to “banned substances (banned substances in product, banned substances depending on application)”, and “managed substances”. Sharp then manages the chemical substances contained in parts and materials (including raw materials, general parts, finished products, partially finished products, and secondary materials) used in Sharp products.

Management Categories of Chemical Substances

Category	Description	Remarks
Banned substance in the product	Substances that cannot be used for any purpose	<ul style="list-style-type: none"> Substances with uses that are currently or foreseen to be regulated in the future for products through domestic/international laws and regulations and environmental labels Substances that are well known to have a high environmental impact and that can be substituted
Banned substances depending on application	Substances that can be used only for applications approved by Sharp (exceptional applications)	
Managed substances	Substances that can be identified in presence and/or quantity in a product	<ul style="list-style-type: none"> Substances that are required or may be required in the future by domestic/international laws and regulations or environmental labels to be disclosed when used in products Substances that are required or may be required in the future by customers to be disclosed when used in products

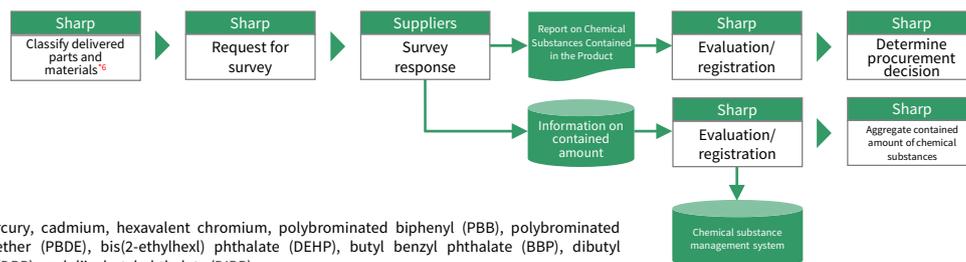
Report on Chemical Substances Contained in the Product

In response to regulations prohibiting specific chemical substances to be included in products, Sharp confirms the presence of substances prohibited for use by having its suppliers submit a Substance Inclusion Report, which is a document attached to delivery specifications when new parts are adopted. Sharp also requests its suppliers to attach analytical data (test report) on the 10 restricted substances^{*1} of the EU’s RoHS Directive^{*2}. Sharp utilizes this information to make decisions on parts procurement.

Chemical Substance Content Survey

To comply with legal requirements that mandate the transmission and disclosure of information on chemical substances in countries around the world, such as the EU REACH regulations^{*3}, Sharp utilizes an IT system to collect information, such as the contained amount of chemical substances in delivered parts and materials. Sharp also utilizes chemSHERPA^{*4}, an information sharing scheme compliant with the international IEC 62474^{*5} standard, as a tool for collecting information. Sharp utilizes this information to tabulate statistics on chemical substances.

Evaluative Process for Newly Delivered Parts and Materials



*1 Lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB), polybrominated diphenyl ether (PBDE), bis(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP), and diisobutyl phthalate (DIBP).

*2 An EU directive on the “Restriction on the use of certain Hazardous Substances.”

*3 An EU regulation mandating the registration, evaluation, authorization, and restriction of chemical substances manufactured or imported into the EU.

*4 An information sharing scheme developed under the leadership of the Japanese Ministry of Economy, Trade and Industry for the purpose of efficiently communicating information on chemical substances in products over the entire supply chain.

*5 An international standard on the procedures and details of information sharing in the supply chain for products and components in the electrical and electronics industry containing chemical substances.

*6 Classifications according to uses of parts and materials to carry out appropriate evaluations.

Environmental Initiatives: Environmental 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.

Toward realizing a sustainable global environment, Sharp has formulated "SHARP Eco Vision 2050", a long-term environmental vision with 2050 as the target year. Under this vision, Sharp is striving to solve social problems and continuously raise corporate value through the development of technologies and the provision of products and services.

Promoting Environmental Sustainability Management

Sharp Corporation has set up the Quality and Environmental Promotion Unit as an organization to formulate and carry out the company-wide environmental vision and policies, and strengthen company-wide environmental governance.

The Quality and Environmental Promotion Unit formulates important policies and strategies at the company-wide level regarding environmental sustainability management based on Sharp's management policies and environmental vision. Through the Sharp SER Committee*, which comprises senior executives such as heads of Sharp in-house companies and business units, it decides on company-wide environmental measures and confirms their implementation and progress in its role of supporting environmental activities.

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 other organizational unit. In this way, Sharp is building a system 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.

* See page 20.

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

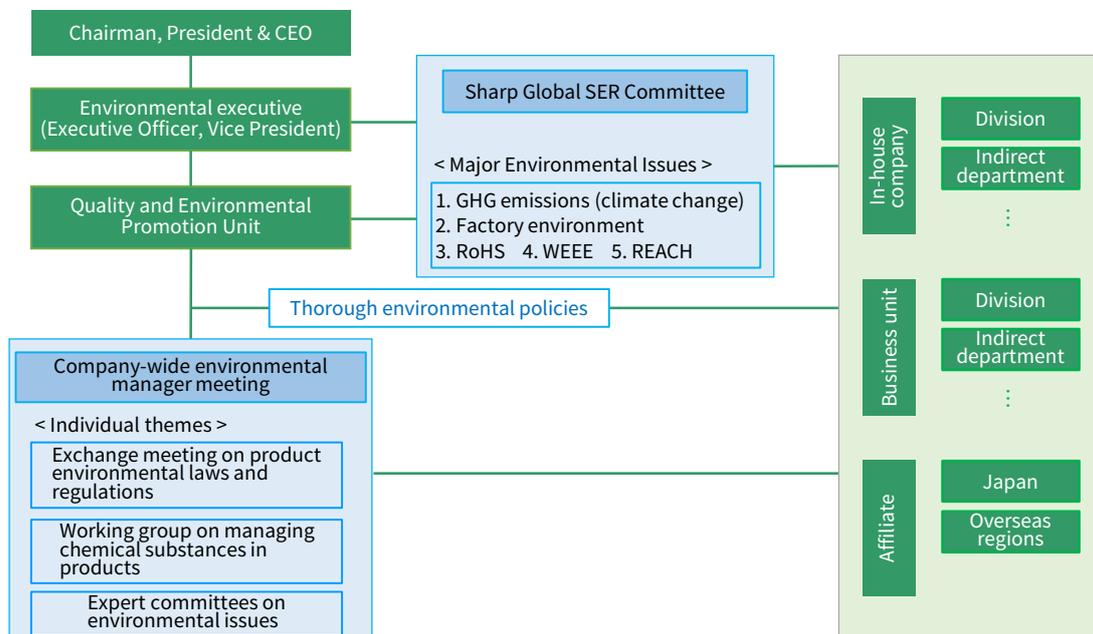
The Sharp Group will make efforts to further contribute to global environmental conservation by strengthening our development of proprietary technologies for protecting the global environment and by carrying out business activities in an environmentally conscious manner.

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

System for Promoting Environmental Sustainability Management



Environmental Initiatives: Environmental Management

Environmental Education

In accordance with the basic strategy of its management policy—foster and strengthen human resources—Sharp strives to step up the cultivation of human resources as the foundation of its environmental sustainability management. To this end, since fiscal 2017 the company has been updating its environmental education curriculum and creating a new training program, including basic training, open to all employees.

In fiscal 2018, Sharp held a basic training course called environmental awareness training, which allows all employees to acquire a wide range of environmental knowledge. It also offered specialized training in the form of e-learning on environmental laws and regulations and chemicals management, as well as new classroom training on the practical application of environmental laws and regulations and on chemical substances in products. With the aim of fostering human resources who will contribute to the company in stepping up compliance and achieving its environmental vision, Sharp will continue to improve and expand its environmental education curriculum.



Environmental awareness training materials



Tour of environmental facilities (Mie Plant) as part of new employee training

Number of Participants in Environmental Training (Fiscal 2018)

Category	Course	Number of participants
Basic training (2 courses)	Environmental awareness (environmental problems), environmental awareness (environmental protection activities)	96
Specialized training (7 courses)	Product environmental laws and regulations (introductory), product environmental laws and regulations (practical application), chemical substances in products, practical training in conducting surveys of chemical substances contained in products (using chemSHERPA), others	1,061

Promoting an Environmental Management System

Since 1995, Sharp has been operating an ISO 14001-based environmental management system and has acquired ISO 14001 certification for all worldwide production bases. 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.

Legal Violations, Accidents

In fiscal 2018, 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 Management

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.

In addition, compliance systems are strengthened on an ongoing basis in response to changing product environmental laws and regulations in each country. In fiscal 2018, Sharp’s sales and manufacturing bases in ASEAN countries and Europe collaborated to form a new organizational structure to deal with such laws and regulations.

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 2018, sales of those products reached 193.5 billion yen, with SGP sales accounting for 34% 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 2018



Plasmacluster washing machine/dryer
ES-W111-SL



Plasmacluster ion generator
IG-LC15-R



Humidifying air purifier
KC-J50-W



High-efficiency power conditioner
JH-55JB4

Environmental Initiatives: Environmental Management

< 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, Sharp aims to boost the added value of products by communicating the products’ appeal from an environmental perspective.

In fiscal 2018, the site featured the AQUOS sense smartphone, a Plasmacluster refrigerator, the RACTIVE Air cordless canister cyclonic vacuum cleaner, and the Handy Terminal professional-use handheld device.



Development team for the AQUOS sense smartphone



Development team for the Plasmacluster refrigerator



Development team for the RACTIVE Air cordless canister cyclonic vacuum cleaner



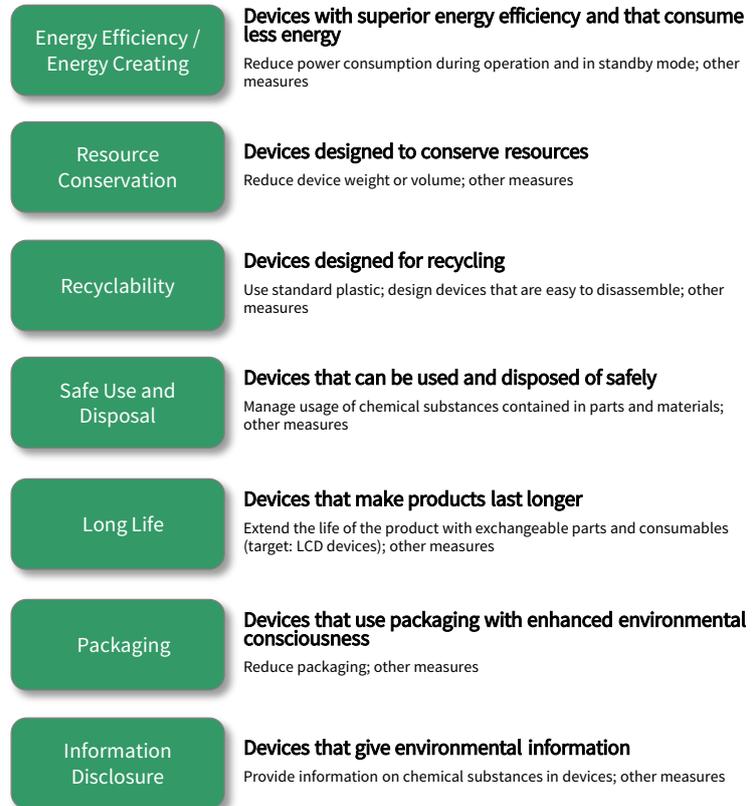
Development team for the Handy Terminal professional-use handheld device

Environmental Initiatives: Environmental Management

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.

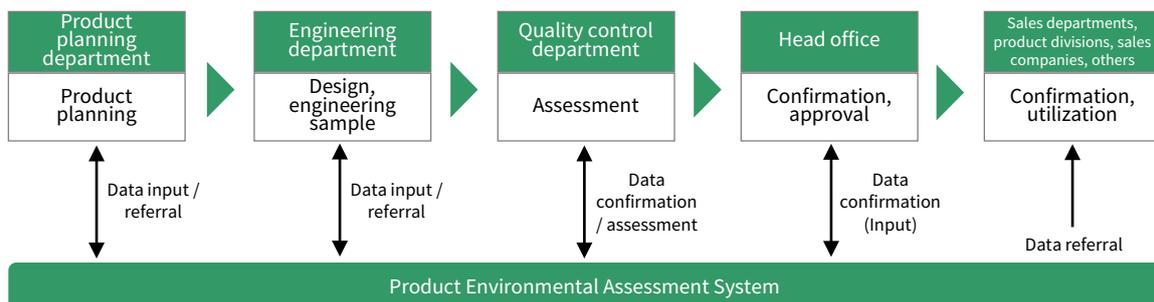
Green Device Concepts



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 Initiatives: Environmental 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 conducts environmental safety operation audits at its production bases, 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 2018, Sharp conducted on-site audits based on in-house audit guidelines that reflect the RBA* Code of Conduct, an 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 (Nara 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.

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 Sharp bases in Japan and overseas. 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: Biodiversity Protection / Communication with Local Communities

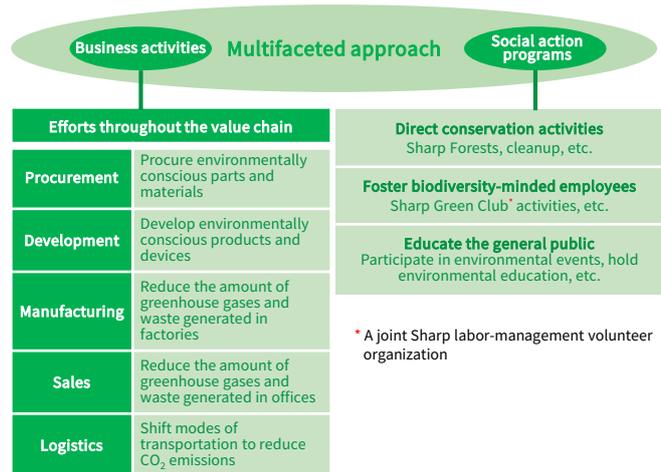
Protecting Biodiversity

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 (Mie Plant)

At the Mie Plant (Taki District, Mie Prefecture), employees are working towards preserving biodiversity within the plant grounds. In 2013, the *aze-otogiri* (*Hypericum oliganthum*), a flower thought to be extinct, was discovered for the first time in 48 years along the Sana River, which flows beside the factory. The Mie Plant is cooperating with the Aze-otogiri Preservation Society, comprising community groups, schools, and government, and working towards cultivating the flower for conservation and propagation.

This initiative is being undertaken as part of the larger activities of the Group to Keep the Sana River Beautiful, the management of which is run by the Mie Plant.



An *aze-otogiri* specimen cultivated for about a year



Aze-otogiri transplanted to the green areas inside the Mie Plant premises

Environmental Initiatives: Biodiversity Protection / Communication with Local Communities

< Case Study >

Overseas Biodiversity Protection Activities (SPC)

As recent years see an increase in the amounts of plastic entering the Earth's oceans, the issue of ocean plastic is causing concern about its effect on ecosystems. SPC, Sharp's production base in the Philippines, is working with local communities to protect biodiversity. A total of about 5,000, including SPC employees, university students, and other volunteers held a beach cleanup in Manila Bay to protect the environment and biodiversity.



Cleanup in Manila Bay



Garbage picked up during the coastal cleanup

Communication with Local Communities

Sharp is committed to communicating with local communities through plant tours, planning of and participation in events, and providing environmental education. The Tenri Plant (Tenri, Nara Prefecture) held environmental classes for elementary schools as it participated in the 2018 Tenri Environmental Forum sponsored by the Tenri Board of Education and other groups. SEID, Sharp's sales and production subsidiary in Indonesia, also visited local schools to give environmental classes.



The Tenri Plant holds an environmental class at an environmental forum



SEID holds an environmental class at a local school

In recognition of its ongoing communication with the community, in fiscal 2018 the Mie Plant received an Excellence Prize in the environmental report category of the 22nd Environmental Communication Awards, sponsored by Japan's Ministry of the Environment and the Global Environmental Forum. This was the fifth consecutive year (eighth time) for the Mie Plant to receive the award.



Award ceremony

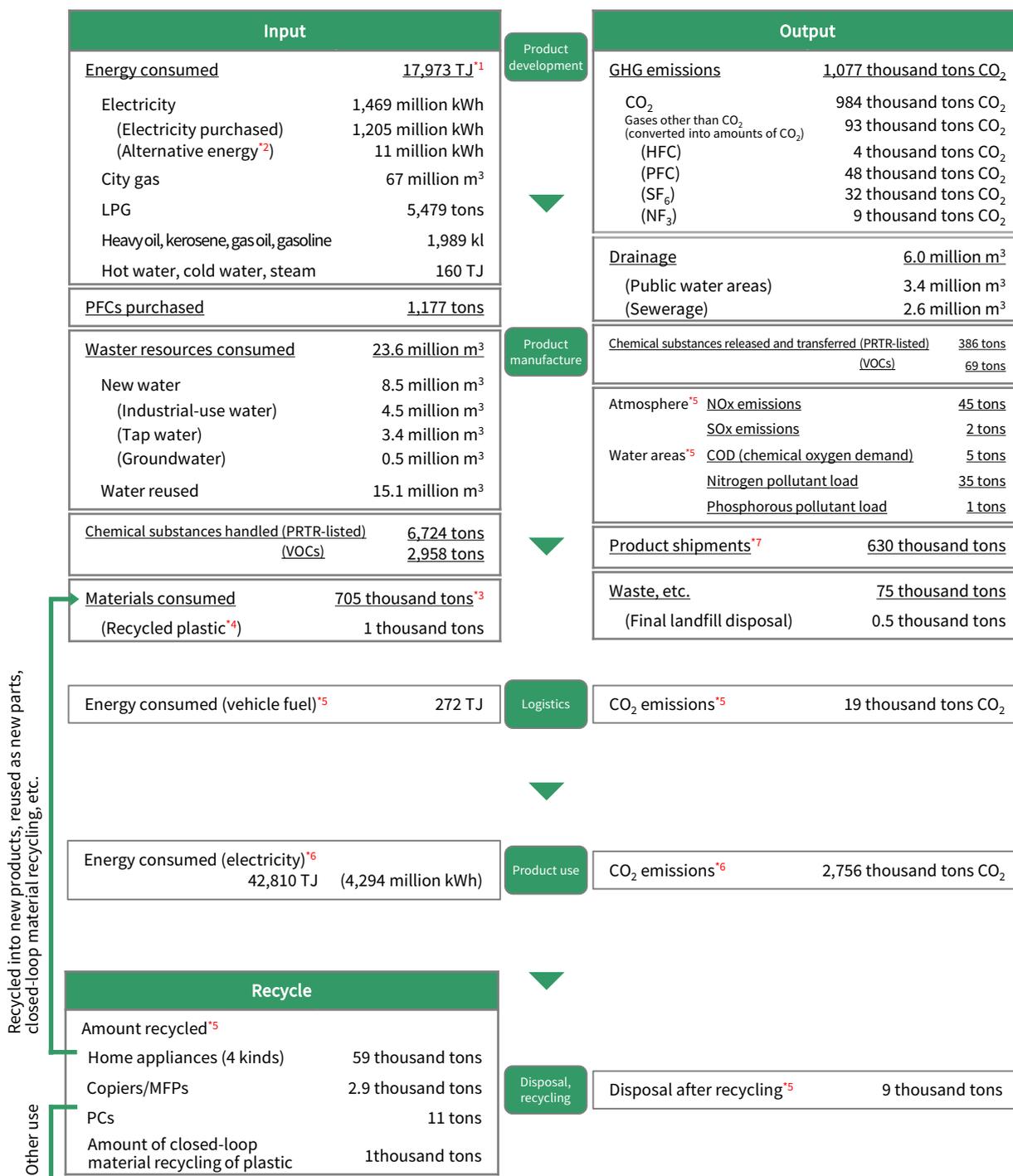
Environmental Initiatives: Overview of Environmental Impact

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 2018)

(The boundary of environmental performance data and calculation standards for each item are listed on pages 57 and 58.)



*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 8 major categories sold in the reporting year and packaging materials used (estimate).

Environmental Initiatives: Overview of Environmental Impact

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

The environmental performance data are calculated based on the following period, coverage, and calculation standards.

< Period Covered, Coverage >

Period covered: Fiscal 2018 (April 2018 to March 2019)

Coverage: Sharp Corporation production sites and production bases in Japan and overseas

Calculation Standards for Environmental Performance Indicators

Environmental Performance Indicators			Calculation Method
Input	Product manufacture	Energy consumed	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	Consumption and recycled use of industrial-use water, tapwater, and groundwater
		PFCs purchased	HFCs, PFCs, sulfur hexafluoride (SF ₆), and nitrogen trifluoride (NF ₃) purchased annually
		Chemical substances handled (PRTR-listed)	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
		Chemical substances handled (VOCs)	Among the 20 types of volatile organic compounds (VOCs) specified by Japan's four major electrical and electronic industry associations, the total amount of substances handled annually at each plant in quantities of 1 metric ton or more
	Materials consumed	Total weight of products in the 13 major categories ^{*1} sold in the reporting year (estimate), plus waste, etc. generated	
	Logistics	Energy consumed	Revised ton-km method
Product use	Energy consumed	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).	
Recycle	Disposal, recycling	Home appliances (4 kinds) ^{*2}	Amount of used home appliances (4 kinds) recycled
		Copiers/MFPs	Amount of recycled copiers and MFPs
		PCs	Amount of recycled PCs
		Closed-loop plastic material recycling	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: Overview of Environmental Impact

Environmental Performance Indicators		Calculation Method	
Output	Product manufacture	Greenhouse gas emissions	<ul style="list-style-type: none"> CO₂ emissions from purchased electricity Japan: Using CO₂ 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) CO₂ 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 CO₂ Using global warming potential published in the 4th Assessment Report by the Intergovernmental Panel on Climate Change (IPCC)
		Drainage	Annual drainage into public water areas and sewer system
		Chemical substances released and transferred (PRTR-listed)	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
		Chemical substances released and transferred (VOCs)	Among the 20 types of volatile organic compounds (VOCs) specified by Japan's four major electrical and electronic industry associations, the total amount of substances (handled annually at each plant in quantities of 1 metric ton or more) that were released and transferred
		NOx emissions	Annual emissions
		SOx emissions	Annual emissions
		COD (chemical oxygen demand)	Drainage into public water areas
		Nitrogen pollutant load	Drainage into public water areas
		Phosphorous pollutant load	Drainage into public water areas
		Product shipments	Total weight of products in the 13 major categories* sold in the reporting year, plus packaging material used (estimate)
	Waste, etc.	Industrial waste + general office waste + valuable resources recovered	
	Final landfill disposal	Final landfill disposal of industrial waste + final landfill disposal of general office waste	
	Logistics	CO ₂ emissions	Revised ton-km method
	Product use	CO ₂ emissions	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	[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



Social Initiatives



2.43%
Employment Rate of
the Disabled in Japan
(As of June 2019)



1,058 suppliers
Number of suppliers that underwent
CSR surveys in fiscal 2018

> Fair and Impartial Procurement Activities	P. 60
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Social Initiatives: Fair and Impartial Procurement Activities

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

As Sharp’s business philosophy states, “Our future prosperity is directly linked to the prosperity of our customers, dealers and shareholders,” Sharp aims for sustainable growth and mutual prosperity with all of its suppliers.

To these ends, 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

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-evaluation
<ul style="list-style-type: none"> Full-scale rollout and expansion of supply chain CSR management systems 	<ul style="list-style-type: none"> Full-scale rollout of supplier management system at production bases in China and ASEAN countries (9 sites); evaluation carried out on 900 suppliers Expanded supplier management system to production/procurement bases in China and ASEAN countries (7 sites) 	★★
Priority Objectives for Fiscal 2019	<ul style="list-style-type: none"> Continue CSR/green procurement survey in Japan; expand supplier management system 	

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

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, in 2007, Sharp formulated and distributed its own Sharp Supply-Chain CSR Deployment Guidebook compliant with the RBA^{*1} Code of Conduct. 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 Code of Conduct. Since then, it has revised the guidebook as needed in line with revisions to the RBA Code of Conduct. In this way, Sharp strives to comply with the increasingly sophisticated international standards for CSR.

In fiscal 2018, in some of its Japan-based business units, Sharp continued with the CSR/green procurement survey but with questions unique to Sharp added to the RBA self-assessment questionnaire.

Further, in China and ASEAN countries, Sharp began the full-scale introduction of two new types of supplier management systems at nine major production sites^{*2} with the goal of carrying out a multifaceted and efficient evaluation of the QCD (quality/cost/delivery) of its suppliers and their CSR performance. This evaluation was carried out on approximately 900 suppliers.

Sharp is also pushing forward with expansion of this system to seven more production/procurement sites^{*3} in China and the ASEAN region.

In fiscal 2019, Sharp will continue to carry out the CSR/green procurement survey in Japan and plans to expand the supplier management system to Europe and America.

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

Number of suppliers that underwent CSR surveys in fiscal 2018

Japan	124 suppliers
China	135 suppliers
Thailand	216 suppliers
Indonesia	223 suppliers
Malaysia	294 suppliers
Philippines	66 suppliers



System introduction training at a Chinese production base

*1 RBA : 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 nine production bases are (1) SOCC (China), (2) WSEC (China), (3) SATL (Thailand), (4) SMTL (Thailand), (5) SOEM (Malaysia), (6) SMM (Malaysia), (7) SEID (Indonesia), (8) SSI (Indonesia), and (9) SPC (Philippines).

*3 The seven sites and affiliates are: (1) SSEC (China), (2) Lianyungang Kantatsu Fine Technology Co., Ltd. (China), (3) Kanto Tatsumi Electronics (Pinghu) Co., Ltd. (China), (4) Saigon Stec Co., Ltd. (Vietnam), (5) SHK (Hong Kong), (6) SEM (Malaysia), and (7) SEM Korea (South Korea).

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.

Recently, the scope of minerals, regions, and risks 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.

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, based on industry-standard reporting templates (CMRT^{*2} and CRT^{*3}). Sharp uses the results of these surveys to respond appropriately to changing international trends in mineral procurement.

A notable example of such action taken in fiscal 2018 was Sharp, together with JEITA's Responsible Minerals Trade Working Group, sending outreach letters directly to smelting works and refineries suspected of involvement in procurement risks stipulated by OECD Guidance Annex II^{*4}, the United States' OFAC regulations^{*5}, and other regulatory guidelines and standards.

In addition, as it does every year, Sharp attended a conflict minerals survey briefing sponsored by JEITA's Responsible Minerals Trade Working Group, and used the opportunity to provide suppliers with a deeper understanding of recent trends and to ask for their cooperation with surveys.

In fiscal 2019 again, Sharp will enhance the precision of surveys by continuously improving its own survey system. It will also 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.



At a conflict minerals survey briefing sponsored by JEITA (Osaka venue)

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

*2 CMRT (Conflict Minerals Reporting Template) is a free, standardized reporting template developed by the RMI.

*3 CRT (Cobalt Reporting Template) is a free, standardized reporting template developed by the RMI.

*4 Risks stipulated in Annex II of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

*5 Sanctions-related regulations of the U.S. Treasury Department's Office of Foreign Assets Control (OFAC).

Related information: > [Responsible Minerals Procurement](#)

Social Initiatives: Fair and Impartial Procurement Activities

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.

Social Initiatives: Quality

Ensuring Quality and Safety

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<p>■ To achieve quality that meets our customers' needs, Sharp will tackle issues across the entire company and improve our quality-related technical capabilities.</p>	<p>■ We established Expert Subcommittees made up of experts from all over Sharp in order to solve company-wide quality issues. These Expert Subcommittees worked across the entire company to solve issues and successfully raise the level of quality-related technologies.</p>	★★
<p>Priority Objectives for Fiscal 2019</p>	<p>Step up efforts across the entire company in order to realize products with the quality and environmental consciousness worthy of the Sharp brand.</p>	

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

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

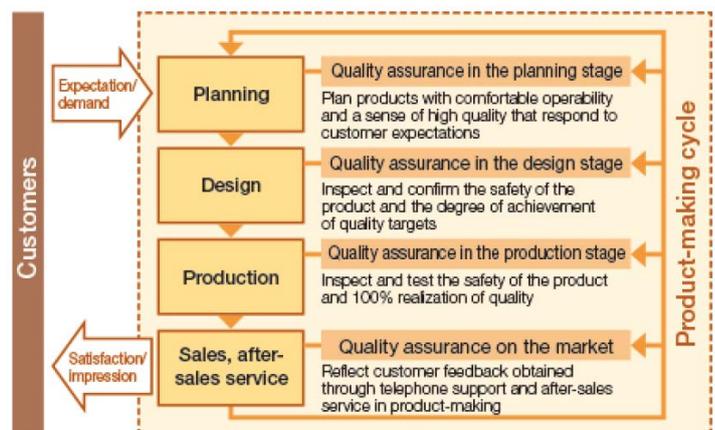
Quality First in Heart and mind

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, major production sites of consolidated subsidiaries in Japan and abroad have obtained the international ISO 9001 certification of quality management.

Sharp has also established 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 Initiatives: 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

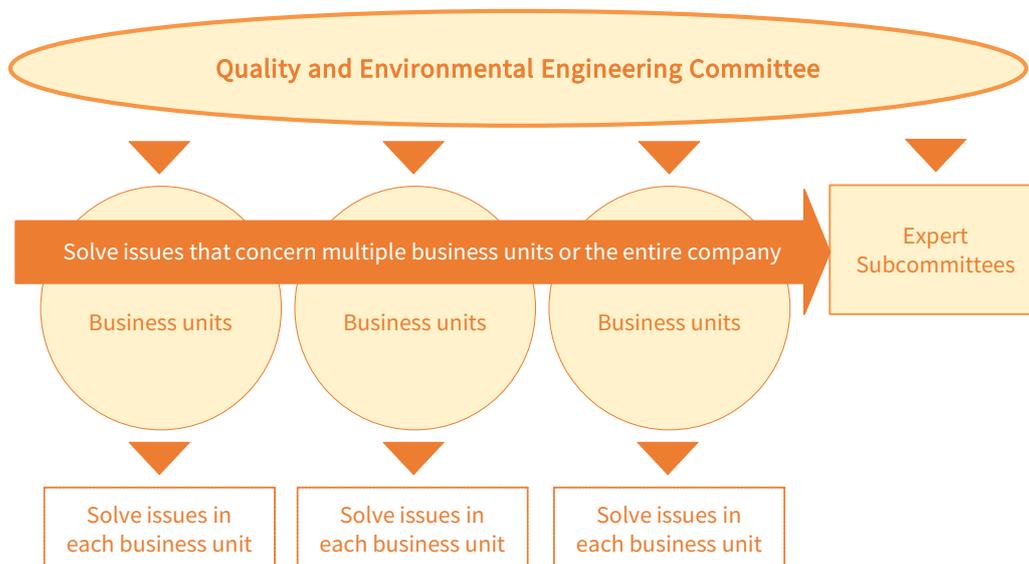
Provide high quality and attractive products that customers can continuously use them with safety and satisfactory.

- (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 way to advance quality and environmental technologies. With members representing all business units at Sharp, 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+5G 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.



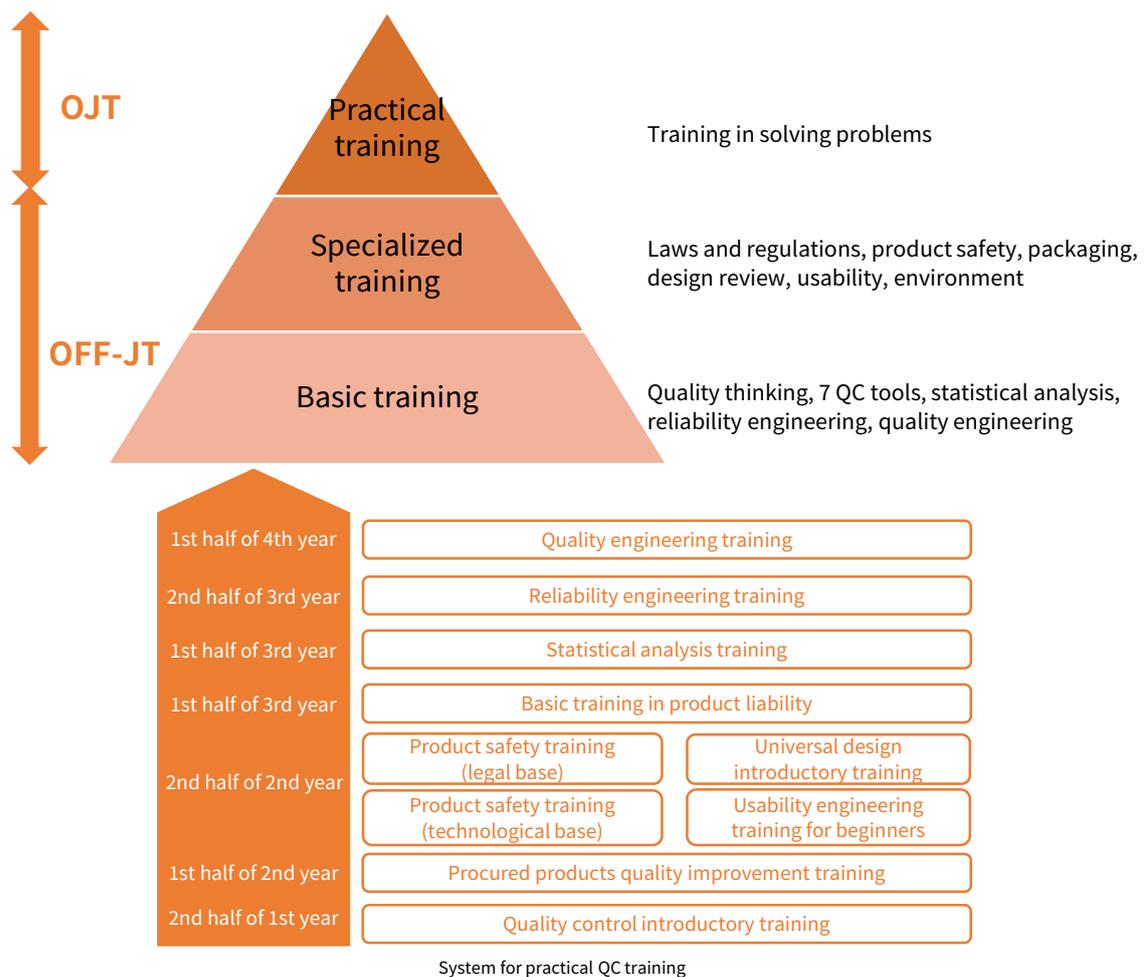
* AIoT is a word coined by Sharp, combining the words AI (artificial intelligence) and IoT (Internet of things).
"AIoT" is registered trademark of Sharp Corporation.

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.



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 2018, there were 43 courses in quality training, with a total of approximately 18,781 participants.

Training form	No. of courses	No. of participants
E-learning	25	18,080
Group training	18	701
Total	43	18,781

Fiscal 2018 training courses and number of participants

Social Initiatives: 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 safety standards that consider risk assessment to raise levels of safety. To ensure complete and high levels of safety even in cases where unforeseen defects arise, these in-house safety standards 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

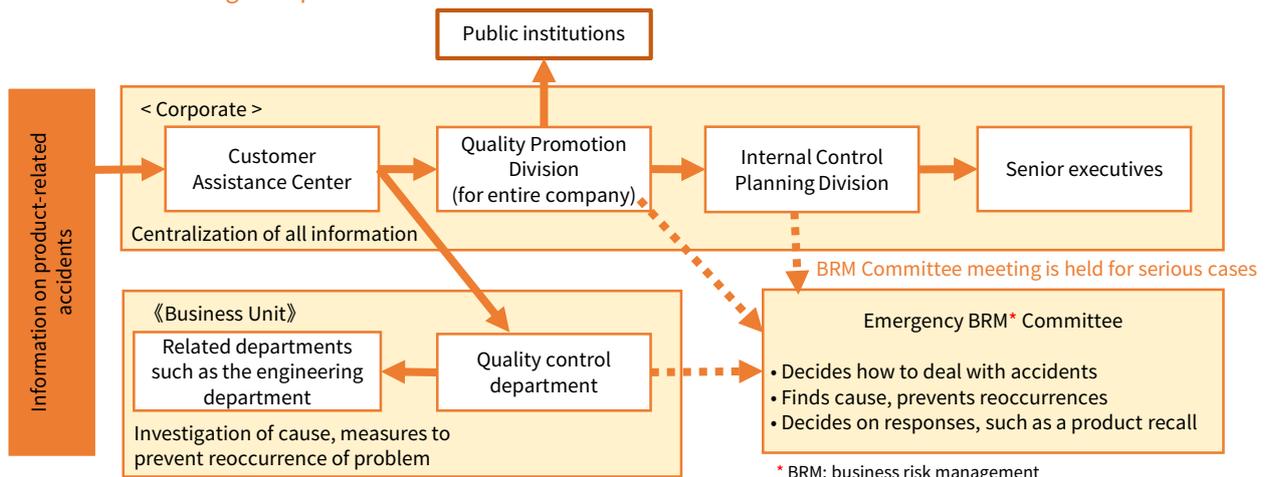
Information Disclosure and Response When Problems Occur

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 14 such cases.*

* Number in Fiscal 2018

Flow for dealing with product-related accidents



Social Initiatives: Quality

Making Easier-to-Use Products

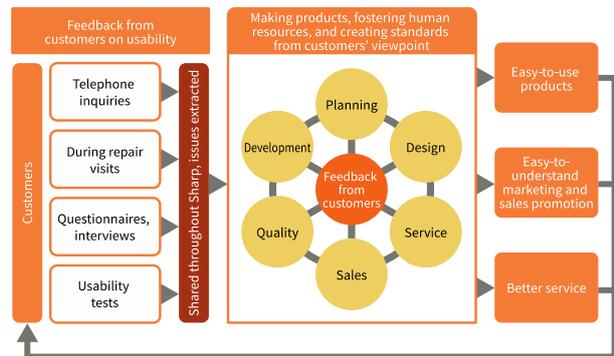
Practicing User-Centered Design

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.

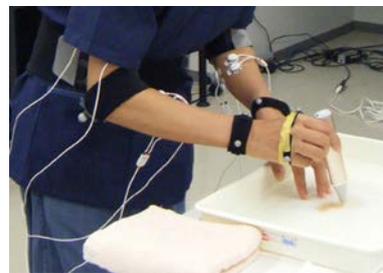
Sharp collects information on how customers interact with products via telephone inquiries to the Customer Assistance Center, repair visits, questionnaires, interviews, and usability tests (observing how customers actually use Sharp products). This information is shared among the relevant departments, 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.



Washing machine (prototype) usability test



ES-W111 front-loading washer/dryer



Ergonomics evaluation of an ultrasonic washer



UW-S2 ultrasonic washer

< Voice >

Comments from Participants in Usability Tests

- We tried using a variety of appliances in the survey, and I was surprised how enlightening it was. On the survey day, I gave my opinion as a consumer, and I'm delighted that Sharp will reflect our opinions in developing future products. (Customer; woman in her 40s)
- During the survey, the tester was tripped up by a number of things that we hadn't thought of beforehand. This made us realize how important it is to conduct testing during the prototype stage. (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 (UD). Universal design is a philosophy for building products, information, and environments so that they can be used by many more customers—regardless of things like nationality, age, gender, or disability. Sharp strives to develop products and services that can be used comfortably by as many people as possible. As of June 2019, 158 models of 14 Sharp product categories 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 to foster human resources through training. Major education activities include introduction to universal design (e-learning) to impart the understanding and acquisition of basic universal design knowledge, universal design experience learning, in which employees see firsthand what it's like to be physically disabled so that they can know how to make products more accessible, and a usability training system for specialized education.



Elderly experience training



Vision-impaired training



Hearing-impaired training

Efforts to Ensure Accessibility

Accessibility is the concept of making products and services so that they can easily be used by people who are in some way limited in their physical functions; for example, senior citizens and the physically disabled. Under U.S. federal law^{*1}, federal agencies purchasing equipment and services are obligated to choose those that are accessible to everyone, including the physically disabled. For Sharp digital MFPs and other products, assessment results of accessibility standards stipulated by federal law are compiled on a product evaluation sheet (VPAT^{*2}), which is disclosed on the website of Sharp Electronics Corporation (SEC), Sharp's U.S. sales company.

*1 Section 508 of the Rehabilitation Act

*2 VPAT: Voluntary Product Accessibility Template. A table containing information regarding how a particular product or service conforms with Section 508 of the U.S. Rehabilitation Act.

SHARP
VPAT™
Voluntary Product Accessibility Template®
Version 1.0
Date: March 2019
Name of Products:
MX-3071, MX-3571, MX-4371, MX-5071, MX-6071
MX-2551, MX-3051, MX-3551, MX-4051, MX-5051, MX-6051
Contact for more information: VPAT Support Team (VPAT_Support_Team@sharpusa.com)

The purpose of the Voluntary Product Accessibility Template or "VPAT" is to assist Federal contracting officers and other buyers in making preliminary assessments regarding the availability of commercial "Electronic and Information Technology" products and services with features that support accessibility. It is assumed and recommended that the offerers will provide additional contact information to facilitate more detailed inquiries.

The first table of the Template provides a summary view of the Section 508 Standards. The subsequent tables provide more detailed views of each subsection. There are three columns in each table. Column one of the Summary Table describes the subsections of subparts B and C of the Standards. The second column describes the supporting features of the product or refers you to the corresponding detailed table, e.g., "equivalent facilitation". The third column contains any additional remarks and explanations regarding the product. In the subsequent tables, the first column contains the lettered paragraphs of the subsections. The second column describes the supporting features of the product with regard to that paragraph. The third column contains any additional remarks and explanations regarding the product.

Summary Table VPAT™ Voluntary Product Accessibility Template®		
Criteria	Supporting Features	Remarks and explanations
Section 1194.21	Supports with Limitations	Software Applications and Operating Systems
Section 1194.22	Supports with Limitations	Web-based Internet Information and Applications
Section 1194.23	Supports with Limitations	Self-Contained, Closed Products
Section 1194.26	Not applicable	Desktop and Portable Computers
Section 1194.31	Supports with Limitations	Functional Performance Criteria
Section 1194.41	Supports with Limitations	Information, Documentation and Support

Return to the top of the page. Page 1 of 12

Example of VPAT for a digital MFP

Social Initiatives: Quality

< Case Study >

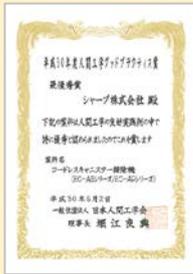
Sharp Corporation Receives Grand Prize in the 2018 Ergonomics Good Practice Awards from Japan Ergonomics Society

The Sharp cordless canister vacuum cleaner won the Grand Prize in the Ergonomics 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.



Good Practice logo



Prize certificate



Commemorative plaque



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



* 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 1, 2019.

< Case Study >

Sharp Corporation Wins Overall Customer Satisfaction Top Prize, 2018 IID Awards (Japan)

Sharp's Brain Series electronic dictionary was selected for the Overall Customer Satisfaction Top Prize in the 2018 IID Awards* in Japan. This was the seventh year in a row for Sharp to win this award and is the result of constant efforts to listen to user opinions, gather information from retailers, and improve the product's usability. Sharp received high evaluations for easy-to-view screen, superb readability, good design, operability, good search functions, and good sound, and it won top prizes in these categories as well.

Sharp will continue to develop products that give customers high satisfaction.



IID Awards logo



Trophy for a 7th consecutive IID Award (Front right: IID Awards 2018 trophy)



Brain Series color electronic dictionary

*Note: Resemom, an education information website run by IID, Inc., conducted an online survey of parents of junior and senior high school students who own an electronic dictionary.

Social Initiatives: Customer Satisfaction

Enhancing Customer Satisfaction

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<ul style="list-style-type: none"> ■ Increase customer satisfaction by improving service quality 	<ul style="list-style-type: none"> ■ Improved service quality <ul style="list-style-type: none"> • Held upskilling training to enhance air conditioner service technical skills • Held training to enhance service technical skills for the start of 4K8K broadcasts • Established chatbot and LINE customer service on customer support website 	★★
Priority Objectives for Fiscal 2019	<ul style="list-style-type: none"> ■ Increase customer satisfaction by improving service quality 	

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

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.

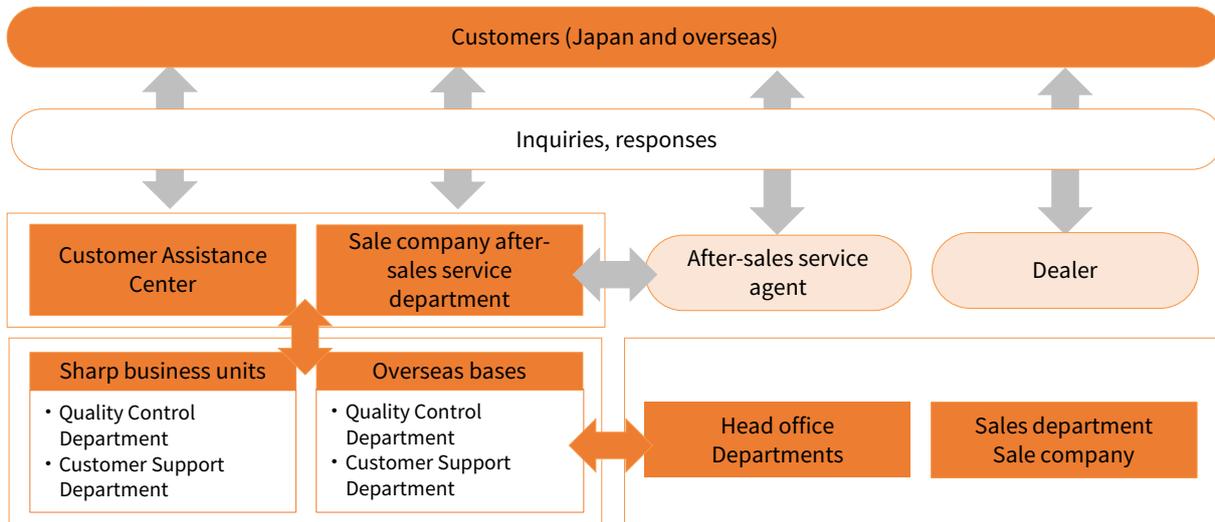
Related information: > [Sharp Group Charter of Corporate Behavior](#)

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

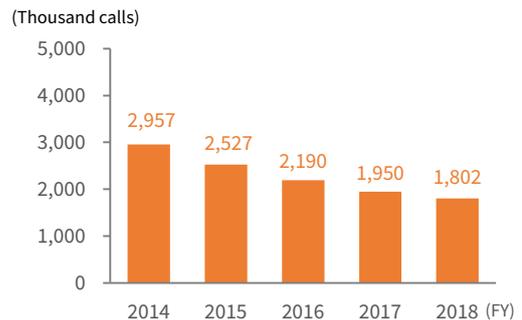
< Customer Assistance Center >

At the Customer Assistance Center, which responds to a wide range of customer inquiries concerning Sharp products, 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 Sharp's customer support 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.

Number of Calls Received at the Customer Assistance Center (Japan)



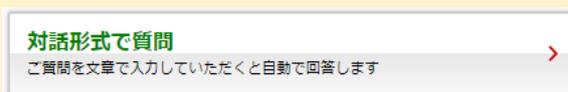
Greater Convenience for Customers

In October 2018, a chatbot was adopted to automatically provide answers to inquiries on the customer support website. In March 2019, support began to be provided via the communications app LINE to solve users' issues without requiring a phone call, further enhancing customer convenience.

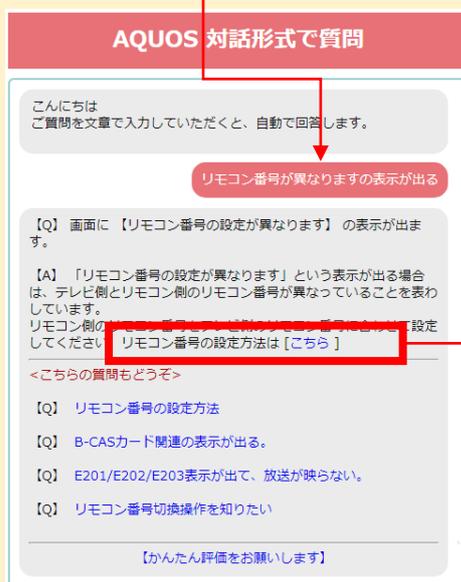
<Case Study>

Chatbot support flow

(1) Select chatbot from customer support website (ask questions in a dialogue)



(2) Input inquiry and select response (E.g. "The remote control number is different" appears)



(3) Select the model you are using



(4) Check how to set the remote control number



Social Initiatives: Customer Satisfaction

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 with a user-oriented mindset to satisfy customers and realize its slogan: “Seeing customers smile makes us happy.” To this end, service engineers, who work out of 91 service bases^{*1} all over Japan and are familiar with local customers, provide repair 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, such as washing machines, refrigerators, and air conditioners.

^{*1} As of May 2019

^{*2} Business days vary from region to region

Enhancing Service Technical Skills (in Japan)

<Case Study>

Boosting the Technical Skills for 4K8K and AIoT^{*3} Products

Sharp Marketing Japan Corporation, Customer Service Company is constantly working to enhance its service technical skills to find solutions to trouble with customers’ products as quickly as possible.

With the start of 4K8K broadcasting in fiscal 2018, training has focused on the broadcasting system along with new products like LCD TVs, Blu-ray Disc recorders, and so on. The company also held e-learning nationwide to boost the ability to cope with AIoT products like AQUOS LCD TVs and Healsio superheated steam ovens. User convenience will be enhanced more and more as various products are connected to networks. Sharp Marketing Japan is determined to constantly hone its knowledge and technical skills in order to not only provide repairs to customers but also suggest better ways to use products or find solutions to difficulties.

^{*3} AIoT : AIoT is a word coined by Sharp, combining the words AI (artificial intelligence and IoT (the Internet of things)). AIoT is a concept to build a system that not only links objects to the Internet to exchange data but also uses artificial intelligence to learn and grow. Sharp’s AIoT was originally created for consumer electronics and mobile devices, but it has the potential to be adapted to a wider range of business domains to facilitate the realization of the IoT for devices, coordinate services, and enable voice interaction with automated replies, and so forth.



Training in new products

Social Initiatives: Customer Satisfaction

Enhancing Service Technical Skills (Overseas)

<Case Study>

Training on Service Techniques for Digital Full-Color MFPs

Sharp's Business Solutions Business Unit held a service training course for a new digital full-color MFP (multifunction printer) in April and May 2019. The training was for service engineers (trainers) of overseas sales subsidiaries and a sales company in Japan. (Number of participants: 9 from overseas, 13 from Japan)

An MFP is a device mainly used in offices, with copy, print, scan, and fax functions. Any downtime of these machines is a serious issue for a business, hence dealing with this directly links to customer satisfaction. The service technical skills of service engineers support the maintenance and other servicing essential to preserve the MFPs' performance and functioning. This training covered elements necessary for after-sales services, from functional aspects like product features and specifications as well as installation, disassembly and assembly, adjustment, and maintenance. The participants will in turn become trainers in their own countries or areas, passing on what they have learned to other staff members.



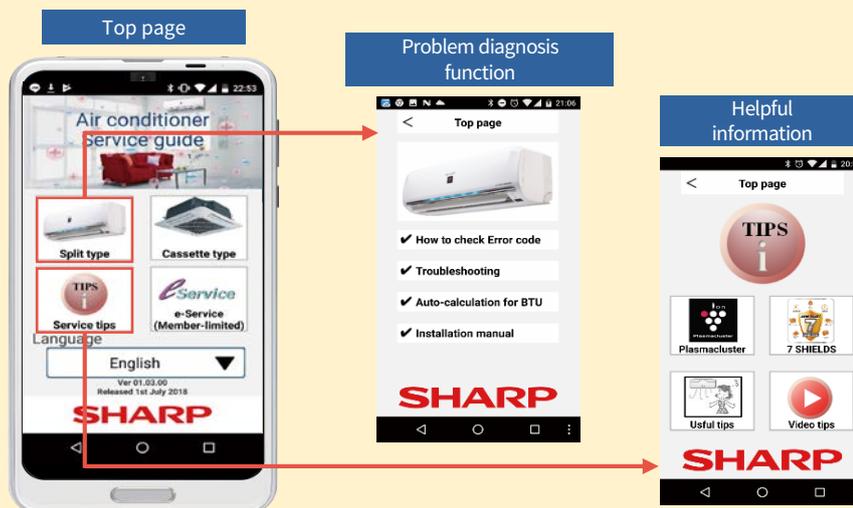
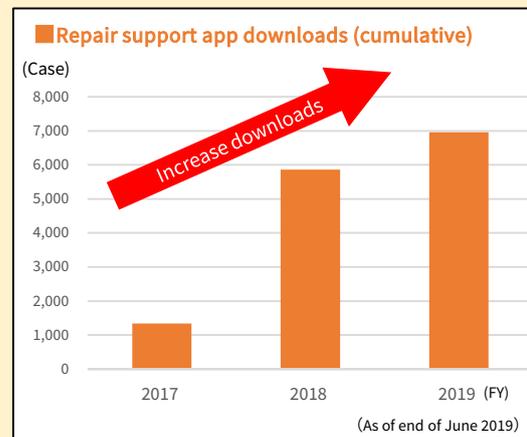
Sharp will aggressively plan and hold more training sessions directly linked to enhancing service technical skills so that it can improve customer satisfaction and increase sales of MFPs.

<Case Study>

Development of a Smartphone-based Repair Support App

In December 2017, Sharp released a smartphone app with a fault diagnosis function that easily recognizes product error codes. This app allows fast and accurate repairs of inverter air conditioners sold in the ASEAN region. It has steadily been downloaded, reaching over 6,000.

In June 2018 a second version of the app was released with support in four languages and additional features to link to quality information systems and commercial air conditioner functions. This upgrade has further enhanced the convenience of this repair tool.

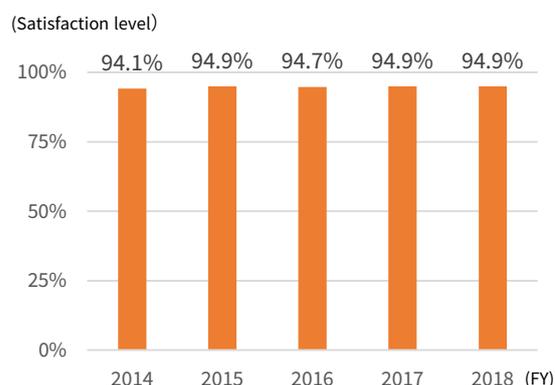


Social Initiatives: Customer Satisfaction

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 2018 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

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<p>■ Enhance IR communications by senior executives by having them participate whenever possible in conferences</p>	<p>■ Sharp strengthened communication with shareholders and investors in Japan and overseas by having senior executives participate in conferences and by holding ongoing management briefings for shareholders. Based on fiscal 2017 achievements and other factors, in May 2018 Sharp paid dividends for the first time in six years.</p>	★★
<p>Priority Objectives for Fiscal 2019</p>	<p>Step up the provision of information through IR events such as business policy briefings</p>	

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

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](#)

Basic Policy on Allocating Profits

Sharp considers distributing profits to shareholders to be one of management's top priorities. Comprehensively taking into account consolidated business performance, financial situation, and future business development, in addition to active investments in R&D and other areas and strengthening the financial constitution from a long-term perspective, Sharp will pay dividends from surplus. For an annual dividend for common shares in fiscal 2018, the dividend per share was 20 yen, a 10-yen increase over the previous year. To boost the quality of equity and raise the value of common shares, of the 200,000 shares of Class A stock (which have preferred dividends, a risk of dilution, and other considerations), we acquired and cancelled 92,000 shares on January 30, 2019 and acquired and cancelled the remaining 108,000 shares on June 21, 2019.

Communicating with Investors

In fiscal 2018, besides holding one-on-one meetings with institutional investors and analysts, Sharp held financial results briefings. In addition, Sharp senior executives took part whenever possible in conferences sponsored by securities companies in Japan and overseas, where they explained and answered questions on financial results, management policy, and business strategy.

Sharp will continue to use IR activities to help a wide range of investors gain a proper understanding of Sharp's management situation and business policy. 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.

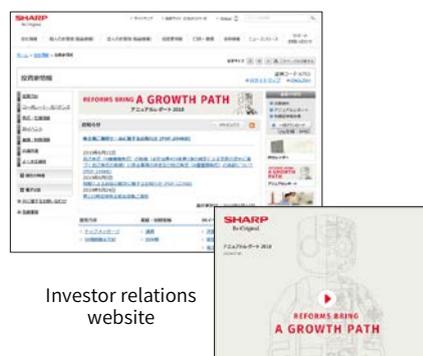
Social Initiatives: Communicating with Shareholders and Investors

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 made the site compatible with smartphone viewing. 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

2018 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 July 2019, 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 ten 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 three 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. Sharp has been included in this index for two consecutive years.



2019 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. Sharp has been included in this index for two consecutive years.



2019 Constituent
MSCI ジャパンESG
セレクト・リーダーズ指数

Social Initiatives: For Local Communities

Promoting Social Contribution Activities

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<ul style="list-style-type: none"> Continue to collaborate with local communities to solve social problems, with employees taking the lead role in conducting activities that benefit communities 	<ul style="list-style-type: none"> Total number of participants in environmental conservation activities: 10,389 (including family members), total number of activities: 603 Career education provided to total of 1,798 students at special-needs schools 	★★
<p>Priority Objectives for Fiscal 2019</p>	<ul style="list-style-type: none"> Continue to collaborate with local communities to solve social problems, with employees taking the lead role in conducting activities that benefit communities 	

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

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 *satoiyama* (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 2018, 603 such activities were conducted with the participation of a total 10,389 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 >

Asuka Village in Nara Prefecture still retains highly precious natural features and scenery rooted in history, yet damage has been suffered by some forests and terraced fields. Employees, family members, and others come together four or five times a year to work on recreating this historical scenery.

A total of 67 people joined in, working in preservation activities such as planting flowers and fruit trees of types mentioned in the ancient *Man'yoshu* collection of poems.



< Case Study >

Nakaumi lake straddles the prefectures of Tottori and Shimane in the San'in region of Japan. The area around the lake is a precious habitat for wild birds, including waterbirds.

Employees of Sharp Yonago Corporation (Yonago, Tottori) joined other local volunteers in removing weeds from the area. This activity was organized by a group of enterprises committed to environmental issues in Yonago. Removing weeds helps to create a safe environment for the waterbirds.



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.

- **Workplace tour: Visit the workplace of disabled employees and attend a lecture**
- **Workplace experience: Experience work where disabled employees are active**
- **School visit: Disabled Sharp employee visits schools to give talks on what it means to work**



A workplace visit



A participant in a workplace experience



A classroom during a school visit

* 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).

< Voice >

Comment from the Principal of the Ehime Prefectural Matsuyama School for the Deaf That Sharp Visited

Our school has been fortunate enough to enjoy the school visits for career education by Sharp Tokusen Industry ever since the beginning of this program, now in its 8th year in fiscal 2019. We appreciate the visits by Sharp Tokusen representatives and executives, who view these classes and give words of encouragement to our pupils. Our school provides education to hearing-impaired students from pre-school level to senior high school level. Our educational activities as a whole are geared to shaping careers so that each individual student can live independently in society. When we first requested the school visits, they were limited to the junior high school and high school students. However, believing in the need to make children consider from as early a stage as possible about the meaning and purpose of work, we now have elementary students participate.



Kayoko Hashimoto
Principal, Ehime Prefectural
Matsuyama School for the Deaf

Though the number of pupils is small, there is a wide age range from elementary to senior high school. Each time, the staff of Sharp Tokusen's General Affairs Division give attention to every detail, carefully selecting the content and considering how to teach it. I am always impressed by the talks from the hearing-impaired employees working at Sharp Tokusen, as they mention issues that directly face our pupils, deeply affecting and inspiring them. The visits are highly precious opportunities for our students, and we are deeply grateful for Sharp Tokusen's ongoing support. Through our relationship with Sharp Tokusen we hope to focus the efforts of our entire school on pursuing true career education while heightening the motivation of each child to find work. We hope to continue to receive counsel and support, and at the same time look forward to the ongoing prosperity of Sharp Tokusen.

< Voice >

Comment from an Instructor at a School Visit

I believe that these school visits are precious opportunities to bring people together. Sometimes the message is light and cheerful, sometimes it is strict and harsh, but seeing the pupils listen so intently to what I have to say gives me the strength to go on to the next class. Working as an instructor has helped broaden the scope of my work as well as enhancing my skills, such as communication inside the company and written Japanese. In my private life also, it has given me more confidence in communication with people in the local community.

Though I am not a professional teacher, I will make the most of feedback and advice from the school staff and children, so that I can provide even better classes.



Hiromi Tanaka
Assistant Supervisor,
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 >

Sharp (Phils.) Corporation (SPC)

On June 29, 2018, Sharp's Philippines sales and production company SPC gave an environmental education lesson to fourth and fifth grade pupils of the local Lakeview Integrated School.

The lesson was an opportunity for the children to learn the importance of the diversity of nature and its protection, so that they can contribute to preservation of the global environment.



< Case Study >

Sharp Manufacturing Corporation (M) Sdn. Bhd (SMM)

On March 23, 2019, a health-boosting, environment friendly Endurance Bicycle Race was held at Sharp's Malaysian production base SMM.

Members of the local community joined SMM employees to bring the participants to approximately 250. The event featured lots of aerobic exercise, fun environment-related games, a mountain bike race, and tree planting.



< Case Study >

S & O Electronics (Malaysia) Sdn. Bhd. (SOEM)

On December 16, 2018, employees of Sharp's Malaysian sales and production company SOEM participated together with local residents in cleaning of a social welfare facility for the elderly. A total of 93 participants split into two groups to clean the walls and surrounding area of the facility.

The primary purpose of this activity was to promote the spirit of volunteer participation and encourage selflessness, as well as helping to preserve the greenery and buildings of the community.



Social Initiatives: For Local Communities

< Case Study >

Sharp Electronics (Malaysia) Sdn. Bhd. (SEM)

On April 21, 2019, Sharp’s Malaysian technology development and parts supply company SEM held the *Sharp I Love Shah Alam Fun Run 2019*.

This event promoted fitness through a long-distance run starting from SEM’s offices. The employees livened the event up with a concert and dance, as well as taking steps to prevent dehydration through use of misting gates and providing drinks cooled in refrigerators.



< Case Study >

P. T. Sharp Electronics Indonesia (SEID)

As part of Earth Day, an event that seeks to increase awareness of global and environmental problems, SEID, Sharp’s sales and production base in Indonesia, on April 27 and 28, 2019, held the Sharp Greenerator Inauguration and Workshop for the younger generation.

This event taught the importance of reducing the amount of home garbage, then featured a hike in forests and along rivers, teaching about rare species along the way. The participants picked up garbage while taking part in the hike, and finally planted seedlings native to the forest.



< Case Study >

P. T. Sharp Electronics Indonesia (SEID)

Followers of Islam fast over the period of Ramadan. On May 22, 2019, SEID, Sharp’s sales and production base in Indonesia, held its annual CSR program, *Sharp Bersedekah**1 in the spirit of Ramadan. A hundred children from three orphanages in the north of Jakarta were invited to enjoy quizzes and games. The company gifted each orphanage with food, stationery for study, and washing machines to wash their hijabs*2.

*1 “Bersedekah” means to give alms in Indonesian.
*2 A head covering worn by Muslim women.



Social Activities: Efforts Related to Human Rights

Efforts Related to Human Rights

Guiding Principles on Human Rights

As a participant in the United Nations Global Compact, the Sharp Group promotes initiatives that conform to international principles about human rights and labor standards, such as those advocated in International Labour Organization (ILO) conventions.

The Sharp Group's fundamental policies with regard to human rights are embodied in the Sharp Group Charter of Corporate Behavior and the Sharp Code of Conduct. These stipulate that the Sharp Group respects fundamental human rights and individuality by eschewing practices that are discriminatory or which infringe upon human rights, such as child labor or forced labor, and every effort is made to ensure that all Sharp employees are aware of and adhere to these policies.

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 mid-career hires 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 29 sessions were held in fiscal 2018.

In fiscal 2018, compliance-related training based on the Sharp Code of Conduct was provided to all Sharp Group employees. In this training, employees were taught about the importance of prohibiting child labor and protecting the well-being of young workers and student workers, as well as about their behavioral obligations under the Sharp Code of Conduct. Employees were also taught about the whistleblowing system for reporting human rights-related issues, and it was stressed that they would receive no disadvantageous treatment for making such reports.

Human rights-related initiatives in line with the Sharp Group Charter of Corporate Behavior, the Sharp Code of Conduct, local laws and regulations, and other requirements are also being promoted at Sharp's overseas bases.

Additionally, Sharp carries out ongoing human rights compliance checks at its production sites via SER self-assessment surveys* conforming to international principles, such as those advocated in ILO conventions.

In the UK, we have disclosed a statement to prevent forced labor and human trafficking based on the UK Modern Slavery Act 2015.

* See page 23

Related information: > [Modern Slavery Transparency Statement](#)

Social Activities: Efforts Related to Human Rights

Preventing Workplace Harassment

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
Hold e-learning in preventing power harassment in the workplace	E-learning courses in preventing power harassment in the workplace were offered to all employees (voluntary participation)	★★
Encourage the holding of training on the theme of preventing harassment (power, sexual) in the workplace at production sites and affiliates	Training on preventing harassment (power, sexual) in the workplace was carried out at production sites and affiliates	★★
Priority Objectives for Fiscal 2019	<ul style="list-style-type: none"> • Provide at least one training session in preventing harassment • Resolve harassment consultation matters • Conduct employee surveys and implement measures to address the issues identified from them 	

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

Harassment is socially unacceptable behavior damaging to human dignity. In order to help eradicate harassment, Sharp provides all employees with harassment-prevention training.

Additionally, Sharp utilizes employee surveys to help ascertain the status of workplace harassment and put in place preventative measures. Sharp has also set up a harassment consultation service for all of its bases in Japan, thereby helping to ensure that, in the event that harassment occurs, a system is in place to immediately deal with it. Furthermore, Sharp has developed harassment response guidelines, which stipulate the appropriate way to handle harassment reports, such as how to ensure those making the reports do not suffer any negative repercussions or have any personally identifiable information leaked or disclosed without their consent

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.

At Sharp Corporation, for example, 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 the company's financial condition and issues in the work environment. When there are issues that will have an impact on the working conditions of union members, both sides meet for discussion before action is taken.

In Europe, Sharp holds European Works Council meetings every year to review the financial condition and 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

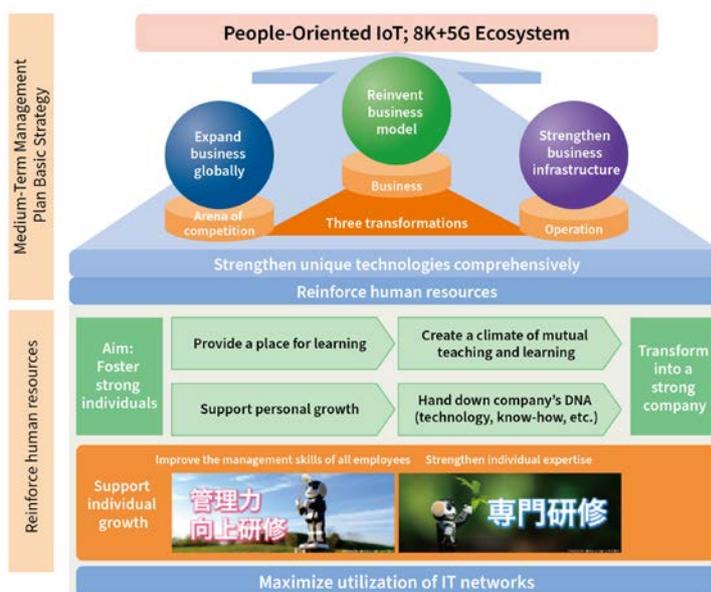
Human Resource Development

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<ul style="list-style-type: none"> Hold specialized training (technical) with the aim of improving employees' level of expertise 	<ul style="list-style-type: none"> Held 13 new specialized training courses 	★★
<p>Priority Objectives for Fiscal 2019</p>	<ul style="list-style-type: none"> Hold new courses to further enhance employee expertise 	

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

Personnel, Education, and Training System for Fostering Strong Individuals

Sharp works to cultivate an environment in which employees can pursue independent learning whenever and wherever they are, in order to build up the basic business knowledge and expertise that they need as professionals. In fiscal 2018, employees were provided with improved training and education aimed at fostering strong individuals, particularly with regard to personal professional growth.



In May 2018, Sharp began providing specialized technical training, in addition to the management skills improvement training (basic business knowledge and skills), which is provided to employees to support their personal growth.

The aim of this specialized training is to improve technological capacity across the Sharp Group by having employees with advanced knowledge of cutting-edge future technologies, technologies essential to Sharp business development, and other key technologies lead instructional seminars where other employees can acquire basic knowledge, an understanding of technological trends, a perspective on future developments, and other information about each technology. Thus far, seminars have been provided on the 8K+5G ecosystem and AIoT*, as well as the cutting-edge machine learning, image recognition, communications, and display technologies associated with them. Additionally, the scope of topics covered by the management skills improvement training begun in fiscal 2017 continues to grow.

Sharp also actively supports employee self-development by providing an e-learning environment, which complements the group training sessions, allowing employees to use their home computers and smartphones to easily pursue learning anywhere, any time.

By providing these various education and training initiatives on an ongoing basis, Sharp is fostering a corporate culture of employee-driven mutual learning and instruction in which personnel who are capable of delivering the sorts of innovation that strengthen the company will be cultivated.

* AIoT is a word coined by Sharp, combining the words AI (artificial intelligence) and IoT (Internet of things).

"AIoT" is registered trademark of Sharp Corporation.

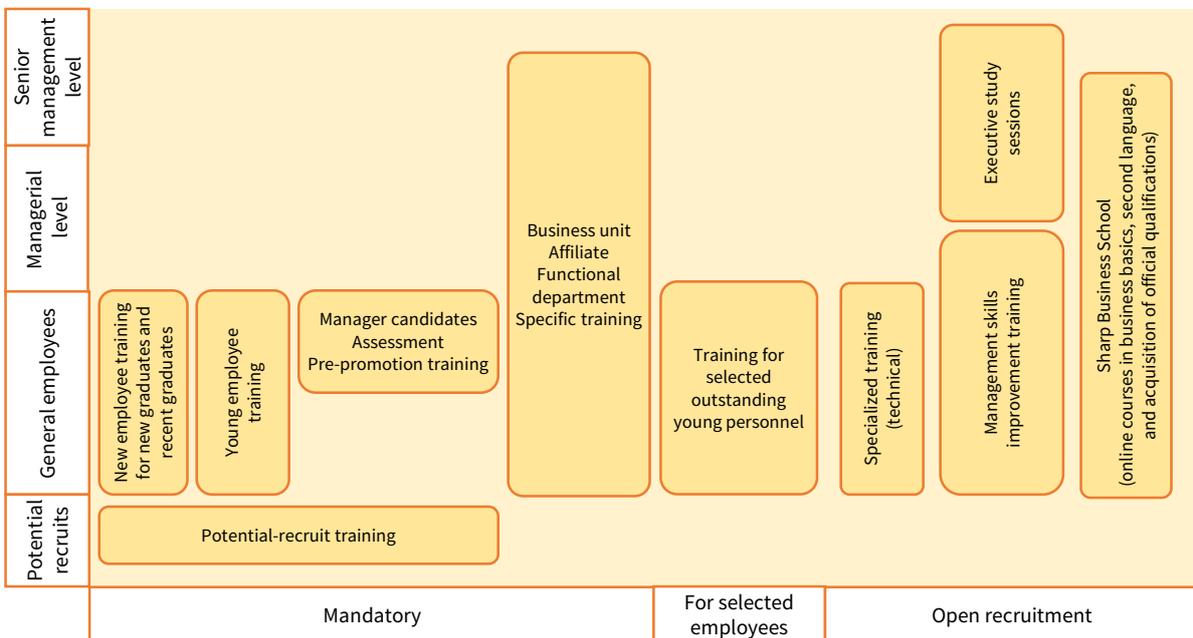
Social Initiatives: Human Resource Development, Personnel System

Job-Level-Specific Human Resource Development

In job-level-specific training, special emphasis is placed on the development of young employees so that they can acquire the knowledge, skills, and mindset essential to each stage of their careers. Towards that end, young people receive training starting from when they are first selected to join Sharp, training upon joining the company, and training in their first few years at the company.

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

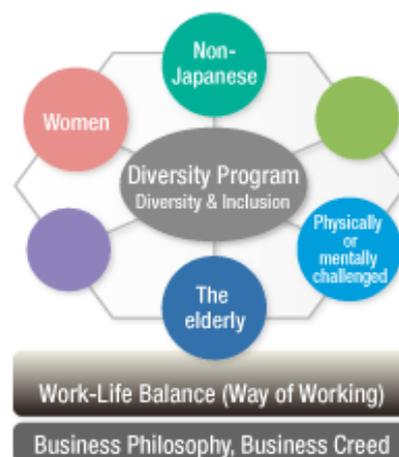
Developing Diversity Management

Fiscal 2018 Objectives	Fiscal 2018 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"> Promoted 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: 3.6% as of June 1, 2019 (0.3-point increase from previous year) Maintained employment rate for the disabled <ul style="list-style-type: none"> 2.43% as of June 1, 2019 	★★
Priority Objectives for Fiscal 2019	<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 	

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

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

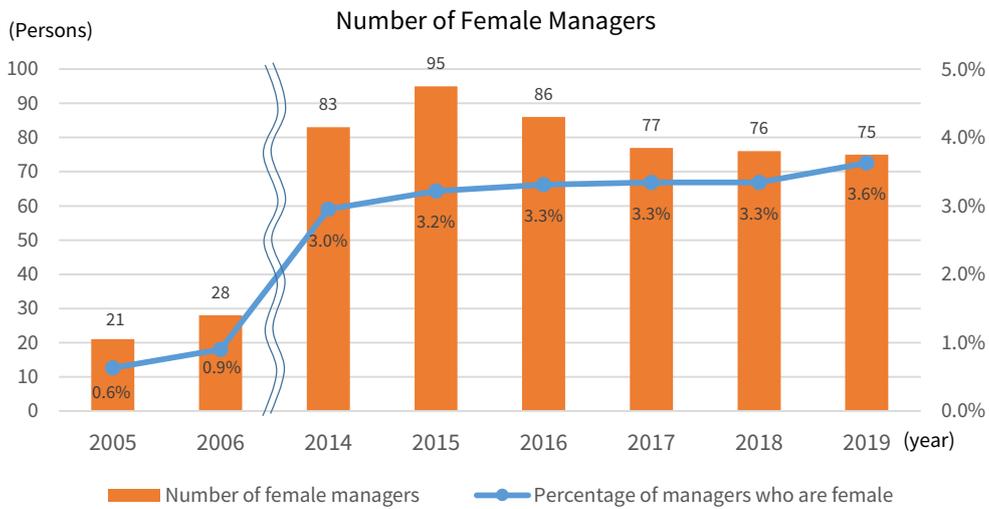
Sharp formulated an action plan based on Japan's Act on Promotion of Women's Participation and Advancement in the Workplace, which came into effect in April 2016. In line with this action plan, Sharp is working to raise the percentage of women in all job categories and increase the number of women in 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

Promoting Female Employees to Managers

For years, Sharp has striven to expand the roles of women in the workplace and promote female employees to managers. In June 2019, the number of female managers was 75, an almost four-fold increase compared to the 21 female managers in 2005, the year Sharp launched a program to promote more women to managerial positions.



Social Initiatives: Diversity Management

■ Sharp Corporation Personnel Composition

(Person)

		Men	Women	Total
Directors, audit and supervisory committee members		9	0	9
Employees	Executive officers	6	0	6
	Managers	1,895	70*	1,965
	General staff	8,647	1,122	9,769
	(New employees who are graduates of universities and technical colleges)	(251)	(43)	(294)
Subtotal		10,548	1,192	11,740
Total		10,557	1,192	11,749
Ratio		89.9%	10.1%	100.0%

* Five promoted on June 1, bringing the total to 75

(As of April 1, 2019)

■ 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	82.4%	17.6%	70.9%	29.1%	71.7%	28.3%
SEE (UK)	Sales, production	85.5%	14.5%	74.8%	25.2%	76.5%	23.5%
SEID (Indonesia)	Sales, production	82.9%	17.1%	68.9%	31.1%	69.6%	30.4%
SATL (Thailand)	Production	66.7%	33.3%	28.7%	71.3%	29.6%	70.4%
SMM (Malaysia)	Production	80.6%	19.4%	41.2%	58.8%	44.3%	55.7%
SOCC (China)	Production	83.2%	16.8%	27.9%	72.1%	31.5%	68.5%
NSEC (China)	Production	63.6%	36.4%	64.0%	36.0%	63.9%	36.1%
WSEC (China)	Production	60.0%	40.0%	44.7%	55.3%	45.5%	54.5%

(As of March 31, 2019)

Supporting Employees Returning from Maternity or 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, 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 during time off from work and foster a positive mindset about returning to work.

Supervisors of employees returning to work also take part in seminars, which help make for a stronger, workplace-wide support system.

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 2019, there are approximately 180 non-Japanese employees from 14 countries working in various departments.

To avoid illegally employing undocumented workers, Sharp checks the residence status of all foreign nationals before hiring them. This follows the advice of the Immigration Services Agency of Japan's Ministry of Justice. (Sharp uses an Agency website to validate residence card numbers.)

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. Employees who have reached the mandatory retirement age of 60 and wish to continue working can be reemployed until the age of 65 in jobs that the company needs them for.

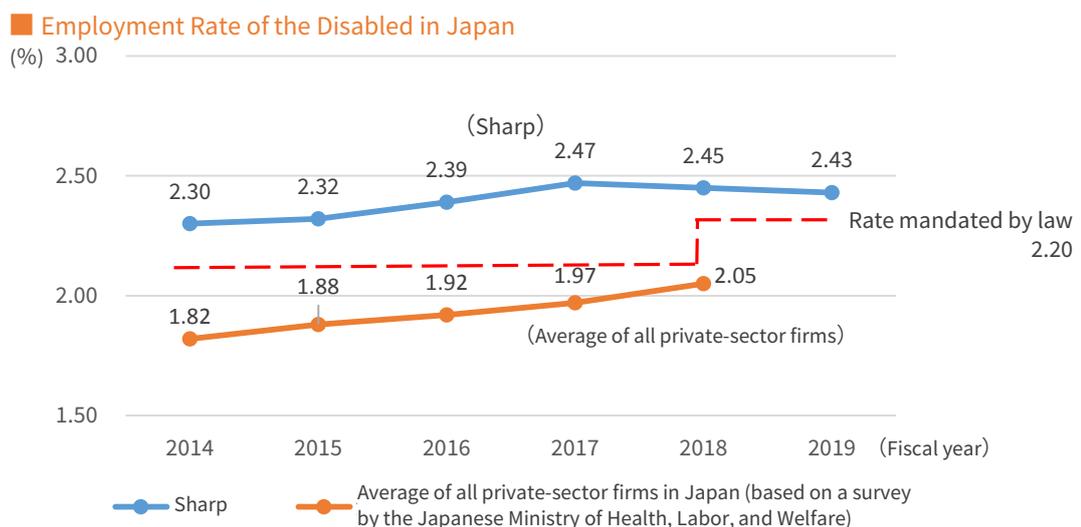
Promoting Employment of the Disabled

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, 2019, the Sharp Group employed approximately 340 disabled persons. The percentage of disabled employees among all employees was 2.43%, 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 for childcare and nursing care and is distributing guidebooks and providing other information to promote use of these programs. These efforts have been well received both inside and outside the company, as evidenced by the fact that Sharp has received certification from the Japanese Ministry of Health, Labor, and Welfare based on the Act on Advancement of Measures to Support Raising Next-Generation Children.

In addition, Sharp has established a support system for balancing work with medical treatment. Employees undergoing medical treatment are able to work comfortably without being pressed by time. An employee's health and capacity for work are the key considerations in determining their work schedule and obligations.

On top of all this, Sharp is continuously implementing initiatives aimed at helping employees find a work style that is both efficient and satisfying, such as by establishing No Overtime Day and by actively encouraging employees to schedule and take their annual paid leave.



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 2016 (): Men	Fiscal 2017 (): Men	Fiscal 2018 (): 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 2018 > Return to work rate Men: 100% Women: 97.9% Retention rate*2 Men: 95.3% Women: 96.2%	148 (101)	153 (104)	152 (93)
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.	15	14	15
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.	358	366	366
Nursing Care Leave*1	Allows an employee to take leave to care for a family member requiring nursing care for a total of two years (can be divided up).	7	6	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.	6	9	12
Other Programs	Multipurpose Leave, Multipurpose Leave Taken in One-Hour Units (or half-day units), Staggered Commuting Hours during Pregnancy, 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, Support for Unmarried Employees with Family Nursing Care Obligations (commuting costs and other relevant expenses), Paternity Leave, Daycare Adaptation Leave, 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

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<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*) 	<ul style="list-style-type: none"> ■ No severe work accidents or environmental accidents Achieved some success, with the number of work accidents down over the previous year; however, there was an increase in the number of tumbles ■ Strengthened measures to reduce long work hours, significantly reduced number of employees working long hours Employees working long hours had interviews and guidance with a physician ■ Efforts conducted to maintain and improve employee health under the Healthy Sharp 23 initiative <ul style="list-style-type: none"> • Based on health checkup, employees had interviews with physicians, where they got advice on avoiding lifestyle diseases; physical fitness tests; no-smoking campaign; health improvement service using a smartphone app • As part of comprehensive mental health measures, all employees underwent stress checks to avoid, detect early on and treat if necessary, and prevent reoccurrence of mental health problems 	★★
Priority Objectives for Fiscal 2019	<ul style="list-style-type: none"> ■ Eliminate severe accidents, reduce work accidents (in particular, step up prevention of the causes of critical accidents: tumbles, falls from a height) ■ Prevent health problems caused by overwork ■ Promote health management (Healthy Sharp 23) 	

* See p.95

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

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

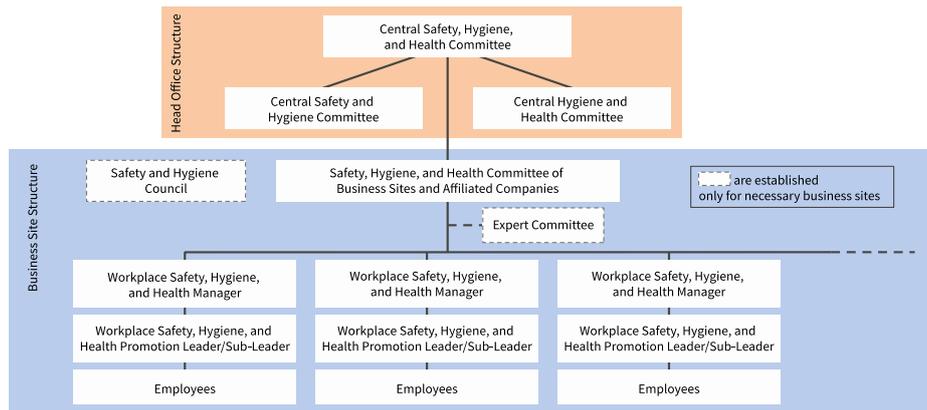
The Sharp Group sets targets for preventing accidents and improving employees' health, and is striving to meet these targets by means of practical activities in which all employees participate.

Social Initiatives: Occupational Safety and Health

Organization Promoting Safety, Hygiene, and Health

At Sharp, “maintaining and improving health” 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.

■ Organizational Chart for Promoting Safety, Hygiene, and Health



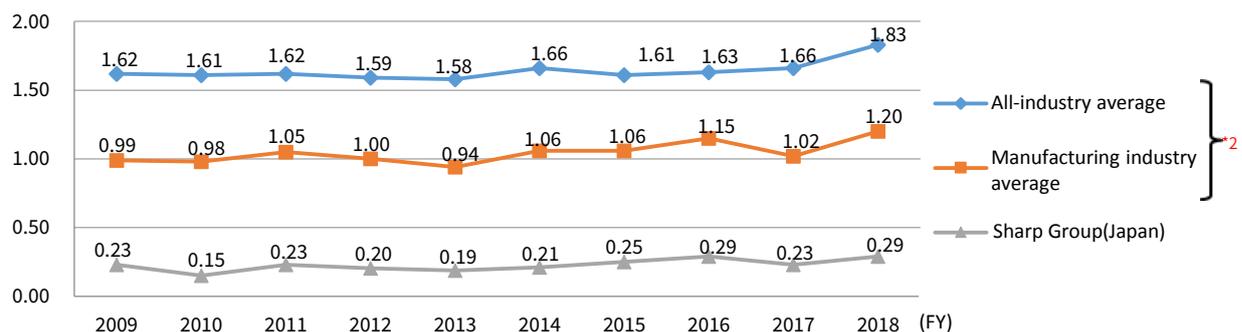
Aiming for a Secure, Safe, and Healthy Workplace

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 taking numerous measures to reduce work accidents: strengthening abidance with work rules to prevent hazardous substance-related accidents that could lead to severe accidents; reinforcing the practice of 5S (Sort, Set in order, Shine, Standardize, and Sustain); visualizing danger; holding near-miss training; and stepping up danger-prevention training.

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 2018 was 0.29. This rate is far below the national averages for the manufacturing industry (1.83) and all industries (1.20).

■ 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 2018 survey by the Japanese Ministry of Health, Labor, and Welfare.

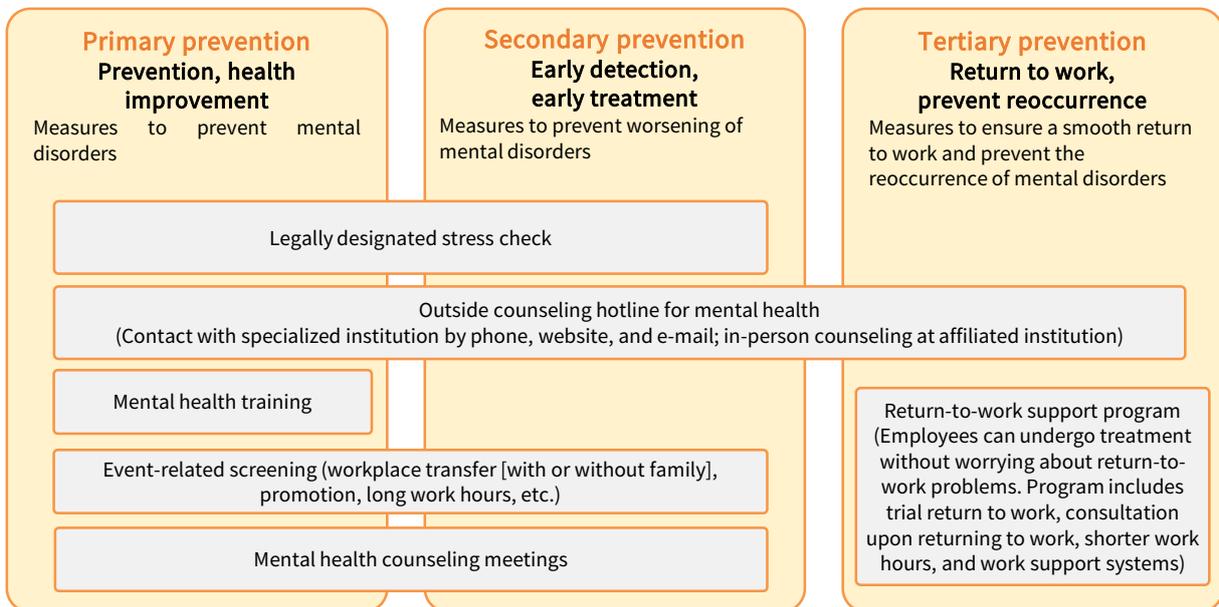
Social Initiatives: Occupational Safety and Health

Enhancing Mental Health Care and Promoting the Healthy Sharp 23 Initiative

Ever since December 2015, when companies in Japan became legally obligated to have a system for employee stress checks, Sharp has had a rigorous, company-wide system in place 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: 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 such as one month and fixed periods (annually, for example). 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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Governance: Corporate Governance

Corporate Governance

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<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 	<ul style="list-style-type: none"> Chair/president and co-CEOs implemented rapid decision-making Strengthened audit functions through in-house audits, mainly conducted by two full-time members of the Audit and Supervisory Committee, who bring unique types of expertise and points of view to Sharp 	★★
<p>Priority Objectives for Fiscal 2019</p> <ul style="list-style-type: none"> Reorganize into three business groups and engage in business reinvention as “One Sharp” Expand the decision-making authority and responsibility of the co-CEOs Contribute to improved appropriateness and efficiency of group-wide business operations through cross-organizational implementation of improvement points based on audit results 		

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

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.

Governance: Corporate Governance

■ Composition of Supervisory and Decision-Making Organs

	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	7	2	3	2	Committee chair: Chair/President

■ Directors (Except Audit and Supervisory Committee Members) / Directors Who Are Audit and Supervisory Committee Members

	All Members (Persons)	Internal Directors (Persons)	Outside Directors (Persons)	Independent Directors (Persons)	Term
Directors (except Audit and Supervisory Committee members)	6	6	0	0	1 year
Directors who are Audit and Supervisory Committee members	3	0	3	2	2 years

< Business Execution Functions >

The Board of Directors' rules stipulate matters on which the Board must decide upon. These matters include Sharp's basic management policy, management plans, other important matters of management, and matters prescribed by laws, regulations, and articles of incorporation. As for decisions on other matters of management and business operations, these are stipulated in in-house rules such as authorization regulations, and the most relevant rules are used to make decisions.

For matters that are key to company-wide management and business operations, these are deliberated on at an Executive Management Meeting that comprises Sharp executives. The meeting convenes in a timely manner, which allows 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 and co-CEOs by field of business.

< Auditing Functions >

The Audit and Supervisory Committee is composed of three directors, all of whom are outside directors with a high level of expertise. Two of them have specialisms to an appropriate extent in finance or accounting. Further, two members are independent directors and one is a full-time member of the Audit and Supervisory Committee. On the Sharp website can be found the "Standards for Independence of Outside Directors," which stipulates standards for judging the independence of outside directors.

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 receives 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.

Governance: Corporate Governance

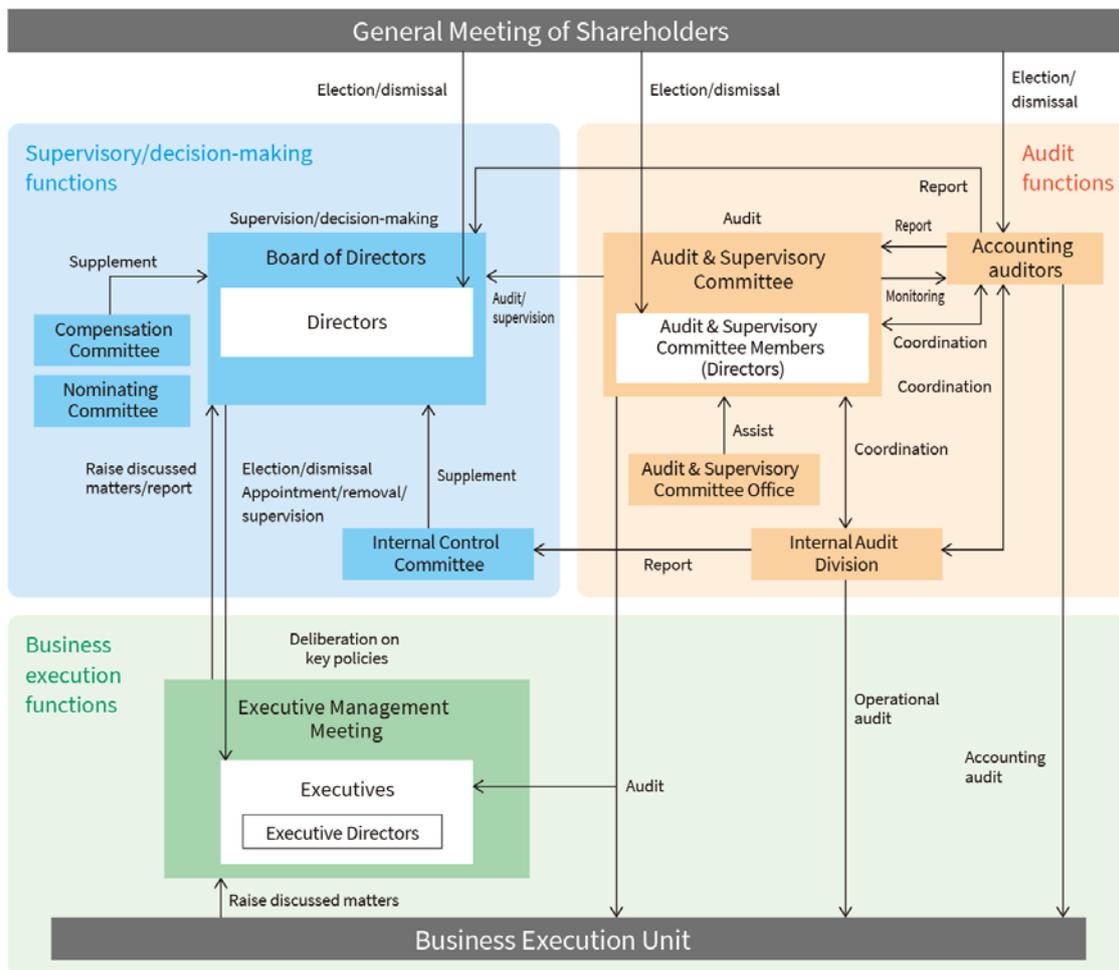
Management of Related Party Transactions*

Sharp has established the Regulations on Related Party Transactions. Sharp manages these transactions so that they will not adversely affect the company's finances or business performance.

Sharp has also created a list of related parties. When entering into business with the counterparty, Sharp determines whether or not the transaction should be considered a related party transaction. Such transactions undergo all of the internal procedures that are followed for conventional transactions. In addition, Sharp assesses the need for the transaction, its soundness, and the propriety of its terms. This allows Sharp to exercise prudence when deciding on business deals.

* Related party transactions and management-involved transactions:
 Related party transactions are transactions with a company or person having a certain level of connection with Sharp, including Sharp's officers, subsidiaries, and major shareholders.
 Management-involved transactions are transactions that Sharp's management personnel have introduced or planned.

Corporate Governance System of Sharp Corporation (as of June 25, 2019)



Governance: Internal Control

Internal Control

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<ul style="list-style-type: none"> Implement comprehensive design and operation of measures 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 	<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 2019 	★★
<p>Priority Objectives for Fiscal 2019</p>	<ul style="list-style-type: none"> Implement comprehensive design and operation of measures based on Basic Policy for Internal Control; complete those measures as initially scheduled Document and work on improving issues in each internal control area according to key system changes, carry out internal control assessments, and submit Internal Control Report in June 2020 	

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

As one way to ensure that its corporate governance is functioning effectively, Sharp is developing and maintaining its internal control system to ensure the properness of business activities of the entire Sharp Group based on the provisions of Japan’s Companies Act and of the Internal Control Report System falling under the Financial Instruments and Exchange Act.

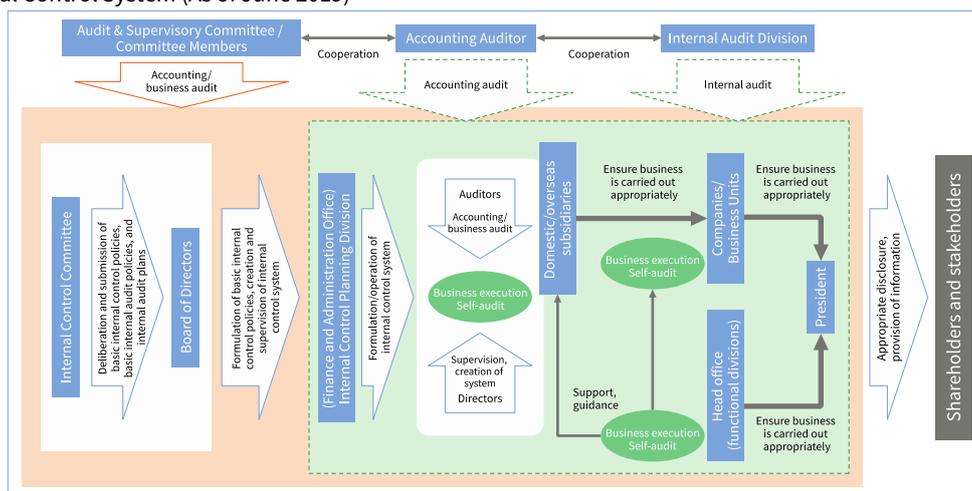
In response to the enforcement of the Companies Act in 2006, the Board of Directors passed a resolution to adopt a basic policy related to the development of the systems for ensuring the properness of business activities (internal control system). Sharp is working to properly design and operate those 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 design and operation.

Sharp also thoroughly affirms the design and operation of various measures in line with the Basic Policy for Internal Control, and it makes sure the measures are established across the company. In addition, in response to the Financial Instruments and Exchange Act, Sharp has been assessing the effectiveness of its internal control over financial reporting. It has also taken steps to reduce various business risks and increase the effectiveness of its internal control system.

In fiscal 2018, Sharp implemented various measures to boost the control functions of each internal control area as well as the efficiency of assessments. Sharp also mounted intensive efforts to resolve material issues (problems) discovered in the assessments. In June 2019 it submitted an Internal Control Report stating that Sharp’s internal control over financial reporting is effective.

For fiscal 2019, Sharp will respond rapidly and flexibly to accelerated structural reforms including affiliated companies in Japan and overseas, identify processes and related IT systems that will be affected by key system changes, document and work on improving issues in each internal control area, and conduct assessments of internal control over financial reporting.

Internal Control System (As of June 2019)



Governance: Risk Management

Risk Management

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<p>■ Carry out more effective risk management by optimizing and informing all employees of rules for responding to the occurrence of a major risk incident</p>	<p>■ Reviewed the Rules of Business Risk Management, and in December 2018 revised response rules for the occurrence of a major risk incident after optimizing them to match the situations of the organizations and functions. These revised rules were conveyed to the relevant in-house departments and to affiliated companies in Japan and overseas.</p>	★★
<p>Priority Objectives for Fiscal 2019</p>	<p>■ For the case of newly established and acquired subsidiaries, build a management system based on risk management-related rules, and convey and firmly establish response rules for the occurrence of a major risk incident</p>	

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

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.

To be able to respond to changes in the business environment and market, Sharp is constantly working to prevent specific risks from occurring and considering and formulating responses should risks occur, in line with the Rules of Business Risk Management. It does this by periodically making changes and additions to specific risks, assessing them, and changing their order of priority.

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 further improved the efficiency of risk management by optimizing response rules in the event a major risk is actualized, and by conveying these rules to the relevant in-house departments and to affiliated companies in Japan and overseas.

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.

In fiscal 2018, Japan experienced numerous natural disasters, including earthquakes, typhoons, and torrential rains. During these disasters, it was discovered that Sharp needed to speed up its system of confirming the safety and whereabouts of employees. To solve this problem, drills on this matter were held and response measures were thoroughly conveyed to all Sharp departments.

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

※ Business Continuity Plan

Governance: Compliance

Compliance

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<ul style="list-style-type: none"> ■ Enhance global compliance ■ Respond to international privacy protection, including GDPR* 	<ul style="list-style-type: none"> ■ Conducted bribery and corruption-related survey of subsidiaries and affiliated companies in Southeast Asia, Oceania, and the Middle East ■ Released the Sharp Global Website Privacy Policy and Cookie Policy on Sharp Corporation's official global website 	★★
2019年度の重点取り組み目標	<ul style="list-style-type: none"> ■ Continue global compliance enhancement 	

*See page 105

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

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 (hereafter, “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, communicates these changes, and provides guidance and supervision 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. The Guidebook was revised in April 2019 to reflect the latest revisions to laws and regulations.

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 have been set up both inside the company and externally (via an outside law firm providing legal counsel). In line with the spirit of Japan's Whistleblower Protection Act, they are available via e-mail, phone, and other means for employees and temporary staff, as well as employees of business partners*, to make a report or request a consultation. Sharp also has a consultation service dedicated to addressing workplace harassment (which includes sexual harassment, pregnancy discrimination, and abuse of authority).

In fiscal 2018, the compliance hotline received 55 reports and requests for consultation. For each of these, the relevant departments investigated the facts of the matter and issued as necessary corrective action orders. If the people who made the reports or requested the consultation have provided a means of contacting them, they are informed of the results. There were no serious legal or compliance-related violations in fiscal 2018. Also, the competition law hotline received no reports or requests for consultations in fiscal 2018.

The hotline is operated in line with the clear stipulation of both the Sharp Code of Conduct and the rules governing hotline service operation that the privacy of individuals contacting the hotline 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. In fiscal 2018 there were 85 reports and consultation requests received. Action to swiftly address these issues is being taken.

* 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. In order to further augment this checking system and clarify the targets for checking, a partial revision of the relevant rules was undertaken in August 2018. Also, in order to ascertain the risk of bribery and corruption among overseas affiliates and institute a more effective checking system, a survey of affiliates in Southeast Asia, Oceania, and the Middle East was carried out in November 2018 to gauge the operational status of these companies' in-house rules regarding bribery and corruption, as well as to determine the degree to which these companies do business and interact with public officials and public corporations. Additionally, to raise awareness among employees in Japan and overseas, Sharp has created and published an in-house guidebook and training materials to ensure compliance with Japan's Unfair Competition Prevention Act and other relevant laws. And with the US taking a more proactive stance on punishing foreign companies in recent years, Sharp has also invited US attorneys to come and conduct a training session on the US Foreign Corrupt Practices Act (FCPA), which included how it affects the entire Sharp Group. No violations occurred in fiscal 2018.

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 2018, there were 29 cases of such reviews.

Governance: Compliance

Management of Personal Information

Domestic Response

In order to thoroughly ensure that personal information is appropriately managed and to prevent incidents of data leakage, Sharp Corporation provides e-learning training once a year to all employees in Japan about the protection of personal information. In addition, training seminars are conducted at each business site for employees who handle personal information as part of their job duties.

To ensure the effectiveness of Sharp's efforts to protect personal information, processes that require approval from the department specialized in personal information protection are incorporated into Sharp's internal approval system regarding the handling of personal information. This contributes to consistently appropriate management of personal information obtainment, consignment, and provision to third parties by relevant departments. Also, following approval, the handling status—e.g., obtainment, storage, management, usage, deletion—of each customer's personal information is to be recorded in Sharp's own management database and updated as needed so that it can be checked and reviewed on an ongoing basis.

Appropriate handling of personal information is further ensured through the management of database audits of all departments that obtain customers' personal information, checking the handling status against what is recorded in the management database. Moreover, on-site audits are also performed for specific departments that must follow even more stringent handling requirements.

Global Response

It has been one year since the General Data Protection Regulation (GDPR) went into effect in the EU. In that time, the number of GDPR violation-related enforcement measures by government authorities has steadily grown. In response, Sharp is carefully monitoring the status of their implementation, drawing up various privacy policies, and revising internal rules.

Additionally, Sharp is watching global trends, such as the possible "no-deal" departure of the UK from the EU, the consumer privacy act set to come into force in California in January 2020, and the various personal information protection laws being enacted throughout Asia, including China's cyber-security law. Sharp is thus gathering and analyzing information to be incorporated into its global personal information handling-related compliance policies.

Compliance with Competition Laws

In order to comply with Japan's Act on Prohibition of Private Monopolization and Maintenance of Fair Trade, as well as with equivalent overseas laws and treaties enacted to protect the interests of consumers by maintaining and promoting free and fair markets (hereafter, "competition laws"), Sharp has created an Antimonopoly Act Compliance Manual (Action Guidelines). These guidelines stipulate basic compliance matters that employees must adhere to in their duties with regard to cartels. 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 based on the reports from the business departments to the legal department. This enables Sharp to more effectively prevent the actualization of competition law risks (such as cartel activities or bid-rigging).

No violations occurred in fiscal 2018.

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 effort 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: Compliance

Appropriate Advertising and Promotion, Representation-Related Law Compliance

In order to fulfill its corporate social responsibilities to customers and all stakeholders in the provision of correct information useful for selecting products and services, Sharp prioritizes appropriate advertising and promotion activities. It also complies with product and service representation-related laws, such as the Act against Unjustifiable Premiums and Misleading Representations, Pharmaceutical and Medical Device Act^{*1}, and Fair Competition Code. Sharp positions compliance with these laws as a control item within its Rules of Business Risk Management^{*2}. The following preventative measures are undertaken.

Systems and Rules for Preventing Legal Violations

With regard to product and service representation within Japan, Sharp follows internal rules, which stipulate the basic approach to representation and a practical system for checking appropriate representations.

- (1) A dedicated supervisor is appointed to work with departments involved in the production of representations and to perform a final check prior to the publication of brochures and mass advertising
- (2) A senior committee is established to make decisions about any questionable representations (Representation Review Committee and Sharp Fair Representation Council)
- (3) An expert external advisor is appointed to provide objective guidance and advice on representation-related problems and matters for consultation
- (4) Operations are carried out in line with the Manufacturing Labeling Standards^{*3}

Also, Fair Expression Guidelines, which follow the same approach as used in Japan have been stipulated for overseas markets and are used in conjunction with local laws to determine what is appropriate.

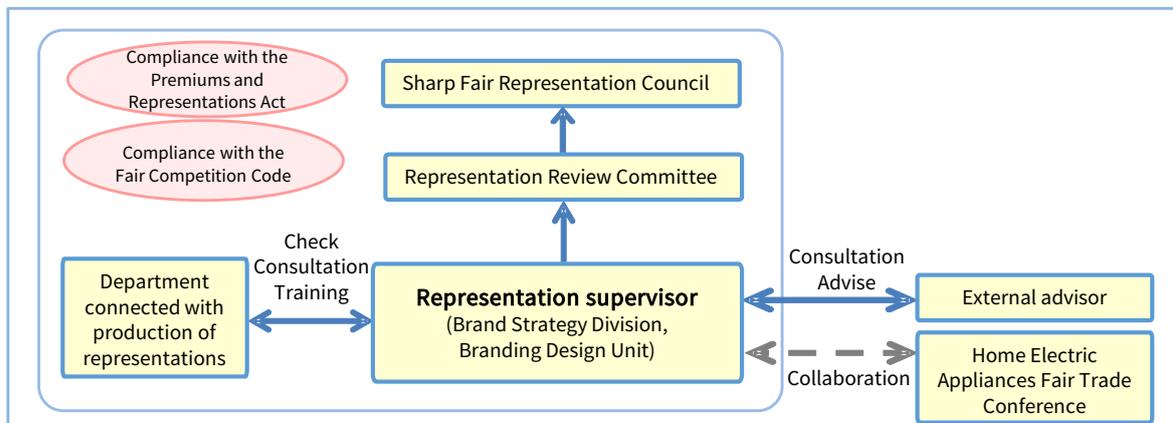
*1 Act on Securing Quality, Efficacy, and Safety of Products Including Pharmaceuticals and Medical Devices

*2 See page 102

*3 Voluntary industry standards for product representation formulated by the Home Electric Appliances Fair Trade Conference and recognized by the Consumer Affairs Agency and Japan Fair Trade Commission

Fostering Awareness via Upskilling Support for Relevant Personnel

Representation Review Framework



Regular in-house training related to the Premiums and Representations Act, Pharmaceutical and Medical Device Act, and Fair Competition Code is provided to departments involved in the production of representations. Additionally, Sharp actively participates in outside seminars led by public institutions and then uses in-house training to provide feedback on the most recent trends.

Further, Sharp uses the “Fair Representation” page on its intranet to ensure the thorough dissemination of in-house standards and rules for performing checks, which are based on in-house specifications and manuals. The intranet page also provides information, such as the latest trends connected with the Premiums and Representations Act.

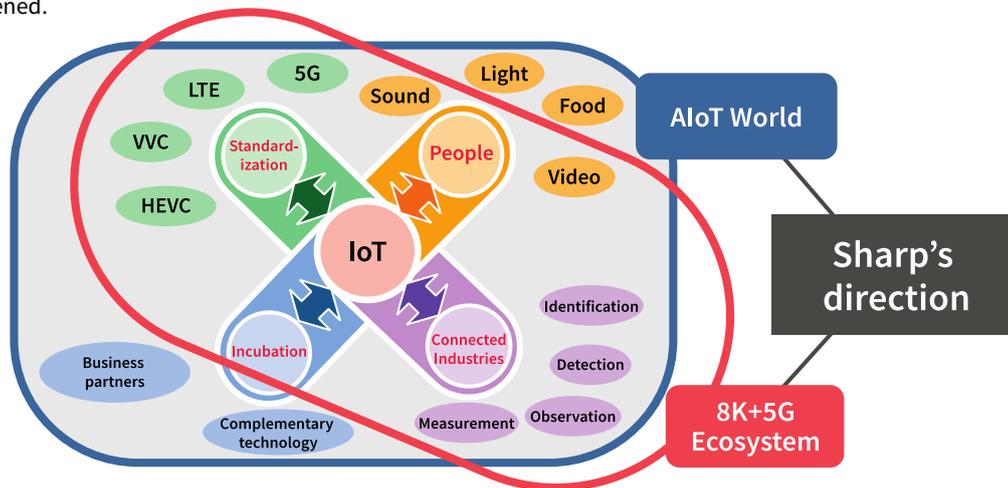
Governance: Innovation Management

Corporate R&D Initiative

R&D Initiative and the Development System

As “One SHARP” business innovation focused on the realization an “8K+5G Ecosystem” and “AIoT^{*1} World” continues, the Corporate Research and Development Business Unit is pursuing a mission to develop pioneering, groundbreaking, proprietary technology that impacts society and sparks the creation of new ecosystems.

Sharp is particularly focused on integrating IoT with people, standardization, incubation, and connected industries in order to develop new technologies that will help address the challenges facing society and serve as a seed for future new business. These technologies will also serve as the core around which world-changing solutions will be developed and delivered, new ecosystems will be built, and Sharp’s sustainable foundations for growth will be strengthened.



Priority initiatives

^{*1} AIoT is a word coined by Sharp, combining the words AI (artificial intelligence) and IoT (Internet of things).
“AIoT” is registered trademark of Sharp Corporation.

Notable Initiatives

In December 2018, the SHARP 8K Lab was established as a new initiative aimed at expanding and cultivating the 8K ecosystem platform. In fiscal 2019, Sharp is developing this initiative in China as well.

The SHARP 8K Lab Creative Studio was opened in the Tokyo Building as the industry’s first consultation space focused on corporate 8K solutions. In addition to space for having business meetings, this facility features an 8K camera shooting area offering an easy, hands-on 8K video creation experience, an 8K video IP transmission area offering public Internet connection access for transmission of 8K video data, and an 8K video editing area allowing handy 8K video editing. Various hardware and software can be added to accommodate the specific needs of each client company, thus providing them with optimized solutions.

In addition, Sharp is working closely with outside corporate partners to facilitate rapid, joint development with client companies of dedicated 8K solutions aimed at widespread adoption in society.

At the same time, Sharp has expanded its patent family under the licensing declaration for 5G next-generation mobile communications standards to 695^{*2}. This gives Sharp the 8th largest share of 5G patents in the world (approximately 5%) and ensures it is an industry leader not only in 4G but 5G as well. Sharp is effectively capitalizing on the advantages of 5G technology to ensure an accelerated transformation aimed at the realization of its business vision.

^{*2} Excludes patents which were held by Sharp at the time of last year’s declaration but which are no longer held.

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

Fiscal 2018 Objectives	Fiscal 2018 Achievements	Self-Evaluation
<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 	<ul style="list-style-type: none"> ■ Maintained ISO 27001 certification (renewed June 30, 2018) ■ Developed and introduced a proprietary training system to tackle targeted e-mail attacks and fraudulent e-mail; carried out training for all employees twice 	★★
Priority Objectives for Fiscal 2019	<ul style="list-style-type: none"> ■ Continue to maintain ISO 27001 certification ■ After holding training that simulated targeted e-mail attacks and fraudulent e-mails, held individual preventative training for employees who had inadvertently opened the malicious e-mails sent during training 	

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

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	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 2018, 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. Sharp developed and introduced a proprietary training system to tackle targeted e-mail attacks and fraudulent e-mail. Training in this system was carried out twice for all employees in fiscal 2018.

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. In addition, 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 unexpected contingencies have 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 addition, with intensifying technology conflicts among countries, now more than ever technology transfers must be managed with the utmost strictness.

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 strictly complies with rules on the re-export of products from the US, a country that is stepping up execution of technology transfer control.

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*. In June 2019, it also became certified as an AEO importer*. It strives for appropriate export/import by strictly observing laws and regulations in the control of distribution, security, customs clearance, customs duties payments, and other procedures in the export and import 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 and AEO imports—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 importer or 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, 2019)
- ◇ Employees : Consolidated: 52,564 (As of June 30, 2019)
 - Japan : 19,259 (Sharp Corporation 11,604/ other Consolidated 7,655)
 - Overseas: 33,305 (Consolidated)
- ◇ Operations : Mainly manufacturing and sales of telecommunications equipment,
electric and electronic application equipment, and electronic components.

Main Data

(Millions of yen)

	Fiscal 2014	Fiscal 2015	Fiscal 2016	Fiscal 2017	Fiscal 2018
Main Sales	2,786,256	2,461,589	2,050,639	2,427,271	2,400,072
Domestic sales	968,449	750,499	654,012	656,144	719,424
Overseas sales	1,817,807	1,711,090	1,396,627	1,771,127	1,680,647
Operating Profit	-48,065	-161,967	62,454	90,125	84,140
Profit before Income Taxes	-188,834	-231,122	-587	89,416	75,587
Profit Attributable to Owners of Parent	-222,347	-255,972	-24,877	70,225	74,226
Net Assets	44,515	-31,211	307,801	401,713	372,471
Total Assets	1,961,909	1,570,672	1,773,682	1,908,660	1,866,349
Capital Investment	62,653	45,240	77,733	119,356	55,996
R & D Expenditures	141,042	130,120	106,107	100,536	108,545

Related Information: > [Financial Data](#)

Main Products and Services

Smart Life Group



Plasmacluster Washing Machine



Camera modules and products that use them



Industrial Solar Power System



Green Laser Diode

8K Ecosystem Group



8K LCD TV



Digital full-color MFP



Outdoor signage (smart bus stop)

ICT Group



5G pre-service smartphone



AIoT platform



dynabook

SHARP
Be Original.

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<https://global.sharp/corporate/>

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