# **TAMRON**



# CSR Report 2017



# Message from the President



President & CEO Tamron Co., Ltd.

# Shiro Ajisaka

## Practicing CSR in our Core Business

At Tamron, through our core business of making lenses as the "New Eyes for Industry," we strive to be a company that creates joy and excitement, and which contributes to society and the environment. In addition to our core products such as interchangeable photographic lenses and surveillance camera lenses, we also embrace a dogged pursuit of quality through our focus on new fields such as automotive, ultra-compact camera modules and products for mounting on drones. To respond quickly to cutting-edge technologies and engage in development with a long-term approach to new fields and environmental friendliness, we have established a new research and development center. We have long positioned our three plants in Aomori as our mother plants, and together with plants in China and Vietnam forming a three-point production system, Tamron is able to swiftly respond to customer needs and provide products that deliver excitement, peace of mind and safety.

Unfortunately, we have failed to meet our company-wide environmental goals on  $CO_2$  emission reductions. This is due to factors including the full-scale launch of the Vietnam plant in FY2016, which added to power consumption in a way we had not envisioned during the 2012 benchmark year. We will revise our goals to better reflect circumstances, and working from FY2016 as a new benchmark year, work towards cutting  $CO_2$  emissions by 16.55% (on a unit sales basis) by the year 2030, starting with a reduction of approximately 1.3% in FY2017.

On the topic of corporate governance, to further enhance independence and objectivity in areas such as the new appointment of directors and determining of their compensation, Tamron has established an arbitrary committee chaired by an outside director to reinforce its systems. Moving forward, we will strive to engage in fair and transparent management as we endeavor to raise Tamron's corporate value.

To coincide with the recent widespread adoption of international CSR procurement efforts, Tamron has established the Tamron Supplier Code of Conduct, which complies with the EICC Code of Conduct\*, and works to promote CSR procurement. Together with our suppliers, we will strive to develop supply chain management that is mindful of labor, human rights, the environment and ethics on a global scale.

# Human Resources Development and Working Styles that Support CSR Management (Embracing ATM in Work!)

At Tamron, the concepts of "Team Tamron," "Daily Innovation" and "ATM" (Akaruku – bright, Tanoshiku – fun and Maemuki – positive) serve as guiding principles. While it is important to approach work in a proactive manner with the overall optimization of the Tamron Group in mind, we recognized that work is not everything there is to life. It is equally important that employees strike a healthy work-life balance. Continually thinking of work ways to work more efficiently while treating the absence of overtime as completely normal encourages flexible thinking and promotes a "virtuous circle" in the workplace. We also believe part of employees' time outside working hours should ideally be devoted to individual skill development. Creating a pleasant working environment for female employees is another priority. At Tamron's head office, the Tamron Kids Day-care Center has been established, and we encourage employees to take childcare leave, which has led to a higher percentage of female employees in management positions. Through these initiatives, we cultivate professionally-minded "self-disciplined" employees, and believe this better equips Tamron to fulfill customer needs and make active contributions 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 as such, we have reflected these principles in our Action Declarations and Compliance Action Guidelines 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.

\* See 2. EICC Code of Conduct on Page 8 for more information.

# 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

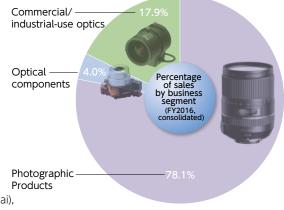
New Eyes for Industry

# **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 Ajisaka  |    |
| Employees         | 4,728 (consolidated; excluding 935 temporary employees)    |    |
| Net sales         | 59.903 billion yen (consolidated; as of December 31, 2016) |    |
| Listed            | First Section of the Tokyo Stock Exchange                  |    |
| Domestic plants   | One each in Hirosaki, Namioka and Owani in Aomori          |    |
| Overseas plants   | Foshan, China and Hanoi, Vietnam                           |    |
| Consolidated subs | idiaries   | ĺ  |
|                   | United States, Cormony, France, Llong Kong, China (Changha | :\ |

United States, Germany, France, Hong Kong, China (Shanghai), Russia, and India

# **Outline of Business Operations**

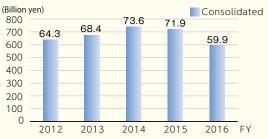


### [Employees]



shows the average number of temporary employees. Notes: 2. 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)

### [Net Sales for the Previous Five Years]



# Contents

| Message from the President  |
|---|
| Corporate Philosophy / Company Profile / Table of Contents ···· 2 |
| Tamron's CSR Management   |
| Participation in the UN Global Compact 4                          |
| Special Feature: Work-Life Balance                                |
| Relationship with Shareholders and Investors 7                    |
| Relationship with Business Partners                               |
| Relationship with Customers                                       |
| Management System ······ 13                                       |
| Relationship with the Environment                                 |
| Environmental Objectives and Targets Achieved … 16                |
| • Reducing $CO_2$ Emissions and Electricity Consumption … 17      |
| Reducing Waste and Water Consumption 18                           |
| Relationship with Society   |
| Activities at Tamron's Overseas Subsidiaries 21                   |
| Independent Third-Party Opinion                                   |
|   |
|   |



- •Environmental Accounting Guidelines (Ministry of the Environment) (FY2005 version)
- \*The GRI Sustainability Reporting Guidelines and ISO 26000:2010 Manual on Business Entities'Social Responsibility were also referenced to identify important information that should be disclosed to stakeholders.
- \*We made efforts to disclose information based on stakeholder perspectives. by referencing the warranty processes in the AA1000 Warranty Standard.
- \*The cover design was selected to express our stance toward contributing to the environment and achieving harmony with all stakeholders through our lenses.

2

# Tamron's CSR Management

# Enhancing Corporate Value

Tamron's CSR management is conducted under our corporate philosophy of contributing to the economy, society and environment as eyes for industry. Tamron also pursues CSR management through stakeholder engagement based on the Action Declarations, which define the stance the company should take toward stakeholders divided into the five categories of "customers," "employees," "shareholders," "business partners," and " society," and the Action Codes, which show how all Tamron employees should conduct themselves.

# Tamron's Action Declarations

#### From the customer perspective

Recognizing that customer satisfaction is of the highest importance, Tamron will contribute to society by supplying safe, high-quality original products and services.

#### From the employee perspective

In order to become self-reliant, each employee at Tamron works with a challenge-ready spirit, maintains good communications with fellow workers to create a lively work environment, and strives to yield the best possible results at all times while observing laws and regulations. Each and every employee at Tamron respects human rights to

support society as a good corporate citizen.

### From the shareholders/investor perspective

Everyone working at Tamron strives to enhance corporate value through faithful management, to proactively engage stakeholders, and to enhance stakeholder confidence in Tamron as a company worthy of long-term investment.

#### From the business partner perspective

By respecting human rights, complying with laws and carrying out fair and transparent business transactions, Tamron will ensure that it can build relationships with its business partners so that they deliver quality materials and services, achieve mutual growth and contribute to society.

### From the society perspective

- •Maintaining good communications with local communities, Tamron will strive to contribute to their growth while upholding their traditions and culture as a good corporate citizen.
- Tamron will observe laws and regulations, aiming to earn confidence from society as a good corporate citizen.
  Tamron takes a resolute stance against all anti-social forces and organizations that pose threats to the public order and
- safety of our civil society.
- •Tamron will work hard in NGO and NPO projects to help establish a good society.

# Communicating for CSR Promotion

Tamron's CSR Committee meets monthly to closely monitor the progress of CSR activities. The committee is an organization under the direct control of the President and CEO. Representatives from all divisions at the head office and plants in Japan and overseas meet through videoconferencing.

We are pleased to announce that our CSR report for 2016 was recognized with an award of excellence at the 20th Environmental Communication Awards sponsored by the Ministry of the Environment and the Global Environmental Forum, marking the three consecutive year that Tamron has won this award.



## Twelve Themes for Enhancing CSR Management (Identification of Key Issues)

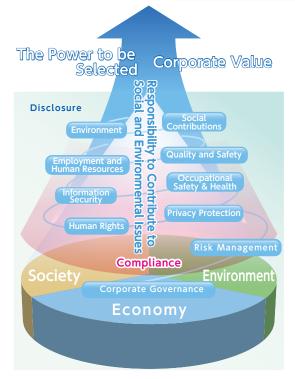
Tamron has been working to identify and analyze the key issues that it needs to focus on, taking into account the expectations of shareholders and the changes taking place in society and in the economy. Targets have been set for 12 key themes, including

themes relating to important issues of general concern such as "Environment" and "Quality and Safety," as well as themes relating more specifically to the foundations of the company's operations. By addressing these 12 themes, while paying attention to the needs of the environment, society and the economy, Tamron is aiming to make itself a company that has the power to be selected by customers.<sup>1</sup>

1. This is one of our corporate objectives, showing that we have the power to be selected and supported by customers.

### Twelve Themes Association table

| Twelve Themes                  | Relevant page |
|--------------------------------|---------------|
| Compliance                     | P7、14         |
| Corporate Governance           | P7            |
| Risk Management                | P13           |
| Environment                    | P8、12、15~18   |
| Disclosure                     | P7            |
| Quality and Safety             | P9~12         |
| Occupational Safety & Health   | P5~6、14       |
| Employment and Human Resources | P5 ~ 6        |
| Human Rights                   | P5~6、8        |
| Social Contributions           | P19~21        |
| Information Security           | P7            |
| Privacy Protection             | Р7            |



Twelve Themes for Enhancing CSR Management

# Participation in the UN Global Compact

In August 2007, Tamron began participation in the United Nations Global Compact in an effort to establish the foundations for its CSR initiatives. 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.

In FY2016 Tamron conducted training on the UN Global Compact, targeting the employees of Tamron Optical (Foshan) Co., Ltd., Tamron Optical (Vietnam) Co., Ltd., and Tamron's other overseas subsidiaries, as part of efforts to foster a strong recognition of the principles.

At the United Nations General Assembly in 2015, the Sustainable Development Goals (SDGs) were adopted.

The SDGs aim for every country and region to achieve 17 goals and 169 targets in the areas of poverty and inequality, education and the environment. Tamron has verified how these goals relate to its own business activities, and will proceed by taking into account the goals set forth in the SDGs as part of its efforts.



For further details about the GC, please visit the United Nations website at: WEB http://www.unglobalcompact.org/

## COP Report (Communication on Progress)

The following table describes Tamron's accomplishments and efforts during FY2016 in line with the Ten Principles.

|                 | Principles  | Tamron's Policies  | Resi   | ults for FY2016  | Relevant<br>Page         |
|-----------------|---|--|--|--|--------------------------|
| Human           | 1 Business should support and respect<br>the protection of internationally<br>proclaimed human rights.  | •We support basic human rights in our Action Declarations.   |  | • Carried out operations based on<br>the Human Rights Protection &   | P3                       |
| าan Rights      | 2 Business should make sure that<br>they are not complicit in human<br>rights abuses.   | <ul> <li>We declare respect for human rights and elimination of<br/>discrimination in our Compliance Regulations.</li> <li>We clarify management items for operations and strengthen<br/>checks and balances (established the Human Rights<br/>Protection &amp; Labour Standard Management Regulations for<br/>Japan and Tamron Optical (Foshan) Co., Ltd.).</li> </ul>  |  | Labour Standard Management<br>Regulations.<br>• Clarified management items for<br>operations and strengthened<br>checks and balances (Japan and<br>Tamron Optical Foshan).   | Р5 ~<br>Рб<br>Р8         |
|                 | 3 Business should uphold the freedom of association and the effective recognition of the right to collective bargaining.  | •We declare respect for the right of our<br>employees to organize in our Labour<br>Organization Mernorandum.   |  | <ul> <li>Established opportunities for periodic<br/>consultation between management and<br/>workers (including the Labour-Management<br/>Council, Annual Business Plan Presentation<br/>Meeting, etc.) (at Tamron's head office).</li> <li>Improve working conditions through labor<br/>union activities.</li> </ul> | Р5 ~<br>Рб               |
| Labour          | 4 Business should uphold the elimination of all forms of forced and compulsory labour.  | •We stipulate the importance of complying<br>with labour-related laws and regulations and<br>maintaining a proper work environment for our<br>employees in our Compliance Regulations.   |  | <ul> <li>Full-scale operation of the "Tamron<br/>Kids Day-care Center"</li> <li>Making every day a "no overtime"<br/>day (Tamron head office)</li> </ul>   | P5 ~<br>P6<br>P14        |
| ŭr              | 5 Business should uphold the effective abolition of child labour.   | We vow not to use child labour. We do not<br>employ workers under the age of 15, which<br>is stipulated in our employment rules.   | •Implemented CSR-<br>related e-learning,<br>with content   | <ul> <li>Established a manual to check the age of<br/>applicants at the time of hiring (Tamron<br/>Optical Foshan and Tamron Optical Vietnam).</li> </ul>  | P7                       |
|                 | 6 Business should uphold the<br>elimination of discrimination<br>in respect of employment and<br>occupation.  | •We have targets for employing persons<br>with disabilities and a policy to increase<br>the ratio of female managers in order to<br>realize a diversified work place.  | including the UN<br>Global Compact;<br>e-learning was<br>undergone by a total<br>of 1,489 employees. | Ratio of females promoted to management<br>positions: 11% (domestic)<br>Ratio of eligible employees taking parental<br>leave: 100% (domestic)<br>Ratio of hiring of persons with disabilities:<br>2.15% (domestic)   | Р5 ~<br>Рб               |
| Environment     | 7 Business should support a<br>precautionary approach to<br>environmental challenges.   | <ul> <li>We have a provision in our consolidated management<br/>policy to prevent environmental deterioration through<br/>efforts such as the following;</li> <li>(1) Reducing CO<sub>2</sub> emissions;</li> <li>(2) Reducing industrial waste;</li> <li>(3) Finding alternatives to harmful chemical substances;<br/>and reducing the use of harmful chemical substances</li> <li>(4) Conserving biodiversity</li> </ul> |  | Ratio of hiring of persons with disabilities:<br>2.15% (domestic)<br>Number of incidents involving<br>leakage of harmful chemical<br>substances: None<br>Support for ecosystem protection<br>(Tamron head office)  | P8<br>P12<br>P14~<br>P20 |
| hment           | <ul> <li>8 Business should undertake initiatives<br/>to promote greater environmental<br/>responsibility.</li> <li>9 Business should encourage the<br/>development and diffusion of<br/>environmentally friendly technologies.</li> </ul> | <ul> <li>We have a policy to clearly establish environmental objectives and targets for the following:</li> <li>(1) Reducing CO<sub>2</sub> emissions;</li> <li>(2) Reducing industrial waste emissions to ultimately achieve zero emissions; and</li> <li>(3) Promoting environmentally-friendly designs.</li> </ul>  |  | Rate of decrease in carbon dioxide<br>emissions: 17% increase (compared to<br>FY2012, on a unit sales basis)<br>Waste reduction target not achieved<br>Efforts to reduce product weight and size:<br>not achieved<br>Achieved compliance with laws and<br>regulations concerning chemical substances                 | P12<br>P14~<br>P18       |
| Anti-Corruption | 10 Business should work against<br>corruption in all its forms,<br>including extortion and bribery.   | •We have a policy to regulate acts of endowment<br>and political donations and terminate ties with<br>anti-social forces in our Compliance Regulations<br>and Action Declarations.   |  | •The Compliance Promotion<br>Committee held workshops for<br>employees to learn more about<br>compliance.  | Р7                       |

Δ

# Work-Life Balance

A diverse range of human resources work at Tamron's domestic and overseas To ensure the success of the employees supporting Tamron, we strive to evaluations and compensation, and mutual understanding.

### Initiatives Aimed at Work-Life Balance

Special

eature

Tamron pursues a number of initiatives aimed at promoting harmony between work and home life. Regarding overtime, in 2015 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. In the interests of managing employees' health and improving work efficiency at the head office, we recommend early morning work hours and have all but eliminated overtime after scheduled hours. After regular working hours, we patrol the office to make sure no employees other than those who have applied remain at work. By leaving work early, we expect employees to enjoy the company of their families as a source of vitality for the next day, and to make use of the extra time for personal skill improvement.

Under the revised Industrial Safety and Health Act, companies have been required to conduct stress checks since the end of 2015. Tamron has been conducting twice-yearly stress checks since 2008, the results of which are reported at Health and Safety Committee meetings and used to make improvements to the workplace environment. We also endeavor to prevent mental illness by providing health consultations in coordination with industrial physicians and conducting employee

# **Promoting Diversity**

Tamron believes in the importance of utilizing a diverse range of human resources and values in order to create new value, and aims to improve the percentage of female employees in management positions as a part of its diversity management<sup>1</sup> efforts. In FY2016, female employees accounted for around 11% of employees in management positions (domestic). Saitama Prefecture, where our head office is located, has been promoting the Saitama Prefecture Womenomics Project, which is designed to invigorate the prefectural economy through the power of women. As a part of this project, Tamron has been certified as a "Diversified Workstyle Promoting Enterprise." In recognition of systems that allow women to keep working after giving birth, such as the childcare support system that we will describe later, Tamron has been designated as a "Platinum" company, the highest designation under the scheme.2

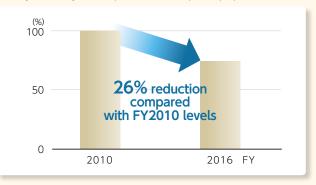
# Human Resource Development Systems

Tamron seeks to cultivate ambitious and self-disciplined employees. Our human resource development efforts are based on a three-pronged training system. We periodically provide rank-based training programs to help employees acquire the specific skills needed to do their jobs after joining the company, offer occupation-based training programs that teach the required competencies to engineers, sales staff and administrative staff, and run company-wide training programs that seek to improve individual skills.

In FY2016, we gave questionnaires to employees before they underwent occupation-based training. We compiled information on trainees' concerns and the topics they wished to touch on in training and provided this feedback to instructors, allowing them to develop more effective curricula. As part of technical training, we ran a workshop on software technologies related to the autofocus systems and actuator controls of interchangeable lenses. The workshop proved popular and elicited

interviews with HR staff. Additionally, we have made efforts to develop a workplace conductive to striking the right balance between home life and work. For instance, we have introduced a system that allows employees to use annual paid leave in hourly increments.

### (Change in average monthly overtime hours per employee) (Domestic)



We are also actively hiring local people at our overseas plants and sales subsidiaries. With the exception of the Vietnam plant, which only recently began full-scale operation, the presidents of all Tamron's overseas subsidiaries are appointed from the local workforce, and the companies are primarily run by local staff. These companies make use of the characteristics of the local communities as they go about their work. Japan requires companies to maintain a 2% hiring ratio for people with disabilities. Tamron has exceeded this ratio for the past six years. In FY2016. the ratio was 2.15%.

- 1. This refers to efforts to accept diversity including gender and racial differences and people of
- This feels to enoise to accept owestly including generation factor unreferees and people of different ages, characters, academic backgrounds and values, and to make broad use of human resources to improve productivity.
   Designated a "Platinum Company" under the "Diversified Workstyle Promoting Enterprise" program of Saitama Prefecture.

feedback from participants along the lines of "the workshop eliminated some doubts I've had on a daily basis and will serve as a useful reference in my work from here on out." Moving forward, Tamron will continue to conduct effective training to improve the skills of its employees.

### Training System Diagram



# $\sim$ Seeking a Healthy Mix between Work and Personal Life $\sim$

sites to deliver products and services that satisfy its customers. be a good company to work at and endeavor to create a fulfilling workplace based on fair

### Helping Employees Balance Childcare and Work

Tamron helps both male and female employees balance their work with their childcare responsibilities. For instance, the Tamron Kids Day-Care Center was opened at the head office. The center employs permanent nurses and also offers care for sick children to ensure peace of mind. In 2016, the center was certified as a "small-scale enterprise daycare center." Moreover, use of the center is not limited to just Tamron employees. Tamron set up slots for use by local residents and has

accepted five such children. On Sundays, the center's garden is also opened up to local residents.

Tamron Kids Day-Care Center also won an award as part of the Kids Design Award 2016<sup>3</sup> in recognition for a design that encourages children's creativity and opens the way to the future. Tamron reviews its main welfare systems concerning child and family care as needed. In FY2016, the application period for the short-term parental leave system available to male and female employees was extended from "within three months of childbirth" to "within six months." 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. 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.

3. An award organized by the Kids Design Association that selects and broadly disseminates throughout society exceptional products and spatial services that "allow children to lead safe lives," "cultivate children's sensibilities and creativity" and "create a society conducive to childbirth and childcare."

### Number of Female Employees Taking Paid Parental Leave<sup>4</sup>

| (employees)<br>250 |                   |                      |                       |                |                     |
|--------------------|-------------------|----------------------|-----------------------|----------------|---------------------|
|                    | Japan             | Tamron Optical (Fosh | an) Co., Ltd. (China) | Tamron Optical | (Vietnam) Co., Ltd. |
| 200 —              |                   |                      |                       | 444            | 128                 |
| 150 —              |                   |                      | 59                    | 111            |                     |
| 100 —              |                   |                      |                       |                |                     |
|                    | 76                | 2                    | 65                    | 46             | 53                  |
| 50 —               | 10                | 8, 30                | 24                    |                |                     |
| 0 —                | <u>10</u><br>2012 | 2013                 | 2014                  | 25<br>2015     | 28<br>2016 FY       |
|                    | 2012              | 2013                 | 2014                  | 2015           | 2016 FY             |

4. The name of the parental leave system varies from country to country. Employees at Tamron Optical (Foshan) Co., Ltd. in China are entitled to 178 days leave after childbirth (98 statutory + 80 recommended). Employees at Tamron Optical (Vietnam) Co., Ltd. can take up to six months' leave before and after childbirth. In Japan, male employees who have just become a father can take parental leave of up to one month. A total of 7 male employees took advantage of the system in FY2014, followed by 13 in FY2015 and 17 in FY2016.



### Main Benefits Programs for Childcare and Nursing Care (Japan)

| Program                       | Term   | Overview   |
|-------------------------------|--|--|
| Parental<br>leave             | Until the child turns 1<br>(Extendable up to 14 months of age)   | An employee can take leave to care for a child.  |
| Extended<br>parental<br>leave | Up to the day a child turns 18<br>months of age, or April 15 of the<br>year after the child turns one,<br>whichever is longer  | An employee can take leave if<br>certain circumstances apply,<br>such as being unable to find a<br>place at a day-care center. |
| Child care<br>leave           | Until the child begins elementary<br>school<br>(Up to 5 days per year)<br>(10 days if the employee has<br>two or more children)  | An employee can take paid leave<br>for a child care, vaccinations or<br>health checkup for a child.                            |
| Reduced<br>working<br>hours   | For an employee looking after<br>a child in the fourth grade in<br>elementary school or younger,<br>up until April 30 of the school<br>year in which the child becomes<br>a fourth grader in elementary<br>school. | An employee can shorten their<br>working day by up to two hours<br>as long as they work at least six<br>hours.                 |
| Nursing care<br>leave         | Up to a maximum of 93 day  | An employee can take leave<br>to provide nursing care to an<br>elderly family member in need.                                  |



I am responsible for performing strength and drop analyses on products. My wife, who works at another company, completed her parental leave at the end of February 2015 and needed to return to work, but we weren't able to get our child into a day-care center until April. I therefore decided to look after our child during that time and took one month of parental leave. The people in my department were very understanding regarding my taking the leave. My supervisor is also part of a family in which both parents work, and the process for taking the leave went smoothly. It was good to spend all that time together with my child during the leave period, and it provided insight into how hard it can be to raise a child that I could not have gained through simply helping out with household chores. My wife was also glad for me to learn the challenges of childcare, so I am glad I was able to take this leave. I hope society starts to regard male employees taking parental leave as something that is perfectly normal.

Development Section #2, Dept. #3, Integrated Core Technology R & D Unit Kiyohisa Nakajima

6

# Relationship with Shareholders and Investors

We are committed to fair and transparent management practices as well as enhancing corporate value, which is achieved by strengthening corporate governance to build up trust with shareholders and investors.

# Corporate Governance

### **Basic Policy**

Ever since the company was first established, we at Tamron have consistently pursued fair and transparent management practices in line with our management philosophy, respecting the rights and equality of our shareholders, and adopting an approach to corporate governance that emphasizes the maintenance of a good relationship with all stakeholders.

### Corporate Governance System Overview

Tamron has employed the Executive Officer System to speed up decision making and improve efficiencies, which has enabled it to establish a management structure capable of making accurate and strategic decisions. External Directors with expertise in their respective fields carefully monitor and advise the company regarding its execution of operations from an independent and fair standpoint. At the same time, Independent Auditors with expert knowledge of finance, accounting and legal affairs as well as Corporate Auditors well versed in Tamron's operations work together with the Accounting Auditor and Internal Audit & Supervision Board to carry out rigorous audit programs. Tamron appoints 15 Directors, of which 2 are External Directors, and 4 Corporate Auditors, of which 3 are Independent Auditors. Tamron respects the principles of the Corporate Governance Code which came into effect in June 2015, and is working to achieve a further strengthening of corporate governance, along with continued growth and the enhancement of corporate value over the medium and long term.

### (1) Board of Directors

Meetings of the Board of Directors are held twice a month, in principle, attended by all Directors and Corporate Auditors, for reviewing the execution of duties by the Directors and deciding on important issues as set forth in the basic policy of the company and related laws and regulations.

### (2) Board of Auditors

The Board of Auditors audits the processes of decision making by the Board of Directors and the execution of duties of Directors by attending the Board of Director meetings and checking approval documents. The Board of Auditors meets monthly, in principle.

### (3) Nominating Committee and Compensation Committee

To enhance the independence and objectivity of Board of Directors functions concerning director appointment, dismissal and compensation, Tamron has established a Nominating Committee and Compensation Committee. Each committee is chaired by an outside director, with a majority of its members outside officers (outside directors and outside auditors).

### (4) Executive Officer System

Tamron has employed the Executive Officer System to ensure separation between management and the execution of operations. Executive Officers carry out their duties and responsibilities following the basic policy determined by the Board of Directors.

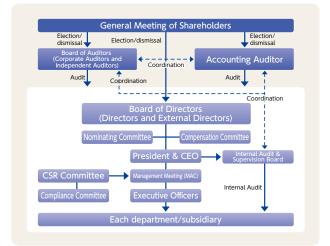
### (5) Internal Control through Committee Meetings

We regularly hold monthly management (MAC) meetings attended by all Directors, full-time Corporate Auditors and Executive Officers to discuss management issues and respond to the fast-changing management environment.

### (6) Accounting Auditor

Tamron has concluded an auditing agreement with Wako Audit Corporation and receives audit from this firm in its capacity as accounting auditor.

### Corporate Governance Structure



# Shareholder and Investor Engagement

In FY2016, Tamron held two earnings presentations, as well as hosting meetings and plant tours for institutional investors and securities analysts. In addition, Tamron continues to participate in conferences for domestic and international investors organized by securities companies.

We are committed to actively engaging our shareholders and investors through dynamic IR<sup>1</sup> activities.



An earnings presentation in progress

 IR stands for "investor relations," and means the implementing of activities to provide shareholders and investors with the information they need to make investing decisions.

# 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 FY2016, the committee conducted training on themes such as the protection of intellectual property rights necessary for engaging in a manufacturing business, and essential regulations concerning bribery of foreign government officials for global business activities. In addition, the committee periodically provides overseas subsidiaries with global legal information related to the Tamron Group's business activities, and discusses or supports response measures for legislation on privacy protection. Thanks to these company-wide initiatives, zero legal violations were reported in FY2016.

Note that of the twelve themes of Tamron's CSR activities, information security and privacy protection are managed appropriate based on internal regulations.

# Relationship with Business Partners

Tamron respects human rights, ensures compliance with laws and regulations, and establishes good relationships with business partners to grow and contribute to society together.

### Summary of Activities in FY2016

- Reform of chemical substance management systems
- Continued investigations in relation to conflict minerals

### Business Partner Accreditation Program for CSR Procurement

In order to contribute to society in accordance with its CSR policy and Action Declarations, Tamron works together with its business partners to comply with laws and regulations, and continually aspires to serve as a partner that delivers high quality products and services. For product and environmental quality<sup>1</sup>, we conduct surveys to check the status of our suppliers through on-site or paper-based audits in accordance with our assessment standards.

In 2008, we commenced CSR procurement and requested suppliers to comply with the Tamron Supplier Code of Conduct, which incorporates elements concerning labor, health and safety, the environment, ethics and management systems based on the EICC Code of Conduct<sup>2</sup>, to ensure we do business only with companies that act in accordance with these standards. Going forward, we will continue to strengthen our CSR procurement activities and re-examine initiatives for compliance with the help of suppliers.

- Environmental quality" means regulating the use of harmful chemical substances in products our suppliers deliver to us to ensure they fall below the threshold level stated in our standards.
- 2. The EICC 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.

### Procedures for Selecting Suppliers



### History of Our Activities

2008 Requested all business partners to comply with the Tamron Supplier Code of Conduct 2009 Requested respective business partners to perform

- selfevaluations(questionnaire) 2010 Introduced case examples on particularly important aspects such as "occupational health and safety" and "human rights protection" 2011 Held CSR Procurement Workshops for all business partners in
- Japan and abroad
- 2012 Continued to work on improving methods for checking business partner compliance with the Tamron Supplier Code of Conduct
- Held internal training sessions and in-house hearings 2013 Prepared questionnaire (draft)
- 2014 Revised questionnaire (draft) and examined ways of using the questionnaire
- 2015 Administered questionnaire (targeting those suppliers that were not covered by the 2009 questionnaire) 2016 Questionnaire Collection and Evaluation

### Tasks for FY2017

- Launch chemSHERPA scheme
- Further reinforce CSR procurement with business partners

# CSR Efforts in the Supply Chain

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

Tamron maintains a policy of avoiding the use of harmful chemical substances in the materials used to make its products. We ask business partners to manage chemical substances based on the standards in Tamron's environmental quality assurance system and confirm that suppliers meet these standards based on the environmental data<sup>3</sup> they provide to us.

In FY2016, we decided to introduce chemSHERPA<sup>4</sup>, a new scheme that facilitates sharing information on the chemical substances contained in products. During FY2017 we will brief all of our business partners on the scheme and commence its operation. The introduction of chemSHERPA is expected to reduce the workload associated with chemical substance management, including the collection of environmental data from suppliers and verification activities performed by Tamron.

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). To ensure conformity with the expanded scope of RoHS, Tamron has put in place new analysis methods. 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.

- 3. Such data and documents as the certificate of non-use of harmful chemical
- Stort data and documents as and MSDS.
   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. information

### **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 that violate human rights and cause environmental destruction. These minerals are now collectively referred to as conflict minerals and are regulated.

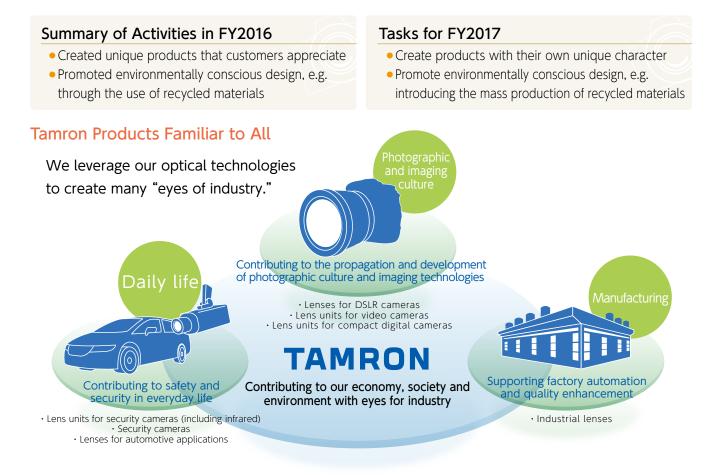
Tamron has declared a policy of not using illegal conflict minerals related to the violation of human rights or environmental destruction in order to fulfill its corporate social responsibilities within its procurement activities5. In FY2016, Tamron asked 258 of the company's suppliers to complete surveys relating to conflict minerals. All of the suppliers responded, submitting completed questionnaires in relation to a total of 7,006 component items. The survey results show no evidence that Tamron makes use of conflict minerals that are used to fund armed militants.

5. Please see our corporate website to view our policy on conflict minerals. WEB http://www.tamron.com/csr/procurement.html

8

# Relationship with Customers

Tamron is committed to contributing to society by supplying customers with safe, unique and quality products and services, putting the highest priority on satisfying customers, dealers and OEM customers.



# **Developing Unique Photographic Lenses**

The SP 150-600mm F/5-6.3 Di VC USD G2 (Model A022) released in September 2016 offered improved optical performance, close-up shooting capabilities, AF speed and precision and vibration compensation (VC)<sup>1</sup> as the successor to the highly-regarded Model A011. The ultra-telephoto zoom lens also represents a significant step forward as a next-generation

SP lens with the addition of several new features including a FLEX ZOOM LOCK mechanism<sup>2</sup> and fluorine coating<sup>3</sup>.



# Appraisals of Tamron's Products

The SP 85mm F/1.8 Di VC USD (Model F016) released in March 2016 was the world's first large-aperture f/1.8 medium-telephoto lens to feature a vibration compensation (VC) mechanism.<sup>1</sup> The Model F016 uses LD (Low Dispersion)<sup>4</sup> and XLD (Extra Low Dispersion)<sup>5</sup> glass elements to boost optical performance,

producing the ideal balance of a sharp image at the point of focus and soft, natural background effects. This outstanding performance won the lens a prestigious EISA Award in Europe.



Model F016

## Lens Awards

| Category                       | Model | Award   | Awarding Organization                           |
|--------------------------------|-------|---|---|
| Imaging<br>(Photographic lens) | F016  | EISA Award<br>European DSLR Lens 2016-2017 <sup>6</sup> | European Imaging and Sound Association (Europe) |

1. VC stands for Vibration Compensation, which helps prevent blurry images. Tamron lenses for Sony cameras do not offer Tamron's VC mechanism because Sony includes an imagine stabilizing mechanism in the body of its DSLR cameras.

The FLEX ZOOM LOCK mechanism quickly locks or unlocks the zoom at any position simply by sliding the zoom ring back or forth. This improves shooting convenience by preventing the lens barrel from moving unintentionally under its own weight.
 The fluorine coating is a coating with excellent water and oil-repelling properties applied to the front surface of the lens element. The coating makes the lens surface easier to wipe clean and offers excellent

durability. 4. A low dispersion (LD) lens reduces chromatic aberration for improved sharpness. It does this thanks to its extremely low dispersion index, which reduces the tendency to separate (diffract) a ray of light into a rainbow of colors. The lens also uses glass elements with a low refractive index. This type of lens elements reduces axial chromatic aberration that is particularly problematic at the telephoto end, and lateral chromatic aberration, which poses issues at the wide-angle end.

5. An Extra Low Dispersion (XLD) lens element corrects chromatic aberration to more sophisticated and thorough degree, producing sharp image quality with high contrast.

6. Tamron lenses have received an EISA award for eleven consecutive years since 2006. EISA is an acronym for European Imaging and Sociation. 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 Underpinning Safety and Security

### Lenses for Automobiles

As an important pillar of its businesses, Tamron manufactures and markets lens units (including infrared models) for indoor and outdoor security cameras, in order to contribute to the safety and security of society. In recent years we have also focused on the development of lenses for automobiles.

Broadly speaking, there are two categories of automotive lenses. First is automotive camera lenses installed on vehicles. The other is lenses used in traffic monitoring systems installed at points above roads. In the area of automotive camera lenses, Tamron develops lenses for rear-view cameras and birds-eye cameras and so on used for visual confirmation, as well as sensingtype lenses for use in emergency brake assist systems and lane keeping assist systems.

As regards traffic monitoring lenses, Tamron has developed a zoom lens that can be equipped with autofocus and remote operation capabilities, making it possible to flexibly monitor different types of road at different distances, and which incorporates image processing technologies so that users can extract the information they need for specific applications.

In June 2016, partial revisions were made to road vehicle safety standards, and the Ministry of Land, Infrastructure, Transport and Tourism began to allow the use of camera monitoring systems (CMS)<sup>1</sup> in place of components such as rearview mirrors. Progress is also being made in the development of self-driving systems, leading to a growing demand for high-performance lenses. Tamron will continue to support the safety of vehicles by creating high quality, high performance lenses tailored to each individual application.

1. According to the new standards, the camera monitoring system must provide an equivalent field of view to rearview mirrors that are currently required to be installed.

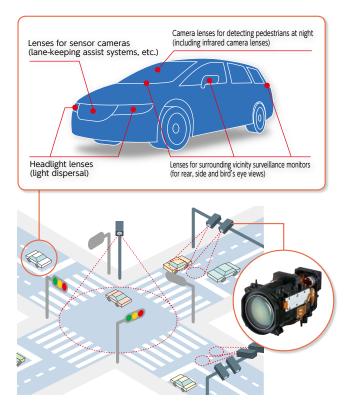
# Monitoring and Security Camera Lenses

As the security camera market has grown in recent years, the competition to develop ever more advanced technology has grown steadily more intense, and many manufacturers are now developing cameras equipped with high-pixel-count image sensors. Developed to meet the needs of customers, the wide-angle  $4K^2$  zoom lens (Model DE011) for use in cameras with built-in lenses is a new-generation zoom lens designed to accommodate high pixel count 4K images. The lens also supports the near-infrared region, and the higher resolution that this model provides means that the physical characteristics of people and objects can be captured in more detail, and sharp images that suit on-site investigations can be achieved even when covering a large area.

2. "4K" is a general term for imaging systems with resolution in the region of 4,000 (horizontal) by 2,000 (vertical) pixels; this is four times the pixel count of Full HD, the current mainstream specification.



Wide-angle 4K zoom lens (Model DE011) for use in cameras with built-in lenses



# Tamron's New Challenges

# Ultra-Compact Camera Module with Optical Vibration Compensation

To date, Tamron has developed lenses for a wide range of markets, including photographic lenses, video camera lenses and surveillance lenses. Utilizing the technology and expertise of a manufacturer engaged in the development of lenses with various applications and properties, in February 2016 Tamron released a compact camera module (Model MP1010M-VC) equipped with an industry-first<sup>3</sup> optical vibration compensation (VC) mechanism. Despite the built-in VC unit that suppresses vibrations during shooting, the modules achieves a small size (total length of 58.4mm) and light weight (77g). As this is a high-resolution camera module with a 10x optical zoom and support

for full HD video output (1080 @ 60p), it can be used in a wide range of applications including drones that require vibration compensation, compact size and light weight.

 Among mass-produced compact camera modules supporting 10x optical zoom As of December 2016, based on Tamron research.

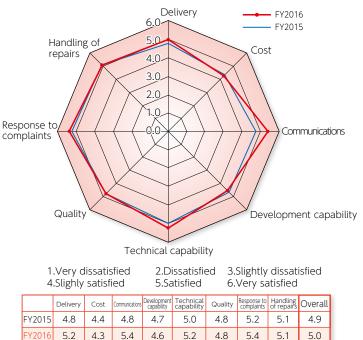


Model MP1010M-VC

## Evaluation by Distributors and OEM Customers

Each year, we ask our OEM customers and Tamron brand distributors to complete a customer satisfaction survey. In FY2016, the overall score received was 5.0 points (up 0.1 from the previous year), meeting our target. While the "Cost" and "Development capability" items recorded slight decreases (0.1 points down) compared with the previous year, Tamron was rated at the same or higher (up between 0.2 and 0.6 points) on all other items. Looking ahead, Tamron will devote all its strength to responding to the needs of its customers.

### Results of Customer Satisfaction Survey in 2016 (OEM Customers and Distributors)



The survey was conducted at 17 companies.

# Expanding After-sales Services Globally

-01

+0.2

0

+0.2

0

+0.1

This year marks six years since Tamron started its "worldwide 3-day repair turnaround program," where it returns repaired products within three days of receipt. Tamron has also continued with activities aimed at improving repair service satisfaction levels at each repair center. In Japan, Tamron has developed a system allowing it to reflect feedback from customers. Inquiries and requests regularly fielded from customers through each point of contact, such as the repair acceptance desk in Ueno, Tokyo or the Tamron Lens Customer Service Desk telephone service, are shared internally.

In addition, The Tamron Lens Life Members program, which allows members to receive the latest information and take advantage of various services, has proven exceptionally popular with customers. Tamron will continue to promote improvements to its global service structure to deliver high quality after-sales services that offer even greater satisfaction to customers.

## Enhancing our Technological Development Capabilities

# Maintaining high-performance anti-reflective properties through fluorine coating (Japan)

Tamron has developed a technology that maintains highperformance anti-reflective properties and makes it easier to wipe off attached dirt from the lens, by applying a fluorine coating to the front surface of the lens element. The coating was first used on the Model A012.

Conventional anti-dust coatings sometimes experienced degraded performance through exposure to harsh conditions, making them less effective. To address this, Tamron introduced

new film forming equipment and revised film forming techniques and conditions. This optimization allowed Tamron to devise a coating that will not degrade even under harsh conditions. The technology has now been deployed to Tamron's production sites, including overseas, to establish a new level of quality.



Effects of Fluorine Coating

### Initiatives to Enhance Productivity (Overseas) Shortening lead times and reducing costs at Tamron Optical (Foshan) Co., Ltd.

To respond to the rapid development of lens manufacturers in China and harsh competitive environment for security camera lenses, Tamron Optical Foshan established a product development team (Product Development Department). At first, engineers were selected from among those at the Foshan plant and dispatched to the Industrial Optics Business Unit at Tamron's head office, where they received training on optical, mechanism and electronics design. With these human resources playing a core role, Tamron is seeking to establish a development framework encompassing everything from design to mass production with shorter lead times and low costs, while also

recruiting new human resources. Tamron will endeavor to develop products that satisfy its customers while addresses quality, price and changing market conditions.



Tamron Optical Foshan Product Development Team (Product Development Department)

# Introducing Automation Equipment at Tamron Optical (Vietnam) Co., Ltd.

Tamron's production site in Vietnam is a new plant that began operating in 2013. The products currently being produced at the plant have been transferred from the Tamron Optical Foshan plant, and with the aim of stabilizing quality and streamlining

production, task automation equipment and automated inspection equipment from the Foshan plant have also been installed. From FY2016, new equipment that performs two tasks (automated adhesive coating and hardening treatment) with a single unit was installed, resulting in a significant boost to productivity. Efforts to improve productivity are also being made elsewhere, such as the adoption of appearance testing equipment that automatically determines print omissions and misalignments on the external components of products.



Adhesive automated coating and hardening equipment

Gap

+0.4

-01

+0.6

## **Environmentally Friendly Design**

Tamron performs product assessments starting from the design stage, to ensure that we deliver products that are environmentally friendly. 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 FY2016 included a 1.6% increase in light weight design and a 0.6% increase in volume.<sup>1</sup> The major factor in these results is accommodating changes to the design concept for interchangeable photography lenses. Moreover, in the interest of people's health and to reduce the impact its products have on the environment, Tamron practices the appropriate management of chemical substances based on its internal Environment-related Substance Management Regulations, 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>

In FY2016, Tamron examined the sharing of different production line equipment for photographic and industrial optics-related businesses, and commenced operation on lines for some new products. Doing so reduces the types of equipment used, and leads to a lower environmental impact in terms of resource and energy consumption during production. Tamron will continue to pursue equipment standardization on its production lines moving forward.

In order to reduce the amount of waste deriving from manufacturing processes, the rear caps for Tamron's DSLR camera lenses are made using 100% recycled plastic runner materials.<sup>3</sup> From FY2010 to FY2016, we used a cumulative total of 130 tons of recycled material (in 5.88 million rear caps).



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".

### The Process of Pre-consumer Closed Recycling

### Lens Assessment Item Table

| Evaluation Items                  |   |  |  |  |  |
|-----------------------------------|---|--|--|--|--|
| 1. Extended usage of lens         | 7. Reduced use of packaging materials                                     |  |  |  |  |
| 2. Light weight design            | <ol> <li>Use of recycled materials for<br/>packaging materials</li> </ol> |  |  |  |  |
| 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<br>environmental substances           |  |  |  |  |
| 6. Ease of disassembly            |   |  |  |  |  |

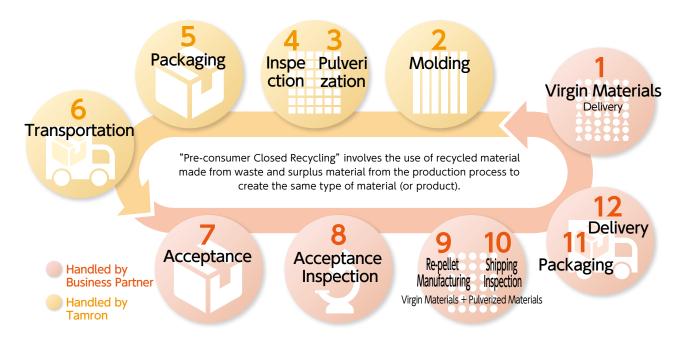
 Calculated using production volume from FY2016 comparing conventional models.
 For more information about Tamron Eco Label certified products, please visit the Tamron website:

WEB http://www.tamron.com/csr/environmental\_activities.html

3. Waste material that occurs when pouring plastic resin during the production process.

### **Component Recycling**

In order to further reduce the generation of waste, Tamron has been implementing activities that emphasize "3R" (Reduce, Reuse, Recycle). In particular, we have been focusing on reducing the amount of plastic waste generated, which amounted to over 150 tons per year. Targeting the effective utilization of plastic runner material3, Tamron has held Integrated Design, Production Technology and Production Sub-committee meetings at which new recycling methods were considered. As a means of reducing waste while maintaining quality standards and ensuring that product functionality is not affected, Tamron adopted "Preconsumer Closed Recycling." Starting in FY2017, Tamron plans to use recycled materials in the mass production of filter screw rings, one of the components of lenses for interchangeable lens cameras. Tamron will continue to expand the introduction of recycled materials in components, examine new areas to target and promote waste reducing and recycling.



# Management Systems

At Tamron, we strive to enhance our product and service quality while reducing environmental impacts through our integrated management system. Additionally, we ensure the continuity of our business by avoiding various management risks using our risk management system.

# **Integrated Management System**

Tamron has been awarded blanket ISO 9001 (quality) and ISO 14001 (environment) certification applicable to the entire Tamron Group's integrated management system, including Tamron's head office, its domestic sites including the Hirosaki, Namioka and Owani plants, as well as overseas production sites including Tamron Optical (Foshan) in China. Tamron has also completed its migration to the new ISO 9001, 14001-2015 edition of the standards. Tamron's plant in Vietnam is also operating after obtaining blanked ISO 9001 and 14001 certification. Under this integrated management policy, Tamron aims to achieve the development of high-quality products that are used safely and securely by customers and provide satisfaction, while also taking environmental considerations into account. Since FY2016, Tamron has also integrated its risk management system (which in the past was based on ISO 31000), facilitating the smoother implementation of its business processes.

# Audit System and Identifying Problems

Tamron regularly performs internal quality and environmental audits covering the head office and three Aomori plants. In addition to the internal audit, the head office and three Aomori plants audit each other to check their systems and manufacturing processes. We periodically arrange to receive audits from external audit organizations to maintain certifications while continually improving the integrated management system. As a result of external audits implemented in FY2016, the effectiveness of the policy and management processes adopted at our sites was assessed at level 3 on a scale of one to five. We quickly develop improvements to address in the areas identified in these three audits, disseminate the improvements throughout the Tamron Group, and endeavor to continually improve in our activities.

# **Risk Management**

In the past, Tamron has used a risk management system based on the ISO 31000 standard and identification of risks and opportunities through SWOT analysis to build consensus in the management review process. In FY2016, to coincide with the revision of the ISO 9001 and 14001 standards, we identified both external and internal issues, determined priority risks in terms of risk and opportunity, and translated this into action. In terms of business continuity planning (BCP), we have completed development at Tamron's plant in Foshan, China in addition to the head office and three plants in Aomori Prefecture, and the necessary systems have already been put in place. Tamron is also working to strengthen its crisis management systems so as to be prepared in the event that a major natural disaster does occur in the future.

### **Responding to Emergencies**

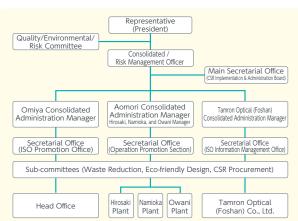
As part of their risk management initiatives, Tamron's head office and three plants in Aomori Prefecture, as well as Tamron Optical Foshan, hold firefighting drills led by employees, while departments that handle chemicals carry out emergency response drills for chemical spills. Additionally, Tamron's head office stepped up its initial response capabilities, by implementing training on how to start back-up power generators in case of a blackout in accordance with the BCP and by making changes to its emergency contact system.

## **Integrated Management Policy**

As a member of the international optical industry, we will continue to manufacture products that deliver customer satisfaction and help achieve our goal of Contributing to Society by Creating Eyes for Industry, while being considerate of environmental conservation.

- 1. We will supply our customers with high quality and reliable products by using our originality, ingenuity and technology, pursuing sustainable development with profits arising out of customer delight and satisfaction.
- 2. We will keep abreast of both internal and external issues affecting the company, as well as the needs of employees, shareholders, customers, suppliers and other stakeholders, so as to maintain an accurate awareness of risks and opportunities.
- 3. In running our business, we will comply with all related laws, standards and treaties at home and abroad, respecting the requests and demands made by our customers and the local community.
- 4. We will work on preventing environmental contamination, reducing  $CO_2$  emissions, as well as reducing waste emissions and the use of harmful chemicals, while seeking alternatives and contributing to the safeguarding of biodiversity.
- We will continue to work on improving the effectiveness of our integrated management system.
- 6. To achieve this management policy, we will establish specific objectives and targets, periodically evaluating our progress.
- 7. To enhance recognition of our integrated management, we will maintain good communications while providing sufficient education and training to all people working for Tamron.
- We will closely cooperate with society in all countries and regions where we operate and disclose information to stakeholders as necessary on our quality assurance and environment conservation efforts.
- 9. To ensure the company's smooth operation, without the occurrence of negative impacts on the economy, society or the environment, we will implement preventative actions to the maximum extent possible in line with the company's Integrated Management System; in the event that a negative impact does occur, we will fulfill our responsibility to society by taking prompt action to mitigate the damage and support recovery efforts, and will also take steps to prevent reoccurrence.

March 30, 2016 Integrated Management System Representative



### Integrated Management System Implementation System

## Creating Safe and Comfortable Workplace Environments

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. To ensure appropriate health and safety, we have set out Occupational Health and Safety Regulations and established an Occupational Health and Safety Committee, with patrols being carried out by health and safety administrators to prevent occupational accidents, etc.

In FY2016, there were 16 occupational accidents (11 of which occurred in Japan and five of which occurred in Tamron Optical (Foshan) in China, with none occurring at Tamron Optical (Vietnam) and six commutingrelated accidents (all of which occurred in Japan). Most of the commuting-related accidents occurred while employees were commuting by bicycle. While the occupational accidents most commonly involved injuries sustained while falling at production sites, one female employee at Tamron Optical (Foshan) in China passed away due to acute brain hemorrhaging. The employee had previously appeared sick but upon examination no abnormalities were discovered and she continued to work. To prevent a reoccurrence, training efforts were stepped up, and all employees at Tamron Optical (Foshan) in China were encouraged to seek examination at a hospital if feeling unwell, instead of putting themselves under unnecessary strain. In the future, we will analyze the causes of individual cases and thoroughly implement measures to prevent recurrences.

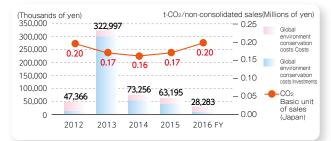
Regarding commuting-related accidents, we hold traffic safety seminars to boost awareness and are making efforts to prevent accidents, including the recurrence of similar accidents. In addition, to prepare for serious accidents, each year we hold regular first-aid training sessions covering topics such as CPR, and take measures to minimize injuries.

Regarding mental health issues, mental health checks are held twice a year. In-house seminars are also held in relation to self-care and caring for one's direct subordinates; in FY2016, a total of 70 employees participated in these seminars. Tamron also provides services such as health consultations as part of its efforts to create a safe and health workplace environment.

# Environmental Accounting (Japan)

In FY2016, total environmental accounting in Japan amounted to investments of 6.13 million yen and costs of 256.69 million yen. (Check the Tamron website to see the environmental accounting spreadsheet for FY2016). The changes in investments and costs related to reducing CO<sub>2</sub> emissions (i.e. global environment conservation costs), which is a particularly important item, are shown in the graph below. In FY2016, a total of 28.28 million yen was spent on investments and costs associated with reducing CO<sub>2</sub> emissions.

### <Change in Global Environment Conservation Costs>



# Compliance with Laws and Regulations

In FY2016, Tamron ensured an adequate response to the stress check system and other requirements under revised Industrial Safety and Health Law. The PCB Special Measures Law also underwent revision. In compliance with the law, Tamron engages in the proper storage and disposal of PCB<sup>1</sup>. With regard to Tamron's Foshan Plant in China, environmental regulations concerning water quality were revised, and the amount of sludge generated increased due to efforts to accommodate the new regulations. We will undertake thorough management efforts to ensure that sludge and effluent are disposed of and treated appropriately. (See Page 18 of this report for information about the change in waste production). In addition, in compliance with a Guangdong Province clean production review request issued to key businesses, an on-site review was conducted by clean production review experts representing the Foshan Environmental Protection Bureau in August 2016.

Similarly, our plant in Vietnam was free of regulatory violations. On another front, in regard to the REACH regulations (the scope of which has been expanded to cover additional substances), Tamron has taken steps to verify the content levels of Substances of Very High Concern (SVHC). As a result, Tamron had no incidents relating to compliance with environmental laws and regulations in FY2016, reflecting our commitment to abiding by the requirements of the law.

The state of compliance with major laws and regulations including those described above are presented in the following table.

1. PCB is an abbreviation of Poly Chlorinated Biphenyl. While PCB has generally been used as an insulating oil for electrical equipment and as a heating medium for heat exchangers, adverse health effects due to the gradual accumulating of PCB following chronic ingestion have been reported.

### 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 plants | Foshan | Vietnam |
|---|----------------|---------------|--------|---------|
| Energy saving (Energy Saving Act)   | 0              | O             | —      | —       |
| CO <sub>2</sub> reduction (Act on Promotion of<br>Global Warming Countermeasures) | O              | O             | —      | —       |
| Chemical substance management <sup>2</sup>  | O              | 0             | O      | O       |
| Air   | O              | O             | O      | O       |
| Water quality   | © <sup>3</sup> | O             | O      | O       |
| Soil  | O              | O             | O      | O       |
| Noise   | 0              | 0             | 0      | 0       |
| Vibration   | O              | 0             | O      | O       |
| Odor  | O              | 0             | O      | O       |
| Occupational health & safety  | O              | O             | O      | O       |

Laws related to managing and investigating chemical substances apply to domestic sites; international directives including RoHS and REACH apply to the entire group.

3. Values for groundwater temporarily exceeded certain standards, but our treatment measures prevented contamination from spreading outside our facilities

\*Please see past CSR reports for costs prior to FY2015. \*The greenhouse gas coefficient from the Greenhouse Effect Gas Measuring & Reporting Manual Version 4.2 is used for managing medium-term targets with a benchmark year of FY2012. For consistency purposes, this same coefficient has been used to re-calculate basic unit of CO<sub>2</sub> emissions from FY2011 to FY2016.

# Relationship with the Environment

Tamron is considerate of the environment in all aspects of its business operations and constantly works to be in harmony with the environment.

### Summary of Activities in FY2016

- Implemented measures to reduce CO<sub>2</sub> emissions
- Implemented environmental management systems

## Environmental Impacts

In Japan, Tamron carries out design work, creates prototypes and fabricates metal molds at its head office plant located in Saitama Prefecture, while the Namioka Plant manufactures lenses, the Owani Plant molds plastic components, and the Hirosaki Plant assembles products. Tamron manufactures parts and assembles products at Tamron Optical (Foshan) in China and at Tamron Optical(Vietnam).

These sites use electricity, heavy oil, kerosene and other energy sources for developing, designing and manufacturing, which produce CO<sub>2</sub>. Our plants in Namioka, Foshan and Vietnam also use water for polishing and cleaning lens elements.

The Owani Plant and Tamron Optical (Foshan) manufacture plastic components used to make peripheral components for

### Tasks for FY2017

- Examine ways to reduce CO<sub>2</sub> emissions further
- Ensure implementation of environmental management systems

lenses, and these processes produce runner materials<sup>1</sup> and other waste. Air cargo, marine shipping, and trucks are used to transport components and products between plants, which results in  $CO_2$  emissions from the burning of fuel. (Please see p. 17 of this report for more data on "reducing CO<sub>2</sub> emissions and electricity consumption," and p. 18 for details on "reducing waste and water consumption.)

1. Waste material that occurs when pouring plastic resin during the production process.

## Inputs (2016)

| Ene  | rgy   | Wate   | ·  | Т        | ransport  | ation energy <sup>2</sup>                                |
|--|---|--|--|----------|---|--|
| Electric power 7   |   | Clean water  | 609,000m   |          | esel  | 152k <i>l</i>  |
| Heavy oil  | 210kℓ   | Groundwater  | 180,000m <sup>*</sup>  |          | asoline   | 46k <i>l</i>   |
| Kerosene   | 10kℓ  | Total  | 789,000m <sup>*</sup>  |          | otal  | 198k <i>l</i>  |
| Diesel   | 16kℓ  |  |  | IC       | JLAI  | 1906.6   |
| Gasoline   | ]kℓ   | Raw/auxiliary r  | naterials  |          |   |  |
| LPG  | 5,000m <sup>*</sup><br>100,000m*  | Metal (brass and alu   | ıminum)  |          |   |  |
| Natural gas  | ·   | Glass  |  |          |   |  |
| Total  | 699,000GJ   | Plastic  |  |          |   |  |
| Par  | per   | Chemicals (drugs, solvents   |  |          |   |  |
| Copy paper   | 22t   | Gas (nitrogen, oxyger<br>Electrical componer   |  |          |   |  |
| сору рары  | 221   | Cardboard  | 113  |          |   |  |
|  |   |  |  |          |   |  |
|  |   |  |  |          |   |  |
|  | _   |  |  |          |   |  |
|  |   | Developme  | nt, design and   |          | Transpo   | rtation between  |
| Manufacturing of ra  |   |  |  |          |   | 1 10 1 11 1  |
| Manufacturing of ra  |   |  |  |          |   | and distributors   |
| Manufacturing of ra<br>components at   |   |  | n at Tamron  |          |   | commercial vehicles)                                     |
|  |   |  |  |          |   |  |
| components at  | suppliers   |  |  |          |   |  |
|  | suppliers   |  |  |          |   |  |
| components at  | suppliers   | productio  | n at Tamron  |          |   |  |
| components at  | suppliers   |  | n at Tamron  |          | (logistics/c                                    |  |
| Components at  | suppliers<br>2016)<br>D2  | productio  | n at Tamron  |          | (logistics/c                                    | commercial vehicles)                                     |
| components at  | suppliers   | productio  | n at Tamron  | Di       | (logistics/c                                    | commercial vehicles)<br>Is during transport <sup>2</sup> |
| components at<br>Outputs (<br>CC<br>Electric power   | suppliers<br>2016)<br>22<br>41,541t-CO2   | productio<br>Recyclin<br>Plastic <sup>4</sup>  | n at Tamron<br>ng<br>173t<br>284t  | Di<br>Ga | (logistics/c<br>CO2 emission<br>esel<br>asoline | to during transport <sup>2</sup><br>397t-CO2<br>107t-CO2 |
| components at<br>Outputs (<br>CC<br>Electric power<br>Heavy oil  | suppliers<br>2016)<br>22<br>41,541t-CO2<br>570t-CO2   | productio<br>Recyclin<br>Plastic <sup>4</sup><br>Cardboard   | n at Tamron<br>ng<br>173t<br>284t  | Di<br>Ga | (logistics/c                                    | to during transport <sup>2</sup><br>397t-CO2             |
| components at<br>Outputs (<br>CO<br>Electric power<br>Heavy oil<br>Kerosene  | suppliers<br>2016)<br>22<br>41,541t-CO2<br>570t-CO2<br>25t-CO2<br>42t-CO2<br>3t-CO2   | Productio<br>Recyclin<br>Plastic <sup>4</sup><br>Cardboard<br>General waste (thermal rec   | n at Tamron<br>173t<br>284t<br>yyding) 160t<br>118t<br>78t   | Di<br>Ga | (logistics/c<br>CO2 emission<br>esel<br>asoline | to during transport <sup>2</sup><br>397t-CO2<br>107t-CO2 |
| components at<br>Outputs (<br>Electric power<br>Heavy oil<br>Kerosene<br>Diesel  | 2016)<br>2016)<br>22<br>41,541t-CO2<br>570t-CO2<br>25t-CO2<br>25t-CO2<br>3t-CO2<br>30t-CO2  | Plastic <sup>4</sup><br>Cardboard<br>General waste (thermal rec<br>Waste liquid  | n at Tamron<br>173t<br>284t<br>ycling) 160t<br>118t  | Di<br>Ga | (logistics/c<br>CO2 emission<br>esel<br>asoline | to during transport <sup>2</sup><br>397t-CO2<br>107t-CO2 |
| components at<br>Outputs (<br>Electric power<br>Heavy oil<br>Kerosene<br>Diesel<br>Gasoline  | suppliers<br>2016)<br>22<br>41,541t-CO2<br>570t-CO2<br>25t-CO2<br>42t-CO2<br>3t-CO2   | Plastic <sup>4</sup><br>Cardboard<br>General waste (ithermal red<br>Waste oil<br>Metal<br>Paper  | n at Tamron<br>173t<br>284t<br>284t<br>118t<br>78t<br>145t<br>32t  | Di<br>Ga | (logistics/c<br>CO2 emission<br>esel<br>asoline | to during transport <sup>2</sup><br>397t-CO2<br>107t-CO2 |
| components at<br>Outputs (<br>Electric power<br>Heavy oil<br>Kerosene<br>Diesel<br>Gasoline<br>LPG   | 2016)<br>2016)<br>22<br>41,541t-CO2<br>570t-CO2<br>25t-CO2<br>25t-CO2<br>3t-CO2<br>30t-CO2  | Plastic <sup>4</sup><br>Cardboard<br>General waste (thermal red<br>Waste liquid<br>Waste oil<br>Metal<br>Paper<br>Polishing sludge                   | n at Tamron<br>173t<br>284t<br>284t<br>160t<br>118t<br>78t<br>145t<br>32t<br>12t                         | Di<br>Ga | (logistics/c<br>CO2 emission<br>esel<br>asoline | to during transport <sup>2</sup><br>397t-CO2<br>107t-CO2 |
| components at<br>Outputs (<br>Electric power<br>Heavy oil<br>Kerosene<br>Diesel<br>Gasoline<br>LPG<br>Natural gas<br>Total   | suppliers<br>2016)<br>2<br>41,541t-C02<br>570t-C02<br>25t-C02<br>42t-C02<br>3t-C02<br>20t-C02<br>221t-C02<br>42,432t-C02  | Plastic <sup>4</sup><br>Cardboard<br>General waste (ithermal red<br>Waste oil<br>Metal<br>Paper  | n at Tamron<br>173t<br>284t<br>284t<br>118t<br>118t<br>78t<br>145t<br>32t<br>12t<br>14t                  | Di<br>Ga | (logistics/c<br>CO2 emission<br>esel<br>asoline | to during transport <sup>2</sup><br>397t-CO2<br>107t-CO2 |
| Components at<br>Coutputs (<br>Electric power<br>Heavy oil<br>Kerosene<br>Diesel<br>Gasoline<br>LPG<br>Natural gas<br>Total<br>Waste contracted for in                     | suppliers<br>2016)<br>22<br>41,541t-CO2<br>570t-CO2<br>25t-CO2<br>42t-CO2<br>3t-CO2<br>30t-CO2<br>221t-CO2<br>42,432t-CO2<br>42,432t-CO2<br>termediate processing   | Plastic <sup>4</sup><br>Cardboard<br>General waste (thermal red<br>Waste liquid<br>Waste oil<br>Metal<br>Paper<br>Polishing sludge                   | n at Tamron<br>173t<br>284t<br>284t<br>160t<br>118t<br>78t<br>145t<br>32t<br>12t                         | Di<br>Ga | (logistics/c<br>CO2 emission<br>esel<br>asoline | to during transport <sup>2</sup><br>397t-CO2<br>107t-CO2 |
| Components at<br>Coutputs (<br>Electric power<br>Heavy oil<br>Kerosene<br>Diesel<br>Gasoline<br>LPG<br>Natural gas<br>Total<br>Waste contracted for ir<br>Industrial waste | Suppliers           2016)           2           41,541t-C02           570t-C02           25t-C02           42t-C02           3t-C02           221t-C02           42,432t-C02           termediate processing           3           1,238t | Plastic <sup>4</sup><br>Cardboard<br>General waste (thermal red<br>Waste liquid<br>Waste oil<br>Metal<br>Paper<br>Polishing sludge<br>Other<br>Total | n at Tamron<br>173t<br>284t<br>284t<br>160t<br>118t<br>78t<br>145t<br>32t<br>12t<br>12t<br>14t<br>1,016t | Di<br>Ga | (logistics/c<br>CO2 emission<br>esel<br>asoline | to during transport <sup>2</sup><br>397t-CO2<br>107t-CO2 |
| Components at<br>Coutputs (<br>Electric power<br>Heavy oil<br>Kerosene<br>Diesel<br>Gasoline<br>LPG<br>Natural gas<br>Total<br>Waste contracted for in                     | suppliers<br>2016)<br>22<br>41,541t-CO2<br>570t-CO2<br>25t-CO2<br>42t-CO2<br>3t-CO2<br>30t-CO2<br>221t-CO2<br>42,432t-CO2<br>42,432t-CO2<br>termediate processing   | Plastic <sup>4</sup><br>Cardboard<br>General waste (thermal red<br>Waste oil<br>Metal<br>Paper<br>Polishing sludge<br>Other                          | n at Tamron<br>173t<br>284t<br>284t<br>160t<br>118t<br>78t<br>145t<br>32t<br>12t<br>12t<br>14t<br>1,016t | Di<br>Ga | (logistics/c<br>CO2 emission<br>esel<br>asoline | to during transport <sup>2</sup><br>397t-CO2<br>107t-CO2 |
| Components at<br>Coutputs (<br>Electric power<br>Heavy oil<br>Kerosene<br>Diesel<br>Gasoline<br>LPG<br>Natural gas<br>Total<br>Waste contracted for ir<br>Industrial waste | Suppliers           2016)           2           41,541t-C02           570t-C02           25t-C02           42t-C02           3t-C02           221t-C02           42,432t-C02           termediate processing           3           1,238t | Plastic <sup>4</sup><br>Cardboard<br>General waste (thermal red<br>Waste liquid<br>Waste oil<br>Metal<br>Paper<br>Polishing sludge<br>Other<br>Total | n at Tamron<br>173t<br>284t<br>284t<br>160t<br>118t<br>78t<br>145t<br>32t<br>12t<br>12t<br>14t<br>1,016t | Di<br>Ga | (logistics/c<br>CO2 emission<br>esel<br>asoline | to during transport <sup>2</sup><br>397t-CO2<br>107t-CO2 |



Head office (including Tokyo Sales Office and Osaka Sales Office), the three plants in Aomori Prefecture, Tamron Optical (Foshan) and Tamron Optical (Vietnam).

2.Data during transportation covers energy used to transport parts and finished products by ground and commercial vehicles connecting Tamron's five satellite offices in Japan and Tamron Optical (Vietnam). Tamron Optical (Foshan) data covers company-owned vehicles only. Gasoline consumption for FY2015 was incorrectly reported as 38kl. The correct figure is 51kl. Similarly, the correct total is 237kl.

### Site coverage: 95%

Head office (including the Tokyo Sales Office and Osaka Sales Office), Tamron's three plants in Aomori Prefecture, Japan, the Tamron Optical (Foshan) plant in China, and Tamron Optical (Vietnam).

### Use by customers

Reference guideline:

Manual for Calculating and Reporting Greenhouse Gas Emissions Ver. 4.2

3.Industrial waste includes 1.2 tons of Pollutant Released & Transfer Registered (PRTR) substances. 0.3 ton of a PRTR substance (xylene) was also released into the was atmosphere.

4.The amount of plastics recycled represented 57t of thermal energy and 116t of material.

# Environmental Objectives and Targets Achieved

While we worked toward achieving medium-term environmental objectives and targets for the fourth year of the program, we failed to meet the  $CO_2$  emissions reduction target.

# Achievement of Environmental Objectives and Targets in FY2016

The Tamron Group has established a target to reduce its CO<sub>2</sub> emissions compared to its benchmark year of FY2012 by 1% per year on average in terms of basic unit per sales<sup>1</sup> and also a medium-term environmental target to reduce emissions by 7.7% by FY2020. In FY2016, while the target was to achieve a 4% reduction in CO<sub>2</sub> emissions, emissions actually rose by 17%, missing the target. This is primarily due to the fact that electricity consumption not envisioned during the benchmark year of FY2012 was added to our operations. For this reasons, we have reconsidered our CO<sub>2</sub> emissions reduction target. In light of the Paris Agreement<sup>2</sup> and JEITA<sup>3</sup>, Tamron's medium-term environmental target has been revised to a 16.55% reduction from FY2016 levels by FY2030. In keeping with this new target, we will endeavor to reduce CO<sub>2</sub> emissions at a rate of approximately 1.3% per year in FY2017 compared with FY2016 levels on a basic unit per sales basis.

As regards environmental impacts other than CO<sub>2</sub> emissions, each Tamron site has set individual targets, because each site manufactures a different category of products. In FY2016 we were unable to meet two targets. The first of these was a target for

reduction of the amount of waste plastic generated by the Mold & Tooling Technology Center at Tamron's head office; this target was not achieved due to a 1.15-fold increase in the quantity of plastic formed resulting from a change in operational utilization. The second target was for a reduction in the amount of industrial waste generated at the Tamron Optical (Foshan) plant in China; in regard to this target, there was an increase in the amount of recovered sludge so as to reduce the chemical oxygen demand (COD) value, and an increase in the amount of waste liquid processed due to changes to cleaning processes.

In FY2017, Tamron's Waste Reduction Sub-committee will handle matters related to the reduction of industrial waste, while the Integrated Design, Production Technology and Production Subcommittee will address the promotion of environmentally friendly products<sup>4</sup>. These sub-committees manage horizontal targets and carry out their activities through the manufacturing process.

The organizational chart for each sub-committee is provided in the Integrated Management System Implementation System diagram on page 13 of this report.

### FY2016 to FY2030 Mid-Term Environmental Targets<sup>5</sup> Progress in FY2013 to FY2016

| Reduction   |   | FY2013         | FY2014                    | FY2015                    | FY2016                    |
|---|---|----------------|---------------------------|---------------------------|---------------------------|
| rate of<br>CO:<br>emissions<br>per basic<br>unit of<br>Average annual reduction of 1.3% | CO2reduction target<br>(versus FY2012 basic unit of sales; cumulative annual average) | 1% reduction   | 2% reduction<br>(approx.) | 3% reduction<br>(approx.) | 4% reduction<br>(approx.) |
| 6206  | Results   | 3.6% reduction | 0.3% reduction            | 5.6% increase             | 17% increase              |
| (benchmark year) 2016 2030 (mid-term target year)                                       | Status  | 0              | Х                         | Х                         | Х                         |

### Environmental Targets Achieved in FY2016

| Environmental targets                          |                                | FY2016 targets   | FY2016 results   | Status |
|--|--------------------------------|--|--|--------|
|  | Head Office<br>(Mold & Tooling | Waste plastics volume 3% reduction vs. 2015 (basic unit of sales)  | 10% increase   | ×      |
|  | Technology<br>Center)          | Material recycling <sup>6</sup> rate for waste plastics 40%  | 64.5%  | 0      |
| Reduce industrial<br>waste                     | 3 Aomori plants                | Material recycling rate for waste plastics<br>Hirosaki Plant : 50%   | Hirosaki Plant : 52.4%   | 0      |
|  |                                | Namioka Plant : 25%  | Namioka Plant : 25.8%  | 0      |
|  |                                | Owani Plant : 6%   | Owani Plant : 6.1%   | 0      |
|  | Tamron Optical<br>(Foshan)     | Industrial Waste Reduced by 2% compared to 2015 (basic unit of sales)  | 22% increase   | ×      |
| Promote<br>environmentally-<br>friendly design | All sites                      | <ul> <li>Promoted environmentally-friendly<br/>designs</li> <li>Incidents of environmental non-<br/>conformity: 0</li> </ul> | <ul> <li>Promoted environmentally-friendly designs Lightweight: 1.6%<br/>increase, Compact: 0.6% increase (compared to convention-<br/>al models; calculated based on 2016 production volume)</li> <li>Incidents of environmental non-conformity: 0</li> </ul> |        |

### Environmental Targets for FY2017

| Environmental targets                         |   | FY2017 targets   |   |  |  |  |  |  |  |  |
|---|---|--|---|--|--|--|--|--|--|--|
| CO <sub>2</sub> reduction target              | All sites   | Reduce CO <sub>2</sub> emissions by approximately 1.3% compared to FY2016 (basic unit of sales; cumulative annual average) | 1. Basic unit per sales:<br>Total CO2 emissions (t-CO2)   |  |  |  |  |  |  |  |
|   | Head Office (Mold &<br>Tooling Technology Center) | Waste plastics volume 3% reduction vs. FY2016 (basic unit of sales)<br>Material recycling rate for waste plastics 50%      | Consolidated sales (million yen)<br>2. A multilateral international agreement to curb   |  |  |  |  |  |  |  |
| Reduce industrial<br>waste                    | 3 Aomori Plants                                   | Material recycling rate for waste plastics Hirosaki Plant :50%<br>Namioka Plant :25%<br>Owani Plant :6%                    | climate change adopted on December 12,<br>2015 in Paris, where the 2015 United Nationals<br>Climate Change Conference (COP21) was held,<br>and went into effect on November 4, 2016.<br>The agreement set forth overall targets such as |  |  |  |  |  |  |  |
|   | Tamron Optical (Foshan)                           | Industrial Waste Reduce by 2% compared to FY2016 (basic unit of sales)   |   |  |  |  |  |  |  |  |
| Promote environmentally-<br>friendly products | All sites   | <ul> <li>Promote environmentally-friendly designs</li> <li>Incidents of environmental non-conformity: 0</li> </ul>         | limiting the average rise in global temperatures<br>to under 2°C compared with pre-industrial lev-<br>els.  |  |  |  |  |  |  |  |

3. 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 not span becomes and the inclusion of the electronics and information technology industry as well as facilitate the development of the Japanese economy and cultural prosperity by pro-moting the sound production, trade and consumption of electronic equipment and components.

4. Promoting lightweight, compact designs and the use of recycled materials in line with our product assessment regulations

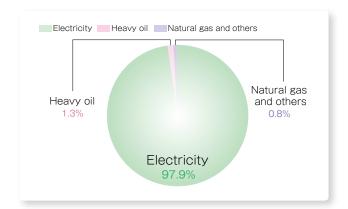
5. The greenhouse gas coefficient from the Greenhouse Effect Gas Measuring & Reporting Manual Version 4.2 is used for managing medium-term targets with a benchmark year of FY2016. 6. Material recycling refers to the collection and utilization of used products and waste generated from production processes as raw materials to make new products. Tam'ron recycles runner materials as waste plastics and prioritizes material recycling over thermal recycling so that recycled materials can be reused offsite. The material recycling ratio of waste plastics indicates the percentage for which material recycling was carried out compared to the total amount of waste plastics.

# Reducing CO<sub>2</sub> Emissions and Electricity Consumption

Tamron strives to reduce  $CO_2$  emissions and electricity consumption at the company's plants using its integrated management system.

# Breakdown of CO<sub>2</sub> emissions

As regards the sources of  $CO_2$  emissions (excluding distribution and logistics) from Tamron's head office, the three plants in Aomori Prefecture, Tamron Optical (Foshan) in China and Tamron Optical (Vietnam), electricity usage accounts for 97.9%, followed by heavy oil at 1.3%. Given this mix, our energy saving activities focus on reducing electricity consumption.



# Trends in CO<sub>2</sub> Emissions

Since FY2011, CO<sub>2</sub> emissions from Tamron's head office, the three plans in Aomori Prefecture, Tamron Optical (Foshan) in China and Tamron Optical (Vietnam) have been on the rise, but in FY2016, overall CO<sub>2</sub> emissions fell 7.4% compared to FY2015 levels. Viewed by geographic location, our sites in Japan saw a 3% decrease, while Tamron Optical (Foshan) saw a 7.9% decrease and Tamron Optical (Vietnam), which began operations in 2013, reduced emissions by 12%.

In FY2017, we will begin introducing solar power generation at Tamron Optical (Foshan), and continue to examine ways to make energy saving improvements at the three plants in Aomori Prefecture through the use of electricity consumption "visualization" and other methods.

The basic unit of sales for overall  $\rm CO_2$  emissions increased 17% compared with FY2012 level.

| Head office | Hirosaki Na    | mioka Owani            | Tamron Optical (F |                | Optical (Vietnam) 🧿 Basic                                |
|-------------|----------------|------------------------|-------------------|----------------|--|
| 45,000 (t-  | CO2)           |                        | 44,281            | 45,814         | 42.432 + 00x/  |
| 40,000 -    | 38,826         | <b>39,744</b><br>2.504 | 5,848             | 7,084          | 42,432 t-CO <sub>2</sub> /<br>6,224 (Millions<br>of ven) |
| 35,000 -    |                |                        |                   |                | 0.708 - 0.70   |
| 30,000 -    | 0.603          | -0                     | 0.601             | 0.637          | - 0.60   |
| 25,000 -    |                | 0.581                  |                   |                | - 0.50   |
| 20,000 -    | 27,492         | 27,545                 | 28,229            | 27,826         | <b>25,630</b> - 0.40                                     |
| 15,000 —    |                |                        |                   |                | - 0.30   |
| 10,000 -    | 727            | 671                    | 640               | 636            | <b>483</b> – 0.20  |
| 5.000 -     | 6,478          | 5,149                  | 5,384             | 5,965          | <b>6,043</b><br><b>1.028</b> - 0.10                      |
| 0 —         | 1,207<br>2,922 | 1,143<br>2,732         | 1,200<br>2,980    | 1,238<br>3,065 | 3,024  |
| 0           | 2012           | 2013                   | 2014              | 2015           | 2016 FY  |

 The greenhouse gas coefficient from the Greenhouse Effect Gas Measuring & Reporting Manual Version 4.2 is used for managing medium-term targets with a benchmark year of FY2012. For consistency purposes, this same coefficient has been used for this report to re-calculate basic unit of CO<sub>2</sub> emissions from FY2010 onward.

# Measures to Reduce CO<sub>2</sub> Emissions

In FY2016, Tamron implemented activities through the CO<sub>2</sub> Emissions Reduction Committee, which is focused mainly on Tamron's head office and the three plants in Aomori Prefecture, and used streamlined electric power management sensors to identify excess power usage. When excess power was discovered, the committee examined whether reductions could be made. When possible, reduction measures including operational improvements were implemented and the effects verified. At Tamron Optical (Foshan), 6,200 lights were switched to LED, and improvements were also made to the compressor cooling system. At Tamron Optical (Vietnam), fluorescent lighting was reduced in areas that do not require as much light, such as warehouses, hallways and stairwells. Electricity usage was also reduced by adjusting air conditioning equipment to produce appropriate temperatures for each season. Tamron will continue to work on further CO<sub>2</sub> reductions by sharing information and taking a long-term approach in considering the introduction of energy-saving equipment.

The measures taken to reduce  $CO_2$  emissions in FY2016 are outlined below.



Streamlined electric power management sensor (being used to measure the electric power consumption of an NC lathe machine at the Hirosaki Plant)

### Main CO<sub>2</sub> Emissions Reduction Measures Implemented in FY2016

| Site Name                                   | Measure  | Reduction<br>Effects (t-CO <sub>2)</sub> |
|---|--|--|
| Head<br>Office                              | Replacing mercury lamps with LED equipment<br>(Mold & Tooling Technology Center)     | 8  |
|   | Improving compressor operation (Mold & Tooling Technology Center)                    | 4  |
| Hirosaki<br>Plant                           | Improving operation of alumite machine   | 1  |
| Namioka<br>Plant                            | Improving operation of $\phi$ 950 continuous evaporation machine                     | 13                                       |
| Owani<br>Plant                              | Improving operation of cooling water circulation pump and AC-2 air conditioning unit | 45                                       |
| Tamron<br>Optical<br>(Foshan)<br>(in China) | Improvements to Plant No. 1 compressor cooling system                                | 11                                       |
|   | Switching over to LED lights (6,200 lights)  | 37                                       |
| Tamron<br>Optical<br>(Vietnam)              | Reducing the number of fluorescent light in shared spaces                            | _  |
|   | Revising temperature settings for air conditioning equipment                         | -  |

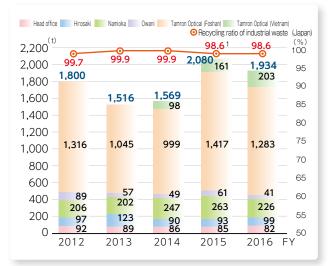
# Reducing Waste and Water Consumption

Tamron is working to reduce waste and water consumption by improving the way in which business division operates.

### Waste Reduction Initiatives

The total amount of waste generated in FY2016 by the Tamron Group as a whole, including Tamron Optical (Foshan) in China and Tamron Optical (Vietnam) decreased by 7% compared with FY2015. At Tamron Optical (Foshan), improvements were made by abolishing the process of soaking polished and processed soft glass materials in methanol and placing the materials immediately into cleaning equipment, resulting in an approximate 84 kg reduction in the amount of waste generated for the year. In addition, improvements to cleaning methods in optical manufacturing reduced the amount of cleaning fluids used by around 8 tons.

In FY2017, the Waste Reduction Sub-committee and the Integrated Design, Production Technology and Production Sub-committee will be working to reduce the amount of waste generated.



1. The FY2015 industrial waste recycling rate (domestic) was revised from 99.9% to 98.6%.

# **Environmental Education Initiatives**

Tamron regularly holds environment-related training. In FY2016, we provided training for 47 members of the Integrated Management Promotion Committee, focusing in international trends and legislation in relation to global warming. We also offer training on subjects such as the United Nations Global Compact and a summary of the 2016 CSR Report in an e-learning format. 1,489 employees across Tamron including our domestic sites, Tamron Optical (Foshan) in China and Tamron Optical (Vietnam) have undergone this training.

In addition, 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), as part of the company's efforts to raise environmental awareness among all of the executive officers and employees at the head office. In FY2016, Tamron received praise

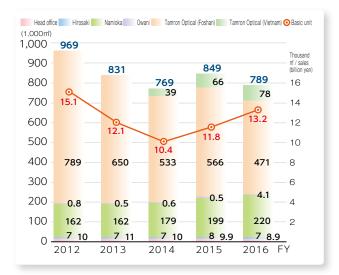
from Saitama City Government for the second year running for the positive contributions made by the company's restrictions on commuting by car.  $CO_2$ emissions were reduced by a total of 13.6t- $CO_2$  through Tamron's implementation of the No My Car Day and Eco Life Day programs in 2016.



Tamron was a recipient of the Smart Mobility award

## Trends in Water Consumption

The total water consumption of the Tamron Group as a whole in FY2016 decreased by 7% compared with FY2015. At Tamron Optical (Foshan) in China, initiatives including the recovery and re-use of wastewater from pure water cleaning resulted in a reduction of around 17%. At Tamron Optical (Vietnam), initiatives were started by displaying the "Water Conservation" catch-phrase. The increase in consumption at the Namioka Plant is due to the introduction of new equipment. A new cooling tower was installed in an effort to circulate cooling water and reduce the amount of water used. The sharp increase in water consumption at the Owani Plant is due to malfunctioning equipment, and consumption has now been restored to normal levels. Moving forward, Tamron will continue with efforts to reduce water consumption.



## Improvements to Logistics

Economic development tends to be associated with increased  $CO_2$  emissions, which contribute to global warming. Over the past several years, Tamron has been working to improve international logistics to reduce the  $CO_2$  emissions in the logistics process. Tamron has worked on reducing  $CO_2$  emissions for transport to Narita Airport for shipments from overseas production plants to other countries. These improvements have had the effect of reducing  $CO_2$  emissions by 244t- $CO_2$  in FY2016. We also plan to relocate our domestic distribution base from Aomori Prefecture to Saitama Prefecture. This should reduce the air transportation in product shipments from our warehouses to customers, and allow us to switch to truck-based transportation. Moving forward, we will continue to work on making improvements to logistics.

# Relationship with Society

Tamron supports activities that contribute to the development of photographic and imaging culture, while striving to be a company that fosters future generations, takes part in local communities and is beloved by society.

# **Contributions to Photographic Culture**

### The 9th 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, a photo exhibition is held at the Omiya Sogo Department Store showcasing the 87 winning entries. This local event is made possible with the much-appreciated support of the City of Saitama, the Saitama Chamber of Commerce and Industry and the Saitama City Board of Education. The 9th Railroad Scenery Photo Contest received strong support from a host of different individuals, including amateur photographers and railway fans. A total of 7,098 submissions were received for the general and student divisions combined, marking the highest number of entries to date.



General Division Grand Prize (Saitama City Mayor's Prize) Mr. Takahiro Araki "A Chance Encounter on a Snowy Day" "Nagahama, Shiga Prefecture – On a clear day with freshly fallen snow, the miracle when a white-colored train encounters a brisk world of white. The dazzling reflection looked divine."



Student Division Grand Prize (Saitama City Board of Education Superintendent's Award) Mr. Hogara Kurihara "Safety First! A Scene of Summer" "Haga District, Tochigi Prefecture - A peaceful shot of summer as elementary school students traverse a level crossing with their hands raised."

Humorous Photo Contest Award (Saitama City Chamber of Commerce and Industry President's Award) Mr. Noriyuki Sugiyama "Dig in"

"Hamamatsu, Shizuoka Prefecture - At Hamanako-Sakume Station along the Tenryu Hamanako Railroad. Black-headed gulls landed on my head."



### 13th Macro Lens Photo Contest

This photo contest accepts entries shot from any macro lens, regardless of manufacturer. For the 13th contest a total of 4,796 entries were received. The contest has two categories: the Nature Division for nature enthusiasts that enjoy taking pictures of plants and insects and the Genre-Free Division for amateur photographers using DSLR cameras to take pictures of food, their children or pets. Many of the entries featured beautiful, warm natural scenes captured delicately in only ways a macro lens can.



13th Macro Lens Photo Contest Grand Prize Mr. Masaki Yamada "Lake Biwa Fireworks Festival"

# Growing Together with Local Communities

### Supporting Adaptive Athletes

Tamron has provided support to adaptive athletes to spread recognition of adaptive sports through the power of sports photography. In September 2016, three athletes supported by Tamron took part in the Summer Paralympics in Rio de Janeiro and made an excellent showing. New preparations are already underway with sights set on the Tokyo Paralympics to be held in 2020. Tamron will continue to support these athletes as they train day-in, day-out to attain their goals.

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





Ms. Tsuchida

Ms. Takakuwa



Mr. Hokinoue

### Accepting Company Tours

As part of efforts to cultivate future generations, Tamron welcomed the students of Namerikawa High School from Toyama Prefecture for a company tour. At Tamron's head office, the students toured the Mold Techno Center (mold manufacturing and processing), the CSR analysis lab, electrical equipment monitoring room, Tamron Kids Day-care Center, rooftop greening area and other locations. The students showed an interest in the CSR analysis lab, which analyzes the chemical substances contained in Tamron products,

our initiatives aimed at product quality control and energy conservation, along with the Tamron Kids Day-care Center. We endeavor to contribute even in a small way to students developing an idea of their future professions.



Scene from a Company Tour (Mold Processing)

### 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 shorttoed eagles visit the area to feed.



Shibakawa Daiichi Flood Control Reservoir

# Contributions to the Local Community Made by the Three Tamron Plants in Aomori Prefecture

The three Tamron plants in Aomori Prefecture run bottle top and pull-tab collection activities, with the proceeds being donated to charity. In FY2016, 104 kg of pull-tabs were collected, with the proceeds donated to the Hirosaki Social Welfare Council. The plants also contributed to their local communities by sponsoring local festivals (including the Historic City of Hirosaki Fireworks

Festival and the Owani Hot Springs Summer Festival). In addition, each of the plants takes part in monthly clean-up activities (except during the winter months from December through to March) of the surrounding area, while volunteer Tamron employees also take part in river clean-up activities held twice a year in Hirosaki City. Going forward, the three plants will continue to make a concerted effort to contribute to their local communities.

### Science Classes for Children

Tamron has organized science classes for children at local public halls and elementary schools in Saitama City since 2008 to spur interest in the sciences. In FY2016, we held a total of 9 classes, with a total of 256 people participating.



Certificate of appreciation received for the pull-tab donation



Touring class "Milk carton camera"

### Supporting the Cookie Project

Tamron provided advertising support and donations to Cookie Bazaar 2016 held in Saitama City in March 2016 and organized by the Cookie Project. This organization works to help the disabled live independently in the community.



Cookie bazaar 2016

# Activities at Tamron's Overseas Subsidiaries

Tamron's subsidiaries outside Japan continue to strengthen their relationship with local communities.

# Tamron Europe GmbH

Six years have passed since, as part of the expansion of the company's premises, Tamron Europe installed 344 photovoltaic (PV) panels on its roof to generate its own power and reduce  $CO_2$  emissions. In FY2016, due to unfavorable weather conditions, the amount of power generated by these PV panels decreased by 4% to 62,000 kWh from the previous year, equivalent to a reduction in  $CO_2$  emissions of 44t- $CO_2$ . To date, the system has produced a total of 378,000 kWh of electric power and reduced  $CO_2$  emissions by approximately 270 tons.

As part of its CSR activities begun in 2009, Tamron Europe also continues to provide donations of 10,000 Euros to an organization in Cologne (Koln) that provides support for children with cancer. The group has undertaken wide-ranging activities such as newly establishing and renovating hospital wings within university hospitals, constructing and operating lodgings where family members accompanying patients undergoing treatment can stay, providing financial assistance for families of patients, and promoting research into new treatments. Moving forward, Tamron will continue to support the cause as much as possible.

# Tamron Optical Shanghai

Since 2014, Tamron Optical Shanghai has been implementing a scholarship program called "Tamron – Stars of Tomorrow" at Sichuan University of Media and Communication, China's secondlargest media-focused university. Under this program, every year students with the highest grades are awarded a scholarship in order to help realize the dreams of the young people who will be playing key roles in the fields of photography and the media in the future.

As a related project, Tamron is holding photography seminars at Sichuan University of Media and Communication, taught by leading Chinese photographers, to give students the opportunity to experience taking photos with Tamron's lenses. In FY2016, two of these photography seminars were held. Tamron also donated two cardboard boxes worth of clothing (around 80 items of clothing) to Bao Bei Ai Qing Kong, which runs the collection event twice a year. The donated clothing is distributed through the charity organization to disaster affected areas and districts suffering from poverty.

# Tamron USA

Tamron USA took part in the Dress a Girl for her Prom project which donates dresses and accessories that are no longer used so that more female students can attend their schools' proms, traditionally held around the time of high school graduation in the United States, without suffering an economic burden. In a continuation of its support from the previous year, Tamron once again took part in the Food Drive project that delivers food supplies to people that need them, and the Toys for Tots project that delivers Christmas presents to children staying in facilities or otherwise disadvantaged.

As an independent initiative, Tamron USA also ran a Youth Summer program, where it invited the children of employees for work experience during the summer holidays. By showing children who will lead the future the sight of their parents working and giving them hands-on experience with the work, Tamron hopes to instill the necessary attitude for when the children take up jobs for themselves in the future.



Rooftop PV panels as Tamron Europe GmbH



Photography class at Sichuan University of Media and Communication





Dress a Girl for her Prom project

 WEB
 Dress a Girl for her Prom
 https://www.jlli.org/

 Food drives
 https://www.licares.org/

 Toys for Tots
 http://www.toysfortots.org/

# Independent Third-Party Opinion



Professor Makoya Kageyama

### [Current Title]

Professor, International College of Arts and Sciences, Yokohama City University

#### [Career History]

- 1989 Graduate School of Commerce, Waseda University Completed doctoral program
- Appointed Full-time Lecturer at the Department of Commerce, Yokohama City University 1990 Appointed Assistant Professor at the Department of Commerce, Yokohama City University
- 2001 Appointed Professor at the Department of
  - Commerce, Yokohama City University

2005 Appointed Professor at the International College of Arts and Sciences, Yokohama City University

[Areas of Specialization] Economic theory, economic systems theory, and regional CSR theory

#### [External Activities]

Director, CSR Center, Yokohama City University Chairman, Yokohama Green Purchasing Network Advisor, Alterna Research Institute Advisor, JES

#### [Works Authored]

etc

Why do the Companies Employing the Handicapped Continue Getting Good Business Results? (Chuohoki Publishing Co., Ltd.) How Regional CSR Can Save Japan (Keibundo) The Economics of the Global Economy and Human Lifestyles (Keibundo) The CSR Management Revolution (co-author) (Chuokeizai-sha Inc.) Yokohama's Industry and Urban Development (co-author) (Gakubunsha)

# Further Enhancement through Coordination with the Outside and Self-recognition

In the manufacturing industry, quality initiatives focused on improving product quality have become increasingly important in the production of products that customers can see with their own eyes. Tamron deserves recognition for not only working to improve lens precision, operability and design, but also for continuing to focus on supply chain management, enhancing resilience to vibrations and dropping, conducting inspections for harmful substances using in-house equipment, evaluating its business partners and exhibiting a thorough commitment to quality.

Environmental initiatives are an essential part of this "quality" in every industry today, but manufacturing tends to have a large environmental impact, requiring manufacturers to step up their efforts in this regard.

Tamron, which has placed a priority on reducing CO<sub>2</sub> emissions and industrial waste while developing environmentally friendly products, has failed to meet its CO<sub>2</sub> reduction targets. Nonetheless, as well as ascertaining the causes and tackling improvements, Tamron's corporate attitude of disclosing this information in its CSR report is worth of praise.

Corporate attitude, which is linked to the quality of management, carries particular importance in today's world, where the role of branding has continued to change. For instance, carefully crafted social contributions have become an effective part of management strategy in recent years.

In terms of well thought-out social contributions on the part of Tamron, it has contributed to the development of photographic culture by holding railroad landscape photo and macro lens contests. Its efforts to support three adaptive athletes by

### **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. The special feature section of the 2017 report focuses on initiatives related to work-life balance, support for parents trying to juggle childrearing with work, and efforts towards achieving diversity.

Universal design (UD) fonts have been used for the Japanese version of this report to make sure that the content of the report can be read by as many people as possible. We sincerely hope that this report, and the way it has been presented, will help readers to learn more about Tamron.

We will be responding to the views expressed in the independent third-party opinion by working to promote creativity and self-direction among our employees, and we will also be striving to develop global CSR management. We encourage readers to share their frank comments and requests, so that we can use them to improve next year's report.

photographing and disseminating scenes of their successful activities is another good example. As a manufacturer of camera lenses, social contributions that involve photography offer a storytelling element that has allowed Tamron to convey its sentiments towards different causes.

That said, even when a company itself disseminates its social contributions, sometimes those efforts fail to reach stakeholders, or the sentiment behind them may not be fully communicated. As such, it will be necessary to strengthen coordination with adaptive sport support groups, NPOs and other organizations to ensure the message reaches people more effectively.

The employees implementing Tamron's CSR initiatives on the ground provide the support for these efforts, and moving forward it will be necessary to foster the development of highly motivated employees who understand their own roles. Tamron Kids, the inhouse day-care facility, is one initiative that ensures a comfortable environment for employees and strengthens Tamron's unifying force as an organization. What's more, the day-care center is open to the local community, making it an excellent example of local contribution.

To further enhance its CSR activities in the future, Tamron will need to evaluate each initiative from the perspective of management strategy. While sales serve as an indicator by which to evaluate products, social contributions and environmental initiatives also need to be assessed. Further, if Tamron can gain an understanding of the internal elements and structural links that enhance employee motivation and its ability to put CSR into practice, it should be able to enhance its CSR efforts on a practical level.





Tamron Optical (Foshan)



Tamron Optical (Vietnam)



Tamron Co., Ltd. CSR Implementation & Administration Board

1385 Hasunuma, Minuma-ku, Saitama-city, Saitama 337-8556 Japan Tel. +81-48-684-9190 Fax. +81-48-677-6653 E-mail: e-report@tamron.co.jp Website: http://www.tamron.com/

Published March 2017