



# CSR Report 2019

Corporate Social Responsibility Report

# Message from the President & CEO



President & CEO  
Tamron Co., Ltd.

**Shiro Ajisaka**

## **Solving social issues with optical technologies**

Without global preservation, companies will be unable to achieve stable and continual growth. To achieve sustained growth in the future, it will be important for Tamron to contribute to the global environment and society through corporate activities based on the optical technologies cultivated since its founding. Tamron's products are intertwined with society in various ways. Surveillance lenses help achieve a safe society in which people can live with peace of mind by watching over society as a whole. With advances in autonomous driving, the growing market for automotive lenses will help realize a society with few traffic accidents. Lenses for medical use contribute to a healthy society by lightening the burden during surgery and speeding up recovery. Meanwhile photographic lenses, our core products, excite emotion and hold the power to gratify people when they look back on amazing photos.

On the other hand, in the process of creating products, we impose no small burden on the global environment. Through measures to reduce CO<sub>2</sub> emissions such as the introduction of renewable energy, we are also tackling the issue of climate change. We will conduct marketing activities attuned to the idea that business opportunities lie in solutions to social issues, create technologies and products that are responsive to social issues and needs, and contribute to the realization of a fulfilling society in which people can live with peace of mind and be moved by our products.

## **The success of each employee lends significant value to society**

In our medium-term management plan, we set the goal of achieving greater profitability with sales of 72 billion yen, operating income of 6.6 billion yen and an ROE of at least 9% in the year 2020. To achieve that plan, rather than focusing only on short-term business results, it is important that we take a long-term view to creating value and excitement directed towards solving social issues. It is employees who play the central role in this, and while there are challenges to developing an environment in which employees can demonstrate their skills and work with a sense of fulfillment and exuberance, through productivity improvements such as work streamlining and actively promoting work-life balance, we will cultivate that environment. We want our employees to go about their jobs with greater motivation on the recognition that their individual success translates into significant value to society.

## **Supporting the Ten Principles of the UN Global Compact**

Tamron continues to be an active supporter of the 10 principles laid out in the U.N. Global Compact as part of its global expansion. We recognize that these 10 principles represent guidelines that truly multinational corporations must put into practice, and thoroughly educate our employees on the principles, including those in our overseas sites. We have compiled this CSR report with a focus on engagement with stakeholders, and as a tool for disclosing non-financial information, which is encouraged by Japan's Corporate Governance Code. We would greatly appreciate your comments and suggestions for how we can further improve.

# Corporate Philosophy

With its firm commitment to developing high-quality, innovative and technologically advanced products that satisfy customer needs, Tamron is securing a leading position in the worldwide optical industry. Our primary objective is to sustain strong corporate growth based on a high level of customer satisfaction achieved by providing superior products at the right price, thus also contributing to the prosperity of our shareholders and employees.

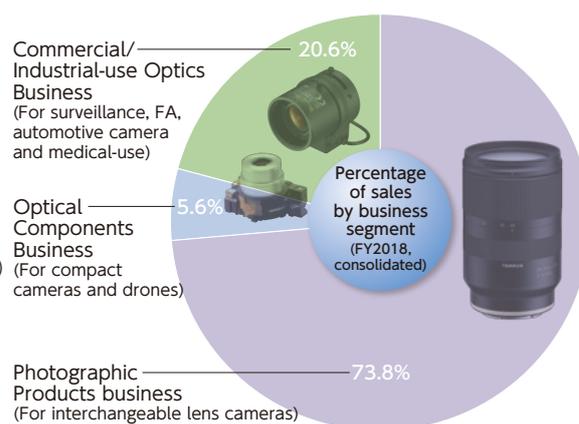
## Brand Message

New Eyes for Industry

## Company Profile

Trade name Tamron Co., Ltd.  
 Head office 1385 Hasunuma, Minuma-ku, Saitama-shi, Saitama, Japan  
 Tel. +81-48-684-9111  
 Founded November 1, 1950  
 Incorporated October 27, 1952  
 Capital 6.923 billion yen  
 President & CEO Shiro Ajsaka  
 Employees 5,046 (consolidated; excluding 924 temporary employees)  
 Net sales 61.815 billion yen (consolidated; as of December 31, 2018)  
 Stock exchange First Section, Tokyo Stock Exchange  
 Production  
   Domestic Aomori (Hirosaki, Namioka, and Owani)  
   Overseas Foshan, China and Hanoi, Vietnam  
 Consolidated subsidiaries  
   United States, Germany, France, Hong Kong, China (Shanghai), Russia, and India

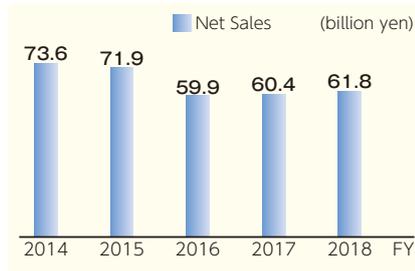
## Outline of Business Operations



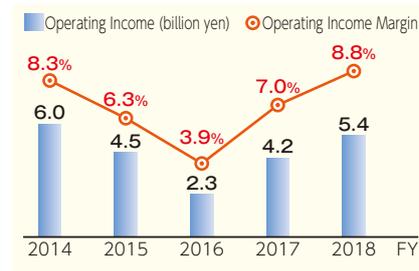
### [Employees]



### [Net Sales]



### [Operating Income]



- "Temporary employees etc. (Consolidated)" shows the average number of temporary employees.
- The increase in the number of regular employees in 2015 was mainly due to a change in the employment status of workers at Tamron Optical (Foshan) Co., Ltd. (Tamron's manufacturing subsidiary in China).

## Contents

- Message from the President & CEO ..... 1
- Corporate Philosophy / Company Profile / Contents ... 2
- The Value Creation Process ..... 3
- Key CSR Issues (Materiality) and CSR Themes ... 5
- Initiatives Aimed at Key CSR Issues ..... 6
- CSR Management ..... 7
- Dialogue with Stakeholders ..... 8
- Contributing to Social Issues through Business ... 9
- Promoting CSR Procurement ..... 13
- Human Resource Development ..... 14
- Improving the Governance System ..... 15
- Risk Management ..... 16
- Responding to Environmental Issues ..... 17
- Social Contributions ..... 19
- Independent Third-Party Opinion ..... 22

### Editorial Policy

- This report was issued to report on the corporate social responsibility (CSR) activities being pursued by the Tamron Group to our stakeholders. We have identified issues deemed to be of significant social importance which also have considerable impact on our business, and established them as key issues. We are reporting on progress and specific initiatives with regard to those key issues. When considering the content of the report, we consulted the reporting principles laid out in the GRI Standards (2016) and also referred to the following guidelines.
  - ISO26000 -Social Responsibility(2010)
  - Guidance for Collaborative Value Creation
  - Environmental Report Guidelines(2018 version)
  - Environmental Accounting Guidelines (2005 version).
  - Greenhouse Effect Gas Measuring & Reporting Manual Version 4.3.2
- This report covers activities at all the Tamron Group including Tamron Co., Ltd., Tamron Optical (Foshan) Co., Ltd., and overseas sales subsidiary companies (except for some information on environment data and so on).
- Period Covered by this Report: January to December 2018
- Detailed information regarding environmental, social and governance (ESG) initiatives in the Tamron Group are disclosed on the company website. Please refer to the URLs listed on the corresponding pages to learn more.

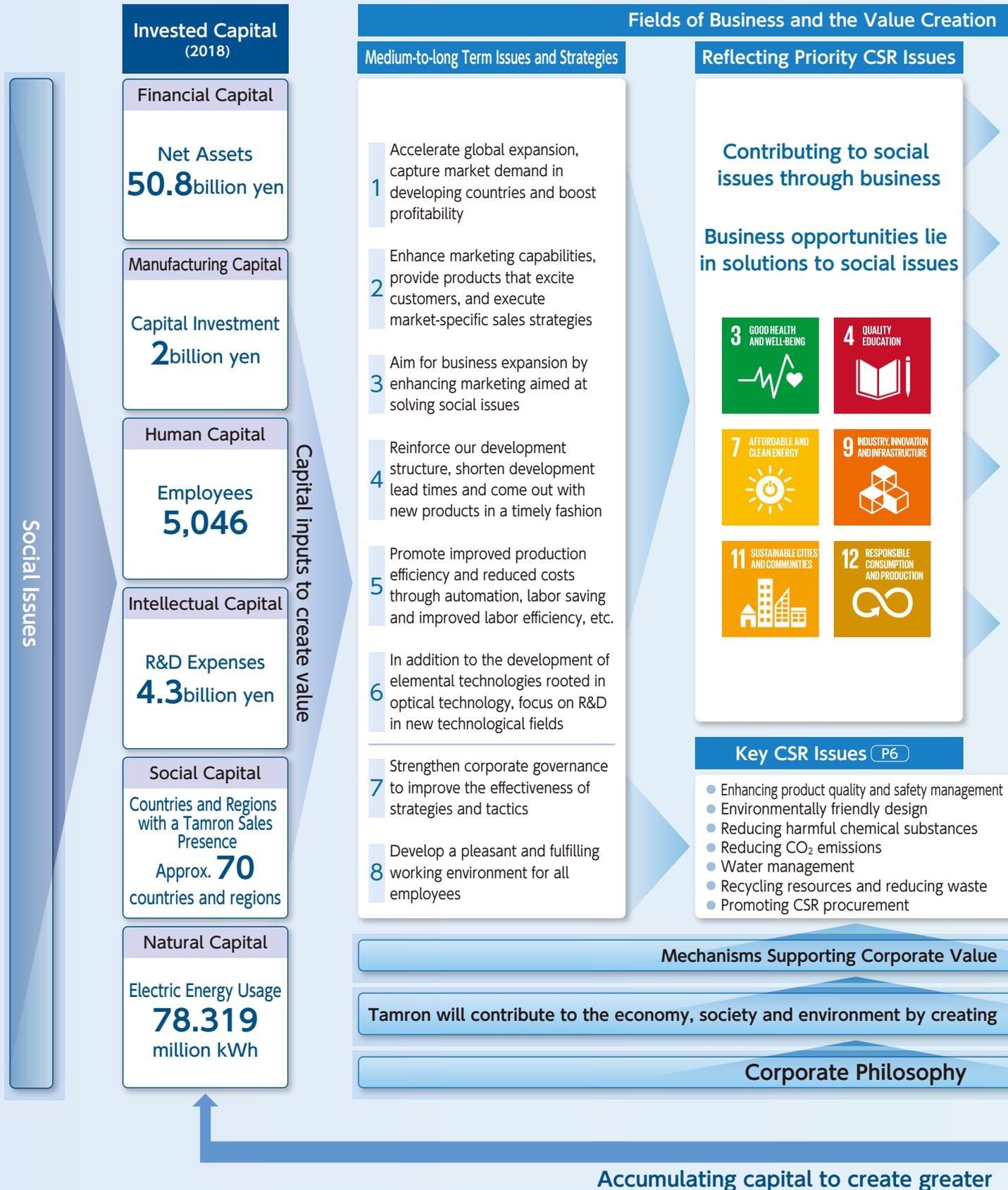
A GRI Standards comparison table is available on the Tamron website.

<http://www.tamron.co.jp/csr/>

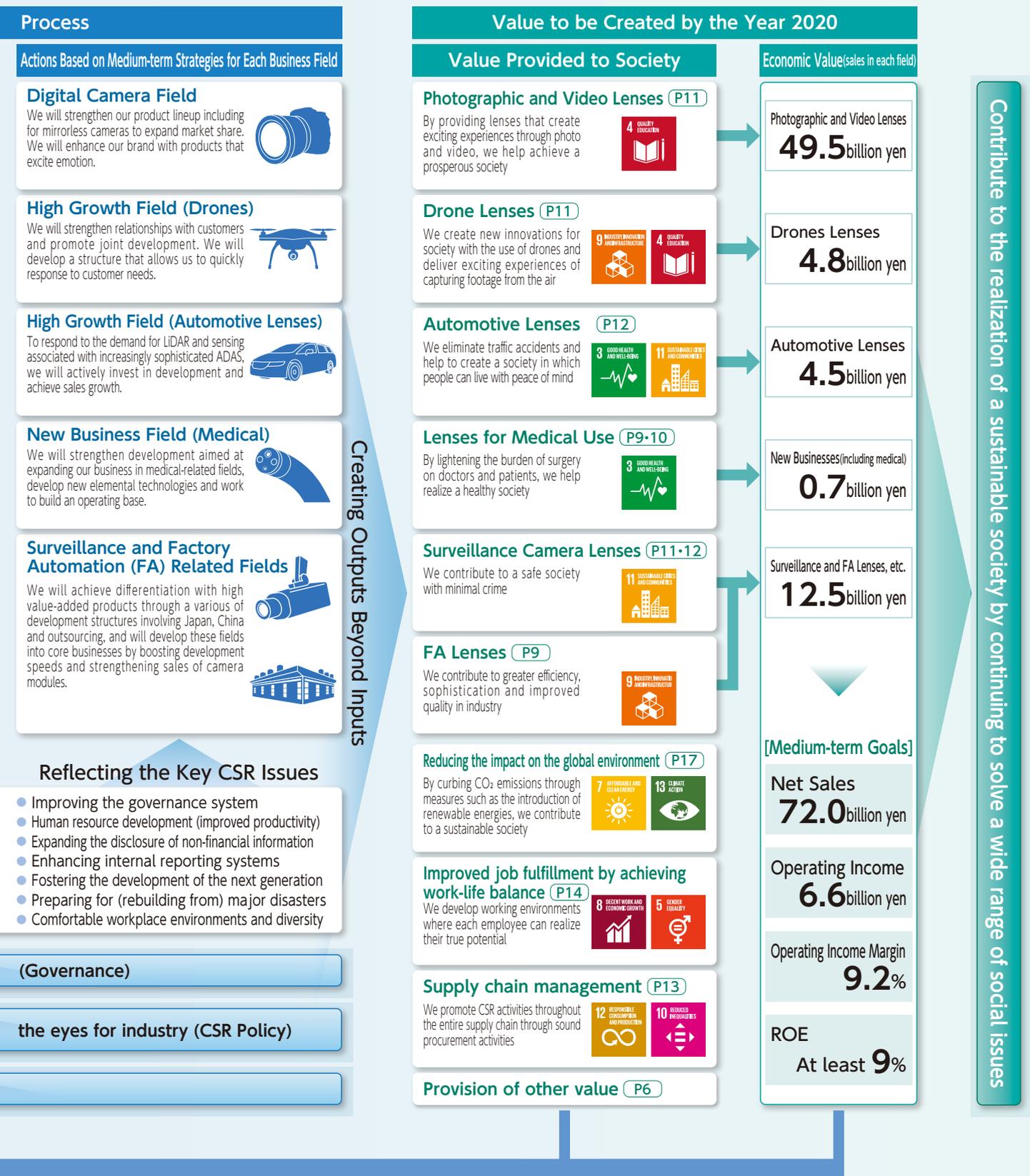


# The Value Creation Process

To achieve the vision declared in our management philosophy, we need to achieve steady and continual growth through corporate activities leveraging our strengths in optical technologies. With this in mind, we are working to deploy business models in each field of business. This will be accomplished through the proper allocation of “visible capital” (financial capital, etc.) and “invisible capital” (human capital, etc.), and by recognizing that, in keeping with



our medium-to-long-term management strategy, business opportunities lie in solutions to social issues. By creating greater social value and economic value than the capital we invest, we will achieve a value creation cycle that enables sustained growth.



**Reflecting the Key CSR Issues**

- Improving the governance system
- Human resource development (improved productivity)
- Expanding the disclosure of non-financial information
- Enhancing internal reporting systems
- Fostering the development of the next generation
- Preparing for (rebuilding from) major disasters
- Comfortable workplace environments and diversity

**(Governance)**

**the eyes for industry (CSR Policy)**

# Key CSR Issues (Materiality) and CSR Themes

Working from a medium-to-long-term perspective, Tamron has identified key CSR issues as social issues to be addressed on a priority basis. Tamron will contribute solutions to social issues through its core business activities.

## Striving to Create a Sustainable Society (Tamron's CSR Management)

Under a CSR policy<sup>1</sup> of contributing to the economy, society and environment as eyes for industry to realize its corporate philosophy, Tamron aims to enhance its corporate value and develop a sustainable society. In 2007, we set twelve CSR themes against the backdrop of the internal and external environment of the time. In the time since, we have set goals and targets on a yearly basis to inform our activities. In today's world, however, as typified by the phenomenon of global warming, the sustainability crisis has steadily advanced, and with various social issues such

as human rights and labor becoming increasingly serious, there is an even greater expectation placed on the initiatives companies pursue to solve social issues. In December 2017, Tamron identified key CSR issues and redefined its twelve CSR themes in order to promote initiatives designed to solve social issues in the medium-to-long term.

1. Please visit the Tamron website for information about our CSR Policy and Action Declarations.

**WEB** <http://www.tamron.com/csr/csr.html>

## We identified key CSR issues (materiality) in the course of three steps in order to address social issues in a decisive manner.

First, in light of the fact that Tamron's business is global in nature, we identified and acknowledged social issues based on various guidelines and indexes, including ISO26000, the Ten Principles of the UN Global Compact, SDGs<sup>2</sup> and the RBA Code of Conduct<sup>3</sup>. Next, we evaluated the level of importance for each stakeholder involved with Tamron in a business capacity, and the level of importance to Tamron (the probability and the level of impact on a risk that would occur in relation to a social issue). After

considering the validity of the evaluation results, we identified 15 key CSR issues. These were revised down to twelve CSR themes.

2. SDGs stand for "Sustainable Development Goals," and as the name suggests, refer to goals designed to further sustainable development.

3. The RBA Code of Conduct sets out standards for environmental responsibility and ethical business practices in the electronic equipment industry supply chain, requiring safe working environments and the treatment of workers with dignity and respect.



Key CSR Issues	Twelve CSR Themes	Relevant Page in this Report
Contributing to social issues through business	SDGs	P9~12
Enhancing product quality and safety management	Quality and Product Safety	P9~12
Promoting CSR procurement	CSR Procurement	P13
Reducing CO <sub>2</sub> emissions	Environment	P17~18 <b>WEB</b> Environmental Impacts Scope 3 Environmental Accounting
Recycling resources and reducing waste Reducing industrial waste		
Environmentally friendly design		
Reducing harmful chemical substances		
Water management		
Human resource development (improved productivity)	Human Resources and Human Rights	P14
Providing comfortable workplace environments and promoting diversity	Corporate Governance	P15
Improving the governance system	Information Disclosure	P8
Expanding the disclosure of non-financial information	Information Management	P16
Enhancing internal reporting systems	Crisis Management	P16
Preparing for major disasters	Social Contributions	P19~21
Fostering the development of the next generation <sup>4</sup>	Occupational Health & Safety	P16
	Compliance	P16

4. Fostering the development of the next generation refers to social contributions made mainly in regions where our facilities are located and takes the form of support for the development of young people who represent the future of photo and video culture.

# Initiatives Aimed at Key CSR Issues

Tamron has established 19 goals among the key CSR issues and achieved 15 of them. From FY2019, we will pursue activities aimed at attaining our long-term vision.

Table of Main Goals and Results from FY2018

Key CSR Issues	FY2018			Social Value (Relationship with the SDGs)	
	Goals	Results	Self-Assessment	Goal	Target
Contributing to social issues through business	Considering the formulation of medium-term goals	Formulated plans to contribute to social issues (including SDG-related issues) in the medium-term from FY2019 onwards based on information collected at the UN GC, etc.	○	 	3.6 Halve the number of deaths from traffic accidents 9.4 Improve efficiency of resource utilization 9.5 Promote innovation
Enhancing product quality and safety management	Promoting standardization and other measures to eliminate defects and improve quality	Thoroughly disseminated information about design factors and manufacturing factors in defects through standardization	○	 	9.1 Affordable and equitable access to infrastructure 12.4 Minimize adverse effects on people's health and the environment
Promoting CSR procurement	Ascertaining the status of business partners' CSR initiatives by implementing SAQ	Formulated an action plan for FY2019 onwards based on SAQ (questionnaire) results	○		12.4 Minimize adverse effects on people's health and the environment
Reducing CO <sub>2</sub> emissions	Reducing CO <sub>2</sub> emissions by approximately 2.6% compared with FY2016 levels (on a unit sales basis)	0.6% reduction	×	 	7.3 Improve energy efficiency 13.2 Integrate climate change measures into strategies
Recycling resources and reducing waste	Reducing industrial waste emissions by 2% (compared with FY2017 levels) at Tamron Optical (Foshan) CO., Ltd., etc.	11% reduction, etc.	Partially achieved ×		
Reducing industrial waste	Improved material recycling rate 45% improvement at Hirosaki Plant, etc.	45.4% improvement at Hirosaki Plant, etc.	○		
Environmentally friendly design	Promoting environmentally friendly designs	Reduced weight: 0.3% increase Compact: 0.5% decrease	×		12.2 Utilize resources efficiently 12.4 Minimize adverse effects on people's health and the environment 12.5 Reduce waste through recycling
	Standardization of production lines / equipment	Standardization of photography-related equipment: 1 case	○		
Reducing harmful chemical substances	Cases of environmental non-conformance: 0	Cases of environmental non-conformance: 0	○		
Water management	Formulation of medium-term goals	Completed formulation of medium-term goals	○		6.3 Improve water quality 6.4 Improve efficiency of water utilization
Human resource development (improved productivity)	Formulation of human resource development plan to improve productivity	Considered strengthened training for high-level managers (general manager class and higher)	○		8.2 Economic productivity
Providing comfortable workplace environments and promoting diversity	Taking action on diversity	Implemented measures leading to diverse working styles (overtime restrictions, flexible working arrangements)	○	  	5.5 Women's leadership 8.5 Equal pay for equal work 10.2 Inclusion of all people
	Ratio of females promoted to management positions: 11%	Ratio of females promoted to management positions: 10.04%	×		
	Ratio of hiring of persons with disabilities: 2.3%	Ratio of hiring of persons with disabilities: 2.56%	○		
Improving the governance system	Conducting effectiveness assessment of the Board of Directors	Implemented and improved effectiveness assessment of the Board of Directors	○	—	—
Expanding the disclosure of non-financial information	Appropriate disclosures to the Tokyo Stock Exchange	Late disclosures and omitted disclosures: 0	○	—	—
Enhancing internal reporting systems	Establishment of an independent internal reporting desk	Developed an independent internal reporting system and established a framework (operational from 2019)	○		16.4 Eliminate involvement with illicit trade
Preparing for major disasters	Rechecking preparations for major disasters	Reviewed BCP, Group-wide risks and departmental risks	○		11.b Disaster risk management
Fostering the development of the next generation	Social contribution activities including fostering the development of the next generation	Conducted a number of social contribution activities aimed at developing the next generation, photography culture, art culture, nature, disasters, regional areas and persons with disabilities	○		4.3 Access to technical and vocational education

# CSR Management

Working primarily through the CSR Committee, Tamron promotes Group-wide CSR activities.

## Promotion Framework

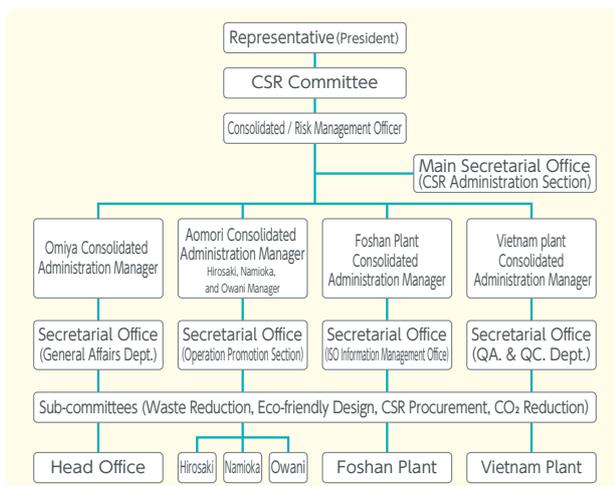
The Tamron Group holds regular CSR Committee meetings to set goals for key CSR issues and verify progress. With Tamron's president serving as committee chair, the CSR Committee holds teleconferences with officers and the managers of divisions in head office and plants in Japan and overseas to consider various matters.

Initiatives aimed at the key CSR issues are undertaken based on a comprehensive management system that integrates the ISO9001 and ISO14001 standards for quality and environmental management systems. In addition to all domestic sites including head office and the three Aomori plants, Tamron's overseas production sites including Tamron Optical (Foshan) Co., Ltd. in China ("Foshan Plant," hereinafter) and Tamron Optical (Vietnam) Co., Ltd. in Vietnam ("Vietnam Plant," hereinafter) have also obtained ISO9001 and ISO14001 certification. On another front, Tamron is working to obtain TS16949 (to be migrated to IATF16949) certification, quality management systems for the automotive industry in relation to automotive lenses requiring greater quality.

### [Relevant Achievements in FY2018]

CSR Committee Meetings	12 (per year)
Results of ISO9001 and ISO14001 external audits:	Evaluated at 4 on a rising scale of 1 to 5 (FY2017: same evaluation)

### [Implementation System]



※In an emergency, we have established a risk management system under risk management officer.

Please visit the Tamron website for information about our integrated management policy and quality management policy for the automotive industry.

[http://www.tamron.com/csr/quality\\_environmental\\_management.html](http://www.tamron.com/csr/quality_environmental_management.html)  
[http://www.tamron.com/csr/vehicle\\_emissions.html](http://www.tamron.com/csr/vehicle_emissions.html)

## CSR Education

We emphasize raising employee awareness of CSR issues. FY 2018, In order to promote understanding of the latest trends and our CSR activities, e-learning training was provided. Aiming for Sustainable Procurement, we educated employees on human rights issues such as child labor and forced labor in "conflict minerals" and the CSR procurement process.

1,450 people including full-time directors and corporate auditors, employees in overseas subsidiaries took the course.

## Participation in the UN Global Compact

Tamron has been a part of the United Nations Global Compact since 2007. Advocated by the United Nations, the UN Global Compact is an international initiative supporting ten universal principles related to human rights, labor, the environment and anticorruption. Tamron has adhered to the Ten GC Principles and continued to engage in corporate activities that fulfill its social responsibilities. Tamron's head office takes part in Global Compact Network Japan, through which Tamron's activities are utilized to collect information about practical approaches to social issues and for internal CSR-oriented education.

Please visit the Tamron website for information about our Communication on Progress.

<http://www.tamron.com/csr/csr.html>

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



This is our **Communication on Progress** in implementing the principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

For further details about the GC, please visit the United Nations website.

<http://www.unglobalcompact.org/>

# Dialogue with Stakeholders

Tamron engages in a variety of activities through dialogue with stakeholders.

## Dialogue with Stakeholders

The Tamron Group works to maintain communication with stakeholders through the various opportunities detailed below. Through these efforts we strive to improve stakeholder satisfaction and achieve better management.

Stakeholder	Characteristics	Means of Communication
Customers	Customers of Tamron-branded photographic lenses are spread all over the world, and we engage in direct communication with users. Users of our surveillance, FA, automotive and medical-related lenses represent our corporate customers.	<ul style="list-style-type: none"> <li>Website-based consultation services, call centers and service desks</li> <li>Customer support through sales and service divisions</li> <li>Dissemination of information through our website and social media accounts</li> <li>Customer satisfaction surveys</li> <li>Participation in trade shows and events</li> <li>Press releases through mainstream media, etc.</li> </ul>
Shareholders and Investors	With some 5,000 shareholders, more than 20% of whom are foreign shareholders, we make efforts to engage in communication with both domestic and overseas shareholders and investors. Tamron makes the utmost effort to disseminate and provide information with attention paid to equity, accuracy and timeliness.	<ul style="list-style-type: none"> <li>General meeting of shareholders</li> <li>Financial results briefings</li> <li>Information shared on the company website, etc.</li> <li>Meetings with individuals and small groups</li> <li>Plant tours</li> <li>Handling related to ESG investment, etc.</li> </ul>
Employees	Tamron's employee workforce includes 24% based in Japan, 73% based on Asia including China and Vietnam, 1% in the United States and 2% in Europe. Under this structure, Tamron works to facilitate communication between each site.	<ul style="list-style-type: none"> <li>Messages (from the president) to mark the beginning of the year, etc.</li> <li>Information disseminated via the internal newsletters company intranet</li> <li>Management council meetings and discussions with labor unions</li> <li>Human resources consultation desk</li> <li>Regular meeting and meetings utilizing teleconferencing systems linking each site</li> <li>Internal reporting desk, etc.</li> </ul>
Business Partners	The local procurement rate for our overseas production plants is around 80% (on a purchase amount basis) We ask business partners to assist with the procurement of raw materials and components for each production plant.	<ul style="list-style-type: none"> <li>Dialogue through daily business activities</li> <li>Briefings, surveys and auditing regarding CSR procurement</li> <li>Quality audits, environmental quality audits, process audits, etc.</li> </ul>
Society	Each site maintains links with the local community and conducts social contribution activities that reflect Tamron's unique qualities.	<ul style="list-style-type: none"> <li>Participation in local events</li> <li>Coordination with NGOs and NPOs through social contribution</li> <li>Participation in groups such as the United Nations Global Compact</li> <li>Notification and reporting to government agencies, etc.</li> </ul>

## External Recognition

The following table lists some of the ways Tamron has been recognized.

Name	Overview of Recognition
 <p>Member of SNAM Sustainability Index 2018</p> <p>SNAM Sustainability Index Operated by Sompō Japan Nipponkoa Asset Management</p>	<p>Selected as a brand for investment since 2012</p> <p>The SNAM Sustainability Index is a social responsibility investment fund that invests in companies that rate highly for environmental, social and governance (ESG)</p>
 <p>2018 優良賞 環境報告書部門</p> <p>Ministry of the Environment and Global Environmental Forum Environmental Communication Awards Grand Prize (Environmental Report Category)</p>	<p>Tamron has received the award for four consecutive years for its CSR Reports for the years 2014 to 2017.</p> <p>The Environmental Communication Awards are awarded to excellent environmental reports (CSR reports, etc.). The award scheme is designed to encourage companies to engage in initiatives related to environmental management and environmental communication.</p>
 <p>SAIHO-KUNI 彩の国工場</p> <p>Saitama Prefecture Sai-no-Kuni Plant</p>	<p>Designated since 2007</p> <p>This scheme designates plants exhibiting exceptional technical and environmental achievements as partners in the development of a richer Saitama Prefecture.</p>
 <p>SAITAMA CITY LEADING-EDGE</p> <p>Saitama City Leading-edge Companies Certification</p>	<p>Certified since 2009</p> <p>Leading-edge Companies Certification is a scheme to certify companies developing research and development-oriented production exhibiting superior creativity and innovation in Saitama City.</p>

# Contributing to Social Issues through Business

VISION: Contributing to the sustained growth of Tamron and a sustainable society through innovation-based businesses

## FY2018 Results

- Commercialization in the medical field and improved research and development
- Product diversification and development of camera modules in existing business fields

## 2019 Targets

- Achieving annual plans in each business field
- Establishing the necessary structure for the medical field

## The value and economic value provided to society through our products



## Technologies addressing social issues

In addition to the photographic, lens, commercial and industrial use-related businesses it has cultivated to date, Tamron is also developing new businesses with the aim of making contributions in new fields.

In Japan, regarded as a pioneer in taking on challenges, a wide range of issues including the aging population have emerged, and Tamron is striving to contribute solutions to these issues through technological innovation.

### Interview with General Manager of the New Business Development Group

The New Business Development Group takes a medium-term view as it tackles themes that can utilize the technologies and resources of Tamron while solving social issues, with the aim of creating the seeds of future core businesses and potential new businesses. Tamron's strength lies in the cutting-edge technologies to provide the input units (optical technologies) for imaging devices and equipment. From large to small, we work on all kinds of lenses. In FY2018, Tamron gain the opportunity to expand into the medical field and began supplying optical components to a medical device manufacturer. In the medical field, procedures utilizing equipment have been developed to reduce invasiveness, such as side effects and complications, that tend to occur during surgery and other treatment, and Tamron's products function as the eyes for such efforts.

Amid the trend towards less invasive medical procedures, there is a growing need to make optical systems even more compact. To respond to these market need, Tamron has persisted with concerted company-wide efforts to develop the necessary technologies. We are also looking to obtain ISO13485 certification, the international standard for quality management in the medical device industry, and will ensure proper management of quality issues in FY2019.

Looking ahead, we will continue working to develop products that help people and create a better future.



Nobuyuki Adachi, General Manager, New Business Development Group

## Research and Development to Create New Businesses

### Tamron's Research and Development Structure and Current Initiatives

Tamron is engaged in a wide range of R&D efforts, including new technologies that will serve as the seeds of new businesses.

#### R&D Policy

Tamron has developed products including interchangeable lenses, lens units and camera modules by utilizing its base technologies in optical design, lens processing and other areas. In the future, as well as making improvements to these base technologies, Tamron also aims to develop products in new fields by acquiring and combining new base technologies.

#### R&D Structure

In acquiring new base technologies and developing products for new fields, the Opto-Science R&D Center has played a central role in accelerating development through a joint structure that combines the three units. Additionally, the departments responsible for managing intellectual property have also united to reinforce the development structure. Moreover, Tamron has harnessed not only its internal development resources, but has engaged in numerous joint research projects with a range of start-up companies and universities.

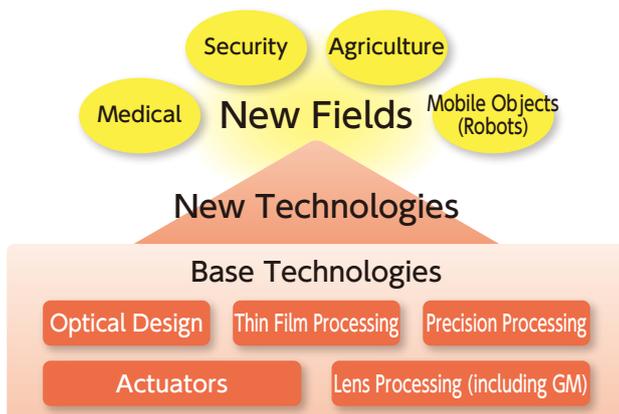
#### Product development that responds to a changing society

It takes a long time to create new products by acquiring and combining new base technologies. Given this, we select development themes based on thorough research of social trends while working to predict future needs. We also use the technique of scenario planning to ensure that technologies can be developed even when our predictions of future needs are off the mark. This allows us to envisage all manner of needs and develop technologies that benefit people.

#### New fields of development

In fields such as medicine, security, agriculture, moving objects (robots) and son on, we select particular development themes. It will be necessary to perform product development for these new fields in concert with market development, and Tamron is pursuing these approaches in conjunction with the New Business Development Group and outside organizations.

[Tamron technologies and contributions to new areas]



## The technologies supporting quality

### Automotive lenses: improving quality through automation

As automotive camera lenses in particular require high quality and stable mass production, we automated our assembly lines and switched to a production system involving only a few people.

That production system, from automation equipment mechanism design and electrical design to software development, image processing development, assembly, adjustment and installation was implemented entirely on-site at our Foshan Plant in China. This allowed us to develop highly versatile, precise, fast and low-cost automation equipment that met customer needs, and production volume rose 18% as a result.

We also aim to make ongoing improvements to the production system going forward, by enhancing process data analysis and introducing paperless operation



Before improvements



After improvements

### Product development and services utilizing customer feedback

To ensure that we deliver safe and high-quality products, we leave nothing to chance in terms of quality control. Even in the event a defect occurs in one of our in-house brand products, we have established a quick response system guaranteeing return within three days of receiving an item for repair.

As for the feedback received from customers during this repair process, we confirm the current situation, consider response measures within the quality control and design divisions, and consider expanding the scope of the response beyond the item in question to other models, products and successor models as needed. This approach leads to products and services that better satisfy our customers.

We also have our OEM customers and distributors dealing with our in-house brand products cooperate with customer satisfaction surveys, on the basis of which we consider measures and take action on items that fall short of our target values. The response rate for our FY2018 survey was 100%, and we checked with those companies that indicated "development capabilities" as an item falling below target values and improved our response. Although our overall score in the FY2018 survey was 5 points, the same as the previous year, we will continue to work on improvements with the aim of providing higher levels of satisfaction.

Details of our customer satisfaction evaluations are available on the Tamron website.

[WEB http://www.tamron.com/csr/csr\\_reports/](http://www.tamron.com/csr/csr_reports/)

## Lenses that excite emotion

### Mirrorless camera lenses that the times demand

With sales of mirrorless cameras growing around the world, Tamron is also engaged in the development and sale of interchangeable lenses for mirrorless cameras. Packing cutting-edge technology into a compact body, Tamron has created a high-speed zoom lens specifically designed for mirrorless cameras: the 28-75mm F/2.8 Di III RXD (Model A036). A great addition to the Sony E-mount, the A036 strikes a beautiful balance between vibrant image quality, superb bokeh, compact size and lighter weight.<sup>1</sup>

Specialized glass elements throughout control various aberrations and produce stable resolution across the entire zoom range. All the lens surface is treated with Tamron's proprietary BBAR (Broad-Band Anti-Reflection) Coating, which dramatically reduces ghosting and flaring<sup>2</sup> while preserving crisp image quality. The A036 also incorporates an

all-new high-speed precision AF drive system with an RXD (Rapid eXtra-silent stepping Drive)<sup>3</sup> motor unit that is remarkably quiet.

In addition to portraits, nature shots and street photography, the 0.19m Minimum Object Distance (MOD) lets you enjoy new forms of photographic expression with close-up shooting at the wide-angle end. With Moisture-Resistant Construction and Fluorine Coating, this lens offers exceptional mobility and outdoor functionality. It is the only zoom you need to portray the world in all its full-frame beauty.



28-75mm F/2.8 Di III RXD (Model A036)

### [Lens Awards]

Model	Award	Awarding Organization
A036	EISA MIRRORLESS STANDARD ZOOM LENS 2018-2019 <sup>4</sup>	EUROPEAN IMAGING AND SOUND ASSOCIATION
	TIPA AWARD2019 BEST MIRRORLESS STANDARD ZOOM LENS	Technical Image Press Association
	Grand Gold Prize (Interchangeable Lens / Mirrorless category) at Digital Camera Grand Prix 2019	Digital Camera Grand Prix Executive Committee
	DPreview Product of The Year Award	Digital Photography Review
A034	EISA DSLR TELEZOOM LENS 2018-2019 <sup>4</sup>	EUROPEAN IMAGING AND SOUND ASSOCIATION
	TIPA AWARD2018 BEST DSLR TELEPHOTO ZOOM LENS	Technical Image Press Association
A041	The Digital Camera Grand-Prix 2019 The Gold Prize	Digital Camera Grand Prix Executive Committee
A037	The Digital Camera Grand-Prix 2019 The Gold Prize	

1. Weight is 550g, and length from the tip of the lens to the mount surface is 117.8mm.

2. Ghosting and flaring refer to phenomena involving the inclusion of sparking gem-like artifacts (ghosting) or a portion of the image becoming washed out (flaring) when the lens is pointed toward a strong light source.

3. RXD uses an actuator to precisely control the rotational angle of the motor, allowing it to directly drive the focusing lens without passing through a reduction gear.

4. Tamron lenses have received an EISA award for thirteen consecutive years since 2006. EISA is an acronym for European Imaging and Sound Association. This organization sponsors the EISA Awards along with editors and senior engineers from related media including photography, video, sound, and mobile electronics. Every year the awards recognize leading products in the fields of photography and audio visual media.

## Lenses producing new excitement

### Drone lenses

Tamron develops and supplies lenses suitable for aerial photography as well as cinema and video lenses as part of its lineup of lenses for consumer drones.

With drone lenses, it is necessary to appropriately control changes in center of gravity when the lens moves to ensure flight stability. Tamron leverages the technologies it has built up over many years to develop products to meet this requirement.

We also have our sights set on lenses for industrial drones, which are expected to be in higher demand in the future. Our development efforts are focused on producing more compact, high-performance lenses for this market.

### Compact camera modules equipped with optical vibration compensation mechanism

Tamron continues to enhance its lineup of lenses to meet the diverse needs of customers. In 2016, we combined a zoom lens with an image processing circuit to commercialize the Model MP1010M-VC compact camera module. In 2018, we released the Model MP1110M-VC, a model with enhanced functionality.

While inheriting the Full HD video output (1080/60p) support, built-in optical vibration compensation mechanism and compact, lightweight body at 58.4mm in length and weighing 77g, we incorporated improved functionality including a motion detection feature, digital zoom up to 16x, and a lens distortion compensation feature.

Additionally, in terms of video output, the module now supports output of analog video signals, allowing Tamron to propose the camera module to customers who use analog video systems as well.

The module can be used in a wide range of applications, including drones that require vibration compensation, compact size and reduced weight.



MP1110M-VC

## Lenses delivering peace of mind

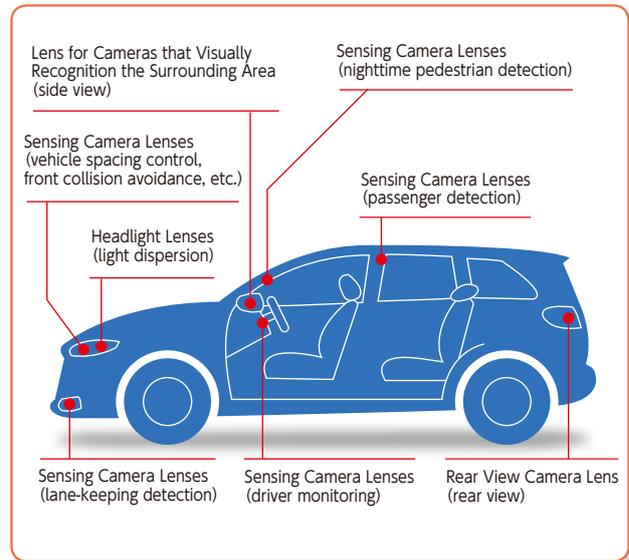
### Lenses that support car-driving society

Tamron has focused on developing lenses to support car-driving society. The lenses used in automotive cameras are broadly divided into two categories, the lenses used in visibility cameras such as rear-view cameras, and the lenses used in sensing cameras applied to ADAS<sup>1</sup> and autonomous driving systems to recognize lane markers, monitor the driver and perform other functions. Tamron develops lenses for both of these fields.

The Japanese government has unveiled a roadmap to the introduction of autonomous driving, kicking off a nationwide effort to promote the widespread adoption of autonomous driving technologies.

In 2018, the Kids and Transportation Safety Act<sup>2</sup> went into effect in the United States, requiring the installation of rear view cameras and underpinning the growing awareness of automobile safety in Japan and overseas. In this way, there have been increasing demands for lenses tailored to this car-driving society, and Tamron will actively pursue development in this field.

1. ADAS stands for Advanced Driver Assistance System, and is a collective term for systems equipped in cars that use on-board radar, cameras and various sensors to help ensure the safe operation of a vehicle.
2. Kids and Transportation Act. This law requires that all new cars come equipped with a rear-view monitor.



### [Roadmap for the Practical Application of Different Autonomous Driving Levels]

	Autonomous Driving Level	Timing for Practical Application	Description of the Technologies	Principal Agent of Safe Driving
Easy ↓ Hard	Level 1: Driver assistance	Already implemented	The vehicle controls a single system out of acceleration, steering or braking	Driver
	Level 2: Partial automation	Implemented in an increasing number of models	The vehicle controls multiple systems out of acceleration, steering or braking	Driver
	Level 3: Conditional automation	Around 2020	The vehicle has control under normal conditions within a limited scope. The driver takes over in an emergency	System (except in emergencies)
	Level 4: High automation	2025 - 2030	The vehicle has full control within a limited scope, such as driving on an expressway	System
	Level 5: Full automation	Timing not set	The vehicle has full control	System

### Achieving autonomous driving

To facilitate the realization of autonomous driving, Tamron is developing products for LiDAR, which is expected to be used in Autonomous Driving Level 3 (conditional automation) systems and higher. LiDAR, which stands for Light Detection and Ranging, has attracted attention as one of the key items needed to achieve autonomous driving in cars, and is being actively developed by various companies. LiDAR utilizes light-based remote sensing technologies to detect and measure the distance to an object. By shining a laser and measuring the time it takes for the laser to hit an object and reflect back, the distance to an object and its direction can be measured.

Tamron will support customers in two areas where its strengths lie - those of optical design and manufacturing technologies - and continue to develop elemental technologies cognizant of future market trends.

### Global shutter camera module

Tamron has developed the MP2030M-GS camera module, which is equipped with a global shutter image sensor. Camera modules typically employ rolling shutter image sensors. As these sensors are structured so that when footage is recorded the exposure starts from the top line of the sensor element and works its way down, deformation can occur due to exposure time lag. On the other hand with a global shutter image sensor, since all lines of the sensor element are exposed simultaneously, it is possible to capture images free from deformation even when recording a fast-moving object. This was combined with Tamron's strength in zoom technologies to develop a global shutter camera modules that supports 30x optical zoom. The module also supports full HD (1080/60p) video output, delivering excellent effects when subjects are moving at high speeds such as license plate authentication or when a camera is equipped in a moving object such as a drone.



Filming with a rolling shutter camera



Filming with a global shutter camera

Tamron deals in a wide range of products. Please check the Tamron website to learn more.

<http://www.tamron.com/products/>

# Promoting CSR Procurement

VISION: Reduce risks to society, customers and Tamron through supply chain-wide initiatives to tackle social issues

## FY2018 Results

- Analyzed SAQ survey results of domestic business partners

## FY2019 Target

- Determine risk assessment indicators for business partners

### Business Partner Accreditation Program for CSR Procurement

Tamron works with its business partners not only on product quality considerations but also on issues such as human rights, working environment, health and safety and the environment.

In FY2018, Tamron revised the Tamron Supplier Code of Conduct based on the latest version of the RBA Code of Conduct<sup>1</sup>, and required all of its business partners to comply. Additionally, we analyzed the results of an SAQ survey<sup>2</sup> collected from domestic business partners.

In FY2019, we will engage in communication with the business partners determined to pose potential risks while pursuing activities aimed at improvement. We also plan to expand our improvement activities based on SAQ surveys conducted for business partners in China and Vietnam.

- The RBA Code of Conduct sets out standards for environmental responsibility and ethical business practices in the electronic equipment industry supply chain, requiring safe working environments and the treatment of workers with dignity and respect.
- Self-Assessment Questionnaire. This is a table of questions designed to enhance CSR procurement that is made up of themes such as "Corporate Governance Related to CSR," "Human Rights," "Labor," "the Environment," "Fair Corporate Activities," "Quality and Safety," and so on.

### Working Together with Business Partners to Manage Chemical Substances

Tamron develops products in line with the policy of not using harmful chemical substances in its materials. We also ask our business partners to perform management based on the standards of our own environmental quality assurance system through the chemSHERPA<sup>3</sup> scheme.

Tamron also implements internal analysis work using equipment including Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES) and Gas Chromatography Mass Spectrometry (GC-MS) to ensure only the safest and most secure products are delivered to customers. In July 2019, the scope of application of RoHS is being expanded from the original six substances – Cadmium, Lead, Hexavalent chromium, Mercury, Polybrominated biphenyls (PBB), and Polybrominated diphenyl ether (PBDE) – to include four additional substances, all of which are types of phthalates: Bis (2-ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP), and Diisobutyl phthalate (DIBP). Tamron's systems also allow it to analyze these four substances.

Tamron is also establishing the frameworks and systems needed to ensure compliance with other new regulations relating to the control of harmful chemical substances that may be established in different countries around the world in the future.

- chemSHERPA is a new scheme for sharing information about the chemical substances in products in the supply chain. Through widespread adoption the scheme aims to reduce the burden on those providing and receiving information.

### [Procedures for Selecting Suppliers]



### History of Our Activities

- 2008 Requested all business partners to comply with the Tamron Supplier Code of Conduct
- 2009 Requested business partners to perform SAQ
- 2010 Introduced case examples on "occupational health and safety" and "human rights protection"
- 2011 Held CSR Procurement Workshops for all business partners in Japan and abroad
- 2012 Held internal training sessions and in-house hearings
- 2015 Requested business partners to perform SAQ
- 2016 Questionnaire Collection and Evaluation
- 2017 The Tamron Supplier Code of Conduct was revised and distributed to partners with a request for compliance. The SAQ survey was conducted in conjunction with this.

### Response to Conflict Minerals

A portion of the minerals (tantalite, tin, gold and tungsten) produced in the Democratic Republic of the Congo and neighboring countries of Africa are being used to fund armed militants. These minerals are now collectively referred to as conflict minerals and are regulated.

Tamron has declared a policy of not using illegal conflict minerals related to the violation of human rights or environmental destruction in order to fulfill its corporate social responsibilities within its procurement activities<sup>4</sup>. In FY2018, Tamron asked 265 of the company's suppliers to complete surveys relating to conflict minerals. All of the suppliers responded, submitting completed questionnaires in relation to a total of 6,298 component items. The survey results show no evidence that Tamron makes use of conflict minerals that are used to fund armed militants.

- Please see our corporate website to view our policy on conflict minerals.

<http://www.tamron.com/csr/procurement.html>

### CSR initiative improvement activities at Tamron Group plants

Tamron utilizes SAQ at its production plants, and continually implements monitoring and improvement activities. In FY2018, we verified activities at our plants in Foshan (China) and Vietnam.

As a result, we made enhanced fire prevention measures and made improvements to ensure that industrial physicians monitor the state of health of employees working a lot of overtime.

# Human Resource Development

VISION: Develop highly productive human resources to realize management plans, and utilize diverse human resources

## FY2018 Results

- Strengthening Human Resource Development to Improve Productivity
- Percentage of female managerial staff **10.04%**

## FY2019 Target

- Strengthen development of human resources capable of generating high value
- Percentage of female managerial staff **11%**

## Human Resource Development System

We aim to train autonomous employees by developing our human resources based on the following education system.

### [Training System Diagram]



In the education by position, we renewed basic training for section managers. Management training for general managers was also provided in the Aomori area to strengthen education for managers.

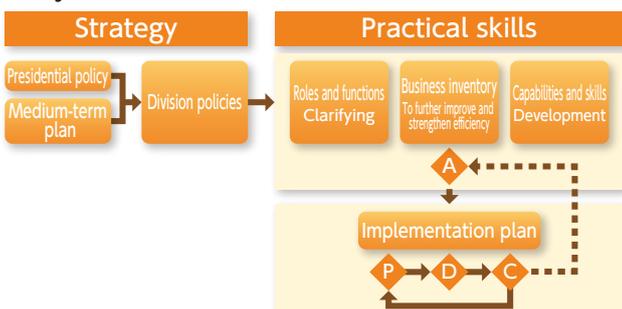
In the job-specific education, a training course on anti-vibration technology was newly held. We have reviewed the system so that not only engineering departments but also those who wish to participate in other departments can participate widely, and are working to support knowledge sharing and cross-sectional exchanges within the company.

## The Project for Improving Productivity

The Project for Improving Productivity aims to improve the speed and quality of value delivery to customers and other stakeholders, which is the key to realizing mid-term plans and work style reforms. The Project for Improving Productivity reviews using of hours (input) to improve speed and quality (output), and promotes the establishment of PDCA to improve practical skills.

The results for FY 2018 include (i) reviewing and clarifying the roles and functions of each division, and (ii) formulating plans to increase the efficiency of working hours in target divisions by 5%. In FY 2019, we will examine and strengthen operations that create higher value, and develop the capabilities and skills to realize those tasks (human resource development), with the aim of creating a system that will support PDCA.

### [Project overview]



## Promoting Diversity

Tamron pursues a number of initiatives aimed at promoting harmony between work and home life. Regarding overtime, we introduced a system where employees must obtain approval from their department general manager and officer in charge in advance and wear a permit in order to work overtime. Since FY2017, we have implemented twice-weekly no-overtime days without exceptions to better enhance the effectiveness of the initiative.

Tamron helps both male and female employees balance their work with their childcare responsibilities. For instance, the Tamron Kids Day-Care Center<sup>1</sup> was opened at the head office. The center employs permanent nurses and also offers care for sick children to ensure peace of mind. One hundred percent of female Tamron employees in Japan who have had a child have made use of leave before and after childbirth and the parental leave systems and subsequently returned to work.

We have also developed schemes to help employees balance work with the responsibilities of raising a child. Employees can make use of the reduced working hours scheme, for example, until the end of April when their child is in the fourth year of elementary school. Japan requires companies to maintain a 2.2% hiring ratio for people with disabilities, and in FY2018 Tamron again exceeded this ratio at 2.56%.

Through these initiatives, Tamron has met the standards set forth in the Act on Advancement of Measures to Support Raising Next-generation Children, and had also been awarded the "Kurumin Mark," which is given to companies that promote a childcare-friendly workplace.

Tamron has also been certified as a "Platinum +" company practicing diverse work styles as part of the Saitama Womenomics Project being promoted in Saitama Prefecture, where our head office is located.

1. "Tamron Kids Day-Care Center" has been certified as a small-scale office nursery office, five children of the area are also accepted.



Scene from an open day for parents at the Tamron Kids Day-Care Center



Please visit our website for information about precise of human resource development.

WEB <http://www.tamron.co.jp/recruit/>  
[http://www.tamron.co.jp/csr/csr\\_reports/](http://www.tamron.co.jp/csr/csr_reports/)

# Improving the Governance System

VISION: Build a sound organizational structure and enhance decision-making ability and effectiveness towards achieving sustained growth

**FY2018 Results**

- Conducted effectiveness assessment and identified issues

**FY2019 Target**

- Make improvements to issues and enhance achievement level of the medium-term plan

## Corporate Governance

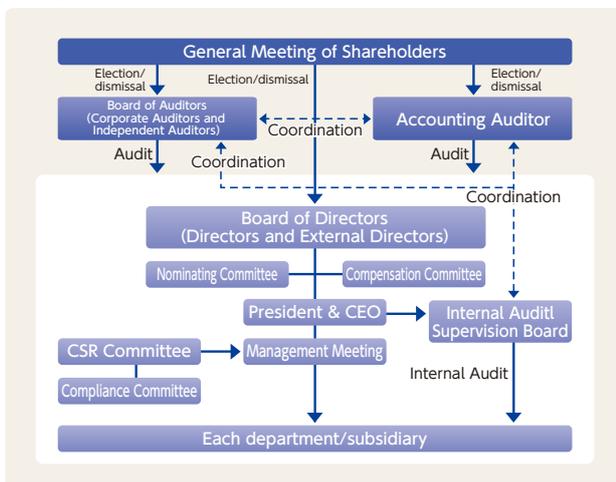
### Basic Policy

Ever since the company was first established, we at Tamron have sought to forge good relationships with all stakeholders, achieve sustainable growth and enhance corporate value in line with our management philosophy. In support of those goals, we have adopted the basic approach of ensuring fair and transparent management practices while developing a highly effective corporate governance system that seeks to improve the speed and efficiency of decision making and business execution. Moreover, through the continual improvements to our corporate governance system, we implemented all of the principles found in the Corporate Governance Code prescribed by the Tokyo Stock Exchange in 2018 and established Corporate Governance Guidelines that summarize our approach to corporate governance.

### Corporate Governance System Overview

Tamron is a company with corporate auditors and includes a Board of Directors that functions as a body to make important decisions and supervise the execution of operations, as well as an Audit & Supervisory Board as an auditing body that is independent of the Board of Directors. Tamron also appoints multiple independent external directors possessing a wealth of knowledge, expertise and independence and has set up a Nominating Committee and Compensation Committee as advisory bodies to enhance supervisory functions. To the Board of Directors, Tamron appoints 12 directors (two of whom are external directors), including one foreign director and one female director, as well as 4 corporate auditors (three of whom are external auditors).

### [Corporate Governance Structure]



Please visit our website for information about precise of corporate governance.  
**WEB** [http://www.tamron.com/ir/management\\_policy/corporate\\_governance.html](http://www.tamron.com/ir/management_policy/corporate_governance.html)

## Board of Directors Effectiveness Assessment

Since 2016, Tamron has conducted effectiveness assessments of all directors and corporate auditors by way of a questionnaire. Four items are assessed, namely the Board of Directors' composition, operation, agenda items and systems supporting the Board of Directors. The major issues that were identified and our response policies are as follows.

Issue	Response Policy
Content and quantity of materials	Thoroughly implement the creation of organized and analyzed materials to ensure the main points can be easily ascertained
Distribution of materials	Improve the methods and timing of distribution
Scope of delegation	Consider revisions to the Official Authority Regulations with the aim of enhancing the items brought up for discussion by the Board of Directors and speeding up decision making

Moving forward, Tamron will strive to further boost the effectiveness of the Board of Directors by tackling these issues.

## Officer Compensation System

In 2018, Tamron revised the system of compensation for company officers and adopted a system comprising "basic compensation," which is a form of fixed compensation, "short-term incentive compensation," which is a kind of performance-linked monetary compensation based on factors such as business performance in a single fiscal year, and "medium-to-long-term incentive compensation," as a kind of performance-linked stock-based compensation.

The newly adopted performance-linked stock-based compensation aims to clarify the links between business performance, share prices and the compensation of directors, and raise the motivation of directors to contribute to medium-to-long-term improvement in business performance and corporate value.

Category	Policy and Process for Determination
Basic Compensation (Fixed monetary compensation)	In light of each person's position, level of contribution, levels in the industry or other companies of the same size and business performance, etc., compensation is determined by the Board of Directors following a review by the Compensation Committee chaired by an external director
Short-term Incentive Compensation (Performance-linked monetary compensation)	
Medium-to-long Term Incentive Compensation (Performance-linked stock-based compensation)	<ul style="list-style-type: none"> <li>Stocks in Tamron are acquired by a trust set by Tamron contributing a monetary amount. Stocks in Tamron are issued through the trust based on the points granted according to each person's position, business performance, and so on, in accordance with the Share Issuance Regulations established by the Board of Directors.</li> <li>The level of medium-term management plan achievement such as ROE is also assessed</li> </ul>

(Compensation for external directors and corporate auditors consists only of the basic compensation.)

# Risk Management

VISION: Adopt a risk management posture to develop a safety-conscious workplace environment and implement through information management

## FY2018 Results

- Established an independent internal reporting desk

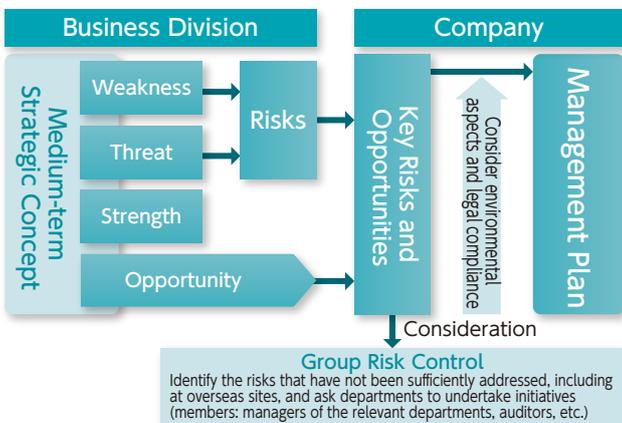
## FY2019 Target

- Strengthen countermeasures to address the risk of information leaks across the Group

## Risk Management

Based on its risk management system, Tamron identifies risks and opportunities, makes various decisions and implements relevant activities.

[Risk Management Flow Diagram]



Risks identified at the business divisional-level are summarized from a company-wide perspective and considered when management plans are formulated. Additionally, through group risk control activities, company-wide risks including risks at overseas sites are visualized and targeted for improvements. In FY2018, we established an independent internal reporting desk with stringent confidentiality requirements externally to ensure the thorough implementation of compliance. The reporting desk has begun operating from FY2019. As a risk that includes overseas operations, we have also identified the prevention of information leaks including trade secrets as a key issue, and will further strengthen our management of this issue going forward.

## Crisis management and BCP

Tamron builds business continuity plans (BCP) that take the identified risks into account. In FY2018, the Vietnam plant created a BCP and verified that related departments were able to respond in line with the BCP. In light of risks due to topographical features such as the flooding that has occurred in recent years, in FY2019 we plan to revise our BCP and consider target values for risk mitigation.

As part of their risk management initiatives, Tamron's head office and three plants in Aomori Prefecture, Tamron Optical Foshan, as well as Tamron Optical(Vietnam) hold firefighting drills led by employees, while departments that handle chemicals carry out emergency response drills for chemical spills.

Please visit our website for environmental accounting.

[http://www.tamron.co.jp/csr/environmental\\_activities.html](http://www.tamron.co.jp/csr/environmental_activities.html)

## Occupational Health & Safety

To protect the safety of its employees, Tamron aims to maintain and improve mental and physical health, and create a safe, healthy and comfortable workplace environment. In FY2018, there were 8 occupational accidents, 6 of which occurred in Japan, 2 of which occurred in Tamron Optical (Foshan) in China and 13 commuting-related accidents, 6 of which occurred in Japan, 1 of which occurred in Tamron Optical (Foshan) in China and 6 of which occurred in Tamron Optical (Vietnam). Most occupational accidents involved injuries sustained at production sites, while most commuting-related accidents occurred while employees were commuting by bicycle or on foot. Tamron analyzes the cause of each accident and thoroughly ensures measures are taken to prevent repeat occurrences. With regard to commuting-related accidents, we are holding traffic safety workshops in an effort to prevent repeat occurrences. Regarding mental health issues, periodic mental health checks are conducted twice a year, with information on the situation at each site provided as feedback to facilitate improvements. We also conduct in-house seminars on self-care and caring for one's direct subordinates; in FY2018 a total of 91 employees participated in these seminars.

## Compliance

To promote compliance, Tamron has established the Compliance Committee, which is chaired by the Representative Director and deliberates on basic items for the promotion of compliance, and the Compliance Promotion Committee, which comprises members selected from each business division and provides training and education on legal compliance.

In FY2018, the committee conducted training on themes such as insider trading regulations and the Subcontract Proceeds Act. In addition, the committee offered support to overseas subsidiaries in developing their own personal information management regulations. Information security and the protection of personal information are managed appropriately in accordance with internal regulations. Thanks to these company-wide initiatives, zero legal violations were reported in FY2018.

### [Compliance at Respective Sites]

◎ : Compliance ○ : Exceeded statutory requirement temporarily  
 △ : Request for improvement made by local government  
 × : Administrative action as a result of violation of law/regulation

	Head office	Aomori	Foshan	Vietnam
Energy saving (Energy Saving Act)	◎	◎	○	○
CO <sub>2</sub> reduction (Act on Promotion of Global Warming Countermeasures)	○	○	—	—
Chemical substance management	◎	◎	◎	◎
Air	◎	◎	◎	◎
Water quality	◎ <sup>2</sup>	◎	◎	◎
Soil	◎	◎	◎	◎
Noise	◎	◎	◎	◎
Vibration	◎	◎	◎	◎
Odor	◎	◎	◎	◎
Occupational health & safety	◎	◎	◎	◎

1. Laws related to managing and investigating chemical substances apply to domestic sites : international directives including RoHS and REACH apply to the entire group.  
 2. Values for groundwater temporarily exceeded certain standards, but our treatment measures prevented contamination from spreading outside our facilities.

# Responding to Environmental Issues

VISION: Manage the Earth's limited resources appropriately and contribute to the development of a sustainable society.

## FY2018 Results

- Reduced CO<sub>2</sub> emissions by **0.6%** compared with FY2016 levels (on a unit sales basis)

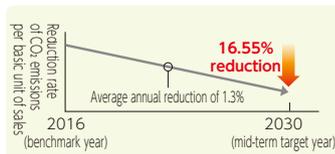
## FY2019 Targets

- Reduce CO<sub>2</sub> emissions by **3.8%** compared with FY2016 levels (on a unit sales basis)
- Consider renewable energy adoption measures

## CO<sub>2</sub> Emission Reduction Activities and Results

With initiatives such as the Paris Agreement<sup>1</sup> and SDGs, actions aimed at achieving a globally sustainable society targeting the year 2030 are accelerating. In light of the Paris Agreement and JEITA<sup>2</sup> targets, Tamron has set the medium-term environmental targets working from FY2016 as a benchmark year to cut Group-wide CO<sub>2</sub> emissions on a unit sales basis<sup>3</sup> by an average of around 1.3% each year, and by 16.55% by FY2030.

### [FY2030 Mid-Term Environmental Targets]



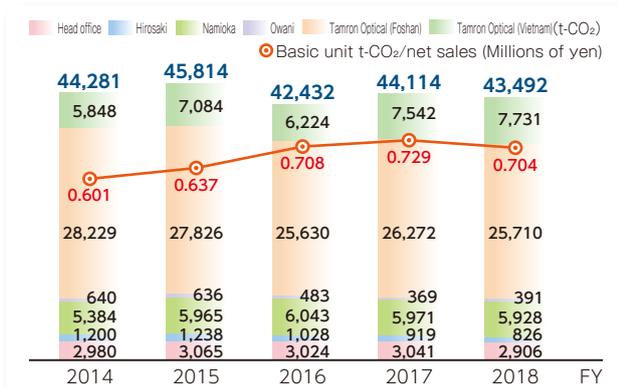
1. A multilateral international agreement to curb climate change adopted on December 12, 2015 in Paris, where the 2015 United Nations Climate Change Conference (COP21) was held, and went into effect on November 4, 2016. The agreement set forth overall targets such as limiting the average rise in global

- temperatures to under 2°C compared with pre-industrial levels.
2. The Japan Electronics and Information Technology Industries Association (JEITA) is an industrial group representing companies in the fields of IT and electronics that seeks to contribute to the comprehensive development of the electronics and information technology industry.
3. Basic unit per sales :  $\frac{\text{Total CO}_2 \text{ emissions (t-CO}_2\text{)}}{\text{Consolidated sales (million yen)}}$

In FY2018, while the target was to achieve a reduction of around 2.6% in CO<sub>2</sub> emissions (on a unit sales basis) from FY2016 levels, emissions only fell by 0.6%, missing the target. This was primarily due to the fact that we missed our initial sales targets and were thus unable to achieve CO<sub>2</sub> reductions consistent with sales.

## Change in CO<sub>2</sub> emissions

CO<sub>2</sub> emissions have remained largely flat since FY2014. In FY2018, CO<sub>2</sub> emissions fell by around 1.4% compared with FY2017 by volume, marking an improvement. On a per-site basis, emissions decreased 2.4% domestically, while the switchover to LED lights and solar power generation helped Tamron Optical (Foshan) in China achieve a 2.1% reduction. On the other hand, emissions rose 2.5% at our plant in Vietnam, which has seen an increase in capital investment. In FY2019, we will make reductions through equipment replacements and process improvements at each site, and work on comprehensive energy measures taking into account the external purchasing of renewable energies.



## Initiatives to cut CO<sub>2</sub> emissions

In FY2018, we used simplified electric power measurement devices to identify surplus power. When possible, we implemented reduction measures such as operational improvements and confirmed the effects. Solar power generating systems have been installed at Tamron Optical (Foshan) in China and Tamron Europe (Germany). FY2018 generating capacity was 327,000 kWh at Tamron Optical (Foshan), representing a reduction effect of 180 tons of CO<sub>2</sub>. At Tamron Europe, 69,000 kWh were generated with a reduction effect of 53 tons of CO<sub>2</sub>. Additionally, Tamron Optical (Foshan) achieved a reduction effect of 1,076t by replacing lighting with LED equivalents whenever necessary.

[2018 CO<sub>2</sub> reduction effects due to the main electric power reduction measures implemented to date]<sup>4</sup>

Site	Measure	Reduction Effect(t-CO <sub>2</sub> )
Head Office	Replacement of compressors and operational improvements	18
Owani	Improvements to cooling water circulation pumps Replacement of air conditioning equipment	25 57
Foshan	Switching over to LED lights Solar power generating system	1,076 180
Tamron Europe	Solar power generating system (all capacity sold)	53

4. Calculated based on the Ministry of the Environment's Greenhouse Effect Gas Measuring & Reporting Manual Version 4.3.2.

The third Friday of every month has been designated as No My Car Day, and certain days in the summer and winter are designated as Eco Life Days (an initiative launched by Saitama Prefectural Government). In FY2018, Tamron's ongoing Eco Life Days activities were recognized by Saitama Prefecture with the receipt of a letter of appreciation. CO<sub>2</sub> emissions were reduced by 12.6t-CO<sub>2</sub> through these efforts in 2018.



Presentation of the letter of appreciation from Saitama Prefecture

## Ascertaining CO<sub>2</sub> emissions in the supply chain

In addition to calculating direct emissions (Scope 1) and energy-derived indirect emissions (Scope 2), Tamron also calculated indirect emissions (Scope 3). As a result, we verified that among Scope 3 emissions, Category 1 emissions (emissions generated from the extraction and production of all products and services that have been purchased or acquired) accounted for a large proportion of the total.

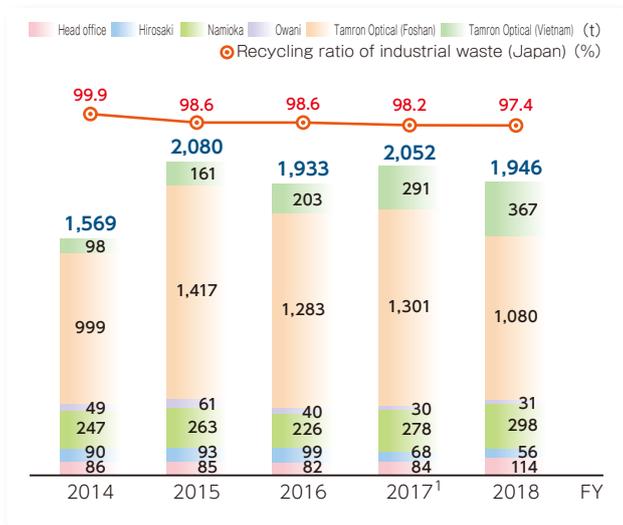
Please visit Tamron's website for information on CO<sub>2</sub> emissions including Scope 3 emissions.

[http://www.tamron.com/csr/environmental\\_activities.html](http://www.tamron.com/csr/environmental_activities.html)

## Recycling resources and reducing waste

The total amount of waste generated in FY2018 by the Tamron Group decreased 5% compared with FY2017. Although waste generation increased at the Tamron Optical (Vietnam), Tamron Optical (Foshan) in China achieved a 17% reduction. Previously, the detergents used in the lens cleaning process were treated as waste, but a change was made by implementing COD destruction and releasing the waste detergent once it met wastewater standards, which explains the reduction. As a result, Tamron Optical (Foshan) in China reduced its waste generation by 221 tons annually.

[Waste generation]



1. As the amount of waste generated at Tamron Optical (Vietnam) in FY2017 included items such as glass waste, some of which was not counted, the figure was revised from 287t to 291t.

## Environmentally Friendly Design

Tamron performs product assessments starting from the design stage. Of the various product assessment items, particular emphasis has been placed on effective management of the light weight design and reduced volume items. Environmentally friendly design results with respect to new models released in FY2018 included a 0.3 % increase in light weight design and a 0.5% decrease in volume.<sup>1</sup> The main reason for the increase was the switch to metal for some components to improve interchangeable photographic lens performance and fit design concepts. Moreover, Tamron practices the appropriate management of chemical substances based on its internal, which reflect the requirements of the RoHS directive and the REACH regulation. Tamron products that feature environmentally friendly design bear the Tamron Eco Label.<sup>2</sup>

Following on from its efforts in 2017, Tamron proceeded with efforts to standardize production lines and equipment. We will continue these efforts to reduce the environmental impact in terms of resources and energy consumption during production.

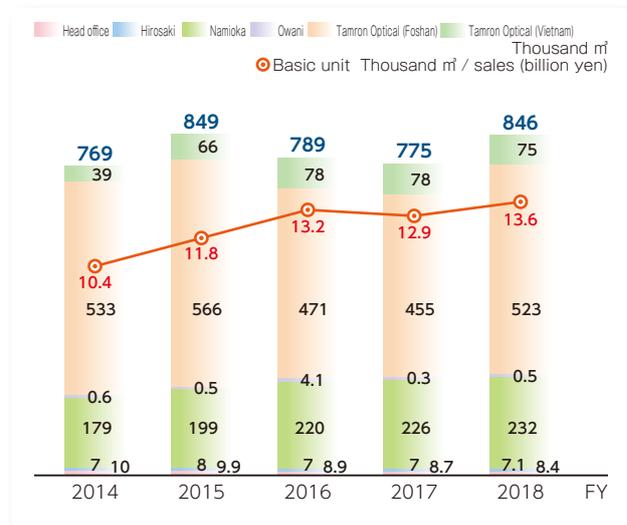
1. Calculated using production volume from FY2018 comparing conventional models.
2. For more information about Tamron Eco Label certified products, please visit the Tamron website.

[WEB http://www.tamron.com/csr/environmental\\_activities.html](http://www.tamron.com/csr/environmental_activities.html)

## Water Management

The production process for optical components requires a great deal of water resources. Total water consumption of the Tamron Group in FY2018 increased 9% compared with FY2017. This was due to factors such as the switch from organic solvents that had been used in lens cleaning processes to ultrapure water, which resulted in a 15% increase in water consumption at Tamron Optical (Foshan) in China. Moving forward, Tamron will continue to implement appropriate wastewater management in compliance with laws and regulations, and make every effort to reduce water consumption by working on re-use and other initiatives.

[Water Consumption]



[Product Assessment Item Table]

Evaluation Items	
1. Extended usage of lens	7. Reduced use of packaging materials
2. Light weight design	8. Use of recycled materials for packaging materials
3. Reduced volume	9. Product labeling requirements
4. Energy efficiency during usage	10. Packaging labeling requirements
5. Use of recycled materials	11. Proper management of controlled environmental substances
6. Ease of disassembly	



### Tamron Eco Label

The label was designed to resemble an eye gently looking at our economy, society and environment. The eyebrow symbolizes a flowing stream of air and water, the pupil represents the green in the earth, and the tree in the pupil stands for our work for the three Rs of "reduce," "reuse" and "recycle."

Please visit our website for more information of environmental activities.

[WEB http://www.tamron.com/csr/environmental\\_activities.html](http://www.tamron.com/csr/environmental_activities.html)

# Social Contributions

VISION: Contributing to the development of the next generation rooted in the community, aiming at the development of photography and image culture

## FY2018 Results

- Implementation of activities tailored to each region in the group

## FY2019 Targets

- Developing the next generation to contribute to the development of photographic and image culture

## Contributions to Photographic Culture

### The 11th Railroad Scenery Photo Contest

Tamron sponsors the Railway Scenery Photo Contest in order to promote train culture and local revitalization in Omiya, known as an important railroad town in Japan and also site of our head office. As part of this contest, all 87 winning entries are showcased at a photo exhibition held at the Omiya Sogo Department store. This local event is made possible with the much-appreciated support of the City of Saitama, the Saitama Chamber of Commerce and Industry, and Saitama City Board of Education. The 11th iteration of the contest was supported by a wide range of participants including general camera users and railway enthusiasts, with a record total of 7,460 submissions received for the general and student divisions combined.

**WEB** <http://www.tamron.jp/special/contest/train2018/result.html>



General Division Grand Prize (Saitama City Mayor's Prize)  
Mr. Hiroshi Wada "Smile"



Student Division Grand Prize (Saitama City Board of Education Superintendent's Award)  
Mr. Kouya Tamada "The Color of Summer Flowers"



Humorous Photo Contest Award (Saitama City Chamber of Commerce and Industry President's Award)  
Mr. Yoshihiro Hashimoto "Falling"

### 15th Macro Lens Photo Contest

This photo contest accepts entries shot from any macro lens, regardless of manufacturer. For the 15th contest a total of 4,954 entries were received. The contest accepts entries in two categories: the Nature Division aimed at perceiving biodiversity through subjects such as flowers and insects, and a Genre-Free Division for photography enthusiasts to convey the joy of macro lenses with photos not limited to nature, such as shots of people, accessories, cooking or food shots. Many of the entries featured beautiful, warm natural scenes captured delicately in only ways a macro lens can.

**WEB** <http://www.tamron.jp/special/contest/macrocon2018/result.html>



Grand Prize Mr. Hirofumi Sekine "Three Butterflies"

## Developing future generations through the Tamron Group

### Cultivating future generations through a photo contest (Shanghai)

To help the younger generation who will lead the future realize their dreams, since 2016 Tamron Optical (Shanghai) Co., Ltd. has continued to hold a photo contest in the fourth quarter of each year in conjunction with the East China University of Science and Technology, one of the renowned universities in the Shanghai area. Over a period of two months, more than 300 entries in total were received from the university's students. The entries were then exhibited on campus and judged by the students themselves. In early December, a presentation ceremony was held on campus to present awards to six winning entries. After the ceremony, a photography class was held for the visiting students, where they got hands-on experience with Tamron lenses.



Judging underway



Scene from the presentation ceremony

### Science Classes for Children

Tamron has organized science classes for children at local public halls and elementary schools in Saitama City to spur interest in the sciences. In FY2018, we held a total of 4 classes, with a total of 112 people participating.



Visiting science classes for children: "Let's get inside a giant bubble"

### Exhibition at the Saitama City Museum

From July to August 2018, Tamron ran an exhibition in support of the "Children's Museum in Summer" project where children learn about regional industry at the Saitama City Museum. The 4,524 visitors including elementary and junior high school students viewed lens samples from each lens processing including materials, sanding, polishing and coating, as well as a display of components from a disassembled interchangeable DSLR camera lens.



The running exhibition

### Developing future generations through donations (USA)

TAMRON USA, INC. ("Tamron USA," hereinafter) works on social contribution activities with a focus on donations. Each year Tamron USA takes part in "Backpack Pirates Festival," an event to provide stationery supplies to children growing up in economically disadvantaged environments. In FY2018, Tamron raised around \$350 in donations from employees and dispatched a photographer to the event. Tamron also took part in the Toys for Tots project that delivers Christmas presents to children in similarly economically disadvantaged circumstances, and many toys were collected from employees to donate to the project. In addition, Tamron donated to a charity golf event organized by one of its major distributors. The money raised through the event went to people suffering from various types of brain disorders. As a new endeavor well suited to a camera lens manufacturer, Tamron USA held the event Portraits of Love, where it invited the families of those taking responsibility to serve the local community such as military, firefighters and police to have family photos taken free of charge at the Tamron USA offices. 14 families took part in the event. Moving forward, Tamron USA will continue to actively pursue CSR activities through activities for children who will lead the future and those in positions of responsibility to protect them.

**WEB** Backpack Pirates <http://www.addresssthehomeless.org/>  
Toys for Tots <http://www.toysfortots.org/>



Scene from the Backpack Pirates event

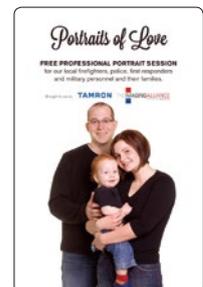


Photo from Portraits of Love

## Contributions to Society

### Supporting Adaptive Athletes

Tamron supports adaptive athletes to promote and spread recognition of adaptive sports and to communicate the activities of adaptive athletes through photography. For two of the athletes we support, 2018 was a year of challenges due to changes to events and comeback from injury. Despite these difficulties, each athlete has boldly taken on the challenge of competition and continued with unrelenting efforts on a daily basis towards their goal of competing at the 2020 Tokyo Paralympics. Together with the power of photography, Tamron will continue to support each athlete delivering hopes and excitement to the world through their sporting endeavors.

**WEB** <http://www.tamron.co.jp/en/special/athlete/>



Mr. Kota Hokinoue



Ms. Wakako Tsuchida

### Support for the Loco Solare women's curling team

In August 2018, Tamron entered into a sponsorship agreement with Loco Solare, a women's curling team based in Tokoro, Kitami City, Hokkaido. Loco Solare is a curling team established in August 2010. After winning its first Japan Curling Championship in February 2016, the team established the top record in Japan and represented Japan at the 2018 Pyeongchang Olympics, where they won Japan's first ever bronze medal in curling. The team's name, which means "local sun," incorporates the concept of "children of Tokoro's sun" forming a team that will shine like the sun of their native town of Tokoro and compete with the spirit of "from Tokoro to the World." Tamron identifies with this team sentiment and will continue to support Loco Solare as it strives to reach greater heights while conveying the appeal and potential of the sport through the power of photography.



The members of Loco Solare

### Social contribution activities in Aomori

The three Tamron plants in Aomori Prefecture run bottle top and pull-tab collection activities with the aim of donating the proceeds. Each plant also sponsors various local festivals (Hirosaki Cherry Blossom Festival paper lanterns, Hirosaki Neputa Festival paper fans, Namioka Kitabatake Festival). In addition, each plant takes part in monthly neighborhood clean-up activities, with the exception of the winter months from December to March. Going forward, the three plants will continue to contribute to their local communities.

### Sponsorship and support of the Cookie Project

Cookie Project is a specified non-profit organization (NPO) that believes that a society is made interesting when various people, from those with and without disabilities to company workers, students and part-timers, adults and children alike become part of a "mazekeze" (melting pot), and is committed to the furtherance of this concept. Cookie Bazaar 2018, which is organized by the Cookie Project and is now in its tenth year, is an activity that involves selling welfare workshop products in Saitama Prefecture. Tamron supports the activity as an advertising sponsor.



Cookie bazaar 2018

### Supporting Nature Restoration

Tamron's Omiya head office continues to support the nature restoration project carried out by the Ecosystem Conservation Society-Saitama together with local citizen groups at the Shibakawa Daiichi Flood Control Reservoir and surrounding areas. Many years ago the Minuma Tambo area of the reservoir area was an abundant wetland with white herons. Today the reservoir continues to see a number of wildfowl such as swans and even short-toed eagles visit the area to feed. In 2018, a wooden fence for a path around the Minumadai Irrigation Canal Promenade previously supported by Tamron was completed.



Shibakawa Daiichi Flood Control Reservoir

# Independent Third-Party Opinion



Mr. Kimio Shibata

## [Current Title]

Associate Professor, Faculty of Economics and Business,  
Saitama Gakuen University  
(current position since 2018)  
Part-time Lecturer, Yokohama City University / Kawaguchi  
Junior College

## [Career History]

MBA / Small and Medium Enterprise Management Consultant  
(both acquired in 2008)

Doctor of Economics (2014, Completed the Doctor's Program  
of the Graduate School of Economic Science, majoring  
Economic Science, Saitama University)

After working as an editor for a publishing firm, from 2008  
to 2015 Shibata was responsible for CSR support as a  
management advisor (handling Yokohama's program to  
certify companies contributing to the local region) at IDEC  
Yokohama (Yokohama City Small and Medium Enterprise  
Support Center).

## [Areas of Specialization]

Research into regional CSR and CSV, strategic marketing, and  
internal marketing (to penetrate management philosophies)

## [External Activities]

Judge in the OICHI Business Awards run by the NPO OICHI  
(Cooperative Labor Association) since 2012

## [Works Authored]

Japan Management Society Yamashiro Award (Main award) (2018)

Penetration of Management Philosophy in Practice (Soseisha, 2017)

CSR evaluation system by local governments : About the subject  
of regionality evaluation and operation in the authorization  
system of Yokohama type area contribution company (Journal of  
the Japan Association of Regional Development and Vitalization,  
Vol. 4, Pages 237-246, 2013)

69th Zen-Noh-Ren Conference Outstanding Research Paper  
(FY2017)- A Study on Efforts of Managements to Promote  
Management Philosophy : the Case of Enterprises Engaged in  
Regional CSR as Examples

## The key to resolving social issues lies in facing the company's own business activities with honesty

From last year to this year, Tamron's CSR management has continued its transformation into management reflecting a greater awareness of the Sustainable Development Goals (SDGs). The SDGs listed in "Transforming our world: the 2030 agenda for sustainable development," which was adopted at the United Nations headquarters in September 2015, is a roadmap that lays out a path towards a vision for 2030 for nations, companies and all of humanity to each consider the planet's future as their own based on the concept of "no one left behind."

By 2018, many companies were touting business activities aimed at achieving "sustainable society," but among them are companies that treat all of their business activities as SDGs. This has given rise to concern over whether such companies are engaged in SDG-washing (the outward appearance of addressing the SDGs) as a means of lending affirmation to their business activities. This is because the more an organization seriously considers the SDGs, the more it realizes that it is necessary to not only recognize and put into practice the 17 goals and 169 targets but also the 232 SDG indicators, and this requires action rather than the outward appearance addressing the SDGs. It is also important to clearly establish the SDGs as part of a company's business goals for the year 2030.

This is not about a possible future ten years from now; it is about setting goals for how the future has to be. Amid a climate where companies are prone to pursue short-term profits due to

their relationship with stakeholders, this is also a "declaration" a company makes to secure short-term profits while creating future value in order to realize a sustainable society.

When looking at Tamron's business activities in light of these points, I would describe its SDGs as at a midpoint. Tamron is aware of its own sustainable growth and has carefully linked each of its key CSR issues with corporate value as it shifts from a focus on short-term business performance to resolving long-term social issues, while plainly and honestly stating its goals and results in fulfilling these issues. Tamron deserves recognition for revisiting the question of how it engages in the necessary communication with stakeholders to this end. In addition, to achieve sustainable growth a company also needs to be aware of its evaluation by the stock market and maintain a good relationship with local communities as stakeholders. Major corporations tend to forget about the local communities at their doorstep due to their size. Tamron, however, has actively endeavored to cultivate future generations in regions throughout the world to develop photographic and video culture in connection with its core lens business. These activities also deserve recognition as being linked to the SDGs. Unfortunately, however, Tamron's goals for 2030 have not yet been clearly stated. In FY2020 as Tamron celebrates its 70th anniversary, I look forward to Tamron presenting clear goals and working vigorously towards them.

## Editorial Team's Postscript

This report contains non-financial information on Tamron's annual activities as a way to facilitate engagement with our many stakeholders. Pages 3-4 of the FY2019 edition of the report describe the value creation process for a sustainable society and Tamron's sustainable growth. We also used a universal design font so that as many people as possible can read the report. We hope that this further deepens the understanding of Tamron on the part of stakeholders.

We will accept the views expressed in the independent third-party opinion in all seriousness and undertake various considerations to ensure that Tamron becomes a company that creates economic and social value over a longer term. We encourage readers to share their frank comments and requests.

## <Reference>

The actions we took in response to the opinions expressed by Professor Shibata in the CSR Report 2018 issued in 2018 are given in the following table.

Main Opinion	Tamron's Response
Enhancing CSR education (including at overseas sites) to deepen recognition of the relationship between the corporate philosophy and SDGs	Conducted CSR training on human rights issues related to Tamron's business, such as conflict minerals, and training on the SDGs (1,450 employees underwent training, including employees from overseas sites and members of top management)



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