



IBIDEN Co.,Ltd.  
Corporate Social Responsibility  
Report 2018



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## Top Message



A handwritten signature in black ink, which appears to read "T. Aoki".

Takeshi Aoki  
President & CEO

The IBIDEN Group was founded in 1912 as Ibigawa Electric Power Co., Ltd. with the aim of regional economic development. Throughout our long, 105-year history, the environment surrounding the Group has undergone much change. No matter what circumstances we have found ourselves in, however, we have been united in our efforts to master our own, enduring technologies. Our history has been one of continued endeavor to develop products to meet the needs of the time.

Today, once again, the environment surrounding the Group is in the midst of major change. To overcome these changes and achieve sustained growth for the next 100 years, the IBIDEN Group has established the new medium-term management plan, called "To The Next Stage 110 Plan," which covers the five-year period starting from the fiscal year ending March 31, 2019 (fiscal year 2018). In this new plan, with human resources development as a foundation, we will aim to achieve stable growth by strengthening the competitiveness of our existing businesses and launching new businesses. We will also pursue management based on environment, social, and governance (ESG) in our bid to be a company that has the trust of all of its stakeholders.

On a foundation of human resources development, we will aim to be a company in which diverse people can contribute with vibrancy  
In response to a changing business environment and to create a foundation for corporate growth, we are placing efforts into human resources development. We have established a new Human Resource Development Center in the Technical Development Operation, with the aim of passing on IBIDEN's technological capabilities to future generations and cultivating people who possess the skills for next-generation development.

Further, in addition to the "IBI-TECHNO Innovation," through our ongoing efforts in the areas of Genchi (actual site), Gembutsu (actual thing), and Jigakari (on-site solution of problems), 5S, TPM, own-process completion, and cross-sectional teamwork, we will endeavor to achieve new growth by giving each individual member a sense of ownership of their work, with supervisors talking often to their subordinates, sharing their goals with them and delegating authority in flexible ways, to maintain high motivation among all employees.

We will fulfill our responsibility as a company and contribute to solving social issues through our business

If we turn our attention to the changes in the world, a variety of social issues have been emerging. These include global environmental issues such as pollution of the air, soil, and water sources, and the existence of people who are still being treated unfairly due to human rights violations. In 2015, as ways of solving the pressing problems the world is facing, the United Nations declared the Sustainable Development Goals (SDGs), with the aim of achieving them by 2030.

Our corporate philosophy is "We will treasure people and the global environment and contribute to the enrichment of society through innovative technologies." Using the technologies we have cultivated to date, we have contributed to solving social issues through our business. It is our corporate responsibility to respond to the changing issues facing society and to continue our business-led contributions to their solutions. We also believe that such a path will lead to the expansion of our business and the sustained enhancement of our corporate value. By putting our corporate philosophy into practice, we will continue to contribute to the achievement of the SDGs.

We will also disclose information about our ESG activities and communicate these activities to a wider audience. In doing so, we will pursue highly transparent corporate management that will receive the trust and commendation of all of our stakeholders.

We will value communication with our stakeholders.

We will communicate with our stakeholders and pursue mutual cooperation in our approaches to CSR activities. To obtain the understanding of our stakeholders, the I Biden Group will actively disclose information about its financial circumstances, products, and CSR and endeavor to achieve highly transparent corporate management. I do hope you will enjoy reading about our initiatives in this report and that you will offer your opinions and impressions.

# The IBIDEN Group's CSR Management

## IBIDEN WAY

The power that has enabled IBIDEN “to overcome many adversities with all our employees and to continue to exist,” and “the wisdom and vitality that have achieved dramatic growth in recent years” - these have persisted throughout IBIDEN's long history. The systematization that carries this on, transcending borders, is the “IBIDEN WAY.”



### MISSION

It is the fundamental perspective of the existence value and purpose of this company.

We contribute to the progression of society through innovative technology, with respect for both individuals and the global environment.

### SPIRIT

We share our spirits with all staffs globally. And through accomplishing these, “Corporate Philosophy” will be realized.

- Trust through Integrity
- “Wa” Teamwork and Synergy
- Challenge with Passion
- IBI-TECHNO Innovation

## To The Next Stage 110 Plan

The business environment surrounding the IBIDEN Group is changing drastically, and global competition between companies is extremely intense. In response, the IBIDEN Group launched the medium-term (5-year) management plan, “To The Next Stage 110 Plan,” in the fiscal year ending March 31, 2019 (fiscal year 2018) to achieve our sustainable success for the next 100 years and smoothly conquer future changes in the environment.

Built upon nurturing our people, we will be strengthening our existing businesses and launching new ventures to achieve stable growth. We will be driving the ESG principles in our operations to earn trust from all stakeholders.

### **Period**

FY2018 to FY2022; a five-year term

### **Pillar of the strategy**

- Strengthen the competitiveness of existing businesses
- Expand new businesses
- Cultivate human resources
- Promote ESG management

### **Target management indicators (FY2018 to FY2022)**

- Capital expenditures: a total of ¥190 billion
- Depreciation and amortization: a total of ¥190 billion
- R&D expenses: The ratio of R&D expenses to consolidated net sales will be maintained at the level of 5% or more.

This report describes mainly the Group's activities in global CSR management based on the medium-term management plan, “Challenge IBI - TECHNO 105 Plan,” for fiscal year 2017. From fiscal year 2018, we have started concrete initiatives to promote ESG management by further enhancing our CSR management.

# CSR Policy and Promotional structure

All CSR activities at the IBIDEN Group are based on our MISSION of “We contribute to the progression of society through innovation technology, with respect for both individuals and the global environment.” We pursue activities that enhance the reliability and transparency of management through business so that we will be able to build a relationship based on trust with society, as well as strive to flourish as a going concern and contribute to social advancement.

The direction and the ideal of our CSR activities are shared throughout the entire Group and presented as the IBIDEN Group Charter of Behavior (hereinafter called “Group Charter of Behavior” ), which takes into account our role as a global corporation and reflects requests and demands from our stakeholders including our major customers around the world.

## IBIDEN Group Charter of Behavior (July. 2011)

### **Article 1: Compliance with laws, regulations, and ethics**

We comply with laws, regulations and ethical requirements of the countries and regions where its business operations are based. We work against corruption in all its forms, and carry out open and fair corporate activities with the intention of becoming a company that enjoys the confidence of the international community. We also protect and properly manage personal and customer data and other types of information.

### **Article 2: Development together with stakeholders**

We develop together with our stakeholders, so we enhance the transparency of management and build a trustworthy relationship through communication. We also actively engage in community-based activities that contribute to society as a good corporate citizen.

### **Article 3: Providing customer delight**

We provide customer delight, so we have a good understanding of social trends, future needs and develop. We provide safe and secure products and services to maximize our customer’s satisfaction by growing IBI-Techno.

### **Article 4: Management based on global standards**

We manage our group based on global standards. We respect human rights and other international norms of behavior. Also, we respect culture and customs in each country or region concerned when carrying out our corporate activity.

### **Article 5: Harmony with nature**

We harmonize with nature in all areas of our corporate activities. We manage to develop technologies to achieve good balance between the environment and business, and we provide environmentally friendly products and services by promoting energy and resource conservation activities.

### **Article 6: Attractive and vibrant company**

We aim to become an attractive and vibrant company on the basis of fair, equitable and result oriented employee evaluation personnel system. We aim to have a safe and comfortable working environment. We create a rewarding corporate culture that the employee can respect for each diversity, and fully exercise their skills and abilities.

## Principles on Corporate Social Responsibility (CSR)

The Group strives to contribute to social advancement while achieving continuing existence by implementing CSR management. The vision of the Group’s CSR management has been developed along four themes in our mid-term plan based on corporate philosophy and charter of behavior: internal control, human resource management, environment management, and social contribution. We believe that working from these four viewpoints will allow us to build on our relationship based on trust with our stakeholders by further expanding activities in a wide range of areas.

### <CSR Policy>

We aim to enhance our corporate value

- By raising awareness of the need for IBIDEN to act responsibly and honestly in the interest of sustainable operations
- By fulfilling our responsibilities in a well-balanced manner from an economic, environmental and social standpoint
- By working in partnership with all of our stakeholders.



<Conceptual diagram of CSR management>

## IBIDEN Group Charter of Behavior and Corporate Governance

We recognize that the entire Company including the management must participate in the effort if we are to fully realize the spirit of the IBIDEN Group Charter of Behavior. The management also understands that it should lead by example to ensure that these efforts take place thoroughly throughout the Company as well as among our Group companies, and to encourage our suppliers to participate. Furthermore, we pay continuous attention to the voices of people both inside and outside the Company and have put in place an effective corporate structure. Should an incident occur that violates the Group Charter of Behavior, the management will have in place a system to solve problems, which will communicate its position, investigate the cause and implement a prevention of recurrence. Moreover, we will communicate accurately and in a timely manner the information regarding the incident including accountability. Finally, after authority and responsibility are clarified, severe consequences will be imposed.

### Framework for CSR Promotion

The Company set up the CSR Promotion Division in April 2006 as the organization responsible for the promotion of CSR activities. The CSR policy and activities of the entire Group are advanced by the CSR Promotion Division by sharing the direction and the ideal form of activities and cooperating with each plant and group company. We appoint a management person in charge of CSR promotion in each division and domestic affiliated company and he or she performs duties such as promoting CSR activities and compliance, supervising the implementation of compliance, hosting educational sessions and training for the members of the divisions or company, and reporting improvements to compliance risks within the division or company. We convened a conference for management persons responsible for CSR promotion in July 2017. During the conference, participants confirm the company-wide promotion items and their progress while sharing anecdotal examples of promotional activities at each plant or within each group company. Overseas group companies hold a regular meeting with the CSR Promotion Division to share the CSR Policy of the entire Group and push forward with CSR activities according to the characteristics of the region and issues faced by each company.

### Managing Activities Related to the IBIDEN Group Charter of Behavior

The IBIDEN Group Charter of Behavior was established to reflect the international movement as well as requests of external stakeholders in implementing CSR management, in accordance with the Company's corporate philosophy, the IBIDEN WAY. As an international common understanding, we value and reflect the ISO26000 Guidance, responsibilities required of a company by the UN Global Compact and the code of conduct stipulated by Responsible Business Alliance, (though the Company is not a member) in the Charter of Behavior as part of the supply chain. Moreover, we also assess and reflect items emphasized by domestic initiatives such as the Charter of Corporate Code of the Japan Business Federation (Keidanren) the Company is affiliated with in the Charter of Behavior.

In order to develop these ideas into specific activities, we implement activities in three phases (responses as the Company, individual's activities and expansion of activities to suppliers) based on global standards and requests from and assessment items of outside organizations.

We have compiled items that should be managed by IBIDEN as a company in the IBIDEN Social Responsibility Management Standards (hereinafter called "SR Management Standards"). We have created IBIDEN Standards for Employee Behavior (hereinafter called "Standards for Employee Behavior") for each employee as standards for specific activities.

The Standards for Employee Behavior serve as compliance behavioral guidelines for each employee, based on which IBIDEN Group companies have established their own standards for employee behavior. We have also established IBIDEN Group Supplier CSR Guidelines (hereinafter called "CSR Guidelines") for our suppliers, and provide guidance on compliance with CSR Guidelines through explanations about standards, fact-finding surveys, and audits.

In drawing up these three standards and guidelines, the division in charge of promoting CSR prepared drafts, which were issued after discussions by the Management Council with participation by top management. We have broken them down into specific practical procedures, including internal rules and guidelines, in the IBIDEN Management System (hereinafter called "IMS") and operate them to constantly improve systems and activity levels.



IBIDEN Social Responsibility Management Standards (July, 2017, third edition)



For more information on each of the activities, please refer to the following page.  
 SR Management Standards, Standards for Employee Behavior ..... P13 "Compliance"  
 CSR Guidelines ..... P17 "CSR Management in the Supply Chain"

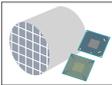
# Dialogue and Cooperation with Stakeholders

Since its operations began as a hydroelectric power generation business that provided electricity to the community, the IBIDEN Group has won the support of all residents in the community as well as many other people.

We continue to look for opportunities to communicate with our stakeholders to thoroughly understand the expectations and demands that they have concerning the Group.

We believe it is important for building a trustworthy relationship with all stakeholders and sustainable development to continue working on expectations and request items obtained as a result of communication throughout the supply chain led by the Company.

## ■Example of Communication (As of march 31, 2018)

Stakeholders		Example of Communication		Responsible division
Employees 	Employees at our 37 Group companies (consolidated), both in Japan and abroad, number 15,574. Grounded in the basic principle of respect for individuals, we value the creativity and varied characteristics of each and every employee.	Labor and Management Committee, Training and development, Appraisal interview Health and Safety Committee, Compliance counter	P22~27 P28 P15	HR & GA Division Environment & Safety Division CSR Promotion Division
Customers 	We contribute to the lives of our customers, grounded in innovation technology, by offering diverse, high quality products, from electronic components to ceramic and building materials	Improvement of customer satisfaction, Provision of CSR information Code of conduct audit	P55 P7	Business Administration Division (Each Operation) CSR Promotion Division
Suppliers 	The IBIDEN Group operates businesses in Japan and abroad, and conducts procurement from numerous suppliers	CSR briefing for suppliers Safety & Health Promotion Meeting Implementation of CSR survey and audit, Compliance counter for supplier	P18 P29~31 P18	Global Purchasing Division Environment & Safety Division CSR Promotion Division
Local communities 	IBIDEN has major facilities in 16 countries around the world, and conducts global corporate citizen activities that suit the culture and climate of each country and region.	Regular exchanges with community associations, Social contribution activities	P34 P50~54	Each plant HR & GA Division
Shareholders / Investors 	IBIDEN has about 140 million issued shares, with a total of 28,799 shareholders (as of the end of March 2018)	General meetings of shareholders Investor briefings, Response to research and evaluation organizations	P10 P6	HR & GA Division Strategic Corporate Planning Division CSR Promotion Division

## Assessment by Third-Party Organizations and Our Actions

### Corporate Evaluation by External Organizations

In recent years, an increasing emphasis is placed on environmental, social and governance (ESG) investment in a way that evaluates corporate value in terms of the environment, social responsibility and corporate governance rather than exclusively operational results such as profitability and financial condition. The Company analyzes external evaluations of organizations that evaluate socially responsible investment (SRI), identifies any gap between our targets and the results of the external evaluations, and takes action on issues that can be improved in the relevant departments.

In 2017, IBIDEN was named to a constituent of the FTSE Blossom Japan Index created by the global index provider FTSE Russell\*1, and has been continuously selected for FTSE4Good Index Series, one of the world's leading socially responsible investment (SRI) index series. Furthermore, we have been included in the MSCI Japan ESG Select Leaders Index launched in July 3, 2017 by MSCI, Inc.\*2

\*1 FTSE Russell is a part of the London Stock Exchange Group and a leading global index provider.

\*2 MSCI Inc. is a financial service provider in New York in the United States and is listed on the New York Stock Exchange. MSCI is a leading provider of investment decision support tools to institutional investors globally, including large-scale public pension funds, asset managers, and hedge funds.



### CSR-Related Audits

We respond to observance of the code of conduct of the industry and CSR-related audits conducted by third-party organizations based on customer requirement. During audits, a gap analysis is conducted on the difference between industry standards and the Company's current efforts, and issues that need to be addressed are identified. We take seriously the issues pointed out during these audits and make improvements by analyzing the causes and implementing corrective actions as well as preventive measures. Furthermore, we are working toward creating a system that meets industry standards by improving upon these issues.

In fiscal year 2017, we continued to undergo in-house inspections and internal audits carried out by certified internal auditors who were well versed in the audit standards of industry associations and a specialized division. Accordingly, there were no significant findings related to labor and human rights, but in terms of occupational safety and health we received suggestions on emergency evacuation measures at the domestic plants, and are implementing countermeasures in discussion with industry associations. To maintain an excellent compliance rate, we will continue to conduct inspections on a routine basis and implement a cycle of operational improvement at each workplace. In addition, we will undertake external CSR audits on a regular basis to verify the effectiveness of internal audits and enhance the credibility of our CSR activities.

# Internal Control / Corporate Governance

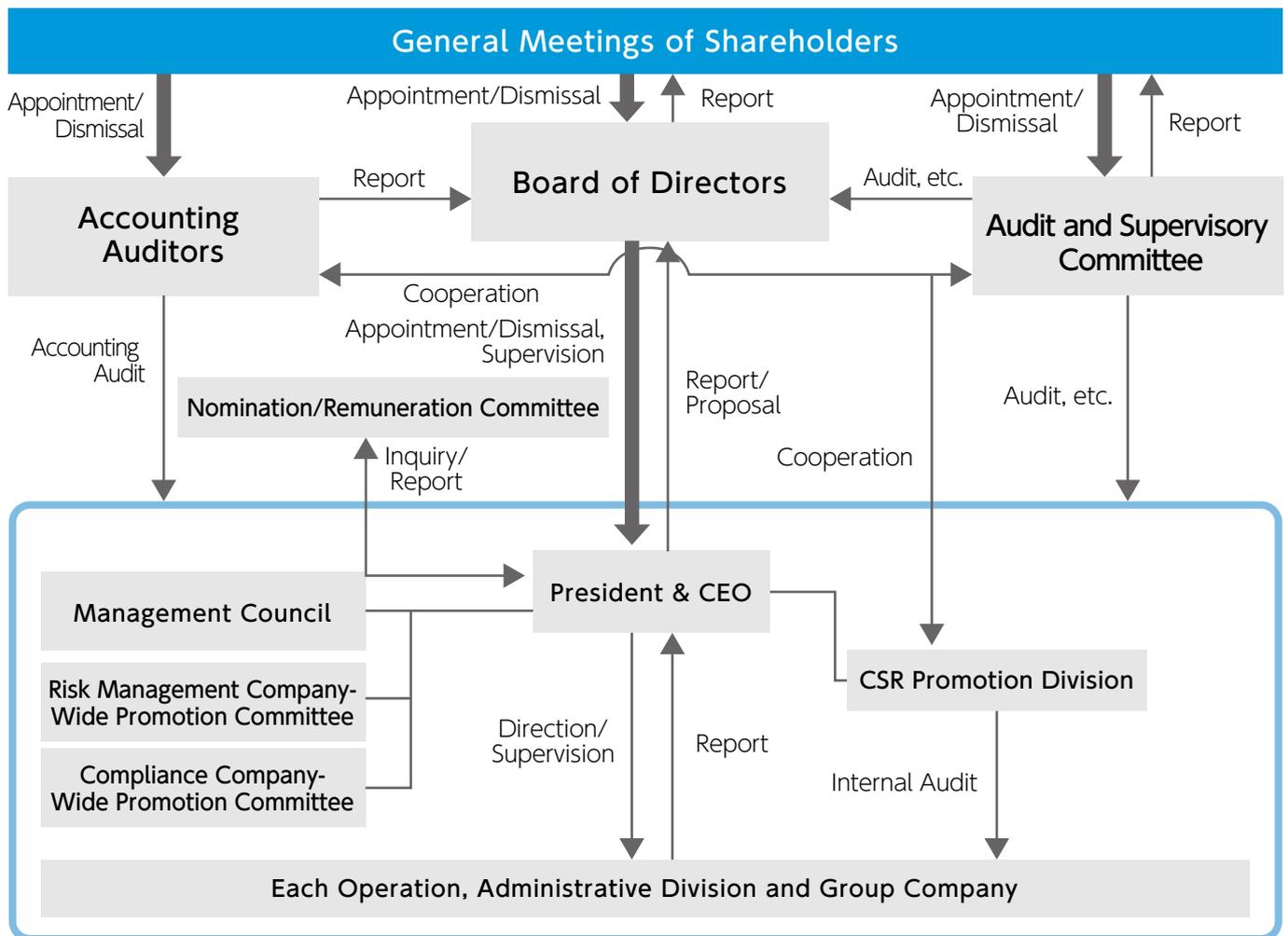
The enhancement of our Group's internal control system is undertaken through the activities focused on strengthening corporate governance and advancing compliance and risk management, which are carried out immediately under the responsible executive officer.

## Basic Views on Corporate Governance

The Group considers corporate governance to be a key management mechanism for transparent, fair, prompt and resolute decision-making, and all Group companies are thus actively committed to improving corporate governance. As part of our Group's corporate governance, we are enhancing internal control by proactively undertaking activities to advance compliance and risk management and we are expanding/strengthening the management oversight functions of our board of directors and the audit functions of our Audit and Supervisory Committee Members. These steps will enable us to construct a transparent corporate governance system worthy of the trust of shareholders and other stakeholders and fulfill our corporate social responsibilities, and will help us improve our corporate value through sustained growth.

Following a resolution at the 164th Ordinary General Meeting of Shareholders held on June 16, 2017 on the transition to a company with an Audit and Supervisory Committee, the Company will further improve its prompt decision-making structure. An additional layer of strength will be added to the supervisory functions of the Board of Director by giving Directors who are Audit and Supervisory Committee Members voting rights on the Board of Directors.

The diagram below shows the Company's corporate governance system following the transition to a company with an Audit and Supervisory Committee.



The board of directors and organization are noted in the Corporate Information (Please refer to "Board of Directors/Organization" on page 61.)

## Overview of the Corporate Governance Structure (As of June 15,2018)

### General Description of Governance Structure

The Company has made a transition to a Company with Audit and Supervisory Committee gaining in June 2017, to make more swift decision-making structure and an additional layer of strength in the supervisory functions by the Board of Directors who is Audit and Supervisory Committee Members with voting rights.

To ensure fair and transparent company management, 6 Outside Directors attend Board of Directors meetings and there provide advice on company management. For fair and transparent procedures applied to nominate these Outside Directors and to determine their compensation, the Company has voluntarily established Nomination/Remuneration Committee. An Executive Officer System has been introduced to permit rapid management decision-making and quicker execution of operations. The Audit and Supervisory Committee has also been given robust check-and-balance functions to help them monitor decision-making by the Board of Directors and the execution of operations by representative Directors.

### Outside Directors

The Company has taken the steps necessary to ensure that six Outside Directors are assigned and permitted to provide needed insights on the agenda and deliberations of the board of directors meetings so that they can contribute to appropriate corporate governance at the Company and offer advice on our standards of conduct.

### Efforts to Strengthen the Functions of Audit and Supervisory Committee members

Audit and Supervisory Committee members attend Board of Directors meetings and other important meetings and audit Directors' performance of their professional duties, and full-time Audit and Supervisory Committee members collaborate with the Audit Group, CSR Promotion Division, the Company's internal audit organization, and with accounting auditors in conducting audits of the Company and the Group companies in accordance with all applicable laws, regulations and rules. The presence of three outside Audit and Supervisory Committee members with a considerable level of knowledge in financial, accounting matter, tax practice, and the law suitably ensures that the above functions are performed.

### Posting of Information on Securing Independent Executives

The Company has determined that Mr. Yamaguchi, Mr. Mita and Mr. Yoshihisa as outside directors and Mr. Kato, Mr. Horie and Ms. Kawai as outside Audit and Supervisory Committee members present no potential conflict of interest with general shareholders and, convinced that we can count on them to contribute to appropriate corporate governance at the Company and to offer advice on our standards of conduct, we have assigned them as independent executives.

### Roles and Responsibilities of the Board of Directors

The Company has established Rules of the Board of Directors to set down clear-cut criteria stipulating what the Board of Directors may decide and approve in accordance with laws, regulations, and the articles of incorporation. For other decision-making and the execution of operations, regulations governing organizations, job classifications and the division of duties have been established to clarify the scope of execution of corporate management.

### Overall Balance of Knowledge, Experience and Skill, Diversity, and Size of the Board of Directors

Candidates for Directors are selected from the standpoint of placing the right person in the right job, as part of comprehensive deliberation, considering a sufficient number of Board of Directors Members to make eligible and prompt decisions with an overall balance of knowledge, experience and skill among the members of the Board of Directors, while referring to the reports by the Nomination/ Remuneration Committee.

### Policies and Procedures for the Selection of Corporate Managers and the Assignment of Candidates for Directors and Audit and Supervisory Committee Members by the Board of Directors

Candidates for Corporate Manager and Directors who are not Audit and Supervisory Committee Members are selected/assigned from the perspective of placing the right person in the right job, with due consideration given to the number of people that would enable precise and prompt decision-making and to a balance of knowledge, experience and skills among the Corporate Management Team/the Board of Directors overall. Candidates for Audit and Supervisory Committee Members are also selected/assigned from the perspective of placing the right person in the right job, with due consideration given to a balance among knowledge of accounting, tax and legal matters, knowledge about the Company's business, and other perspectives pertinent to corporate management. Given the above, assignment for Audit and Supervisory Committee Member candidates was resolved by the Board of Directors after Audit and Supervisory Committee deliberated and agreed on it. Assignment for Corporate Director candidates, prior to a resolution of the Board of Directors, after it has been sufficiently deliberated by the Nomination/Remuneration Committee including Outside Directors who are not Audit and Supervisory Committee Members and reported to President & CEO.

## Guidelines on Training for Directors and Supervisory Committee Members

The Company has established a system to provide financial and other support to Corporate Directors to allow them to attend when necessary outside training sessions, seminars, etc., which will enable them to acquire the knowledge they need and better understanding of their roles and duties. The Company is encouraging newly-assigned Company Directors who are not Audit and Supervisory Committee Members in particular to participate in courses for new directors to enhance their understanding of the knowledge needed in their positions. To enable full-time Audit and Supervisory Committee Members to play a key part in corporate governance, the Company has them participate in courses and study sessions conducted by the Japan Audit & Supervisory Board Members Association (JASBA) and other organizations as well as in outside networking events so that they can acquire the knowledge they need as the members and better understand their roles and duties as the members. We are arranging courses on the Companies Act and other content suited to the circumstances at the time to be conducted by internal and external experts for Company Directors and Managing Officers who are not Audit and Supervisory Committee Members.

## Effective Utilization of Independent Outside Directors

The Company has selected six Outside Directors, including three Audit and Supervisory Committee members, who put to good use the expertise and wide-ranging experience in corporate management that they have cultivated in their careers in managing the Company. In this way, they contribute to the Company's sustained growth and development.

The Outside Directors also actively offer their views on management oversight, management policies, and management improvements based on their own knowledge, and are adequately fulfilling the roles that the Company expects of them (the attendance rate of all Outside Directors to the Board of Directors' meeting was 96%).

The Company will further consider the ratio of the number of the Outside Directors by examining the prospect of business operations, potential business fields, the company-with-committees system, and business environments whenever the need arises.

## Qualification and Credentials for Independent Outside Directors and Audit and Supervisory Committee Members

In selecting an independent Outside Director who is not an Audit and Supervisory Committee Member, we place importance on the wealth of experience and high level of knowledge regarding corporate management and our industry, in addition to the requirements stipulated in the Companies Act and the criteria established by the financial instruments exchanges on which the Company is listed. In selecting an Outside Director who is an Audit and Supervisory Committee Member, we place importance on the wealth of experience and high level of knowledge regarding tax practices, accounting and the law. The Company registers only those as independent executives, who satisfy the above conditions and who pose no potential conflict of interest with general shareholders.

## Compensation of Directors and Corporate Auditors (Fiscal Year 2017)

### Board Policies and Procedures in Determining the Compensation of the Senior Management and Directors

The compensation for the Company's Directors who are not Audit and Supervisory Committee Members, Executive Officers and Managing Officers comprises monthly compensation and bonuses. The monthly compensation for Corporate Directors who are not Audit and Supervisory Committee Members is calculated based on their job positions, within the limits approved by the general meeting of shareholders, and is approved by the Board of Directors. Bonus allotments for Corporate Directors who are not Audit and Supervisory Committee Members are based on the degree to which each Director contributed to the Company's operations, within the scope of the total amount of bonuses calculated using the stipulated formula approved by the general meeting of shareholders, and are approved by the Board of Directors.

The monthly compensation of Executive Officers and Managing Officers is approved by the Board of Directors. In determining the compensation, broad consideration is given to a suitable balance with the monthly compensation for Corporate Directors who are not Audit and Supervisory Committee Members, assessments of respective Executive Officers' and Managing Officers' job performance, and other factors. The amounts of bonuses to be paid are approved by the Board of Directors. Bonus amounts are calculated in accordance with the degree of the Executive Officers' and Managing Officers' contribution to the Company's business results and other factors. The Nomination/Remuneration Committee, including Outside Directors who are not Audit and Supervisory Committee Members, prior to a resolution of the Board of Directors, deliberates on compensation and bonus of Corporate Directors who are not Audit and Supervisory Committee Members, the Executive Officers and Managing Officers, and reports to President & CEO. Outside Directors who are not Audit and Supervisory Committee Members, because they are in positions independent of the execution of operations, are paid only a fixed, basic compensation.

The Company has also introduced 'the Stock Distribution Trust for Officers' to Directors who are not Audit and Supervisory Committee Members, Managing Officers, so that they shall make a clearer linkage between the Company's stock value and compensation for themselves and elevate their awareness of contributing to improving medium- to long term operating results and increasing corporate value.

Position		Number of recipients	Total remuneration paid (Millions of yen)	Total amount of remuneration by type (Millions of yen)		
				Basic remuneration	Bonus	Share-based payment
Directors who are not Audit and Supervisory Committee Members	Directors	9	336	211	90	34
	Outside Directors	4	31	31		
	Subtotal	13	367	243	90	34
Directors who are Audit and Supervisory Committee Members	Directors	2	50	50		
	Outside Directors	3	25	25		
	Subtotal	5	75	75		
Audit and Supervisory Committee Members	Supervisory Committee Members (Full-time)	2	16	16		
	Supervisory Committee Members (Outside)	2	5	5		
	Subtotal	4	22	22		
total		22	465	341	90	34

Notes:

1. The above includes Directors and Audit and Supervisory Committee Members who retired during the fiscal year under review. In addition, on June 16, 2017 the Company made the transition from a Company with a Board of Auditors to a Company with an Audit and Supervisory Committee (hereinafter referred to as "the Transition").
2. The number of recipients describes the total number of people, and the actual recipients are 18.
3. Of the above, the total number of Outside Directors and Outside Audit and Supervisory Committee members is nine, and the actual number of recipients is seven.
4. The amount of remuneration to Audit and Supervisory Committee members pertains to the period before the Transition, while the amount of remuneration to Directors who are Audit and Supervisory Committee members pertains to the period after the Transition.
5. The resolution setting the upper limit of remuneration for the Directors before the Transition at not more than ¥45 million per month was approved at the 154th General Meetings of Shareholders held on June 22, 2007. Of the total, the amount for Outside Directors accounts for ¥3 million or less, with the remaining ¥42 million or less paid to the other Directors. Compensation under stock option plans is set separately. The employee salaries for Directors concurrently serving as employees are also excluded from the figures.
6. The maximum limit of remuneration for Directors who are not Audit and Supervisory Committee Members was approved at not more than ¥30 million per month at the 164th General Meetings of Shareholders held on June 16, 2017. Of the total, the amount for Outside Directors accounts for ¥5 million or less, with the remaining ¥25 million or less paid to the other Directors.
7. In addition to the remuneration mentioned above in 6, at the 164th General Meetings of Shareholders held on June 16, 2017, the resolution was approved stipulating that Directors who are not Audit and Supervisory Committee members, are to receive a bonus equal to 0.5% of the consolidated profit attributable to owners of parent for the fiscal year as well as 1.6% of the total amount of annual dividends for the applicable fiscal year. However, the maximum limit was also set at not more than ¥440 million by the resolution, with amounts less than ¥1 million being rounded down.
8. Although bonuses for Directors amounted to ¥135 million based on the above calculation in 7, due to various circumstances the bonuses for Directors totaling ¥90 million were approved by the Board of Directors' meeting held on May 16, 2018.
9. The introduction of a share-based payment (stock option) plan for Directors who are not Audit and Supervisory Committee Members was approved at the 164th General Meetings of Shareholders held on June 16, 2017.
10. The maximum limit of remuneration for Audit and Supervisory Committee Members before the Transition was approved at not more than ¥9 million per month at the 159th General Meetings of Shareholders held on June 20, 2012.
11. The maximum limit of remuneration for Directors who are Audit and Supervisory Committee Members was approved at not more than ¥13 million per month at the 164th General Meetings of Shareholders held on June 16, 2017.

## Timely disclosure, Communication with Shareholders and Investors

### Relationships with Stakeholders and Timely Disclosure

Based on the Disclosure Rules help shareholders understand the Group and to facilitate proper assessments of the Group, we disclose in a fair, timely, and appropriate manner with the decision of the Disclosure Committee, consisting chiefly of the president and the information disclosure officer.

In addition to making every effort to comply with the Financial Instruments and Exchange Act and relevant rules, and the stock exchange's regulations, we maintain our social credibility in the securities market through strict management to observe regulations on insider trading in accordance with the insider trading guidelines.

### Communication with Shareholders and Investors

The Company issued approximately 140 million shares and had about 29,000 shareholders as of March 31, 2018. We held a general meeting of shareholders in the multi-purpose hall in the IBIDEN Headquarters Building on June 15, 2018. We have sought to establish a more open environment by adopting the voting rights exercise platform from fiscal year 2006 and making possible the exercise of voting rights via the Internet and mobile phones for shareholders who are unable to attend the meeting. (The ratio of voting rights exercised at the 164th general meeting of shareholders: 81.17%).

In addition, to ensure prompt disclosure, the Notice of Ordinary General Meeting of Shareholders added elements of business report is available in our website and platform by a week before mailing it to shareholders. We will continue to promote prompt disclosure such as on our website before mailing.

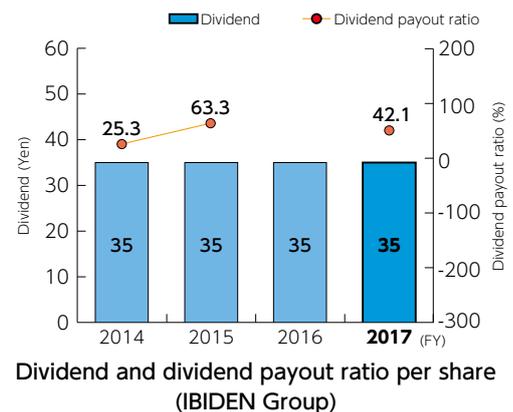
As for other IR activities, we hold periodic briefings for analysts and institutional investors after the announcement of business results for the full year and those for the interim term, and release materials for the briefings on our website. Furthermore, we take part in a range of events as briefings for individual investors, providing them with opportunities to invest in shares of the Company. (Please refer to "Disclosure of Financial Information" on page 59.)

### Policy Concerning the Decision on the Distribution of Retained Earnings

Our fundamental policy on distribution of profits to shareholders is to continue stable dividend payments by establishing a stable management base in the long term and improving performance, taking into account, in a comprehensive manner, management indicators such as the consolidated financial results, etc., of the Group, in addition to non-consolidated financial results, dividend payout ratio and ROE.

Based on this policy, our target dividend payout ratio for the medium and long term is 30%.

As for retained earnings, we strategically invest in research and development and manufacturing facilities to expand businesses for the medium and long term for the purpose of increasing the corporate value and reinforcing long-term competitiveness. We also acquire treasury stock while considering the financial conditions as part of the distribution of profits to shareholders.



## Risk Management

In expanding businesses globally, risks surrounding business management are complex and diverse, and it is essential for corporate activities that we appropriately deal with such risks. We are required to sort out potential risks such as the occurrence of a large-scale natural disaster, prevent and minimize them and appropriately handle them even when such risks become apparent.

### Basic Approach

The IBIDEN Group enables business continuity by analyzing various risks surrounding management, accurately handling losses of business resources that have a great negative impact on the ease of our business operations, ensuring the safety of our shareholders, customers and officers, and reducing and preventing losses of business resources.

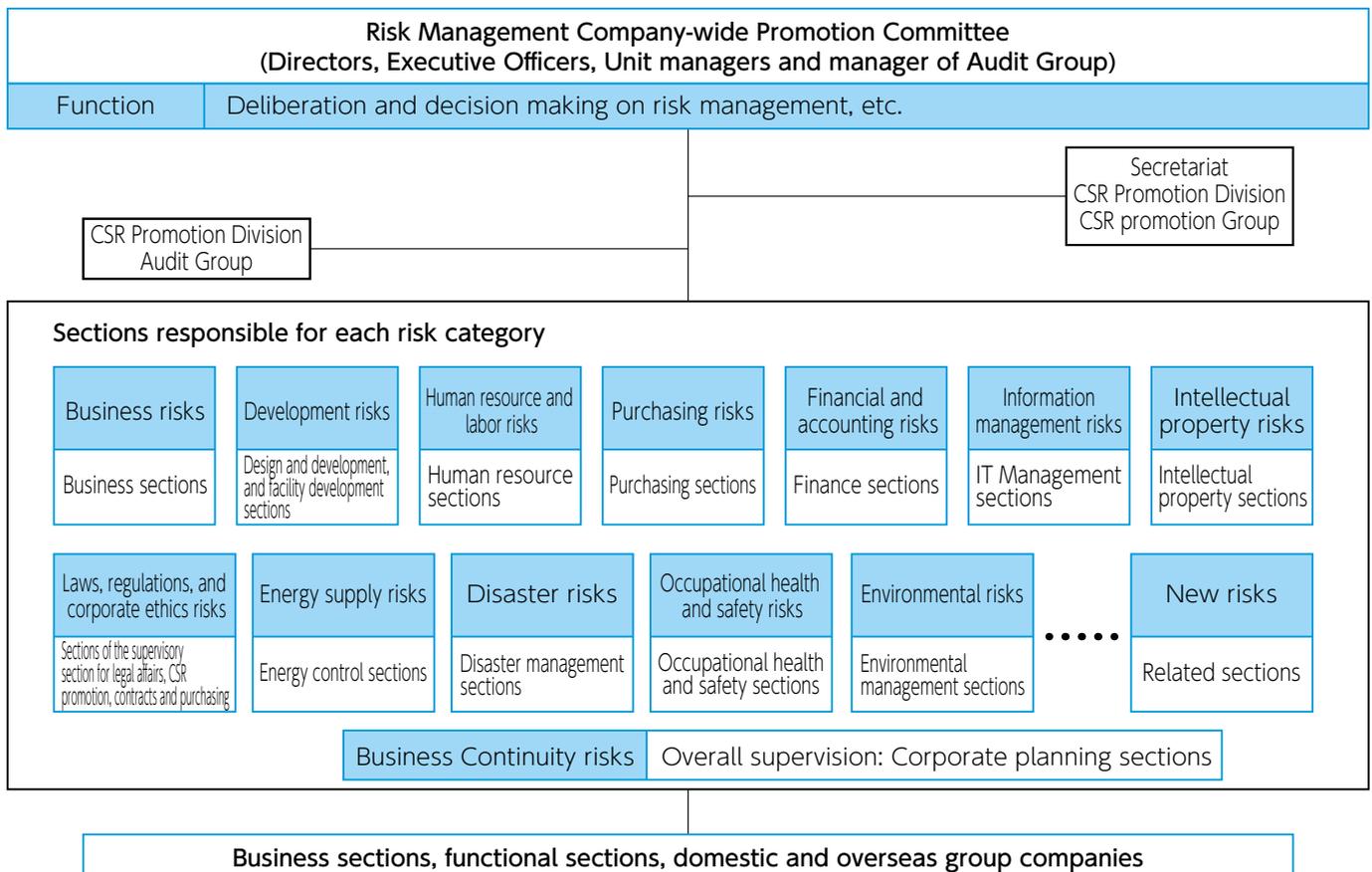
### Action Plan

1. We devote efforts to maintaining the health and safety of employees and suppliers and to conserving operating resources.
2. We conduct ourselves so as not to impinge upon the safety, health, or profits of our shareholders, customers, and local and international society.
3. In cases where risk is manifested, we work to achieve prompt response and recovery through responsible action.
4. We reflect social demands related to risk in our risk management.
5. We provide required information in order to avoid or reduce possible damage caused by misunderstanding and a lack of understanding.

### Structure for Advancing Risk Management

Based on the resolution of the Board of Directors, the Group has established Risk Management Regulations to create a risk management structure and its management process. We also created the Risk Management Company-wide Promotion Committee, which is tasked with improving risk management. The Risk Management Company-wide Promotion Committee is responsible for considering and deciding on general risk management issues. It also examines and reports the progress of actions to address major risks.

To execute the policy endorsed by this Committee, a section responsible for each risk category is established to carry out activities geared to IBIDEN's circumstances and business model, as well as with those of its Group firms.



\*A promotion manager appointed at each section

## **Advancing Risk Management**

Based on its basic policy and Risk Management Regulations, the Group is actively developing risk management promotion activities by, for example, setting up a department responsible for each risk category, strengthening the accountability structure, and offering seminars and workshops geared toward officers and employees. The managing officer of the CSR Promotion Division who also acts as the officer responsible for risk management conducts these risk-management promotion activities and reports to the Risk Management Company-Wide Promotion Committee (Secretariat: CSR Promotion Division; CSR Promotion Group) headed by the president and CEO.



**The Risk Management Companywide Promotion Committee meeting**

Should the internal audit or other mechanisms discover business actions that may create risk of loss, the managing officer of the CSR Promotion Division is immediately tasked to understand the details of the said risk as well as the scope of its potential loss. He then gives instructions on swift and systematic measures and attempts to prevent the loss from occurring. Furthermore, in case of a large-scale accident or a disaster, he immediately sets up the headquarters to thoroughly understand the situation, implement first responses, and prevent further loss to minimize the loss.

## **Risk Assessment and Addressing Risks**

The IBIDEN Group undertakes risk management activities so that we may continue to reliably conduct our business operations. We regularly detect and assess risks to reduce risks in important areas: operational divisions are working on the risks related to strengthening our business competitive edge, while functional divisions are addressing the risks bringing serious repercussions to the Company's business.

These risk management activities are implemented in conjunction with the policy management of each Division.

## **Business Continuous Plan**

We consider the risk of disruptions to production caused by the occurrence of a large-scale accident or a disaster in areas where our plants are located as an important risk theme, and are taking measures to prepare for the occurrence of a disaster. As for measures to be taken when disasters such as earthquakes occur, we believe that lifesaving comes first, followed by the early supply of products to customers.

With regard to concrete risk themes in the event of a natural disaster, including confirmation of the safety of employees, supply of materials by suppliers, equipment failure and occurrence of utility problems, we are building a response system, mainly led by divisions that cope with such risks. Assuming the occurrence of the Nankai Trough Megathrust Earthquake., we set a recovery time objective (ROT) for our plants and domestic affiliated companies that may be affected by the disaster. In fiscal year 2017, based on the assumption of damage, we re-evaluated risks of building collapse, explosion, fire and other casualties at each plant, and identified and organized potential issues.

## Compliance

To comply with laws and regulations and corporate ethics as a company is the most fundamental and important thing in undertaking business activities. We may lose our trust or business opportunities due to a material scandal or misconduct. Honest behavior is required of each officer and employee so that there is no act in violation of laws and regulations and ethics that has a significant impact on corporate activities.

### Basic Policy

By achieving thoroughgoing commitment to “compliance with domestic and international laws, our articles of incorporation, internal regulations and corporate ethics (hereinafter called Compliance)” and through open and fair corporate activities, we aim to be a company that international society relies on.

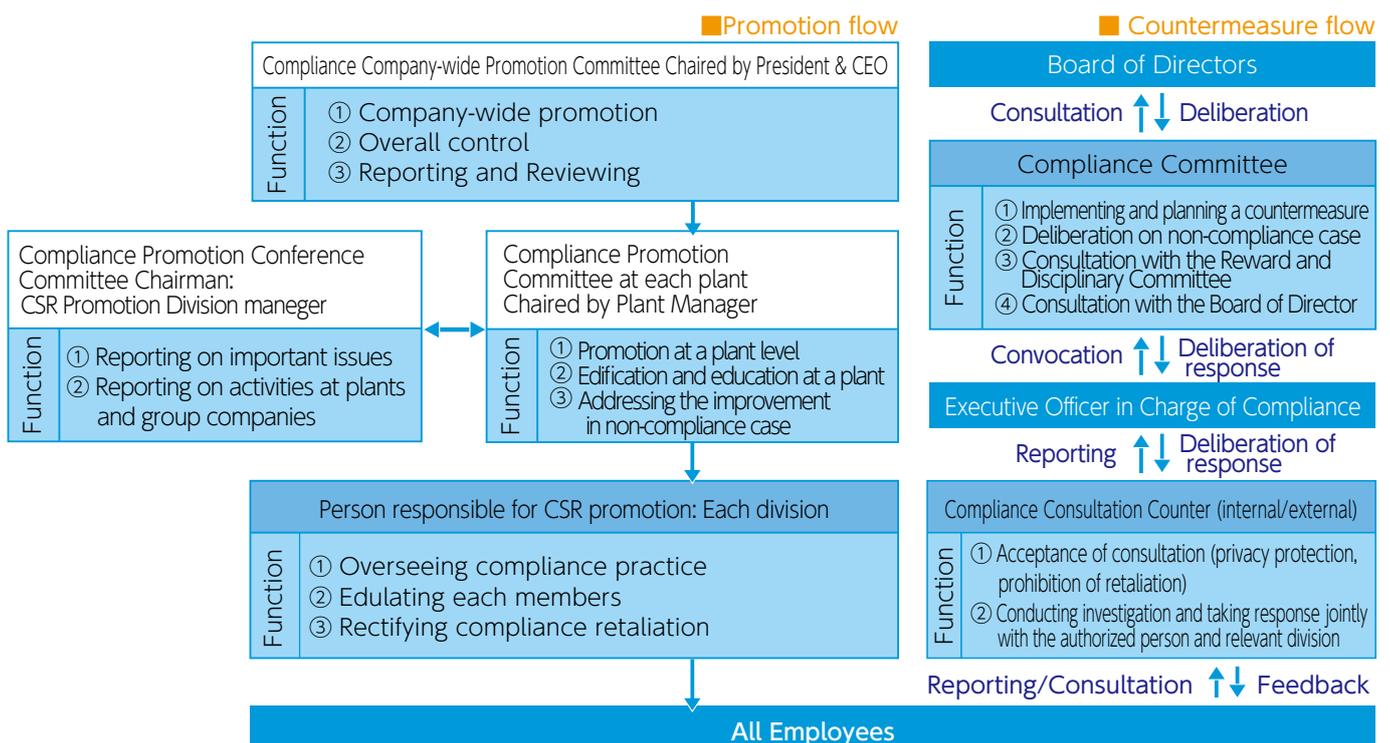
The IBIDEN Group adopted the IBIDEN Standards for Employee Behavior in December 1998 and the Compliance Promotion Regulations in August 2003, to facilitate its compliance activities. We continue to increase awareness of compliance, adopting a management approach that seeks to earn the trust and respect of all stakeholders.

### Structure for Promoting Compliance Program

The Group vigorously pursues further development of its compliance promotion activities (streamlining of the compliance-related rules and regulations, verifying the status of implementation of compliance activities, promotion activities, workshops and other functions geared toward the officers and employees) based on our basic policy and Compliance Regulations, the “IBIDEN Standards for Employee Behavior,” which sets the standards for compliance implementation. The executive officer in charge of the CSR Promotion Division as well as compliance implements promotion activities then reports to the Compliance Company-Wide Promotion Committee (Secretariat: CSR Promotion Division) chaired by the President and CEO. To promote compliance in each division and plant, a management person in charge of the promotion is designated in each division and plant, and a conference for management persons in charge of the promotion is held to promote and thoroughly implement the activities. The management persons play the role of overseeing compliance practice, educating their members and rectifying compliance violations.

In addition to the formal channel of reporting, the Group has established a compliance consultation service to facilitate reporting when an officer or employee discovers a violation of compliance. Through this service, officers and employees may report violations nominally to employees in charge of the compliance consultation service or anonymously to outside experts. The latter ensures that the rights of the whistleblower are protected by protecting his or her privacy and prohibiting prejudicial treatment. The executive officer in charge of compliance strives to educate officers and employees through training to achieve thorough understanding of the compliance consultation system. Should an incident related to compliance occur, the Compliance Committee chaired by an executive officer is called and discussions take place on appropriate actions to address the situation as well as preventative measures for future incidents. Serious incidents such as those highly relevant to directors are reported to the Board of Directors.

Flow Chart of Compliance Promotion



## Compliance Company-Wide Promotion Committee

In August 2003, the Compliance Company-Wide Promotional Committee headed by the president was formed in an effort to bolster compliance-related awareness across the Group. The committee carries out group-wide, pro-compliance activities and reviews such undertakings. Compliance-related policies and plans decided by the committee are communicated to each plant, which in turn rolls out individual actions in accordance with them. All group companies both in Japan and abroad have set up their own compliance organizations mandated to formulate and conduct individual actions.

The Compliance Company-wide Promotion Committee meets at least once each year, and a meeting was held in May 2017 during FY2017. Each plant of IBIDEN confirms the progress in its activity goals and plan, established at the beginning of the fiscal year, at the Compliance Promotional Committee at each plant held periodically every month. Other Group companies also review activity goals periodically.

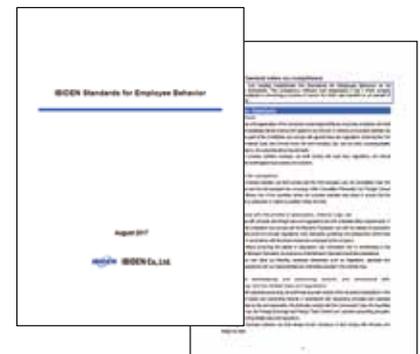
## Managing Compliance Activities

The Company, based on Compliance Regulations, put in writing internal operation rules for meetings to promote compliance activities, laws and regulations, and compliance with standards for corporate ethics. We have stipulated standards mainly for managers to appropriately establish and operate structures for compliance activities as a company in the SR Management Standards, and created specific in-house rules and guidelines. The Company has also established Standards for Employee Behavior as standards for each member of the Company, including officers and employees, to practice compliance sincerely. We revise these standards periodically based on global rules, expectations, and items requested by stakeholders, and in compliance with the laws and regulations of countries in which we operate as we expand business globally. Furthermore, we reflect revisions to the standards in in-house compliance promotion structures and education to raise the compliance level of the Company and each of its members.

## Standards for Employee Behavior

While a copy of the Standards for Employee Behavior is distributed to all officers and employees, it is also disclosed on our homepage so that everyone can access it. Copies of the Standards for Employee Behavior are also distributed to employees of contractors who work on the plants, asking them to act in accordance with the Standards for Employee Behavior.

The IBIDEN Group Companies, including overseas major manufacturing sites, have also been promoting education on compliance with each company's standards for employee behavior. In addition, the booklet we distribute to employees has information on the Division in charge and where to consult so that employees feel comfortable making an inquiry when they have questions. The IBIDEN Group is committed to becoming a corporate group and a good corporate citizen that earns the trust of the international community, while each officer and employee faithfully implements the Standards for Employee Behavior.



The IBIDEN Standards for Employee Behavior  
(August 2017 : Revised)

## Compliance Training

When promoting compliance activities, it is crucial that employee awareness is continuously maintained at a high level. The Company has been building educational system for employees to regularly receive training by job grade, in which the programs start immediately after hir[ing]. (Please refer to "Development of Human Resources" on page 23.) These programs include group discussions on causes of violations of the Standards for Employee Behavior and actions taken in response to the violations. They educate every single trainee in consciously deciding on the right action in a given situation.

We also enable new employees to deepen their understanding of CSR and what violation of compliance is through discussions based on familiar cases. In compliance training, which includes specialized education on issues such as various laws and taxes, it is important that employees understand the content of the training. We promote employees' understanding by confirming it through tests. At overseas bases, which employ many immigrant workers, training is provided on the Standards for Employee Behavior and other educational topics in workers' native language so that they can fully understand the contents of the training.

In fiscal year 2017, IBIDEN provided e-learning training to all employees in domestic plants and group companies. Going forward, we will continue to promote education for compliance and CSR across the entire Group.



Compliance Training

## Day-to-Day Compliance Training

Raising awareness through repeated training is important to thoroughly implement compliance. To deepen the understanding of the details of the Standards for Employee Behavior, we have issued Case Examples for Enlightenment (Case Book), which introduces cases of violation of the Standards and points to remember for compliance, to raise employees' awareness of compliance. We work to improve employee awareness by continuously issuing new Case Examples and posting these case examples on the CSR portal site on our intranet and in the company cafeteria, where many employees gather.

At all our domestic plants, all employees participate in reading through the Case Book during daily meetings, such as morning assembly, to learn points to be noted in daily activities.

## Compliance by the Top Management and Managers and Prevention of Misconduct

When establishing a compliance system, it is crucial that all officers and managers be at the forefront of the efforts. In the labor regulations for directors, prohibited matters, such as violation of laws and internal standards and acts of conflict of interest, as well as responsibilities that should be fulfilled are clarified. Also, the Standards for Employee Behavior are established as standards of compliance by not only general employees but also directors. The Standards for Employee Behavior include items officers need to be particularly aware of, such as restrictions on competition and transactions with conflicts of interest (directors are required to comply with this), in addition to the prevention of misconduct.

Since there are bribery prevention acts in various countries such as the Foreign Corrupt Practices Act (FCPA) and the UK Bribery Act (UKBA), which we need to comply with in expanding businesses globally, we should re-acknowledge the impact and points to remember when doing business overseas. The IBIDEN Group's businesses do not have many direct dealings with government or municipal offices, so the overall risk of being charged with misconduct is not high according to the results of assessments of corruption risk at each site. However, we have appropriately developed a system for ensuring certain prevention of corruption in line with the current conditions of each site, such as requiring approvals from a high-level authority to entertain customers.

In fiscal 2017, in order to ensure fair business practices, all managers of the Company continually implemented workplace inspections on points to be observed in the SR Management Standards, and the Company started providing e-Learning training to managers of domestic Group companies as well and conducting patrols at each workplace.

## Whistleblowing System

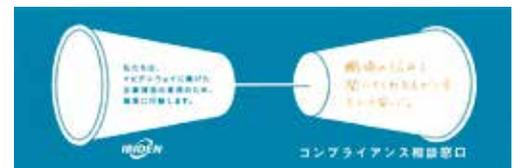
In case of learning of any suspected compliance violation in the Group, employees are generally required to report it, to consult, and to take action using the chain of command between the superior and the subordinate. We have, however, established a compliance consultation service for quickly solving any problem that cannot be reported through the usual channels.

The compliance consultation service is based on protecting the rights of whistleblowers, in ways which include securing the anonymity and privacy of persons who seek consultation, and guaranteeing that they will not be treated disadvantageously. We have established a compliance consultation service to make the service available to all those working at on-site workplaces.

To create an environment where employees feel comfortable consulting through a compliance consultation service, we endeavor to make the service known to everyone by establishing several windows for consultation within the Company, with a law firm and outside organizations, as well as distributing cards which describe how to use the service, and putting up posters.

While the consultation counter expects persons reporting to indicate their names in reporting to facilitate timely investigation as well as protection, anonymous consultation is also accepted. We have established procedures so that consultation cases can be investigated and handled while maintaining anonymity within the company. The officer responsible for compliance consultation directly investigates and handles serious cases. The results of investigations are reported to the person who sought the compliance consultation from the consultation counter that accepted the compliance consultation.

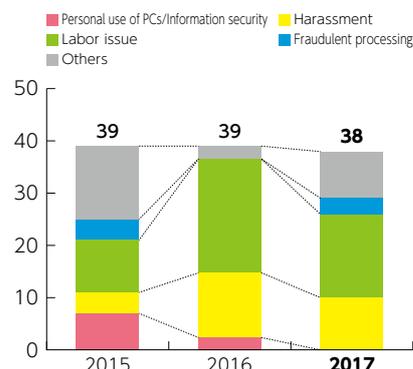
The process flow from consultation to investigation and feedback after consultation is explained to all employees through compliance education and other opportunities, in order to deepen their understanding of the consultation system. In addition, the person in charge of the consultation counter provides education for persons who conduct investigations, and checks if there were any reprisals against those who consulted or conducted an investigation, in order to enhance the reliability of the consultation counter. In fiscal 2017, the recognition rate of the compliance consultation service among employees increased to 98% according to the survey through e-Learning conducted with all employees of IBIDEN and its domestic Group companies, and the recognition rate among employees has increased to 100% as a result of our follow-up efforts to disseminate the service among employees. We make efforts to raise the awareness of employees in Japan to facilitate consultations not only by the persons concerned but also by those around them who were aware of problems, in order to detect and deal with issues, in particular harassment, early on.



Compliance consultation service card distributed to all employees

## Compliance Consultation Counter Usage Results and Responses

In fiscal year 2017, the Compliance Consultation Counter received 38 consultation cases in the entire Group in Japan (39 consultations in fiscal year 2016). Of these, 16 cases were brought by persons other than those concerned. Regarding the content of consultations, the number of cases that had the potential to lead to harassment in relationships between a superior and a subordinate, resulting from inappropriate use of words or methods of instruction, amounted to 10 (13 in the previous year) (refer to Initiatives for Preventing Power Harassment on page 21). Many consultation cases were from persons other than those concerned, which indicates that there is an increasing momentum in the company to monitor and eliminate harassment and other labor issues. All these harassment and labor issue cases have been handled by the Human Resources Division and harassment counseling staff. In many of the labor cases accepted, the content of consultation also included problems arising from superiors failing to give a sufficient explanation. Mutual understanding between superiors and subordinates is important to deal with these cases, and we are working to improve communication in the workplace to enable managers to take appropriate responses.



**Compliance consultation counter**  
Number of consultations/whistle-blowing cases\*  
(IBIDEN and domestic IBIDEN Group companies)  
\*Number of consultations accepted: Including consultation cases that overlap to some degree or those that cannot be confirmed to be facts.

## Self-Check of Activities and Opinion Poll

We conduct a self-check on the status of compliance with the Standards for Employee Behavior and a survey on compliance awareness each year, covering all employees including those of domestic Group companies. In the self-check, all employees, including those holding managerial posts, diagnose the state of compliance with items of the Standards for Employee Behavior, and compliance-related challenges at each Group company or plant are clarified by summarizing the results of the diagnosis. Any problem identified in this process is addressed through remedial activities at Group companies and plants in the following fiscal year. We link little understood topics with educational programs. For instance, case studies illustrating compliance-related issues that many test-takers failed to answer correctly are published to increase their understanding.

In the opinion poll, we evaluate the degree of employee satisfaction with their workplace and superiors and compliance violation risk items from various aspects, and analyze characteristics by office organization and by Group company and plant.

We reflect the results of polls in compliance activities and education programs of the following fiscal year. We will continue to work on improving communication and addressing risk issues, take a strict stance against compliance violations in the company, and create an environment that does not allow violation of rules to occur by developing appropriate systems and providing thorough education.

## Information Security Measures

Information concerning the operation, technologies and management of the Company is a valuable asset, and for a technology-development-oriented company like us, proper management of such information and prevention of leakage are important issues and responsibilities. Also, leakage of customers' and suppliers' confidential information leads to loss of trust in us from customers and suppliers and can cause damage to the Company. In order to implement information security management, we have established a framework for information security promotion and stipulated fundamental rules to comply with in utilizing and maintaining information assets we own such as trade secrets, personal information and information technologies (IT) under the "Regulations for Information Management." In the regulations, the division that manages trade secrets, personal information and IT under the information management supervisory division (Regal section) is clarified in the information management structure. To improve the protection and utilization of information of the entire IBIDEN Group, we have established the Information Security Committee, chaired by the director in charge of Strategic Corporate Planning Operations.

As for personal information at IBIDEN, the division in charge of human resources serves as the supervisory division and properly manages personal information in compliance with relevant laws and regulations, thereby confirming and correcting issues.

We have established a personal information protection policy and stipulated procedures necessary for collection, management and utilization of personal information. Our personal information protection policy is available on our website.

Falsification of customer data, etc. has become a social problem. Against this background, the IBIDEN Group, in fiscal 2017, introduced a data integrity audit, and is working to prevent falsification and incorrect handling of data for provision to customers.



**Personal information protection policy upon the use of our website**

## System and Achievement of Legal Compliance

Compliance with laws and regulations is a fundamental requirement for corporate compliance activities, and the latest information on laws and regulations is required all the time. At the Company, based on the Compliance Regulations, the Legal sections list laws and regulations that affect the Company and monitor the status of their

revision or abolition. The Legal group also notifies divisions in charge of each law and regulation of any revision or promulgation and, when any action is required, checks the results of such action.

In particular, we extract laws and regulations that have a significant impact on the IBIDEN Group as important laws and regulations and designate those with especially considerable impact as the “most important laws and regulations”. Important laws and regulations include those concerning finance, tax matters, IT control, labor and employment, political funds, import and export and others concerning compliance. As for the most important laws and regulations, we exercise management and thoroughly implement measures to prevent legal violation by clarification of compliance rules, training to keep everyone informed, regular review of the status of compliance and audits. In fiscal 2017, we did not see any cases of legal violation relating to fraudulent acts or other dishonest acts that would have a significant impact on business activities.

## CSR Management in the Supply Chain

To earn the trust of international community while operating business globally, both the Group and the entire supply chain must responsibly take actions that respond to social demands. Although our major businesses are positioned in the midstream of the supply chain that provides parts, we believe that promotion of CSR activities based on the fundamental policy of the IBIDEN Group with suppliers that supply the Group with materials, etc., and temporary help agencies as well as contractors that provide personnel and technological support to us leads to improvement of the corporate value and sustainable growth of the entire supply chain.

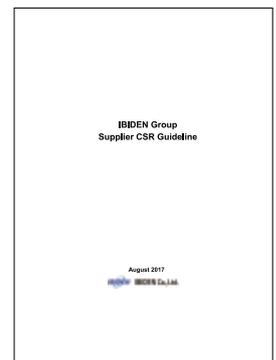
### Basic Purchasing Policy

1. We comply with laws, regulations and societal norms, and strive to build relationships of trust and mutual cooperation with suppliers.
2. We provide suppliers opportunity at a fair deal.
3. We continue to fulfill our social responsibilities including human rights and environmental protection through purchasing activities.

### IBIDEN Group Supplier CSR Guidelines

To realize the sustainable growth of globally developing business with suppliers, IBIDEN disclosed requests to suppliers based on its basic purchasing policies in 2008, and unveiled the IBIDEN Group Green Procurement Guidelines in 2009 as a system for green procurement, designed to procure parts and materials that feature reduced environment impact (refer to “Appropriate Chemical Control” on page 3 9). In addition, IBIDEN published the IBIDEN Group Supplier CSR Guidelines in 2011. These guidelines provide our suppliers with items desired for the entire supply chain by our customers, the industry and the international community and items that should be managed by the Group. The items are divided into subcategories according to themes such as labor, health and safety, environmental protection, ethics and fair business practices.

In August 2017, we reviewed requested items in the CSR Guidelines in light of changes in the external environment.



**IBIDEN Group  
Supplier CSR Guidelines  
(August 2017: Revised)**

### Communication and Cooperation with Supplier

We have released CSR guidelines on our company website to make them available for all our suppliers to view. In addition, we hold briefing sessions on CSR guidelines for our major suppliers to share specific challenges to be addressed not only within the IBIDEN Group but also with suppliers engaged in supplying materials, subcontracting, and dispatching temporary staff.

In addition, we conduct CSR surveys and CSR-related site visits and audits for suppliers to check and make improvements related to the challenges faced by suppliers.

We ask new suppliers to pledge to comply with the CSR Guidelines in the basic transaction agreement, and check the status of efforts of suppliers using the CSR survey described below before commencing business transactions.

We carry out CSR surveys of material suppliers, process contractors, on-site contractors, and worker dispatching

companies in accordance with their individual risks, taking into account risks involving the contents, value, and importance of transactions.

We conduct CSR survey every year, and in fiscal year 2017 we conducted a CSR survey on about 250 suppliers (covering suppliers whose aggregate transactions were more than 90% of the total amount of transactions). We have suppliers declare compliance with CSR guidelines and ongoing improvements when they reply to the survey. The surveys we conducted on suppliers in fiscal year 2017 revealed that the average rate of compliance of material suppliers concerning items for which we have particularly requested compliance was about 97%. If material suppliers have items for which they have not sufficiently conducted compliance activities, we request them to submit an improvement plan and ask them to further improve their activities in the following fiscal year.

We check the status of activities of suppliers that are judged to be particularly important by visiting their production sites in person to communicate with them. Such communication is done by carrying out audits on labor, health and safety, environmental conservation, ethics and fair trade, in order to improve our supply chain. In fiscal year 2017, we performed on-site CSR audits on 10 material suppliers. We did not find, in the results of surveys and audits carried out in fiscal 2017, any material infringement that would lead to a violation of the rights of employees or threaten life.

### **IBIDEN Suppliers' Compliance Counter**

In fiscal 2011, we set up a compliance counter for our suppliers to which suppliers can report any compliance problem while dealing with the Company. As with the compliance counter for our internal employees, information will be handled with the utmost care for privacy and the supplier will never suffer prejudicial treatment for contacting the counter.

In fiscal 2017, we continued to make the IBIDEN Compliance Counter for business partners known to all suppliers. As a result, the rate of recognition of the Compliance Counter among suppliers is improving, and the number of consultations is increasing, although at a low level. We will continue working to make the Compliance Counter known to every supplier at briefing sessions for suppliers toward achieving early detection and resolution of issues.

### **Responsible Sourcing of Resources (Conflict Minerals)**

Illegal mining of resources in conflict areas and high-risk areas has become a major international issue as it abets human rights violations and environmental destruction. The IBIDEN Group is very concerned about the issue of responsible sourcing of conflict minerals (tin, tantalum, tungsten and gold) and is addressing the situation with a sense of social responsibility toward the products it offers.

Our "CSR Guidelines" clearly state that the suppliers should refrain from illegal mining in conflict areas as well as procuring resources that may support human rights violations. The Company tries its best to avoid contributing to illegal operations and human rights violations by not utilizing minerals illegally mined in conflict areas. Furthermore, we will conduct reasonable investigations into the mineral supply routes and disclose the findings in good faith. Responding to the issue of conflict minerals is carried out mainly by the CSR Promotion Division in cooperation with the division in charge of purchasing. The CSR Promotion Division consolidates information collected by the division in charge of purchasing, confirms and analyzes the content and compiles the status of use of conflict materials by the Company. The business administrative division accepts inquiries from the outside and provides information after obtaining approval of the CSR Promotion Division manager.

The Company has been sharing with its suppliers the issues involving conflict minerals as well as the Company's approach during a briefing session. We also conduct supplier surveys to verify their supply routes, including the identification of smelters and refiners. We also conduct supplier surveys to verify their supply routes including the identification of smelters and refiners. Furthermore, we conduct sequential visits at some of our suppliers' facilities and other related refining companies to explain the extent of the effort as well as verify the supply routes and their traceability (history of materials, parts, and process). The Company uses Conflict Mineral Reporting Template of the CFSI\* in its investigations into subject material supply routes, and asks suppliers that use subject minerals to update their data on a regular basis.

Some of the package substrates and printed-wiring boards that we supply include tin and gold. In fiscal

year 2017, we conducted due diligence surveys on suppliers which used conflict minerals continually and verified all smelters from which minerals supplied by our suppliers were derived. Tin was mainly derived from smelters in Southeast Asia, while gold was derived from ores coming from refineries of mainly Japanese recycling manufacturers. The conflict minerals we used have been verified, by a third-party organization, to be derived from smelters/refiners that are compliant with the Conflict Minerals Free Program of CSFI or another equivalent program (as of June 2018). The Company can thus declare that no evidence has been found that the minerals we use are derived from mines that play a part in conflicts in the Democratic Republic of the Congo and conflict zones surrounding it.

We will continuously implement risk management to avoid sourcing minerals from mines that play a part in conflict and human rights violations within our supply chain by updating information on the supply chain on a regular basis and promoting the use of certified smelters.

\* RMI (Responsible Mineral Initiative): An international organization with over 350 member companies and organizations that promotes procurement of responsibly sourced minerals.

In line with the IBIDEN WAY, we are committed to respecting the creativity and personality of each and every employee and to value a corporate culture that allows its diverse human resources to fully display their knowledge and capabilities.

## Philosophy for Human Resource Management

### Basic Approach

Employees are the driving force that enables us to run our business and provide the public with valued service. We aim to create vibrant workplaces in which each individual employee derives a sense of satisfaction and achievement from gaining a thorough understanding of the Company's management policies and business strategies, and from having a role to play that enables each employee to contribute to both the Company and society.

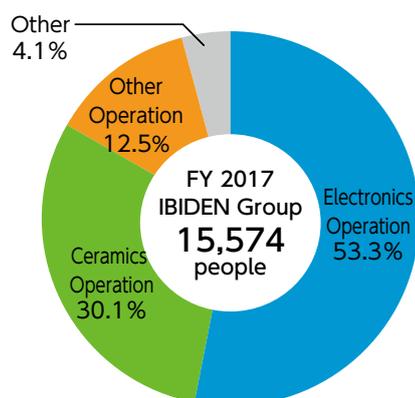
As one of the measures to achieve this goal, we have also introduced personnel systems and training programs to enable each employee to display his or her creativity and versatile personality.

### Constitution of Employees[IBIDEN]

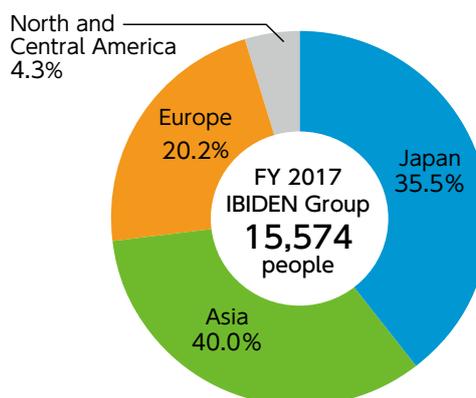
		FY 2016		FY 2017	
		Male	Female	Male	Female
Number of employees	Persons	3,162	382	3,131	384
Managerial positions	Persons	319	0	320	1
Officers*	Persons	32	0	36	1
Average age	Years	39.2	38.8	39.9	39.5
Length of service	Years	16.2	16.8	16.8	17.4
New employees	Persons	51	7	51	12
Number of workers who left the Company	Persons	126	17	96	12

\*Including directors, managing officers

### Number of Employee by business segment [IBIDEN Group]



### Number of Employee by business area [IBIDEN Group]



- As of March 31, 2018
- Number of employees does not include temporary employees (1,779 employees on average).
- Number of employees by area is calculated based on the regions where bases of Group companies are located.

## Respect for Human Rights

In expanding businesses globally, we sometimes encounter differences in awareness of human rights and in support based on laws and regulations for human rights protection. Even in such cases, a role to avoid being a party to human rights violations and promote/respect human rights is required of us as one of our important corporate social responsibilities.

### Respect for Worker Rights

The IBIDEN Group clearly defines its policy to respect the basic rights of workers, as internationally declared, as well as to avoid involvement in any violation of human rights. The IBIDEN Standards for Employee Behavior spells out such basic policy, stipulating that officers and employees respect the basic principles and rights of labor and take actions that follow the common sense and rules of society while complying with the employment-related laws of each country such as the Labor Standards Law and labor regulations.

### Mechanism to Avoid Violation of Human Rights

IBIDEN and its domestic affiliated companies have established “IBIDEN Social Responsibility Management Standards” as an internal document which specifies systems to be established and matters to be noted by managers as its response to human rights issues. Specifically, the standards include prohibited items to avoid forced labor and procedures for confirming that workers have reached the minimum age to avoid child labor. These matters are put in the procedure manuals of functional divisions and business divisions, which actually operate the IBIDEN Management System, as necessary, so that they are certainly introduced into the system. For instance, confirmation of age is included in the employment procedure manual.

### Human Rights Education

To ensure respect for human rights, the Group offers education on fair employment and human rights, particularly to labor relations managers as well as managers and staff members in charge of recruitment interviews, calling their attention to the prevention of human-rights violations. We also strive to make the need to respect worker rights known to all employees through our Standards for Employee Behavior. In our new employee training and education programs offered on hiring, we educate each of our employees to promote the understanding of human rights, as well as to ensure that the standards are reflected in their actions. At Group companies, we also focus on educational activities to make our policies, including the Standards for Employee Behavior and labor regulations, known to all employees.

### Initiatives for Preventing Power Harassment

We are taking steps to eliminate power harassment at the Group’s plants in Japan. In 1998, we set up the Compliance Consultation Counter, and we conduct harassment training for officers and employees.

Specifically, we will conduct the following five broadly classified activities in taking steps to prevent occurrence, address, and prevent recurrences of harassment.

1. Promoting the use of the existing compliance consultation hotline and creating an environment that facilitates its use (refer to “Whistleblowing System” on page 15)
2. Promoting the use of a human resources hotline to identify and address problems promptly.
3. Conducting information collection and investigation on problems by the Harassment Committee and harassment counselors and implementing preventive and corrective measures.
4. Providing education and training to senior management and workers (in fiscal 2017, 695 managers participated in education and training programs, for an enrolment rate of 94%)\*  
\*Targeting managers of IBIDEN and some of its domestic Group companies, excluding those transferred or seconded overseas.
5. Promoting a change in mindset for overwork and work-life balance (refer to “Labor and Management Cooperation to Create a Worker-Friendly Workplace” on page 26)

In addition to the above, we have conducted a questionnaire survey of employees on harassment. Based on the survey results, we will check the effects of and review our harassment prevention measures to create an environment where each employee can work enthusiastically and without anxiety.

### Assessment

Being a party to human rights violations is an issue not just for the IBIDEN Group. We believe it is important to work on the issue of human rights with the entire supply chain and thus cooperate with our direct suppliers in dealing with such issues. (See “CSR Management in the Supply Chain” on page 17).

A potential issue that could become a risk is the problem of debt bondage among immigrant workers at the Group’s site, where many immigrant workers work. The Company conducts periodic internal audits to check whether there are any problems, such as excessive money being collected during the employment process or in the working environment of immigrant workers. We checked with our affiliated companies and on-site contrac-

tors in Japan to look for problems in management of immigrant workers such as foreign technical interns. While we did not find any serious problems such as debt bondage, we have made improvements to the wording of labor regulations and in-house work-related rules. As a result of the CSR investigation and audit in fiscal year 2017, no cases of violation of basic rights of workers, such as child labor and forced labor, or cases that might lead to violation of workers' human rights were found. We will continue to implement audits by internal and external third parties on a regular basis to maintain the state of compliance in conformity with the CSR guidelines.

## **Equitable Evaluation and Treatment**

### **Policies on Equitable Evaluation and Treatment**

The Company evaluates individual results equitably and handles personnel affairs fairly and equitably. Under a personnel system featuring fair and equitable evaluation, we will create a corporate culture in which each employee mutually respects diversity, can demonstrate his or her ability to the maximum and finds his or her job rewarding.

The Company adopts a job-based grade system, which helps revitalize all employees, under which work is evaluated into grades based on the volume and importance of job results and job grades are set accordingly. Furthermore, the relationship between positions available according to qualifications and job grades is clarified. Employees in the same evaluation rank in the same job grade are equitably treated, regardless of attributes such as their sex, age and race and nationality. We distribute a labor management guidebook that includes information on job grades and their evaluation system to all employees. The labor management guidebook is revised on a regular basis to reflect changes in laws and systems, with the aim of providing the latest information to our employees.

### **Fair and Equitable Employee Evaluation**

The Company has in place a results-oriented target management assessment system. To enhance business competitiveness, we believe it is important for each employee to challenge himself/herself to meet his/her own high expectations, achieve these expectations, and raise his/her organizational capabilities. Experience in successfully achieving high expectations will accelerate the future growth of employees.

Challenge goals closely related to the Company's business results are first established, and the results as well as the process for reaching those results are then evaluated fairly and equitably. Finally, individual results are directly reflected in their compensation. Furthermore, our aim is for better "communication between superiors and subordinates" to be encouraged through the process of goal-setting, interim interviews, and evaluation interviews. The aim is to facilitate communication between subordinates and superiors by discussing not only short-term career goals but also medium- and long-term career goals, and sharing the career image of subordinates, as well as to provide opportunities for "professional development" for subordinates in the process of target management.

Based on a job-based grade system based on work and jobs, we realize optimum personnel arrangement and create a workplace that satisfies employees. We do so through establishing challenging goals under the target management assessment system and implementing fair and equitable evaluation, as well as a remuneration system that reflects results in remunerations, a human resource development system and various other systems.

### **For Equitable Evaluation and Treatment**

The human resource and labor section formulates various personnel systems, including the target management assessment system and remuneration system. Based on these systems, the Company pushes forward with proper treatment according to fair and equitable evaluation. To carry out fair and equitable evaluation, we periodically implement evaluator training for managers and the other evaluators, and provide training in establishing targets to all persons who are given goals. In addition, we strive to make known to all employees the target management assessment system and the remuneration system, by distributing a labor management guidebook that includes detailed explanations of these systems. For evaluators of employees transferred or seconded overseas who cannot participate in the evaluator training, we provide e-learning training and explain points to remember in a web conference to ensure fair evaluation. We will introduce the assessment feedback system and create a system by which employees can check their final assessment results by utilizing the support system for human resource development, in order to establish a transparent assessment system. We provide evaluators with training programs through e-Learning on how to give feedback on assessment results to ensure proper administration of feedback (e-Learning training enrollment rate of evaluators: 90.5%).

## Development of Human Resources

### Development of Global Human Resources

Operating for more than 100 years, the IBIDEN Group aims to put in place a human resource development system that strengthens its corporate structure and enables it to achieve consistent progress and growth. To this end, we nurture employees who can contribute to strengthening competitiveness and those who are capable of cross-cultural management.

Especially for employees who are seconded to overseas locations and those who are visiting or are assigned to overseas locations, we provide cross-cultural programs to improve communication skills with overseas staff and strengthen their local response while make efforts to upgrade their practical language skills. We also focus on nurturing the core staff of our overseas entities by inviting them to participate in training programs in Japan.



Exercise in training session



Presentation of results at new employees training

### Human Resource Development System of IBIDEN

To build a human resource development system that leads to the strengthening of its structure to become a company that moves forward consistently and grows, IBIDEN clarifies the desired candidate profile by qualification. It then roughly classifies the education it implements into: company-wide education; selective education; environmental/occupational health and safety education; and professional education. In company-wide education, we nurture employees who can define medium- and long-term visions by understanding the original way of doing business of the Company as well as CSR management and exploiting management tools, in addition to global human resources. Environmental/occupational and health and safety education is aimed at fostering employees who can help to create a pleasant and safe working environment. Professional education is designed to nurture specialists by occupation who have both improvement skills and motivation by clarifying the desired candidate profile, abilities and skills corresponding to qualifications and occupation.

In providing actual education, the division in charge of human resources develops a company-wide education system by incorporating the medium-term management plan and the needs of management and employees attending education programs.

Based on the education system, the annual education plan and contents of education are developed, and education is provided. After implementing each education program, the results are collected, recorded, and analyzed to be reflected in improvements for the next education plan. The results of attending education programs are fed back through superiors or the education management system, and are reflected in operations and on-the-job-training (OJT: employee training taking place in a working situation at the workplace) at each workplace.

Training records for fiscal year 2017 (IBIDEN)

- Total training hours: 56,464 hours/year
- Training hours per person: 15.8 hours/year/person

### Encouraging Career Development

We adopt a system that encourages personalized career development. We support career development through discussions in an interview with a superior concerning skills an employee wants to improve now and in the future and a superior's expectations and a support policy.

We launched a self-development correspondence course enrollment assistance system to help employees develop their abilities.

Life planning training is carried out every year through labor and management cooperation. This training program is provided to those aged 30, 40, and 50 years, covering the various systems necessary for personal and professional life planning. Training for those aged 30 and 40 years includes programs that allow them to take a fresh look at their life plans from various angles by means, such as participating in group work on career formation, lectures on asset formation, and health promotion. Training for those aged 50 years gives an opportunity for trainees to think about how they want to live and work from now on, in accordance with a virtual raising of the retirement age.

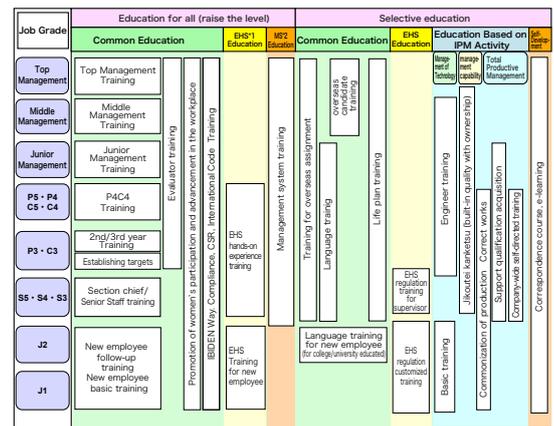


Diagram of Human Resource Development System

## Establishing the Human Resource Development Center

We have established the Human Resource Development Center within the Technological Development Division for the purpose of training engineers to continue to inherit and pass on our technologies for the next hundred years. The Human Resource Development Center trains engineers who work at our four development centers (Automotive Functional Component Development Center, Next-Generation Mobility Product Development Center, Advanced Ceramic Material Development Center, and Bio-Material Product Development Center), as well as those involved in the electronics and ceramics businesses. The Center also provides development support and guidance. Training ranges from the fundamental education required for engineers to training in specialized fields. Nurturing people to be well-equipped with skills for the next generation of technological developments will lead to enhanced technological strengths for IBIDEN.



Training for process design

Along with the progress in globalization and diversification of values, IBIDEN strives to realize a working environment and culture that allow a wide variety of employees to demonstrate their unique abilities and find their life and work meaningful.

## Respecting Diverse Work Styles

Along with the progress in globalization and diversification of values, IBIDEN strives to realize a working environment and culture that allow a wide variety of employees to demonstrate their unique abilities and find their life and work meaningful.

### Supporting Work Life Balance

The Company considers it part of its social responsibility to create an environment in which children, our future leaders, can grow up healthy and safe. To this end, we actively encourage work-life balance (harmony between work and private life) by, for example, helping our employees to achieve a balance between work and child rearing.

In fiscal year 2017, 23 employees used the childcare leave system(Refer to the graph “Track record of the leave programs.” ) Employees participate in the maternity/childcare leave program briefing provided by the Human Resources Division before they take leave, and have an interview with their superior and staff from the Human Resources Division before returning to work. In fiscal 2017, 11 employees had such interviews prior to their return to work, and a total of 100 employees have had such interviews since its introduction. At the interview, they talk about desired work style, family situation, and workplace situation, which leads to a smaller perception gap after returning to work. The Company also offers interviews with public health nurses for employees who have returned to work to enable them to consult on matters they feel hesitant about discussing with human resources staff or superiors. The return-to-work rate\*1 and the retention rate\*2 after returning to work were 94% and 100%, respectively, in fiscal 2017 (both rates were 100% in fiscal 2016).

\*1 The return-to-work rate (%) is calculated as the percentage of the number of employees who return to work after childcare leave divided by the number of employees planning to return to work after childcare leave.

\*2 The retention rate is calculated as the percentage of the number of employees who were still employed 12 months after returning to work divided by the total number of employees who returned to work during fiscal year 2016.

Many employees use the flexible work time system, which allows employees to adjust their work hours a day themselves depending on their workload, leading to the promotion of diverse work styles within the whole company.

Of six employees who resigned from the Company to accompany their spouses under the re-employment system of those accompanying overseas transferees, which was introduced in fiscal year 2013, three was re-employed after returning to Japan. The experience this employee gained during her stay overseas has proved to be useful in her duties after re-employment.

To realize a working environment in which employees can work cheerfully and lively, we will continue to create a corporate culture in which employees mutually recognize various ways of working. Also, we will enhance the review of working forms, including discretionary work, and promotion of acquisition of annual leave.

### Promotion of Female Advancement

We started promoting women’s participation and advancement in the workplace in fiscal year 2010. In conducting activities, we set the period through fiscal year 2012 as Phase I (period of awareness-raising and introducing measures) and the period starting from fiscal year 2013 as Phase II (period of reviewing and establishing measures), and conducted various activities, such as improving the work-life balance system and offering training.

In fiscal 2017, the President delivered a message anew at the start of the Stage 2 of our initiatives for promoting women’s participation and advancement in the workplace, announcing the Company’s policy to not only endeavor to develop a workplace environment where female employees can achieve a work-life balance but also actively promote the career advancement of female employees.

Because the awareness of female employees and the corporate culture have changed due to such activities, and because the Company has actively hired women in recent years, the ratio of female career-track employees to all female employees has been increasing. However, the ratio of female career-track employees to all career-track employees is still low, and there were three female employees at the assistant manager lev-

el and two at the manager level or above at the end of fiscal 2017 (IBIDEN). In fiscal 2018, we plan to appoint more female leaders with the purpose of revitalizing the corporate culture by promoting more female employees with expanded functions to play active roles in the workplace.

## **IBIDEN Co., Ltd.: Action Plan Based on the Law to Promote Women in Workplace**

The following action plan will be implemented to develop a workplace environment where female employees can actively participate in the workplace with managerial positions.

### **1. Target period**

Five years from April 1, 2016 to March 31, 2021

### **2. Challenges facing the Company**

- (i) There are female employees of assistant manager position but not those of manager position or above.
- (ii) The ratio of female career-track employees is low.

### **3. Targets**

Promote five or more female employees to managerial positions (middle manager or above).

### **4. Details of action plan and timing of implementation**

Action Plan 1: Review education and systems that stimulate career build-up for female employees.

Fiscal year 2016: Consider training programs (candidates for managerial positions, younger employees, and superiors).

Fiscal year 2017: Launch training programs.

Fiscal year 2018: Develop standards for changing career courses and administer the standards flexibly.

Action Plan 2: Increase the number of workplaces in which female employees participate actively.

Fiscal year 2016: Plan a model workplace where female employees play a central function in operations.

Fiscal year 2017: Assign female employees to the model workplace.

Fiscal year 2019: Increase the number of model workplaces and expand them on a company-wide basis.

Action Plan 3: Conduct recruiting activities based on equal employment opportunities for men and women.

Fiscal year 2016 onward: Conduct recruiting activities to appeal to female students.

We will continue to support the proactive actions of female employees through “Growing corporate culture,” “Career development and appointments” and “Supporting work-life balance,” so that women with abilities and motivation can be active at all stages of their lives.

### **◆Three Core Activity Areas**

#### **【Growing corporate culture】**

We hold various events and training sessions to raise awareness throughout the Company and communicate these activities through our company bulletin.

#### **【Career development and appointments】**

We introduce educational programs to further enhance the ability of ambitious women and develop and introduce ideal role models for our female employees.

#### **【Supporting work-life balance】**

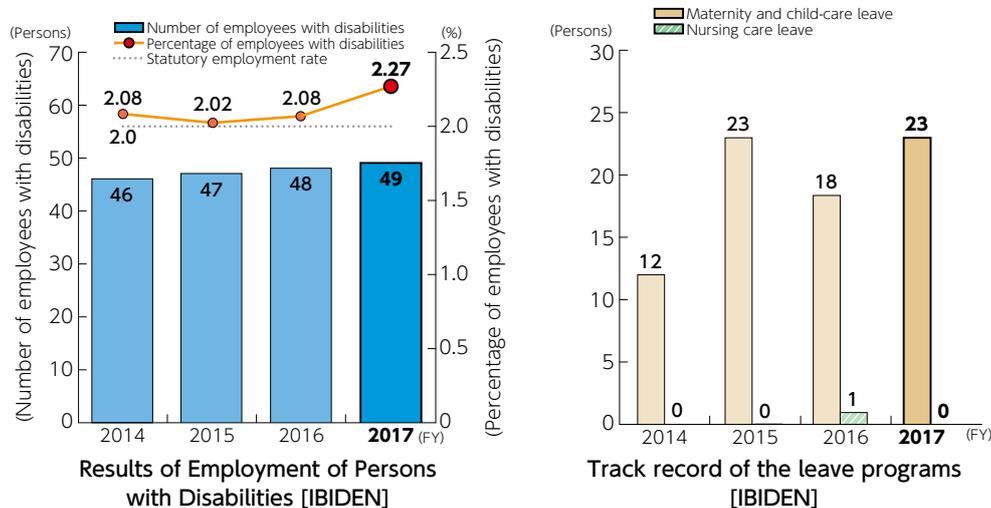
We have established childcare programs, such as childcare leave and short-term working hours, which surpass those prescribed by law, to support a work-life balance so that both men and women can continue to work while they raise children. In addition, we conduct an interview with female employees who have taken childcare leave before returning to work to reduce people’s perception gap after their return to work.

## **Employment of Persons with Disabilities**

In order to realize a society where persons with disabilities can live together as members of local communities, it is important to encourage their independence through work, and employees with disabilities are playing an active role in the Company. In Japan, the Employment Rate of Persons with Disabilities sets forth employment obligations, and from April 2013, the mandatory employment rate for private companies was raised from 1.8% to 2.0%. The number and employment rate of persons with disabilities in the Company in fiscal year 2017 was 49 ones and 2.27%. (See the graph “Results of Employment of Persons with Disabilities” ). We will continue to respect the philosophy of normalization and maintain a working environment in which employees with disabilities can fully demonstrate their abilities.

## Post-retirement Reemployment System

We instituted a post-retirement reemployment system in fiscal 2004 to enable our most experienced employees to display their capabilities as part of our valued workforce.



## Labor and Management Cooperation to Create a Worker-Friendly Workplace

Through a relationship of mutual trust, both the management and workers of IBIDEN work together to create a workplace that is friendly for all employees.

In fiscal year 2017, we continued, in the course of discussions between the management and employees, to set specific themes to work on cooperatively, such as ensuring rigorous time management, reducing overwork, promoting the use of paid leave, facilitating communication, promoting mental and physical health, and enhancing the target management assessment system in the areas of time management, creating a pleasant working environment, and enhancing personnel systems. The Central Labor Council, the Labor and Management Gathering, and the Labor and Management Committee meet every month to review the progress of collaborative themes, and all employees discuss and conduct activities toward improving the working environment.

### Working Hour Management

In Japan, work style reform is being promoted and rectifying long working hours is regarded as an important task. While the government is strengthening legal restrictions related to working hours, mental disorders and work related accidents that are deemed to be caused by long working hours have become serious problems. As a result, companies are being required to make further efforts toward rectifying long working hours.

The Company has been working to raise employees' awareness about working hour management. It is doing this by strengthening check criteria to promote proper work hour management, with rectification of long working hours as the theme of cooperation between labor and management. In addition, we hold training on working hour management for managers to further raise their awareness of the need for subordinates' labor management. In the meantime, we have launched awareness-raising activities to encourage employees to leave work by 7 p.m. as part of our efforts to achieve work style reforms.

### Creating a Worker-Friendly Workplace

We have continuously conducted cooperative activities between the management and employees to facilitate communication. We have continued to hold an IBIDEN WAY read-through session once a week to further disseminate the spirit, and a gathering, mainly of management-level employees, to talk about the IBIDEN WAY, to promote the awareness of leaders who lead the IBIDEN Group. The purpose is to deepen employees' understanding of the behavioral spirit of the IBIDEN Group.

In addition, we have launched a training program for improving workplace communication skills for on-site managers, such as section chiefs, from the perspective of labor management. We have also enhanced our compliance consultation services to reinforce gathering of harassment information and promoted harassment occurrence- and recurrence-prevention measures by the Harassment Committee.

### Expansion of Personnel System

To enhance competitiveness of business, we believe it is important that each employee challenges himself/herself to meet his/her own high expectations, achieves these expectations and raises their organizational capabilities. Experience in successfully achieving high expectations will accelerate the further growth of employees.

IBIDEN's target management assessment system is designed to realize: setting of high objectives to further

motivate employees who produced results thanks to their high objectives and to allow employees who have failed to produce results to challenge themselves to meet their next objectives; well-balanced assessment; and feedback on evaluation results that is helpful. We have continued to provide evaluators with training programs through e-learning on how to give feedback on assessment results.

### Communication between Labor and Management

In the Company, management policies, items related to production plans and items concerning hiring policies are explained to labor unions, and items that seriously affect employees are deliberated through the Central Labor Council, mentioned above. In addition, the Company provides opportunities for dialogue at various levels between the management and workers, including the Labor and Management Committee, which is held at each plant, with a view to facilitating a good labor-management relationship and corporate business activities.

### Thoroughgoing Compliance with Labor-Related Laws

The IBIDEN Group takes actions in line with common sense and the rules of society while complying with the employment-related laws of each country such as the Labor Standards Law and labor regulations. The Group monitors the state of revision or abolition of laws and regulations that should be observed, and promotes compliance with labor-related laws and regulations at its affiliated companies in each country and region. Also, the human resource and labor sections periodically monitor domestic Group companies to verify the status of compliance.

In fiscal year 2017, we were issued guidance from the supervisory authorities regarding overwork and working hour management. Accordingly, we will step up our efforts to reduce overwork. Meanwhile, we had no record of violations of related laws pertaining to wages and social security and other labor laws throughout the Group.

### Measures for Occupational Health and Safety

We established the Occupational Health and Safety Basic Policy under the IBIDEN WAY, formulated "Occupational Health and Safety Goals (2013-2017)," and focused on occupational health and safety, specifically, by following the Activity Guidelines for Fiscal Year 2017.

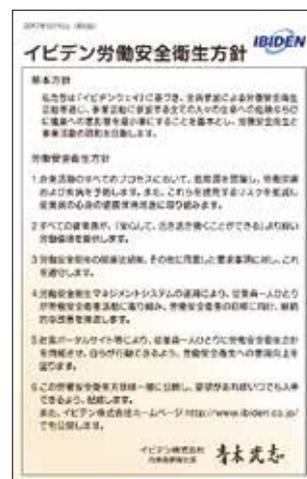
### Occupational Health and Safety - Basic Policy

We conduct the health and safety activity done with all concerned people under IBIDEN WAY, and aim to harmonize "health and safety" and "operation" with the fundamental rule to minimize the risk that may affect the life and health of person participating to IBIDEN's operations.

### Occupational Health and Safety Policy

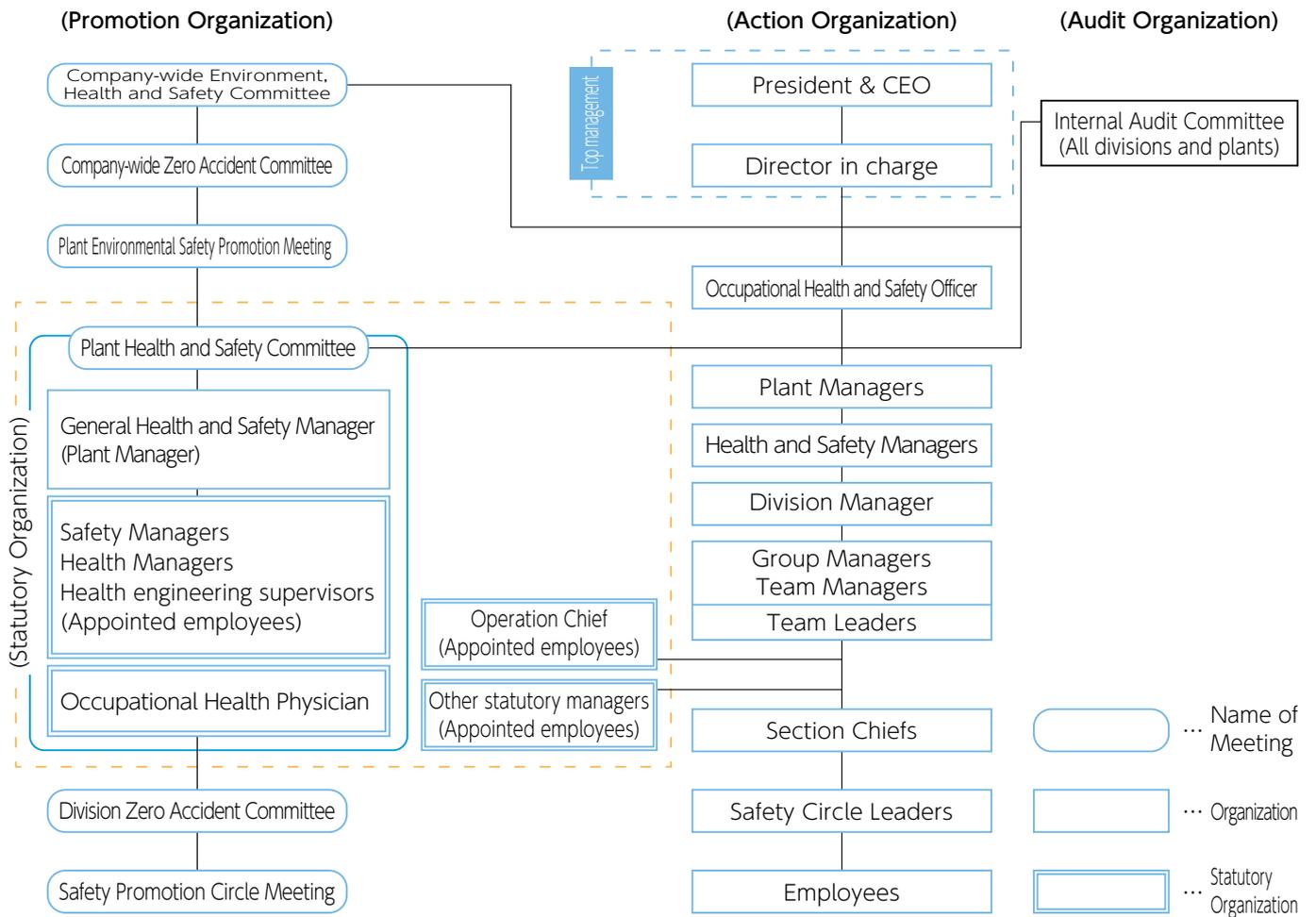
1. We will identify the sources of risks associated with each process in our corporate activities and take steps to prevent labor accidents and illnesses. We will strive to reduce the risks and to maintain and enhance the physical and mental health of our employees.
2. We will provide a good working environment that allows all employees to work vigorously without anxiety.
3. We will comply with laws and regulations relating to occupational health and safety and with other recognized requirements.
4. We will operate an occupational health and safety management system to ensure that every employee engages in occupational health and safety activities and to make continued improvements to attain our occupational health and safety goal.
5. We will ensure that every employee is aware of our occupational health and safety policy, using occupational health and safety cards and other means to raise their awareness of occupational health and safety and encourage proactive behavior.
6. We make this policy public and we make it available any time when requested.

We also make this policy available on our website. <http://www.ibiden.com/>



Employee Carrying Occupational Health and Safety Card

## Organization Chart of Occupational Health and Safety Management



(as of March 31, 2018)

### Reviews and Sharing Information

President, officers, directors, and the presidents of affiliated companies participate in meetings of the Company-wide Environment/Health and Safety Committee held at least once a year, which aims to share information on the status of activities based on environmental/occupational health and safety policies and recognition of work-related issues. The chairperson of the labor union is also a committee member. Meetings of the Company-wide Zero Accident Committee, held monthly, are attended by each Plant Manager and management persons responsible for promoting health and safety at affiliated companies. The Committee functions as a place for establishing common ground in order to implement the Plan-Do-Check-Act (PDCA) cycle of activities of the entire IBIDEN Group. Moreover, activities of the Zero Accident Committee are disseminated from committee meetings held monthly at each plant to safety circles (small group activities) in all workplaces of the Group. All employees participate in safety circle activities, in which safety improvement activities of workplaces are promoted through cooperation between the management and employees by conducting activities to facilitate communication and improve the workplace environment, such as pointing to hazardous places and case examples of potential accidents and hazards (Hiyari-hatto), and checking the progress of health and safety-related targets.

Health and safety management activities of the Company are conducted with on-site contractors and contractors who work on the plants of plants. Through workshops, we share information on laws and regulations concerning health and safety as well as the standards of the Company and on-site working rules and exchange opinions with the contractors to promote the creation of a working environment with no accidents. (As for Health and Safety Management System, see "Management System Certification Status" on page 33.)

## Activity Guidelines for Occupational Health and Safety and Results

### Activity Guidelines for Occupational Health and Safety

In fiscal year 2017, we focused our activities on recurrence prevention, accident/incident prevention, health management, and disaster prevention. We worked on occupational health and safety activities to enable employees to work with high spirits and to establish a safe and comfortable workplace across the IBIDEN Group with employee awareness of the "People First" policy.

1. Recurrence prevention: Prevent the recurrence of occupational accidents/potential accidents that have become obvious.
  - (1) To pursue the root cause of accidents through thorough causal investigation in the event of an occupational accident, and determine and implement countermeasures across the IBIDEN Group.
  - (2) To incorporate findings of safety patrol/potential accidents and hazards (Hiyari-hatto)/hazard information of KY (risk prediction) into risk assessment to enable systematic risk control.
2. Accident/incident prevention: Prevent accidents/incidents by identifying potential risks
  - (1) To improve the effectiveness of assessment of risk and potential accidents and hazards (Hiyari-hatto) and risk prediction, and eliminate all types of accidents/incidents.
  - (2) To establish fire-protection control assuming all potential causes to prevent explosions and fires, including minor fires.
3. Health management: Promote the creation of a worker-friendly workplace by improving the work environment and communication.
  - (1) To carry out activities in which all members participate based on the "Next Health 105 Plan."
4. Disaster prevention: Establish and operate a system for initial response at the time of a large-scale disaster.
  - (a) To enhance the level of disaster-prevention management to save lives in the event of a large-scale disaster.

### Measures to Implement Intensively

#### 1. Basic activities

- (1) Workplace safety group activities (potential accidents and hazards (Hiyari-hatto), etc.)

We implement on-site workplace safety group activities by workplace across IBIDEN. Every year, we upgrade the guidelines and assessment standards for group activities and promote improvements in the level of safety activities. Through our group activities, we also work to ensure safe behavior/safe work by raising the awareness of all employees through repetitive learning of safety confirmation points in the workplace.

Fiscal year 2017 results: All workplace safety groups carried out risk prediction training at least twice a month (execution rate: 100%), of which 88.5% of workplace safety groups conducted risk prediction training three times a month or more. In addition, we established a system of recording the minutes of meetings of all workplace safety groups to allow communication of the content of meetings to members who are absent.

- (2) Safety patrol (office organization, Safety Management Section and plant) \*Communication with the method "Genchi (actual scene) Genbutsu (actual thing)"

We regularly conduct self-inspection of office organizations by workplace safety group and safety patrols such as plant health and safety patrols by plant supervisors, managers and labor union members more than once a month. In addition, we had the Operation Manager conduct safety patrols twice a year, and had the division head conduct monthly safety patrols with a focus on monthly safety enhancement items, to disseminate the basic principles of safety-first.

- (3) Raising the awareness through safety education

The IBIDEN Group is implementing education and training for ensuring compliance with safety and health rules to foster a corporate culture of placing priority on health and safety and legal compliance. We provide systematic safety education, such as education and training for employees taking on a new assignment so that all employees can receive safety education. IBIDEN implements hazard-simulation safety education among employees to provide hands-on experience of the dangers of disaster. Doing this rather than giving them only theoretical knowledge of safety education enables them to increase their safety awareness and acquire the ability to avoid risks.

Fiscal year 2017 results: A total of 73 persons received hazard-simulation safety education for managers and supervisors, and a total of 995 persons received hazard-simulation safety education for workers.

#### 2. Specialized activities

- (1) Thorough implementation of operational safety and environment assessment (safety design and test)

We thoroughly enforce the system of safety design, construction safety management and com-



Safety education  
(dangerous experience training)



IBiden Safety Standard (ISS)

pletion test by certified inspectors in accordance with IBIDEN Safety Standard (ISS) and submission of notifications in accordance with relevant laws and regulations. We hold the IBIDEN Safety & Health Meeting for Contractors as a measure to raise the level of construction safety management, and promote reliable dissemination and through penetration of information on law revisions and thoroughly implement contract work safety standards. Fiscal year 2017 results: Achieved a 100% filing rate of statutory notification before deadline.

(2) Health and safety risk assessment (in terms of facilities and operations)

We conduct health and safety risk assessment (RA) of all sites in February every year. Before conducting RA, we provide RA training at all plants including education on points related to recognizing risks and how to estimate them while observing actual operations. Specialized department staff and managers visit sites to check the appropriateness of risk assessment for items identified as high risk as a result of risk assessment.

In addition, we itemized workers being trapped or entangled in equipment, workers making contact with hazardous substances, workers falling, workers slipping or falling, explosions and fires, collisions, and workers suffering cuts and scrapes as company-wide specified risks. We conduct reviews at monthly meetings of the Company-wide Zero Accident Committee to systematically reduce these risks.

Results for fiscal year 2017: All the projected risk reduction plans were completed. (The target was achieved ahead of schedule at IBIDEN plants.)



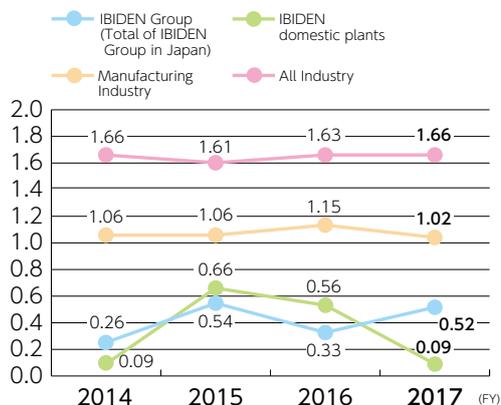
RA implementation training



Audit of on-site contractors

(3) On-Site Contractors

To promote health and safety activities for on-site contractors working at our plants, we implement the "IBIDEN On-Site Contractor Health and Safety Promotion Society" three times a year to raise the level of management of occupational health and safety at each company by making explanations of IBIDEN's policy on environment and occupational health and safety and administrative policies, sharing information on revision of laws and holding workshops on health and safety. In fiscal year 2017, we continued to conduct two-way audits with contractors to check compliance activities regarding the environment, health and safety on-site using actual things, and mutually pointed out what was good and what needed to be improved for raising the level of compliance activities.



Occupational accident frequency rate\* [IBIDEN and Domestic Group companies]

\* Number of occupational injuries (be equal or more than accidents requiring leave) for every million cumulative actual working hour

Trends in the Number of Occupational Accidents [IBIDEN and Domestic Affiliated Companies]

	IBIDEN domestic plants		Domestic affiliated companies		Total of domestic IBIDEN Group companies	
	2016	2017	2016	2017	2016	2017
Fatal accidents	0	0	0	0	0	0
Accidents accompanied by lost work time*1	4	1	2	7	6	8
Accidents not accompanied by lost work time	2	1	2	7	4	8
Minor injuries	6	8	9	5	15	13

\*1 : Including accidents resulting in disabilities

Trends in the Number of Occupational Accidents [Production Bases of Overseas IBIDEN Group Companies]

	ASIA (Excluding Japan)		Europe/Central and South America		Total of overseas IBIDEN Group companies	
	2016	2017	2016	2017	2016	2017
Fatal accidents	0	0	0	0	0	0
Disabilities	0	0	0	0	0	0
Accidents requiring four or more days' leave	6	6	19	20	25	26

Management Indicators (Status of Occurrence of Occupational Accidents)

(1) Number of occupational accidents that occurred at IBIDEN domestic plants: 10 in fiscal year 2017 (down 17%, including minor injuries)

By continuing with thorough activities to prevent specified accidents, we are making improvements in reducing the sources of risks. However, we have not yet achieved zero accidents.

(2) Number of occupational accidents that occurred at domestic affiliated companies: 19 in fiscal year 2017 (up 46%, including minor injuries)

Both the number of accidents and the severity of accidents, including accidents accompanied by a loss in work time, are on the increase. In particular, the number of serious accidents accompanied by lost work time increased sharply (from two in fiscal year 2016 to seven in fiscal year 2017), thus requiring us to urgently take countermeasures. The analysis of occupational accidents that occurred in IBIDEN domestic Group companies has shown that similar occupational accidents have occurred repeatedly, with the recurrence rate at 20% or more.

Under these circumstances, we will take steps toward achieving zero occupational accidents in the IBIDEN Group in fiscal year 2018 and thereafter. As an example of recurrence prevention measures, we will promote activities designed to implement funda-

mental measures to prevent recurrence of similar accidents through identification of problems at the time of occurrence and analysis of the root cause.

- (3) Number of occupational accidents that occurred at overseas major manufacturing companies: 26 in fiscal year 2017 (up 4%; occupational accidents accompanied by lost work time (four days or longer))

We continually held a global EHS meeting every month between the headquarters and each major manufacturing company to follow the PDCA cycle of "pointing out problems," "proposal of solutions for issues," "support and guidance" and "audit for effectiveness."

- (4) Number of occupational accidents in contract work: Achieved zero accidents in fiscal year 2017 (three in fiscal year 2016)  
In order to maintain good results, we will continue to hold the "IBIDEN Safety & Health Promotion Meeting for Contractors" (held three times a year) to promote enhancement of the level of health and safety management. We will do this through, for example, compliance with relevant laws and regulations and the Company's rules, facilitation of active participation in our disaster-prevention activities and exchange of opinions in group exercises.

## Managing Employee Health

### Next Health 105 Plan

While the "The second term of the National Health Promotion Movement in the 21st Century (Health Japan 21 (second term))" is being promoted by the Ministry of Health, Labour and Welfare, the Company and its domestic Group Companies worked on promoting employee health by implementing the "Next Health 105 Plan," the five-year plan from fiscal year 2013 to fiscal year 2017. From fiscal year 2018 and thereafter, we will conduct health promotion activities under the new "Smart Health 110 Plan."

#### ★Health105 Plan

##### «Principles of activities»

- (1) It is fundamental that each employee "protects his/her health by him/herself", and the Company supports it.
- (2) The "level of health of employees" and the "health performance of the Company" are a barometer of the Company's expansivity and contribution to society.
- (3) To extend healthy life expectancy.
- (4) To overcome lifestyle-related diseases.

##### «Target»

- (1) To maintain and improve physical and mental health of employees.
- (2) To improve labor productivity.
- (3) To reduce medical expenses.

Activities were led by the Health Subcommittee and conducted in collaboration with each plant toward achieving the targets. In the company cafeteria, we held a healthy food promotion event to improve employees' health consciousness. Each plant conducts activities aimed at establishing a habit of exercising among employees according to the characteristics of the workplace, such as holding a walk rally, bowling competition, and ground golf competition and setting up a fitness room.

To prevent any employee from having to take a leave of absence due to mental health problems, we promote using the Stress Check System that allows each employee to check his/her level of physical and mental stress (self-care). We also compiled case examples and made them available to facilitate early detection and responses. In addition, we hold workshops conducted by occupational health physicians and training by job grade to raise the awareness of stress in the workplace among managers and supervisors (line care). Based on the results of the Stress Check System, we have an organizational analysis conducted by an occupational health physician, identify problems, and provide advice to the management. In addition, we have established a system for providing psychological support to employees who experience job changes due to organizational changes.

In recognition of the series of health promotion activities, the Company, as well as TAK Co., Ltd., IBIDEN Engineering Co., Ltd., and IBIDEN Bussan Co., Ltd., which are IBIDEN Group companies, have been recognized under the 2018 Certified Health and Productivity Management Organization Recognition Program by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi as organizations engaging in activities to promote health management of employees from a management perspective.

### Health105 Plan (FY2013 to 2017) Activity Plan and Management Indicators (IBIDEN)

items	Indicators	FY 2017	FY2018
		Performance	Target
Increase in the number of persons who maintain a proper weight	BMI 18.5-24.9	65.5%	80.0%
Increase in the number of persons who have developed exercise habits	30 minutes or more/day, twice or more/week	17.6%	20.0%
Decline in the ratio of smokers	ratio of smokers	31.1%	30.0%
Improvement of ability to cope with stress	Mental disorders	0.80%	0.50%

# Environmental Management

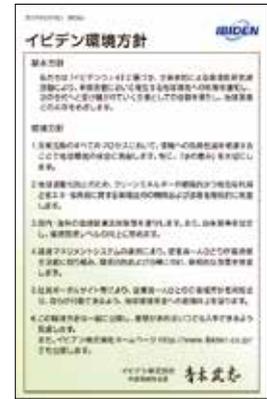
Keeping environmental preservation in business in mind, we will thoroughly eliminate the loss of resources and energy in order to contribute to social development efficiently. We will dedicate ourselves to environmental protection by offering technologies and products designed to reduce the environmental burden.

## Environmental Management - Vision

We conduct the environmental load reduction activity with all concerned people under IBIDEN way, aim "Harmony with nature" by reducing the bad effect on global environment generated in our business operation, and fulfill the role as enduring company.

## Environmental Policy

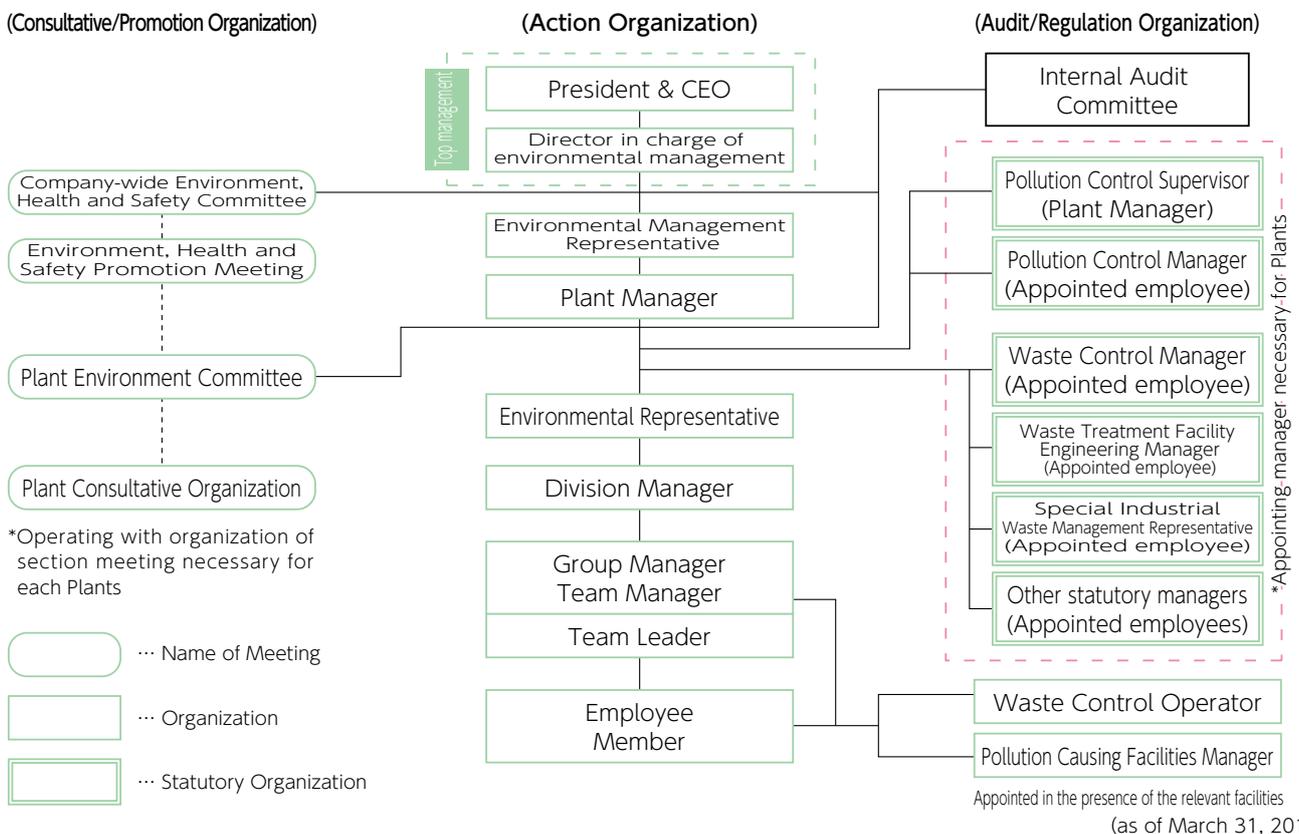
1. We contribute to protecting the global environmental by minimizing the environmental burden in every process of our company's activities. We especially value water and its benefits to the Earth.
2. We continuously promote positive and effective use of clean energy by developing and improving eco-technology that saves energy and resources.
3. We comply with environmental rules and regulations of domestic and international countries. We set our own standards and advance our environmental management capabilities.
4. We encourage all employees to share the purpose and goals of environmental protection and devote themselves to environmental protection activities. We accomplish this by utilizing an Environmental Management System.
5. We publicize this environmental policy by Employee portal site to promote awareness of environmental protection and to inspire each employee to act voluntarily.
6. We make this policy public and we make it available any time when requested.



Employee Carrying Environmental Policy Card

## Organization chart of Environmental Management

Grounded in values that emphasize harmony with nature, we are working group-wide to promote environmental management. With the president as the head of the companywide environmental management system, we have established the workplace-based Environment Committee led by the head of each workplace to facilitate environmental management.



Apart from the activities mentioned above, we hold meetings organized by environmental protection promoters who are designated by each operational division, while the entire Group shares information on environmental protection mainly in the global environmental meetings along with eight major production bases and the energy conservation meetings attended by energy conservation promoters of each division.

## Management System Certification Status

### Domestic group companies certified with ISO 14001 and OHSAS 18001\*1

We are pursuing ISO14001 and OHSAS18001\*1 certification with an in-house management system as the means to continuously improve the environmental footprint caused by the Group's activities, products and services. Together with IBIDEN Graphite Co., Ltd., and IBIDEN Engineering Co., Ltd. (Water Treatment Section), which are directly linked to our business activities, we obtained ISO14001 certification in January 2000 and OHSAS18001 certification in March 2003. In fiscal year 2011, we began operating a management system that integrated ISO 14001 and OHSAS 18001. In fiscal year 2014, we merged our entire management system including the quality management system as the IBIDEN Management System (IMS) and started operating it.

Our management systems have been verified both by semiannual internal audit and annual external audit, which indicates that it has been properly established and operated. Through the improvement of items identified by internal and external audits, the level of our management system are upgraded further.

Each workplace has an assigned full-time head (Plant manager), and the each Environmental Committee and the each Health and Safety Committee are led by the head of each workplace based on the Plan-Do-Check-Act (PDCA) cycle of activities. A meeting consisting of heads of workplaces is held monthly where information is exchanged on inter-workplace activities, with a goal to increase the level of all IBIDEN workplaces.

Acquisition Status of the ISO14001 and OHSAS18001 Certifications for Domestic Group Companies						
Name of the Group Company	IBIDEN*2	IBIDEN Engineering (Head Office)	IBIDEN Greentec	IBIDEN Bussan	IBIDEN Industries	IBIDEN Jushi
ISO14001Cert.	Jan. 2000	Oct. 2002	Mar. 2004	May. 2005	Sep. 2005	Jun. 2009
OHSAS18001Cert.	Mar. 2003	Oct. 2013	Jan. 2013	May. 2013	Aug. 2012	Mar. 2013

\*1 OHSAS18001: A standard for occupational health and safety management systems. OHSAS stands for Occupational Health and Safety Assessment Series

\*2 The above certifications were acquired in Ogaki, Ogaki Central, Aoyanagi, Gama, Ogaki-kita, Kinuura, Godo, Head Office, and Energy Control division as well as some domestic group companies including IBIDEN Engineering Co., Ltd. (Water Treatment division), IBIDEN Graphite Co., Ltd., IBIDEN Chemicals Co., Ltd., and IBIKEN Co., Ltd. (Housing Materials division).

### Overseas group companies certified with ISO 14001 and OHSAS 18001

In our Group, not only Domestic group companies but also Overseas group companies are working to obtain ISO 14001 and OHSAS 18001 certification. In April 2016, IBIDEN Porzellanfabrik Frauenthal GmbH. obtained OHSAS 18001 certification. Currently IBIDEN DPF France S.A.S. is working to acquire the certification. In the future, we will continue with efforts to obtain this certification for overseas group companies as well as domestic group companies.

Acquisition Status of the ISO14001 and OHSAS18001 Certifications for Overseas Group Companies								
Name of the Group Company	IBIDEN Philippines	IBIDEN Electronics (Malaysia)	IBIDEN Electronics (Beijing)	IBIDEN Electronics (Shanghai)	IBIDEN Hungary	IBIDEN DPF France	IBIDEN Porzellanfabrik Frauenthal	IBIDEN Mexico
ISO14001Cert.	Jun. 2003	Mar. 2013	Jul. 2003	Feb. 2005	Apr. 2007	Planning	Feb. 2002	Apr. 2018
OHSAS18001Cert.	Aug. 2013	Mar. 2013	Mar. 2007	—	Sep. 2014		Apr. 2016	Planning

## Environment and Occupational Health and Safety-Related Laws and Regulations

The IBIDEN Group deals with chemicals at many of its plants, some of which are adjacent to residential areas. Issues such as air pollution, wastewater, and noise pollution therefore require our special attention.

The Group sets its own standards for what is required by national, regional, or municipal regulations for activities and operations that may have a significant environmental impact, and regularly measures and monitors compliance. (“Environmental Data for Individual Plants and Group Companies” (see pages 45 to 49)). To reassure the residents of surrounding areas, the Group, led by the plant managers, communicates with regional representatives about its business activities at its plants.

In fiscal year 2017, we received two recommendations for correction regarding occupational health and safety from the supervisory authorities, and made immediate improvements. Environmental data show that no emissions violating standards occurred. No leakages from our plants occurred that would seriously damage the environment. There were no records of penalties or sanctions incurred by the Group related to violations of environmental and occupational health and safety laws and regulations. We will continue to strengthen the management of pipe-end locations to prevent environmental effects on local residents from leakages, noise, or odor from our plants. The IBIDEN Group will continuously monitor soil pollution risk caused by leakage of chemical substances while conducting investigations, improvements, and maintenance of locations with potential risks through the Chemical Control Committee, in order to ensure compliance with laws and regulations.

## Guidelines for Environmental Activities

In fiscal year 2017, we conducted environmental protection activities with all employees participating in accordance with the guidelines below. The focus was on environmental risk reduction, energy saving, and resource circulation, and the aim was to minimize business risk and contribute to boosting our competitiveness.

1. Hedging against business risks through reduction, early detection, and preventive improvement of environmental risks
  - Ensure compliance with laws and regulations through global management of chemical substance-related laws and regulations.
  - Enhance the level of pipe-end management to prevent environmental impact on local residents from leakages, noise, or odor from our plants.
2. Ensuring effective use of energy according to fluctuations in production volume and reduce all unwanted energy
  - Cut energy costs through the promotion of organizational activities in accordance with the policy of each division and the environmental policy of plants.
  - Reduce costs to a competitive level by clarifying/optimizing the module target specs (MTS) of manufacturing conditions and clarifying operational management conditions.
3. Ensuring proper use of resources according to fluctuations in production volume, promoting waste reduction, and ensuring compliance with waste management
  - Promote valuable resource conversion and recycling of industrial waste and conduct compliance management of the process up to the final disposal of industrial waste.

\*MTS: Abbreviation of Module Target Spec and target value for designs of each process in order to manufacture good products.

## Coping with Climate Change Issues

Issues related to climate change are receiving increasing attention worldwide, and tighter laws and regulations on emissions are expected in the near future. These issues have the potential to become risk factors, such as increased energy/resource costs affecting the Group's business activities. On the other hand, it involves opportunities for us to contribute to solving problems and working to expand business at the same time by developing products that meet global regulations. Therefore, climate change is a very important issue for the Company.

In the structure for advancing risk management, the Environment & Safety Division, which is the division in charge of the environment, is responsible for risks related to climate change, which is environmental risk. Regarding the process for specifying assessments on climate change-related risks and opportunities, the energy conservation meetings conduct assessment of energy-related regulation risks. Action policies are broken down into company-wide priority activity items and policy management of the division in charge.

Under these circumstances, we have already set in motion our plan to comply and adapt to laws and regulations such as Japan's Act for Countermeasures against Global Warming and laws related to rationalization of energy usage (the Energy Conservation Act). Through private power generation initiatives to supply clean energy as well as energy conservation efforts in our manufacturing activities, we are working to cut direct greenhouse gas emissions.

### Measures to Supply Clean Energy

The IBIDEN Group can trace its history back to a scheme aimed at building a hydroelectric power plant upstream on the Ibigawa River to supply power and attract industry and thereby help revitalize the nearby city of Ogaki. The Group was established under the name Ibigawa Electric Company in 1912, but over time began to utilize electricity to evolve into an electrochemical company. We have continued to expand our business since then, including areas such as carbides, carbon, building materials, ceramic products and electronic products, as we have grown and developed hand in hand with local communities. IBIDEN owns three hydroelectric power plants in the upstream section of Ibigawa River in Gifu Prefecture. Hydraulic power generation uses the potential energy of water to create clean energy without greenhouse gas emissions.

### Repair Work on Hydroelectric Facilities and Electric Power Supply for Demanders

To maintain and increase its power output, IBIDEN implements repair work at its three hydroelectric power plants (Higashi Yokoyama Power Plant, Hirose Power Plant, and Kawakami Power Plant) systematically by repairing water supply tunnels and updating generators to the latest models. IBIDEN's hydroelectric power plants satisfy the standards for the renewable energy buyback program (Feed in Tariff program). In March 2013, we established a facility at the Ogaki-Kita Plant for connecting our power grid to that of electric power companies. We made electricity generated by each hydroelectric power plant available for sale to local electricity users, contributing to reduced CO<sub>2</sub> emissions. IBIDEN Engineering Co., Ltd., one of the group companies, by making optimal use of the Company's technologies that have enabled the development of equipment for hydroelectric power plants, operates various energy solutions businesses, including equipment for hydroelectric power plants, power substations and solar power generation plants. We also make wide-ranging proposals that contribute to environmental protection and energy saving, etc. (See page 41 "Environmental Contribution through Business and Products.")

\* Water supply tunnels: Tunnels for providing water to power plants



Hirose Power Plant (Updated in 2012)  
Power output: 8,900kW



Kawakami Power Plant (Updated in 2014)  
Power output: 4,400kW



Higashi-Yokoyama Power Plant  
(Completed the update in 2015)  
Power output: 14,600kW

In addition, we established a large-scale floating solar power generation system at the lumberyard parking site at the plant, and introduced high energy-efficient co-generation systems to our plants, which are generating electricity in-house.

To upgrade our private power generation systems, we are increasing hydroelectric power generation capacity and improving the efficiency of co-generation systems. We are continuously working to expand our use of natural energy and improve the efficiency of environmentally sound co-generation systems.

## Energy Conservation

As the Group consumes a large amount of energy through its production activities—whether it is the temperature control during the manufacturing process of electronics or the electric furnaces used for ceramics—energy conservation is an important issue for us. All manufacturing divisions are therefore managing the energy unit load as well as the energy consumption and setting specific targets for each division to improve the energy conservation practices throughout the entire Group.

The Energy Conservation Meeting is held monthly, and attendees, including employees of the manufacturing divisions and related functional divisions, have discussions, create action plans, report progress status, present case examples with the aim to share improvement information, and provide advice from the management, to operate a PDCA cycle of energy conservation improvements with the participation of all employees. The Energy Conservation Meeting also monitors risk factors, such as energy cost increases, and works on improvements based on the idea that increasing energy efficiency is linked directly to enhancing the Company's competitiveness.

In fiscal year 2017, we promoted the efficient use of energy by adapting promptly to changes in production volume to minimize energy loss during production and energy use during production stoppages. In order to ensure implementation of energy-saving designs, we evaluate energy-saving points that need to be managed, such as energy use and heat insulation construction, in the environmental assessment at the time of establishment or relocation of manufacturing facilities.

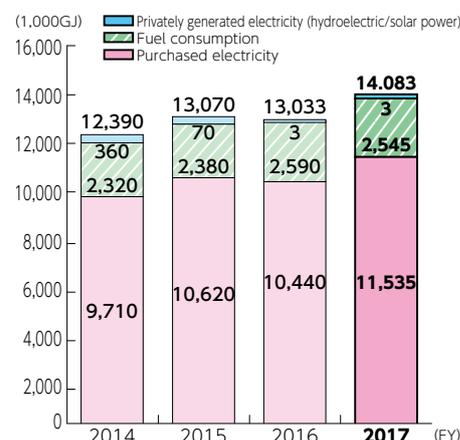
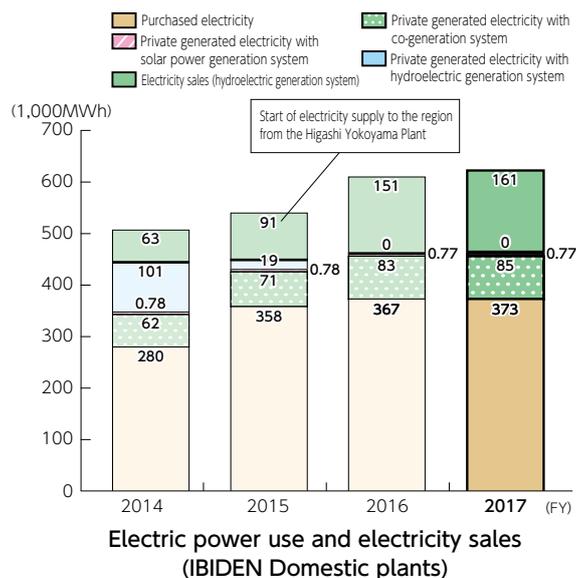
## Trends of GHG emissions

Energy-saving activities are conducive to reducing emissions of CO<sub>2</sub>, a greenhouse gas (GHG), and GHG emission intensity (per production volume). The CO<sub>2</sub> emission unit load rate per production volume\*, with the results for fiscal year 2012 indexed to 100, in fiscal year 2017 improved to 104 by 2 percentage points from the fiscal year 2016 level, but deteriorated compared to the base year. This was due to the following: the start of supply of electricity generated at the Higashi Yokoyama Hydroelectric Generating Plant in fiscal year 2015, increased energy consumption due to more sophisticated products, and longer operating time of manufacturing facilities at production bases following the launch of new products.

\*We use converted production volume for calculating production volume.

With respect to the medium-term CO<sub>2</sub> emission target for fiscal year 2018 and thereafter, we will aim to reduce the basic unit per converted production per year by 5% (fiscal year 2017) over the period from fiscal year 2018 to 2022, compared to the fiscal year 2017 level. Going forward, we continue to aim to achieve the goal by cutting energy consumption through measures including energy conservation.

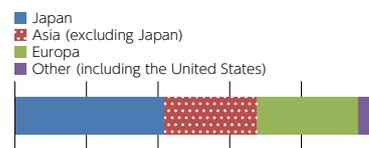
We also provide society with electricity equivalent to about 84,200 tons of CO<sub>2</sub> generated through private power generation using hydroelectric plants and in the renewable energy business at a Group company as clean energy without greenhouse gas emissions.



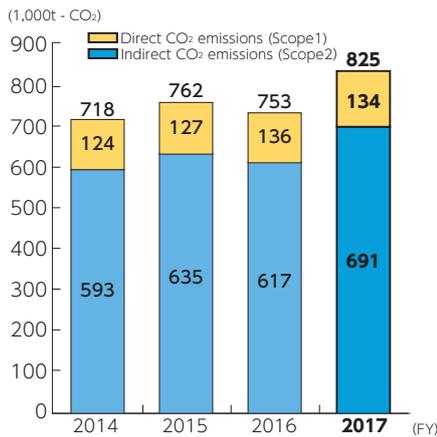
Amount of energy consumption (IBIDEN Group)

\*1 The conversion factor used in Japan (9.76 GJ/1,000 kWh) is used for converting the energy of purchased electricity. For others, the conversion factor of 3.6 GJ/1,000 kWh is applied to calculations.

\*2 As a result of changes in calculation method, figures have been adjusted from the 2017 CSR Report.

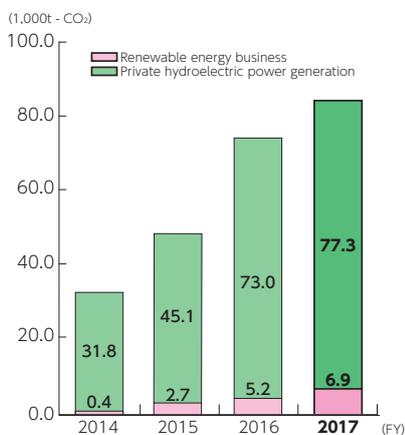


Ratio of energy consumption by region (IBIDEN Group)



Trends of CO<sub>2</sub> emissions\*1\*2 (IBIDEN Group\*3\*4)

- \*1: As a result of changes in calculation method for fuels and electric energy, figures have been adjusted from the 2017 CSR Report.
- \*2: CO<sub>2</sub> emissions show figures covering production-related locations in Japan and overseas. With regard to the CO<sub>2</sub> emission factor at the time of calculation, we used the factor provided by the "List of Calculation Methods/ Emission Factors in the Calculation, Report and Publication System" of the Ministry of the Environment and the Ministry of Economy, Trade and Industry in Japan as well as by gas distribution companies.
- \*3: CO<sub>2</sub> emissions indicate emissions from all production bases related to production in Japan and overseas.
- \*4: The results of CO<sub>2</sub> emissions for fiscal year 2016 at IBIDEN domestic plants and its major overseas Group companies have been verified by external organizations.



Trends in the volume of the contribution of the hydroelectric power generation/energy business (CO<sub>2</sub> equivalent\*5\*6, IBIDEN domestic group company)

- \*5 The above is an estimated amount obtained by converting the contents of improvement activities to CO<sub>2</sub> reductions.
- \*6 Indicate CO<sub>2</sub> emissions reduction effect by comparing the aggregate amount of privately generated electricity sold to electricity users and the amount of electricity contributed by the Group in the energy business, such as solar power generation and small hydroelectric generation, with the power generation coefficient used by electric power providers (CO<sub>2</sub> emission coefficient of electric power companies—emission coefficient of power generation business × power generation in the power generation business)

## Resource Circulation

### Resource Circulating Activities

IBIDEN believes that it is an important responsibility of businesses to make effective use of the world's scarce resources and to take part in a global effort to conserve resources. We promote the so-called 3R activity, which consists of initiatives to Reduce, Reuse and Recycle the resources we consume. In doing so, we aim to improve the resources efficiency. Since 2004, IBIDEN has been maintaining a zero-emission\* status in terms of solid waste.

The IBIDEN Group sets an index to control solid waste per production volume and has been taking action to implement such control. Our target is to improve it annually by 2% globally during the period between fiscal year 2013 and fiscal year 2017. Since fiscal 2013, we have been pushing ahead with on-site confirmation of waste management by promoting the recognition through visualization of the amount and cost of industrial waste. Through our taskforce team, we are pushing forward with turning what would have been waste into valuable resources by eliminating the difference between plants mainly concerning sorting of waste plastics.

In fiscal year 2017, production volume increased significantly from fiscal year 2016, and the amount of solid waste increased year-on-year. However, through the promotion of valuable resource conversion and recycling of industrial waste, the amount of waste per production volume, with the results for fiscal year 2012 indexed to 100, achieved the target for fiscal year 2017 at 83 (target: 90). Regarding compliance with laws and regulations related to waste management, we maintain nearly 100% compliance through management using the electronic manifest system. For fiscal year 2018 and thereafter, we have set a target of reducing the solid waste unit load rate per converted production volume by 5% compared to the fiscal year 2017 level over the five years through fiscal year 2022. We will continue to promote proper use of resources and reduction of waste according to fluctuations in the production volume so that we will be able to achieve our reduction target. (Please refer to the Graph "Trends of amounts of solid waste".)

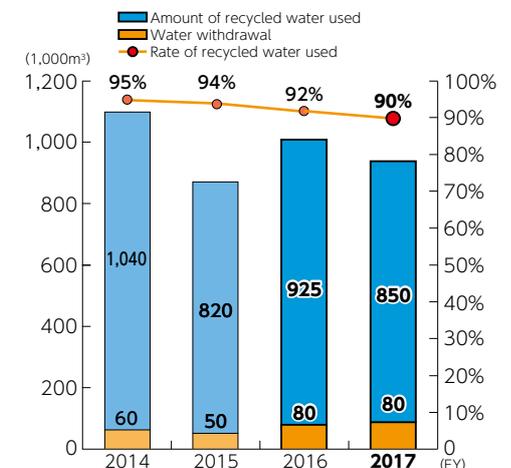
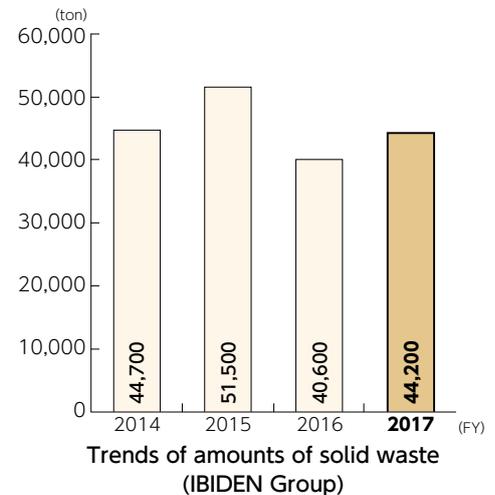
\* IBIDEN defines zero emission as a state in which no solid waste emitted from the production process is dumped directly in landfills.

### Effective Utilization and Reduction of Water Resources (Water Conservation Efforts)

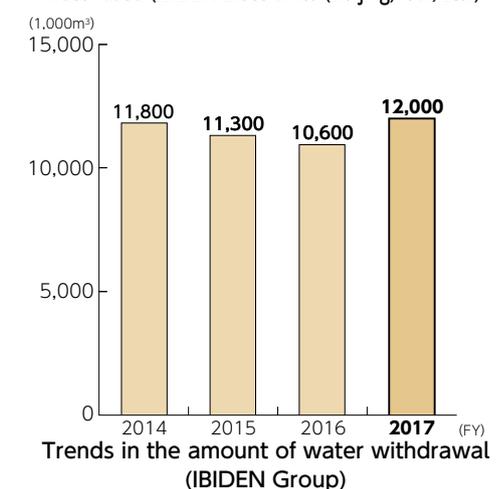
A large amount of water resources is used in the manufacturing process of electronic products, particularly for cleansing. Ogaki City in Gifu Prefecture, where our domestic production bases are concentrated, is rich in underground water thanks to the Ibigawa River system. However, water shortages are a serious problem in the world today. Based on the principle of so-called 3R activity—initiatives to reduce, reuse, and recycle resources—the Group carries out business activities by integrating environmental technologies into manufacturing technologies, which has reduced the amount of industrial water use. To ensure the optimum control of wastewater and effluent and the facilitation of 3R activity for water resources, relevant divisions have discussions monthly to check progress and report.

We carry out risk assessment of water resources in-house by referring to data released by the World Resources Institute (WRI) and other data, and we have thus identified IBIDEN Electronics (Beijing) Co., Ltd. and IBIDEN Mexico S.A. de C.V. as our Group companies with a high water resource risk. IBIDEN Electronics (Beijing), which uses particularly large amounts of water, has been increasing the use of recycled water inside its industrial park since fiscal year 2012. As a result of such efforts, the ratio of water recycling has been maintained at over 90%. (Please refer to the Graph entitled "Trends in the amount of water withdrawal".)

The IBIDEN Group has worked to reduce the water withdrawal per production volume. Our target is to improve it annually by 2% globally between fiscal year 2013 and fiscal year 2017. We reexamined high water-use processes and reduced the amount of water withdrawal at plants that consume large amounts of water. As a result, the amount of water withdrawal per production volume in fiscal year 2017 stood at 72 (target: 90) with the result for fiscal year 2012 indexed to 100. We will continue with our efforts to reduce the water withdrawal unit load rate by saving and recycling water at all plants.



Trends in the amount of water withdrawal and recycled water used (IBIDEN Electronics (Beijing) Co., Ltd.)



## Appropriate Chemical Control

### Responding to the Regulations regarding Chemical Substances in Products and Manufacturing Processes

IBIDEN uses various chemical substances in the plating process. Since chemical substances may cause pollution and human health hazards, management of chemical substances is subject to risks. As the laws and regulations on chemical substances in each country are increasingly rigorous, the management of chemical substance is one of the key issues for the Group from the point of view of compliance. To prevent chemicals from causing harm, we practice appropriate chemical control by reducing or completely eliminating the use of certain chemicals. We operate the Chemical Control Committee as an internal organization, establishing a system to swiftly identify and respond to community demands related to chemical substances as shown in the REACH system in Europe. We have also operated the systems for chemical control at overseas manufacturing bases. In Japan, we started to carry out risk assessments on chemical substances in fiscal year 2016 to address risk issues ahead of enforcement of the law that mandated the risk assessment. The Company takes part in the industry-wide discussion and information-sharing on issues such as regulations regarding chemical substances by serving as a trustee for the Japan Electronics Packaging and Circuits Association and participating in its Environmental Safety Committee.

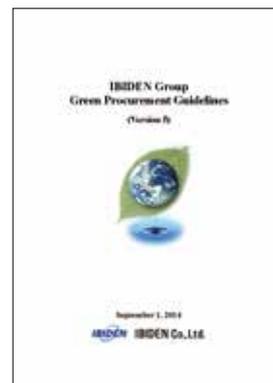
### Storage and Management of Polychlorinated Biphenyl (PCB)

IBIDEN and its domestic Group companies are working systematically, based on the government's basic plan, to complete the removal and disposal of PCB-containing equipment and waste ahead of deadline. We will successively replace PCB-containing equipment in accordance with the equipment replacement plan. At the same time, we will appropriately store and manage equipment that falls under PCB waste and transport it to disposal facilities at an appropriate time in accordance with laws and regulations to facilitate complete PCB disposal.

In fiscal year 2017, we disposed of 27 units of equipment that fell under low concentration PCB waste.

### Approach to the Supply Chain

Cooperation throughout the entire supply chain is essential to address environmental issues including chemical control as well as to push forward with CSR. We have issued green procurement guidelines to our business partners in an effort to check the status of our business partners' measures for environmental management and chemical control, and conduct surveys on the status of inclusion of chemical substances that may cause a significant environmental burden. The Company conducts content examinations not only on substances already designated as examination items by regulation, but also those that are likely to receive such a designation in the near future. We are also organizing a structure that will allow us to work collaboratively with suppliers to address nations' environmental regulations in a timely manner. Furthermore, each Group company has developed guidelines and management systems to conduct their own investigations, and keeps track of the status of inclusion of chemical substances by conducting chemical substances inclusion surveys. The target of an investigation is selected by linking with the procurement system to prevent any omissions, and information on chemical substances that need to be controlled is gathered continuously. Moreover, the information gathered by the Company regarding chemical substance content is managed by an IT system that is designed to respond quickly to inquiries. We also systematically conduct on-site audits of priority suppliers (see pages 17 "CSR Management in the Supply Chain").



IBIDEN Group Green Procurement Guidelines

### Released and Transferred Amounts of PRTR\*-Listed Chemical Substances

With respect to domestic laws, to respond to the PRTR Law and the Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances, we are enhancing in-house chemical control systems to build a management structure that prevents any omissions and errors.

\* PRTR : Pollutant Release and Transfer Register

■ 18 chemical substances subject to mandatory reporting to Gifu and Aichi Prefecture ■ Specified Class I Designated Chemical Substance: 2  
 ■ Class I Designated Chemical Substance: 16 ■ Total amounts released or transferred: approx. 411t/ year

ID No.	Regulated Substance	Amount discharged (to air, public waterway, soil, or in-house landfill)				Amount transferred		Total amount discharged and transferred (kg/year)
		Discharged to air (kg/year)	Discharged to public waterway or river (kg/year)	Discharged to soil on facility grounds (kg/year)	Buried in landfill off-site facility grounds (kg/year)	Transferred to sewerage (kg/year)	Transferred off-side as waste material (kg/year)	
20	2-Aminoethanol	2,296	0	0	0	0	218,601	220,897
59	Ethylenediamine	0	0	0	0	0	0	0
71	Ferric chloride	0	0	0	0	0	0	0
76	ε-Caprolactam	0	0	0	0	0	103	103
80	Xylene	14	0	0	0	0	0	14
232	N,N-dimethylformamide	0	0	0	0	0	7	7
237	Mercury and its compounds	0	0	0	0	0	31	31
272	Copper salts(water-soluble, except complex salts)	0	742	0	0	49	56,429	57,220
296	1, 2, 4-Trimethylbenzen	17	0	0	0	0	0	17
308	Nickel	0	0	0	0	0	0	0
309	Nickel compounds	0	0	0	0	0	4,995	4,995
349	Phenol	30	0	0	0	0	0	30
368	4-tert-Butylphenol	0	0	0	0	0	23	23
395	Water-soluble salts of peroxodisulfuric acid	0	0	0	0	0	0	0
405	Boron compounds	0	0	0	0	0	2,887	2,887
408	Poly(oxyethylene)octylphenyl ether	0	0	0	0	0	0	0
411	Formaldehyde	1,452	0	0	0	0	111,275	112,727
412	Manganese and its compounds	0	0	0	0	0	12,040	12,040

【Surveyed】 IBIDEN and IBIDEN Group companies covered by IBIDEN's environmental-management system 【Survey period】 April 2017 through March 2018

## Understanding the Influence on Biodiversity

Initiated from the power of water, the Group's business activities are blessed with the benefit of biodiversity such as maintaining a stable water supply. And our activities also have some impact in the area of biodiversity. Just as we need to cope with the issues of global warming due to climate change, biodiversity conservation is one of the most important tasks to tackle.

Aiming to contribute to constant social advancement, in line with the values stressing "Harmony with Nature," IBIDEN will act responsibly as a global enterprise by working together with society.

### Conserving Biodiversity and Concrete Approach to its Sustainable Use

We will contribute to conserving biodiversity in local communities and its sustainable use by practicing forest conservation activities that support stable water source and social contribution activities in collaboration with the local community mainly upstream along the Ibi River, where the IBIDEN Group originated.

### Forest Preservation Activity Areas

In August 2008, IBIDEN signed an Agreement on Lively Forest Creation with the Gifu Prefectural Government, the Ibigawa Town Government and the Ibi Shizen Kankyo Rangers (a nonprofit organization). According to this agreement, we will plant trees, thin the forests and conduct improvement cutting in IBIDEN's Forest Higashi Yokoyama Forest in the Higashi Yokoyama district and IBIDEN's Forest Fujihashi Forest in the Tsurumi district over the next 10 years, in an effort to support sustainable reforestation activities in the future.

→ For details on forest preservation activities, please refer to "Social Contribution" on page 50.

<Target Areas of Forest Preservation Activities (fiscal year 2008 to fiscal year 2017)>



## Environmental Contribution through Business and Products

### Product Life Cycle Assessment

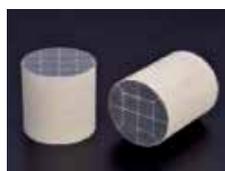
IBIDEN is promoting a design that takes into consideration safety/environmental rules and regulations, energy conservation and resource conservation from the initial stage of product development. In design reviews to examine product development/design, we have added environmentally conscious design guidelines for product and process safety, environmental regulations/safety of materials used and energy conservation consciousness reflected in the production process as examination items. We are building a system to confirm whether products developed and produced by IBIDEN are environmentally friendly.

By following environmentally conscious design guidelines, we conduct information searches on chemical substances in novel materials during the technical development phase. We promote environmentally conscious design as a routine activity by linking environmentally conscious design reviews with product design reviews. If any chemical substances in chemical substance information collected and extracted at the time of examining materials fall under control substances for compliance reasons, alternative substances are examined.

### Automotive Exhaust System Components

Diesel Particulate Filter (DPF), which can trap 99% or more of the black smoke emitted by diesel engines\*, have grown as a standard component of the industry due to their performance and reliability. In the category of Substrate Holding Mat (MAT), we also provide products that meet market trends, achieving a high reputation and share in the market. We will continue to develop highperformance products and to reduce damage to the environment for the next generation.

\* The Company's estimate



SiC-DPF (Diesel Particulate Filter)



Substrate Holding Mat (MAT)



Automobile NOx reduction catalyst

### Projects to Promote Renewable Energy

IBIDEN Engineering Co., Ltd., a member of the IBIDEN Group, has initiated projects in the field of energy solution by making optimal use of the Company's technologies to maintain hydroelectric power plants as well as manage co-generation systems. Established an integrated approach, in which its business includes design proposal, construction and maintenance, IBIDEN Engineering has a track record in many power generation business such as ranging from equipment for hydroelectric power plants and power substations to systems for solar power generation plans and small hydroelectric power plans.

Amidst the supply of renewable energy is required as the environmental problems have become increasingly more of a concern, the Company constructed the Japan's largest water floating solar power generation plant, which employs in-house developed floats. The new plant started power generation (a certificated output of 1.99 MW and an annual output of approximately 2,400 MWh). Solar power generation output usually drops in the summer due to the rise in outside air temperature, however, the water floating system, possibly reflecting a cooling effect, is expected to boost power generation 5% compared to the land-based system. We will continue to promote business solutions for the energy problems.



Water floating solar power generation plant at the closed lumberyard parking site of the Kinuura Plan

### Projects That Contribute to Both Disaster Prevention and Environmental Protection

Japan's mountainous terrain has seen numerous incidents of destruction, such as the collapse of slopes due to natural disasters and the spread of development. There is thus a frequent need to create artificial slopes. To boost protection of the slope and ultimately prevent loss of life from landslides, practices for securing artificial slopes in difficult weather and soil conditions have undergone many changes over the years through trial-and-error experimentation with methods and technologies. Traditionally, the most common construction method has been concrete-based centered on the ability to prevent disasters. Today, however, in addition to disaster prevention, consideration of the environment needs to be incorporated to establish a "greener" construction method. IBIDEN Greentec Co., Ltd., a member of IBIDEN Group, has succeeded in developing technologies that respond to the needs of the time and help create a better society. We will continue to develop new construction methods such as our "Totally Green" method to achieve both disaster prevention and environmental protection, which will lead to an environment where everyone can live safely and peacefully.



Slope constructed using the GT frame®

# Environmental Performance Data

## Environmental Accounting

### 1. Environmental Accounting in Support of Environmental Management

In promoting environmental management, IBIDEN performs calculations and analyses to develop a quantitative understanding of investment and costs, seeking to understand the management resources spent on reducing the environmental burden and the results. We use environmental accounting to reflect the effects of investment and cost in the decision-making process at the management level.

### 2. Basis for Calculation

Accounting period	Fiscal year 2017 (April 1, 2017 to March 31, 2018)
Accounting scope	IBIDEN Co., Ltd. and major domestic manufacturing group companies (IBIDEN Engineering Co., Ltd., IBIDEN Graphite Co., Ltd., IBIKEN Co., Ltd., (Housing materials division) IBIDEN Jushi Co., Ltd., IBIDEN Bussan Co., Ltd.)
Calculation method	Calculations conform to the Environmental Accounting Guidelines (2005 edition) published by the Ministry of the Environment.

### 3. Main Environmental Protection Costs

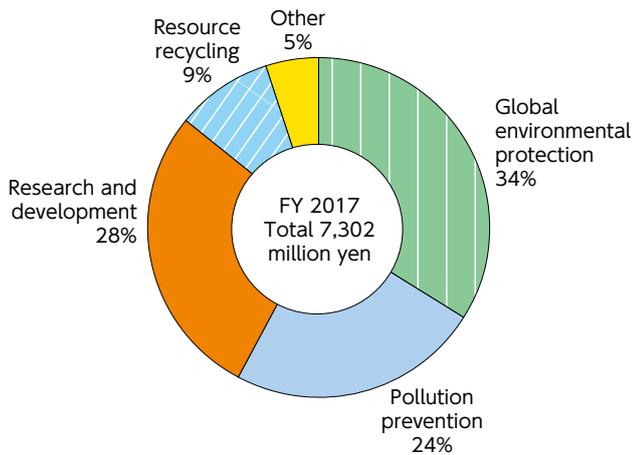
The amount of investment during fiscal year 2017 rose approximately ¥700 million, or 130%, from the previous fiscal year. This mainly reflected the construction of co-generation facilities at the Gama Plant and new development expenses at technology development divisions. Costs in the fiscal year did not change greatly, and were around the same amount as in the previous fiscal year.

(Unit: Million yen/year)

Category		Investments (Note 1)			Costs (Note 1)		
		FY 2016	FY 2017	Year to Year	FY 2016	FY 2017	Year to Year
Business area cost	(1) Pollution prevention costs	21	20	-7%	1,835	1,772	-3%
	(2) Global environmental conservation costs	56	283	408%	2,727	2,465	-10%
	(3) Resources circulation costs	5	4	-18%	638	672	5%
	(4) Upstream and downstream costs	0	0	—	50	99	99%
	(5) Administration costs	84	94	12%	203	201	-1%
	(6) Research & Development costs	357	805	125%	1,754	2,074	18%
	(7) Social activity costs	0	0	—	20	19	-8%
	(8) Environmental remediation costs	0	0	—	0	0	—
	Total	523	1,206	130%	7,226	7,302	1%

Note 1: In cases when the total amount of investments and costs cannot be deemed to constitute environmental protection costs, we have calculated the difference or the proportional share.

#### 4. Distribution Ratio of Total Cost of Environmental Protection



- Research and development costs include the cost of researching and developing next-generation DPFs and other environmentally responsible products, aimed at controlling the environmental burden.
- Global environmental protection costs include maintenance and administration costs of hydroelectric power generation and cogeneration facilities.
- The environment is the main objective of costs associated with hydroelectric power generation and research and development of environmentally responsible products. The total cost is aggregated, as there is no appropriate pro rata basis.

#### 5. Economic Results and Real Effects of Environmental Protection Measures (Note 2)

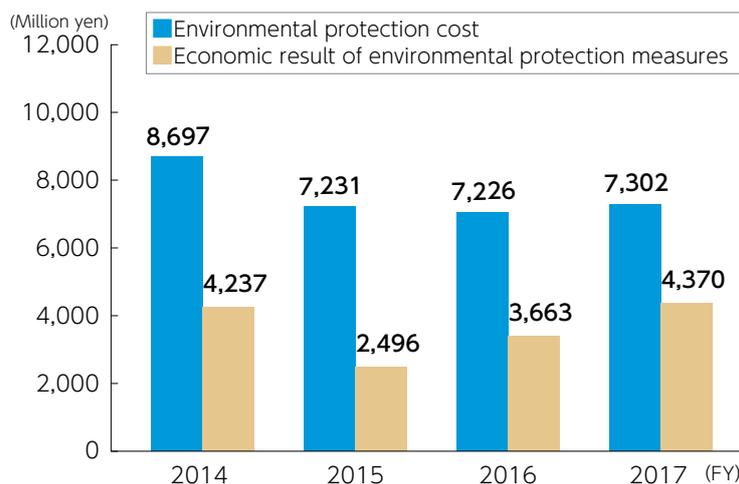
The economic effects of energy conservation for fiscal year 2017 increased about ¥500 million, or 20%, compared to the prior fiscal year. The increase mainly reflected the greater effect of hydroelectric power generation, as the amount of river water was larger than in previous years. The economic effects of resource recycling for fiscal year 2017 rose approximately ¥200 million, up 20% from the previous fiscal year. The major factor behind this increase was a higher gain on sales of valuables, such as liquid waste containing precious metals, as a result of higher production volumes of electronics manufacturing operations. Accordingly, the overall real effects rose approximately ¥700 million, or 19%, compared to fiscal year 2016.

(Unit: Million yen/year)

Description of effects		Amount		Year to Year
		FY 2016	FY 2017	
Real effects	1. Energy conservation effect and electric power marginal profit effect Results of effective hydroelectric power generation, improved power generation efficiency, reduced idle operation loss, improved productivity, improved air conditioning, improved steam energy, and thorough maintenance and control	2,515	3,018	20%
	2. Economic effects of resource recycling (1) Reduced waste • Effects of reduced liquid waste treatment costs, improved yield rates, and reduced waste as a result of loss improvement (2) Recycling of waste • Effects of effective use of waste • Effects of disposal by sale of substrates containing precious metals, liquid waste containing precious metals, sludge containing copper and waste plastics	1,148	1,352	18%
Total		3,663	4,370	19%

Note 2: These figures are not including estimated measure (assumed effect).

#### 6. Fluctuations in Environmental Protection Costs and Economic Results



## The IBIDEN Group's Material Balance (Input and Output)

The IBIDEN Group procures a variety of raw materials and is engaged in manufacturing activities using many of the Earth's resources, including water and energy. To provide earth-friendly products to our customers, we seek to grasp the environmental burden caused by our business activities on a global basis. We will continue to provide high-value-added products while setting medium- and long-term targets and reducing our environmental burden.

Energy use			
Category		IBIDEN *1	Group *2
electricity (MWh)*3	Purchased electricity	373,193	1,181,770
	Renewable energy	774	774
Natural gas (1,000m <sup>3</sup> )	LPG (t)	1,480	1,832
	Kerosene (1,000 l)	298	298
Diesel Oil (1,000 l)		141	1,823
	Heavy oil (1,000 l)	0	1,753

Raw Materials			
Category		IBIDEN *1	Group *2
Metals (t)		1,234	6,553
	Plastics and resins (t)	5,392	10,272
Glass (t)		0	20
	Ceramic material, etc. (t)	13,991	52,603
Wood (t)		290	494
	Paper (t)	4,233	4,966
Agricultural product (t)		0	22,289
	Chemicals (t)	73,093	131,351

Water resources			
Category		IBIDEN	Group *4
Groundwater (1,000m <sup>3</sup> )		5,405	7,359
	Water works (1,000m <sup>3</sup> )	19	4,602

- \*1 IBIDEN: IBIDEN Domestic 7 Plants
- \*2 Group: IBIDEN Domestic Plants and, five Japanese Group companies and ten overseas Group companies
- \*3 Electric power: Privately generated electricity by the Group's thermal power other than above (85,200 MWh for IBIDEN)
- \*4 Groundwater of the Group includes 58,000 m<sup>3</sup> of rivers  
Water works include 851,000 m<sup>3</sup> of recycled water at industrial parks.

INPUT



IBIDEN Group



OUTPUT

Atmosphere			
Category		IBIDEN *1	Group *2
CO <sub>2</sub> (1,000 t)	Scope 1 *4	83	134
	Scope 2 *4	179	684
	Scope 3 *4, 5	115	115
NOx emissions (1,000 t)		0.06	0.10
SOx emissions (1,000 t)		0.000	0.005

Water system			
Category		IBIDEN *1	Group *2
Water system	Discharge to public sewer (1,000m <sup>3</sup> )	514	2,799
	Discharge to river (1,000m <sup>3</sup> )	3,097	5,876
	COD contamination (t)	10	68
	Nitrogen contamination (t)	7	7
	Phosphorous contamination (t)	0.2	0.2
	Industrial wastewater (1,000 t)	14	72

Waste			
Category		IBIDEN *1	Group *2
Material recycling (t)		11,626	31,279
	Thermal recycling (t)	542	3,967
Reuse (t)		602	2,125
Amount of landfill waste after intermediate treatment (t)*6		1,816	4,790
Landfilled industrial waste (t)		0	1,997
Total generated waste (t)		14,585	44,158

- \*1 IBIDEN: IBIDEN Domestic 7 Plants
- \*2 Group: IBIDEN Domestic Plants and, five Japanese Group companies and ten overseas Group companies
- \*3 This does not mean amount of final landfill disposal. Amount of waste which is finally disposed in a landfill (amount before volume reduction treatment by incineration and such.)

\*4 About scope 1, 2, and 3

Scope 1	CO <sub>2</sub> emissions with direct greenhouse gas effects	Emissions from fuel used at plants and emissions of greenhouse gases other than CO <sub>2</sub>
Scope 2	Indirect CO <sub>2</sub> emissions	Emissions from the generation of purchased electricity
Scope 3	Other indirect emissions	CO <sub>2</sub> emissions along the supply chain that are not included in scope 1 and 2

\*5 Scope 3 Emissions by category

Category	Amount of emission (t - CO <sub>2</sub> )	Source of emissions
3 Fuel and energy-related activities not included in Scope 1 and 2.	71,040	Emissions from procurement of fuel and energy used by the IBIDEN Group
4 Transportation/shipping (upstream)	27,330	Emissions from transportation work undertaken by IBIDEN Group companies engaged in logistics operations based on contract from IBIDEN Co., Ltd.
5 Waste from plants	12,400	Emissions from treatment of waste discharged from plants of IBIDEN Co., Ltd.
6 Business trip	920	Emissions from employees of IBIDEN Co., Ltd. who were on business trips in Japan by passenger train using coupons and emissions from employees of IBIDEN Co., Ltd. who took business trips overseas by air on flight routes that have a large total number of passengers transported.
7 Commuting	3,020	Emissions from commuting of employees of IBIDEN Group companies (Japan)

## Environmental Data for Individual Plants and Group Companies - Compliance Management

### Ogaki Plant

#### < No.1 Wastewater Measurement >

Item	Unit	National standard	City standard	Voluntary standard	Average	Maximum
pH		5.8~8.6	5.8~8.6	6.0~8.3	7.3	8.1

#### < No.2 Wastewater Measurement >

Item	Unit	National standard	City standard	Voluntary standard	Average	Maximum
pH		5.8~8.6	5.8~8.6	6.0~8.3	7.3	7.9
BOD	mg / L	160	15	5	6.6	10.0
COD	mg / L	160	Regulation of total emission	Regulation of total emission	5.0	7.3
SS	mg / L	200	30	30	6	12
Copper	mg / L	3	2	1	0.29	0.49
Lead	mg / L	0.1	0.1	0.03	0.01	0.01
Cyanide	mg / L	1	0.1	0.1	<0.01	<0.01
n-H mineral oils	mg / L	5	5	5	<1	<1
Nitrogen	mg / L	120	60	60	2.5	3.9
Phosphorus	mg / L	16	8	8	0.06	0.10
Boron and boron compounds	mg / L	10	10	10	0.14	0.23
Ammonia and ammonium compounds, nitrite and nitrate compounds	mg / L	100	100	100	1.2	2.6

#### < Air Measurement >

Item	Equipment	Unit	National standard	City standard	Voluntary standard	Average	Maximum
Soot	Boiler No.15	g / m <sup>3</sup> N	0.3	0.27	0.27	0.002	0.002
	Boiler No.16	g / m <sup>3</sup> N	0.3	0.27	0.27	0.002	0.002
	Boiler No.17	g / m <sup>3</sup> N	0.3	0.27	0.27	0.003	0.003
	Boiler No.18	g / m <sup>3</sup> N	0.3	0.27	0.27	0.004	0.004
	Boiler No.19	g / m <sup>3</sup> N	0.3	0.27	0.27	0.003	0.003
	Boiler No.20	g / m <sup>3</sup> N	0.1	0.09	0.09	0.003	0.003
	Boiler No.21	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Boiler No.22	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Boiler No.23	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Boiler No.24	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Boiler No.25	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Boiler No.26	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Gas Turbine No.1	g / m <sup>3</sup> N	0.05	0.05	0.05	<0.01	<0.01
Gas Turbine No.2	g / m <sup>3</sup> N	0.05	0.05	0.05	<0.01	<0.01	
NOx	Boiler No.15	ppm	260	260	260	89	89
	Boiler No.16	ppm	260	260	260	95	95
	Boiler No.17	ppm	260	260	260	86	86
	Boiler No.18	ppm	260	260	260	88	88
	Boiler No.19	ppm	260	260	260	98	98
	Boiler No.20	ppm	150	150	150	91	91
	Boiler No.21	ppm	150	150	150	47	47
	Boiler No.22	ppm	150	150	150	51	51
	Boiler No.23	ppm	150	150	150	47	47
	Boiler No.24	ppm	150	150	150	48	48
Boiler No.25	ppm	150	150	150	49	49	
Boiler No.26	ppm	150	150	150	45	45	

#### < Noise Measurement >

Place	Unit	National standard	City standard	Voluntary standard	Average	Maximum
North (morning·evening)	dB	65	65	65	52	55
East (morning·evening)	dB	65	65	65	46	49
South (morning·evening)	dB	65	65	65	46	50
West (morning·evening)	dB	65	65	65	57	59
North (night)	dB	60	60	60	52	55
East (night)	dB	60	60	60	45	49
South (night)	dB	60	60	60	46	47
West (night)	dB	60	60	60	55	59

### Aoyanagi Plant

#### < No.5 Wastewater Measurement >

Item	Unit	National standard	City standard	Voluntary standard	Average	Maximum
pH		5.8~8.6	5.8~8.6	6.0~8.3	7.1	7.4
BOD	mg / L	160	15	5	1.9	5.3
COD	mg / L	160	Regulation of total emission	Regulation of total emission	1.0	3.0
SS	mg / L	200	30	30	6	18
Copper	mg / L	3	2	1	0.29	0.54
Lead	mg / L	0.1	0.1	0.03	<0.01	<0.01
Fluorine	mg / L	8	8	5	<0.1	0.10
Cyanide	mg / L	1	0.1	0.1	<0.01	<0.01
Ni	mg / L	-	-	-	0.02	0.04
n-H mineral oils	mg / L	5	5	5	<1	<1
Nitrogen	mg / L	120	60	60	1.7	2.9
Phosphorus	mg / L	16	8	8	0.08	0.16
Boron and boron compounds	mg / L	10	10	10	0.1	0.1
Ammonia and ammonium compounds, nitrite and nitrate compounds	mg / L	100	100	100	1.3	2.0
Selenium and its compounds	mg / L	0.1	0.1	-	<0.01	0.01

#### < No.6 Wastewater Measurement >

Item	Unit	National standard	City standard	Voluntary standard	Average	Maximum
pH		5.8~8.6	5.8~8.6	6.0~8.3	7.8	7.9
BOD	mg / L	160	15	10	0.6	1.2
COD	mg / L	160	Regulation of total emission	Regulation of total emission	0.7	1.4
SS	mg / L	200	30	30	1.3	4
Cyanide	mg / L	1	0.1	0.1	<0.01	<0.01
Phenol	mg / L	5	0.4	0.4	0.18	1
n-H mineral oils	mg / L	5	5	5	<1	<1
Nitrogen	mg / L	120	60	60	0.8	1.1
Phosphorus	mg / L	16	8	8	0.06	0.10

#### < Air Measurement >

Item	Equipment	Unit	National standard	City standard	Voluntary standard	Average	Maximum
Soot	Boiler No.2	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Gas Turbine No.1	g / m <sup>3</sup> N	0.05	0.05	0.05	<0.001	<0.001
	Gas Turbine No.2	g / m <sup>3</sup> N	0.05	0.05	0.05	<0.001	<0.001
NOx	Boiler No.2	ppm	150	150	150	87	87
	Gas Turbine No.1	ppm	70	70	70	21	22
Gas Turbine No.2	ppm	70	70	70	17	24	

#### < Noise Measurement >

Place	Unit	National standard	City standard	Voluntary standard	Average	Maximum
East (morning·evening)	dB	65	65	65	52	53
South (morning·evening)	dB	65	65	65	50	52
West (morning·evening)	dB	65	65	65	49	55
North (morning·evening)	dB	65	65	65	46	49
East (night)	dB	60	60	60	51	53
South (night)	dB	60	60	60	49	51
West (night)	dB	60	60	60	48	52
North (night)	dB	60	60	60	44	47

## Gama Plant

### < No.1 Wastewater Measurement >

Item	Unit	National standard	City standard	Voluntary standard	Average	Maximum
pH		5.8~8.6	5.8~8.6	5.8~8.6	7.4	7.7
BOD	mg / L	160	15	5	1.6	4.3
COD	mg / L	160	Regulation of total emission	Regulation of total emission	1.1	2.9
SS	mg / L	200	30	30	4.2	16
Copper	mg / L	3	2	1	0.19	0.93
Lead	mg / L	0.1	0.1	0.1	<0.01	<0.01
Fluorine	mg / L	8	8	8	<0.1	<0.1
Cyanide	mg / L	1	0.1	0.1	<0.01	<0.01
n-H mineral oils	mg / L	5	5	5	<1	<1
Nitrogen	mg / L	120	60	60	2.3	3.5
Phosphorus	mg / L	16	8	8	<0.05	<0.05
Boron and boron compounds	mg / L	10	10	10	0.11	0.19
Ammonia and ammonium compounds, nitrite and nitrate compounds	mg / L	100	100	100	1.9	4.8
Selenium and its compounds	mg / L	0.1	0.1	-	<0.01	<0.01

### < No.2 Wastewater Measurement >

Item	Unit	National standard	City standard	Voluntary standard	Average	Maximum
pH		5.8~8.6	5.8~8.6	6.0~8.0	7.9	8
BOD	mg / L	160	15	5	0.4	1.3
COD	mg / L	160	Regulation of total emission	Regulation of total emission	0.7	1.4
SS	mg / L	200	30	30	1	1
n-H mineral oils	mg / L	5	5	5	<1	<1
Nitrogen	mg / L	120	60	60	0.94	1.10
Phosphorus	mg / L	16	8	8	0.05	0.08

### < Air Measurement >

Item	Equipment	Unit	National standard	City standard	Voluntary standard	Average	Maximum
Soot	Boiler No.13 Gas	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Boiler No.14 Gas	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Boiler No.15 Gas	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Boiler No.16 Gas	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Boiler No.17 Gas	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	Boiler No.18 Gas	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
NOx	Boiler No.13 Gas	ppm	150	150	150	24	24
	Boiler No.14 Gas	ppm	150	150	150	36	36
	Boiler No.15 Gas	ppm	150	150	150	29	29
	Boiler No.16 Gas	ppm	150	150	150	26	26
	Boiler No.17 Gas	ppm	150	150	150	36	36
	Boiler No.18 Gas	ppm	150	150	150	42	42

### < Noise Measurement >

Place	Unit	National standard	City standard	Voluntary standard	Average	Maximum
East (morning-evening)	dB	65	65	65	46	51
South (morning-evening)	dB	65	65	65	48	51
West (morning-evening)	dB	65	65	65	55	57
East (night)	dB	60	60	60	44	47
South (night)	dB	60	60	60	47	50
West (night)	dB	60	60	60	55	57

## Ogaki Central Plant

### < Wastewater Measurement >

Item	Unit	National standard	City standard	Voluntary standard	Average	Maximum
pH		5.8~8.6	5.8~8.6	6.0~8.3	6.8	7.0
BOD	mg / L	160	15	5	7.3	12
COD	mg / L	160	Regulation of total emission	Regulation of total emission	4.7	8.0
SS	mg / L	200	30	30	2.9	13
Copper	mg / L	3	2	1	0.31	0.79
Lead	mg / L	0.1	0.1	0.03	<0.01	<0.01
Cyanide	mg / L	1	0.1	0.1	<0.01	<0.01
n-H mineral oils	mg / L	5	5	5	<1	<1
Nitrogen	mg / L	120	60	60	3.4	4.6
Phosphorus	mg / L	16	8	8	0.05	0.08
Boron and boron compounds	mg / L	10	10	10	0.1	0.3
Ammonia and ammonium compounds, nitrite and nitrate compounds	mg / L	100	100	100	1.8	2.9

### < Air Measurement >

Item	Equipment	Unit	National standard	City standard	Voluntary standard	Average	Maximum
Soot	B-1-1 Boiler	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	B-1-2 Boiler	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	B-1-3 Boiler	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	B-1-4 Boiler	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	B-1-5 Boiler	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	B-1-6 Boiler	g / m <sup>3</sup> N	0.1	0.09	0.09	0.001	0.001
	B-1-7 Boiler	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	B-1-8 Boiler	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	B-1-9 Boiler	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
	B-1-10 Boiler	g / m <sup>3</sup> N	0.1	0.09	0.09	<0.001	<0.001
NOx	B-1-1 Boiler	ppm	150	150	150	36	36
	B-1-2 Boiler	ppm	150	150	150	36	36
	B-1-3 Boiler	ppm	150	150	150	33	33
	B-1-4 Boiler	ppm	150	150	150	33	33
	B-1-5 Boiler	ppm	150	150	150	36	36
	B-1-6 Boiler	ppm	150	150	150	35	35
	B-1-7 Boiler	ppm	150	150	150	39	39
	B-1-8 Boiler	ppm	150	150	150	34	34
	B-1-9 Boiler	ppm	150	150	150	34	34
	B-1-10 Boiler	ppm	150	150	150	32	32

### < Noise Measurement >

Place	Unit	National standard	City standard	Voluntary standard	Average	Maximum
North (morning-evening)	dB	50	50	50	44	47
EastNo.1 (morning-evening)	dB	50	50	50	44	46
EastNo.2 (morning-evening)	dB	60	60	50	43	48
South (morning-evening)	dB	60	60	60	39	44
West (morning-evening)	dB	50	50	50	39	43
North (night)	dB	45	45	45	42	45
East No.1 (night)	dB	45	45	45	43	44
East No.2 (night)	dB	50	50	50	42	47
South (night)	dB	50	50	50	38	44
West (night)	dB	45	45	45	38	43

## Ogaki-Kita Plant

### < Total Wastewater Measurement >

Item	Unit	National standard	Town standard	Voluntary standard	Average	Maximum
pH		5.8~8.6	5.8~8.6	6.0~8.3	7.5	7.8
BOD	mg / L	160	30	20	2.2	8.4
COD	mg / L	160	Regulation of total emission	Regulation of total emission	6.9	15
SS	mg / L	200	30	25	2.7	12
Copper	mg / L	3	2	1	0.01	0.02
Fluorine	mg / L	8	8	8	<0.1	<0.1
Phenol	mg / L	5	0.4	0.4	<0.1	<0.1
n-H mineral oils	mg / L	5	5	4	<1	<1
Nitrogen	mg / L	120	60	50	11.4	21.0
Phosphorus	mg / L	16	8	7	1.4	2.9
Boron and boron compounds	mg / L	10	10	10	<0.1	<0.1
Ammonia and ammonium compounds, nitrite and nitrate compounds	mg / L	100	100	100	7.3	15.0

### < Air Measurement >

Item	Equipment	Unit	National standard	Town standard	Voluntary standard	Average	Maximum
Hydrogen sulfide	Vacuum incinerator	ppm	0.02	0.02	0.02	<0.0005	<0.0005

### < Noise Measurement >

Place	Unit	National standard	Town standard	Voluntary standard	Average	Maximum
North (morning·evening)	dB	60	60	60	45	57
East (morning·evening)	dB	60	60	60	47	56
South (morning·evening)	dB	60	60	60	45	53
Western angle of Building D (morning·evening)	dB	60	60	60	46	58
West (morning·evening)	dB	60	60	60	46	49
Graveyard (morning·evening)	dB	60	60	60	47	58
Graveyard West (morning·evening)	dB	50	50	50	43	48
North (night)	dB	50	50	50	44	49
East (night)	dB	50	50	50	45	49
South (night)	dB	50	50	50	44	49
Western angle of Building D (morning·evening)	dB	50	50	50	43	49
West (night)	dB	50	50	50	45	47
Graveyard (night)	dB	50	50	50	45	49
Graveyard West (night)	dB	45	45	45	42	44

## Godou Plant

### < Wastewater Measurement - West >

Item	Unit	National standard	Town standard	Voluntary standard	Average	Maximum
pH		5.8~8.6	5.8~8.6	5.8~8.6	7.5	8.2

### < Wastewater Measurement - East >

Item	Unit	National standard	Town standard	Voluntary standard	Average	Maximum
pH		5.8~8.6	5.8~8.6	5.8~8.6	7.5	7.9

### < Noise Measurement >

Place	Unit	National standard	Town standard	Voluntary standard	Average	Maximum
East (morning·evening)	dB	65	65	65	42	51
West (morning·evening)	dB	65	65	65	42	48
South (morning·evening)	dB	65	65	65	42	50
North (morning·evening)	dB	65	65	65	43	52
East (night)	dB	60	60	60	38	48
West (night)	dB	60	60	60	41	48
South (night)	dB	60	60	60	39	46
North (night)	dB	60	60	60	41	51

## Kinuura Plant

### < Wastewater Measurement >

Item	Unit	National standard	City standard	Voluntary standard	Average	Maximum
pH		5.8~8.6		6.0~8.4	7.3	7.5
BOD	mg / L	160		20	8.7	14
COD	mg / L	160		30	15	21
SS	mg / L	200		20	10	17
Total chromium	mg / L	3		0.2	0.01	0.01
Fluorine	mg / L	8		3.0	0.17	0.17
Phenol	mg / L	5		0.2	0.1	0.1
n-H mineral oils	mg / L	5		1	1	1
Nitrogen	mg / L	120		30	25	25
Phosphorus	mg / L	16		3	1.2	1.2
Soluble manganese	mg / L	10		3	0.01	0.01
Zinc	mg / L	2		1	0.02	0.02
Solubility iron	mg / L	10		3	0.44	0.44
Copper	mg / L	2		1	0.02	0.02
Coliform bacilli	piece/cm <sup>2</sup>	3,000		1,000		9,100
Boron and boron compounds	mg / L	10		3	0.1	0.1
Ammonia and ammonium compounds, nitrite and nitrate compounds	mg / L	100		50	7.1	7.1

\* Countermeasures have been completed.

### < Air Measurement >

Item	Equipment	Unit	National standard	City standard	Voluntary standard	Average	Maximum
Soot	Once-through boiler No.1	g / m <sup>3</sup> N	0.3		0.3	0.001	0.001
	Once-through boiler No.3	g / m <sup>3</sup> N	0.3		0.3	0.001	0.001
	Once-through boiler No.4 Gas	g / m <sup>3</sup> N	0.1		0.1	0.001	0.001
	Once-through boiler No.5 Gas	g / m <sup>3</sup> N	0.1		0.1	0.001	0.001
NOx	Once-through boiler No.1	ppm	260		100	49	60
	Once-through boiler No.3	ppm	260		100	65	73
	Once-through boiler No.4 Gas	ppm	150		100	14	14
SOx	Once-through boiler No.1	m <sup>3</sup> N / h	0.13		0.13	0.001	0.001
	Once-through boiler No.3	m <sup>3</sup> N / h	0.13		0.13	0.001	0.001

### < Noise Measurement >

Place	Unit	National standard	City standard	Voluntary standard	Average	Maximum
East (daytime)	dB	65		65	57	61

## IBIDEN Engineering Co., Ltd

### < Wastewater Measurement >

Item	Unit	National standard	City standard	Voluntary standard	Average	Maximum
pH		5.0~9.0	5.0~9.0	5.0~9.0	7.1	7.2
BOD	mg / L	600	600	600	3.9	14
COD	mg / L	—	—	—	3.0	5.7
SS	mg / L	600	600	600	7.2	19
Copper	mg / L	3	3	3	0.02	0.05
Lead	mg / L	0.1	0.1	0.1	0.01	0.04
Chromium	mg / L	2	2	2	<0.02	<0.02
Hexavalent chromium	mg / L	0.5	0.5	0.5	<0.02	<0.02
Fluorine	mg / L	8	8	8	0.33	1.50
Cyanide	mg / L	1	1	1	<0.01	<0.01
1·1·1 Trichloroethane	mg / L	3	3	3	<0.0005	<0.0005
1·1·2 Trichloroethane	mg / L	0.06	0.06	0.06	<0.0006	<0.0006
1·3 Dichloropropanes	mg / L	0.02	0.02	0.02	<0.0002	<0.0002
1·2 Dichloroethane	mg / L	0.04	0.04	0.04	<0.0004	<0.0004
1·1 Dichloroethylene	mg / L	1	1	1	<0.002	<0.002
Cis- 1·2 Dichloroethylene	mg / L	0.4	0.4	0.4	<0.004	<0.004
Trichloroethylene	mg / L	0.3	0.3	0.3	<0.002	<0.002
Tetrachloroethylene	mg / L	0.1	0.1	0.1	<0.0005	<0.0005
Dichloromethane	mg / L	0.2	0.2	0.2	<0.002	<0.002
Carbon tetrachloride	mg / L	0.02	0.02	0.02	0.0025	0.0064
Cadmium	mg / L	0.03	0.03	0.03	<0.002	<0.002
Phenol	mg / L	5	5	5	<0.10	<0.10
n-H mineral oils	mg / L	5	5	5	<1	<1
Arsenic	mg / L	0.1	0.1	0.1	<0.01	<0.01
Alkyl mercury	mg/L	ND	ND	ND	ND	ND
Organic phosphorus	mg / L	1	1	1	<0.01	<0.01
Polyhalogenated biphenyl	mg / L	0.003	0.003	0.003	<0.0005	<0.0005
Zinc	mg / L	2	2	2	0.04	0.08
Manganese	mg / L	10	10	10	0.07	0.17
Benzene	mg / L	0.1	0.1	0.1	<0.001	<0.001
Boron and boron compounds	mg / L	10	10	10	<0.10	<0.10
1,4-dioxane	mg / L	0.5	0.5	0.5	<0.05	<0.05

## IBIDEN Bussan Co., Ltd

### < Wastewater Measurement >

Item	Unit	National standard	Prefectural standard	Voluntary standard	Average	Maximum
pH		5.8 ~ 8.6	5.8 ~ 8.6	6.1 ~ 8.3	7.4	7.7
BOD	mg / L	160	100	80	2.8	8.4
COD	mg / L	160	160	128	7.8	21
SS	mg / L	200	90	72	4.0	10
n-H mineral oils	mg / L	10	10	8	<1	1
Nitrogen	mg / L	120	120	96	4.9	19
Phosphorus	mg / L	16	16	12.8	0.1	0.3

### < Air Measurement >

Item	Equipment	Unit	National standard	Prefectural standard	Voluntary standard	Average	Maximum
Soot	Boiler No.1	g / m <sup>3</sup> N	0.3	0.3	0.24	0.014	0.014
NOx	Boiler No.1	ppm	180	180	114	73	73

## IBIDEN Electronics (Beijing) Co., Ltd.

### < Wastewater Measurement >

Item	Unit	City standard	Voluntary standard	Average	Maximum
pH		6.5 ~ 9	6.8 ~ 8.4	7.25	7.62
BOD	mg / L	300	150	25.61	55.0
COD	mg / L	500	250	97.98	254.00
SS	mg / L	400	200	24.50	72.00
Copper	mg / L	1	0.5	0.27	0.64
Cyanide	mg / L	0.5	0.25	0.01	0.02
Ni	mg / L	0.4	0.2	0.06	0.23
n-H mineral oils	mg / L	10	5	0.06	0.13
animal oil and vegetable oil	mg / L	100	25	0.73	1.51

### < Air Measurement >

Item	Unit	City standard	Voluntary standard	Average	Maximum	
Scrubber Emissions	H <sub>2</sub> SO <sub>4</sub>	mg / m <sup>3</sup>	5	4.5	0.59	1.99
	HCl	mg / m <sup>3</sup>	30	25	1.31	3.39
	HCN	mg / m <sup>3</sup>	0.5	0.45	0.11	0.18
Deodorization tower	Ammonia	mg / m <sup>3</sup>	30	25	0.84	1.01
	Hydrogen sulfide	mg / m <sup>3</sup>	5	4.5	0.10	0.16
Air Exhaust	Soot	mg / m <sup>3</sup>	20	18	2.06	7.20
	Toluene	mg / m <sup>3</sup>	12	10	0.16	0.44
	NMHC	mg / m <sup>3</sup>	20	18	2.63	15.10

### < Noise Measurement >

Time	Unit	City standard	Voluntary standard	Average	Maximum
Daytime	dB (A)	65	64.5	55.0	57.8
Nighttime	dB (A)	55	54.5	49.0	53.00

## IBIDEN Electronics Malaysia Sdn. Bhd.

### < Wastewater Measurement >

Item	Unit	National standard	Voluntary standard	Average	Maximum
pH		5.5 - 9.0	6.2-8.3	6.6	7.0
BOD	mg / L	50	50	7	17
COD	mg / L	200	100	37	56
Total Suspended Solids, TSS	mg / L	100	100	29	50
Copper	mg / L	1	0.5	0.16	0.50
Lead	mg / L	0.5	0.5	0.01	0.05
Chromium (Hexavalent)	mg / L	0.05	0.05	0.01	0.01
Cyanide	mg / L	0.1	0.1	0.01	0.01
Nickel	mg / L	1	1	0.04	0.12
Color	ADMI	200	200	15	29
Oil & Grease	mg / L	10	10	5.0	5.0
Iron (Dissolved)	mg / L	5	5	0.56	1.06
Manganese (Dissolved)	mg / L	1	1	0.10	0.12
Formaldehyde	mg / L	2	2	0.05	0.10

### < Noise Measurement >

Time	Unit	National standard	Voluntary standard	Average	Maximum
Daytime (7 am - 10 pm)	dB	70	70	60.8	
Nighttime (10 pm - 7 am)	dB	60	60	58.7	

## IBIDEN Jushi Co., Ltd

### < Air Measurement >

Item	Equipment	Unit	National standard	City standard	Voluntary standard	Average	Maximum
Soot	Boiler No.1	g / m <sup>3</sup> N	0.3	0.3	0.24	0.007	0.007
	Boiler No.3		0.3	0.3	0.24	0.005	0.005
NOx	Gas Turbine	ppm	70	70	60	43	45
	Boiler No.1		180	180	144	43	43
	Boiler No.3		180	180	144	54	58
SOx	Boiler No.1	m <sup>3</sup> N / h	7.07	7.07	5.65	0.03	0.03
	Boiler No.3		3.68	3.68	2.95	0.03	0.03

## IBIDEN Philippines, Inc.

### < Wastewater Measurement >

Item	Unit	Industrial park standard	Voluntary standard	Average	Maximum
pH		6.5 - 9.0	6.7-8.8	7.3	8.3
BOD	mg / L	500	400	172	327
COD	mg / L	800	700	353	640
Total Suspended Solids, TSS	mg / L	350	280	13	35
Copper	mg / L	1	0.8	0.14	0.38
Lead	mg / L	0.3	0.24	0.10	0.16
Chromium (Hexavalent)	mg / L	0.1	0.08	0.02	0.07
Cyanide	mg / L	0.2	0.16	0.08	0.15
Nickel	mg / L	0.5	0.4	0.13	0.28
Color	mg / L	150	120	73	126
Oil & Grease	mg / L	5	4	1.6	3.5
Iron (Dissolved)	mg / L	10	8	0.1	0.3
Manganese (Dissolved)	mg / L	1	0.8	0.07	0.11
Formaldehyde	mg / L	1	0.8	0.17	0.44

### < Air Measurement >

Item	Unit	National standard	Voluntary standard	Average	Maximum
NOx	mg/m <sup>3</sup>	2,000	1,600	39	42.0
SOx	mg/m <sup>3</sup>	1,500	1,200	4	5.0
Particulate Matter (PM)	mg/m <sup>3</sup>	150	120	7	7.0
Carbon Monoxide (CO)	mg/m <sup>3</sup>	500	400	16	17.0

### < Noise Measurement >

Time	Unit	National standard	Voluntary standard	Average	Maximum
Morning (5am - 9am)	dB	65	56	55	57
Daytime (9am - 6 pm)	dB	70	57	54	56
Evening (6 pm - 10 pm)	dB	65	55	54	54
Nighttime (10 pm - 5 am)	dB	60	56	52	52

## IBIDEN Graphite Korea Co., Ltd.

### < Air Measurement >

Item	Unit	National regulations	Voluntary standard	Average	Maximum
NOx	ppm	200	200	1	8
SOx	ppm	400	400	14	231
PM	mg / m <sup>3</sup>	100	100	1	3

## IBIDEN Hungary Kft.

### < Wastewater Measurement >

Item	Unit	National standard	Industrial park standard	Voluntary standard	Average	Maximum
pH	-	6.5-10.0	6.5-10.0	6.5-10.0	8.5	8.8
Electrical conductivity	µS/cm	2,500	2,500	2,500	1,158	1,455
Volume of sediment	ml / L	-	-	-	<0.2	0.2
Available chlorine	mg / L	30	30	30	<0.2	0.2
Chemical Oxygen Demand	mg / L	1,000	1,000	1,000	246	298
Biochemical Oxygen Demand	mg / L	500	500	500	117	124
Total inorganic nitrogen	mg / L	120	120	120	18	29
Total nitrogen	mg / L	150	150	150	26	32
Ammonium	mg / L	100	100	100	18	29
Total phosphorus	mg / L	20	20	20	3.9	7.5
Sulphate	mg / L	400	400	400	21	25
Organic solvent extract (grav.)	mg / L	50	50	50	11	15
Phenols	mg / L	10	10	10	0.02	0.04
Fe	mg / L	20	20	20	0.8	0.9
Mn	mg / L	5	5	5	0.03	0.06
Sulphide	mg / L	1	1	1	<0.01	0.02
Total dissolved solid	mg / L	2,500	2,500	2,500	826	1,108
Total solids	mg / L	2,500	2,500	2,500	520	676
Fluoride	mg / L	50	50	50	0.2	0.3
Total hydrocarbons (TPH, C5-C40)	µg / L	-	-	-	2,761	5,800
Tars	mg / L	5	5	5	<2	2.0

### < Noise Measurement >

Time	Unit	National standard	Industrial park standard	Voluntary standard	Average	Maximum
Nighttime (22 pm - 6 am)	dB	40	40	40	35	40

## IBIDEN Porzellanfabrik Frauenthal GmbH

### < Wastewater Measurement >

Item	Unit	National standard	Industrial park standard	Voluntary standard	Average	Maximum
pH	pH	6.5 - 8.5	6.5 - 8.5		7.3	7.6
Temperature	Temp. °C	30	30		19.4	1.1
Chemical Oxygen Demand	COD mg / L	80	80		39	44
Total Suspended Solids, TSS	TSS mg / L	70	70		7	10
Iron (Dissolved)	Fe mg / L	2	2		0.52	0.66
Aluminium	Al mg / L	2	2		0.22	0.31
Ammonium	NH <sub>3</sub> mg / L	10	10		6.04	6.82
Fluoride	F mg / L	20	20		1.70	2.40

### < Air Measurement > \*1

Item	Unit	National standard	Industrial park standard	Voluntary standard	Average	Maximum
Nitrogen Oxides (NOx)	mg/Nm <sup>3</sup>	350	120		39	40
Particulate Matter (PM)	mg/Nm <sup>3</sup>	20	20		0.9	1.7
Carbon Monoxide (CO)	mg/Nm <sup>3</sup>	100	100		1.2	1.2
Ammonia	mg/Nm <sup>3</sup>	30	10		9.1	9.7

### < Noise Measurement >

Time	Unit	National standard	Industrial park standard	Voluntary standard	Average	Maximum
Daytime (6am - 10 pm)	dB	55			51	54
Nighttime (10 pm - 6 am)	dB	45			42	45

\* Measurement data of IBIDEN DPF France S.A.S. will be disclosed on our website at a later date.

## IBIDEN Mexico, S.A. de C.V.

### < Wastewater Analysis >

Item	Unit	Industrial park standard	Voluntary standard	Average	Maximum
pH	-	6.5 - 8.5	6.5 - 8.5	8.1	9 <sup>1</sup>
Temperature	°C	20 - 35	20 - 35	24.0	28.0
Biochemical Oxygen Demand,	mg/L	350	350	171	327
Chemical Oxygen Demand	mg/L	630	630	423	606
Total Suspended Solids	mg/L	350	100	21	37
Total Nitrogen, Kjeldahl	mg/L	80	30	7.0	13.1
Total Nitrogen	mg/L		30	7.1	13.0
Total phosphorous	mg/L	25	20	1.8	5.1
Oils and greases (Organic solvent extract)	mg/L		50	6	11
Settleable solids (10 min)	mg/L	3	3	0.8	4 <sup>1</sup>
Total arsenic	mg/L		0.2	0.02	0.02
Total cadmium	mg/L		0.2	0.02	0.02
Total cyanide	mg/L		2	0.03	0.03
Total copper	mg/L		4	0.02	0.02
Hexavalent chromium	mg/L		1	0.03	0.10
Total Mercury	mg/L		0.01	0.001	0.001
Total Niqel	mg/L		2	0.02	0.02
Total Lead	mg/L		0.5	0.02	0.02
Total Zinc	mg/L		10	0.1	0.2
Fecal coliforms	NMP/L	1.00E+07	1.00E+07	211	2,400
Electrical conductivity	mS/cm		1,500	761	825
Total dissolved solids (total salt 600°C)	mg/L		1,000	509	677
Flotating material	-		ND	ND	ND
Sulfates	mg/L		35	12.5	34.9
Active substances to methylene blue	mg/L		2	0.50	1.7
Phenols	mg/L		0.01	0.01	0.03
Total phosphate	mg/L	5	5	5	15 <sup>1</sup>
Free chlorine	mg/L		1.5	0.1	0.2
Amoniacal nitrogen	mg/L		18	0.7	3.0
Total alcalinity	mg/L	250	250	184	223
Helmint Eggs	Eggs/L	0	0	0	0

\*1 Countermeasures have been completed.

### < Air Measurement >

Item	Unit	Industrial park standard	Voluntary standard	Average	Maximum
CO	ppm	500	500	183	324
NOx	ppm	375	375	8	118
Hg	ppm	0.025	0.025	0.0089	0.0089
Dust	mg/m <sup>3</sup>	1,500	1,500	22	39
CO <sub>2</sub> from electric consumption	ton	25,000			31,709 <sup>2</sup>

\*2 In accordance with applicable regulatory requirements, emissions exceeding 25,000 tons are reported to the Ministry of the Environment.

### < Noise Measurement >

Place	Unit	Industrial park standard	Voluntary standard	Average	Maximum
North(Morning)	dB	68	68	48	50
South(Morning)	dB	68	68	52	54
East(Morning)	dB	68	68	56	56
East(Night)	dB	65	65	56	57
West(Morning)	dB	68	68	51	53

# Social Contribution

We are pressing ahead with a global field of view to implement activities to contribute to the regions where we are deploying centers of business operations

## Philosophy for social contribution and promotional structure

### Basic Policy

We aim to contribute to local communities by taking advantage of our unique corporate characteristics, including our capacity to improve living environments and to offer opportunities for personal development. We take part in and support groups involved in activities of this nature. We also undertake our own community projects across the globe, tailoring them to local cultures and customs, and earning the trust of the international community.

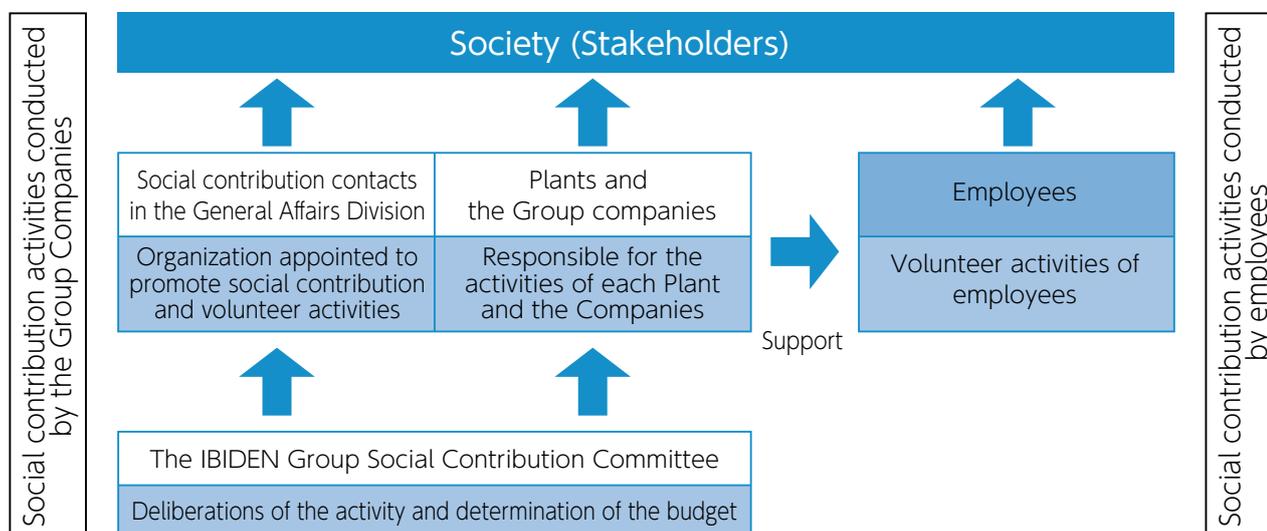
Focusing on our priority areas, which are “Protecting the global environment,” “Fostering the next generation,” “Contributing to social welfare and local communities,” and “Disaster relief activities,” we promote the social contribution activities of the IBIDEN Group, and at the same time, we encourage our employees to voluntarily participate in non-profit social contribution activities.

### Promotional Structure of Social Contribution Activities

We set up social contribution contacts in the Human Resources/General Affairs Division as a specialized organization in fiscal year 2008 and have been drafting policies and plans and organizing and operating activities. In fiscal year 2011, we established “social contribution rules.” They stipulate which activities are of priority and are to be conducted by the domestic IBIDEN Group, the formation of the Social Contribution Committee to facilitate smooth social contribution efforts, and the establishment of the Social Contribution Fund to support the Company’s social contribution activities and social contribution activity groups in which our employees participate.

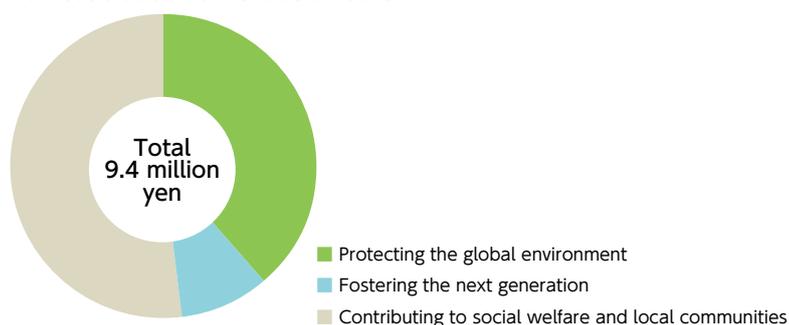
The Social Contribution Committee, which consists of representatives of group companies in Japan, approves annual activities for social contribution and operates and manages the Social Contribution Fund. The Committee also examines the details related to the recognition and rewarding of collaborative activities with other groups promoting social contribution, such as NPOs and NGOs, and employees’ volunteer activities.

### Diagram of Social Contribution Promotion System



### Expenditure by Social Contribution Activities (Domestic IBIDEN Group)

#### Domestic social contribution cost



\* Voluntary social contribution activities and programs costs are aggregated.

## Protecting the Global Environment

Grounded in the values of harmony with nature, we are conducting activities that lead to environmental protection globally.

### Forest Building Activities: “IBIDEN’s Forest”

In fiscal year 2008, we embarked on a forest building initiative as part of our global environmental protection activities. This activity takes place chiefly in Higashi-Yokoyama, the place where IBIDEN was founded, and where the Company operates its initial hydroelectric power generation business. Over the next 10 years, we will be planting trees, thinning the forests and conducting improvement cutting in the district, with an approximate total area of 40 hectares in the town of Ibigawa. Together with the local public, employees and their family members, we will continue to carry out sustainability activities aimed at maintaining harmony with nature.

In collaboration with the local authorities, its residents, and nonprofit organizations (NPOs), we undertake projects ranging from nature walks to community exchange using the forests and local cultures.

We held planting activities 40 times over a 10-year period through fiscal year 2017, with the participation of more than 3,200 people in all (excluding staff members), and planted a total of more than 1,300 trees. In March 2018, we signed a 10-year extension agreement on IBIDEN’s Forest creation with the Gifu prefectural government and the Ibigawa town government to continue the forest preservation activity. We will continue to work to build forests loved by communities while widening the circle of participants.

### [Actions for a cleaner community]

Since 1992, the IBIDEN Group’s domestic companies have actively conducted community cleanup and beautification activities in the areas around each workplace. Overseas group companies have also developed their own activities. In addition, the Group’s alumni and employees actively organize and conduct local cleanup activities in cooperation with municipal governments.



The planting activities are used as not only reforestation projects but also a place where employees, their families and local residents can experience the building of forests.



In collaboration with local residents, we have been undertaking projects for a tree-planting ceremony and hands-on classes to experience Satoyama (Japanese countryside life).



Clean-River Action

## Fostering the Next Generation

We are promoting activities for the development of young people to foster the next generation for the future.

### [IBIDEN Tour - Learning from "Water" ]

Since fiscal year 2010, we have held educational tours in cooperation with nonprofit organizations (NPOs) to explain the mechanism of power generation and the power of natural energy through a visit to our hydroelectric power plant, which has been operating since our foundation. In fiscal year 2017, a total of 30 elementary school students that participated through a public application process learned about the mechanism of electricity generated by the use of flowing water. To commemorate the occasion, we offered a program to make their own newspapers summarizing the hydroelectric power plant tours in the exhibition room at the Company's head office.



IBIDEN Tour

### [Volunteer Scholarship Program]

IBIDEN Philippines, Inc. has conducted a scholarship program for high school students in poor families throughout the year by collecting donations from our employees, in cooperation with high schools. In fiscal year 2017, 108 employees' donations helped 178 students. We also donate income from "Chovola" activities of IBIDEN Co., Ltd. (see page 54) for this program.



Volunteer Scholarship Program

### [Support for an Orphanage]

IBIDEN Graphite Korea Co., Ltd. supports periodic cleaning, donation of goods, and scholarship program for students at an orphanage in Pohang City, North Gyeongsang Province, Korea.



Scholarship support



Facility cleaning

## Contributing to Social Welfare and Local Communities

We are contributing to social welfare and local communities to cooperate with local communities as well as to facilitate local development.

### [Company Blood Donation Drives in Japan and Overseas]

The domestic Group companies have registered as Blood Donation Supporters in a program directed by the Japanese Red Cross Society, running social blood donation drives to provide a steady supply of donated blood. At the overseas Group companies, many employees have also participated in blood donation activities.



Blood donation activity of IBIDEN DPF France S.A.S.

### [Participation in the Mikoshi Parade in the Jumangoku Festival in Ogaki]

The IBIDEN Group is a regular participant in the Kigyō Mikoshi (portable shrine) Parade section of the Jumangoku Festival hosted by the city of Ogaki every October.

More than 100 employees have participated in the festival each year. We strongly advocate local revitalization efforts, and support the “festival spirit” together with local residents. Moreover, IBIDEN's scope of involvement expanded in fiscal year 2009, when its employees initiated cleanup activities after the festival around the thoroughfare leading to the main train station.



The Jumangoku Festival

### [Support for the Ibigawa Marathon]

The IBIDEN Group serves as an official sponsor of the Ibigawa Marathon, a sporting event that takes place in the town of Ibigawa-cho each November. To support the event, we make parking spots available at our plant in Ibigawa-cho, and participate in volunteer activities as a staff for traffic control in the surrounding area and water stations.



Volunteers for water supply

### [Supporting the IBIDEN Cup Moms' Volleyball Tournament and Presenting Volleyball Classes with the IBIDEN Women's Volleyball Team]

The IBIDEN women's volleyball club has held volleyball classes such as technical guidance for neighboring elementary, junior and high school students and their mothers as a community contribution activity through volleyball. In fiscal year 2016, we presented the classes seven times for more than 900 participants. In addition, the Group's Social Contribution Committee works with the Seinō Regional Moms' Volleyball Association to host annual the IBIDEN Cup Moms' Volleyball Tournament. In fiscal year 2016, the tournament marked its 11th occurrence, with 350 members from 29 teams taking part.



Volleyball class for junior high school students

### [Contribution to human resource development in local communities]

To contribute to the revitalization of local industries, we cooperated with the promotion in the region of technology-based human resource development programs such as environmental protection officer training, utilizing our abundant business experience accumulated to date. We also attended an environment-related course presented by a local university instructor, to encourage the revitalization of human resource development from a number of aspects.

## Disaster Relief Activities

We implement disaster relief activities to contribute to the recovery and reconstruction of people's lives and social infrastructure in the communities.

### Examples of Disaster Relief Activities

#### [Mexico Chubu Earthquake Disaster Support]

At IBIDEN México, S.A. de C.V, we contributed donations and provided relief supplies, donated from employees to regional organizations, as a disaster victim-oriented support activity.



Activity to collect donation of relief supplies

## Encouraging Volunteerism

We are encouraging our employees' voluntary, self-motivated participation in volunteer activities.

#### [Volunteer Encouragement Program]

IBIDEN and its domestic group companies provide special leave for volunteers (a special paid leave of up to 7 days a year) as a volunteering encouragement program. In addition, the Social Contribution Committee grants awards to employees according to our internal rules.

#### [ "Chovola Activities" : Simple Actions to Start Volunteering]

The Company and its domestic group companies encourage and host our employees' small, casual volunteer activities, known as "Chovola Activities," as part of its effort to foster an atmosphere where employees can volunteer without making a very large commitment of time. We have collected used stamps and unsent postcards from our employees, donating them to local charity organizations and nonprofit organizations. We also have collected PET bottle caps from our employees, using the proceeds for IBIDEN Philippine' s social contribution activities.

## Quality Management that Supports Customers-First Values

### Basic approach

By consistently developing cutting-edge technologies, IBIDEN contributes to the creation of a comfortable IT society as well as a society where cars and nature coexist through the proposal and supply of high-value-added products. Based on its “customer first” policy, the Group meets the needs of customers through unique technologies and designs that take into account the global environment. We understand that our greatest mission is to consistently supply safe and reliable products. We seek to achieve a high level of customer satisfaction by putting customer needs at the forefront of our product development process, accepting only the highest quality at the design stage, incorporating mechanisms that ensure quality into the product-making stage, and creating a management system that provides the necessary support.

The Group's basic policy for the quality of electronics operation: Based on the concept of quality first, we will achieve customer satisfaction by clearly grasping customer needs and producing and providing reliable products through IBI-TECHNO.

The Group's basic policy for the quality of ceramics operation: Through IBI-TECHNO, we will incorporate customers' real and potential needs and add values to such needs while striving to provide moving experiences to customers through our product-making, which continually gives top priority to quality.

We also work to reduce the losses caused by equipment and human errors by means of the thorough 5S and autonomous maintenance activities. We also ensure compliance with the standard operating procedures, and promote activities to enhance our competitive capabilities by using the method of “Genchi (actual scene), Genbutsu (actual thing), and Jigakari (on-site solution of problems)” as well as “cross-sectional teamwork activities.”

### Quality Assurance System

The IBIDEN Group has a quality assurance organization at each Operation.

To contribute to our customers and the community with quality products, we conduct design reviews and hold quality assurance meetings to study the design and specifications at each stage of the manufacturing process, from the development of cutting-edge technologies, through product planning and design, to mass production. Furthermore, to improve quality, we offer guidance and audits, including assessment by the top management, at workplaces in Japan and overseas, and also provide business partners with guidance for quality improvement. Moreover, we promote ongoing quality improvement activities under the initiative of the Quality Assurance Division for the purpose of increasing customer satisfaction with an emphasis on quality. We also work to reduce the losses caused by equipment and human errors by means of the thorough 5S and autonomous maintenance activities. We also ensure compliance with the standard operating procedures, and promote activities to enhance our competitive capabilities by using the method of “Genchi (actual scene), Genbutsu (actual thing), and Jigakari (on-site solution of problems)” as well as “cross-sectional teamwork activities.”

### Quality Management System

In the electronics-related business, since the acquisition of ISO 9001 certification in March 1995, we have been actively upgrading our quality management systems on an ongoing basis. We are striving to offer products that exceed the expectations and needs of our customers. In the Ceramic Operation and the Electronics Operation, divisions related to the automobile industry have sequentially obtained ISO/TS16949 certification, an international standard for quality management in the automobile industry, since October 2003, and completed acquisition of ATF16949:2016 certification by fiscal year 2017 to respond to the change of the standard from ISO/TS16949 to IATF16949. In addition, to continuously improve our competitiveness and customer satisfaction, we have operated the IBIDEN Management System that integrated our existing management systems covering quality (ISO 9001), environment (ISO 14001), and occupational health and safety (OHSAS 18001). Going forward, we will continue to build a system that can provide high-quality products at a global level and upgrade the level of quality.

### Measures for Enhancement of Customer Satisfaction

The Sales Division in charge of customer relations gathers various types of information on technologies and complaints and informs each division about them. Each Operation reviews the level of customer satisfaction, which they check on a regular basis in training camps. Measures to enhance customer satisfaction are taken under the leadership of the management. For the customer support that we provide primarily through the Sales Division and our state-of-the-art products, we have gained a high reputation from our customers including manufacturers of electrical equipment, semiconductors and automobiles.

### Development of human resources that sustain quality

So that we can benefit from the experience of our workers and develop human resources capable of creating new value, we offer systematic education to all employees (See “Development of Human Resources” on page 23).

Going forward, the focus will be on four IBI-TECHNO capabilities in Management of Business, Management of Technology, Total Productive Management, Management Capability, in accordance with the TPM approach for developing human resources that practice the customers-first principle. Determining the degree of progress at each step, we aim to boost skills and motivation. Accurately reviewing the ever-evolving value of our business activities from the customers' perspective based on the level of customer satisfaction, we aspire to be an enterprise that continues to grow.

## **IBI-TECHNO Promotion Activities**

IBIDEN has conducted IBI-TECHNO promotion activities in which all employees from all divisions take part in achieving No. 1 customer satisfaction by putting the IBIDEN Way into practice. The underlining philosophy is that our activities are designed first and foremost for our customers. Improving the four IBI-TECHNO (“Management of Business”, “Management of Technology”, “Total Productive Management” and “Management Capability”) will boost IBIDEN’s corporate value and ensure a stable profit supported by strong competitiveness in the market. We also strive to give back to our stakeholders.

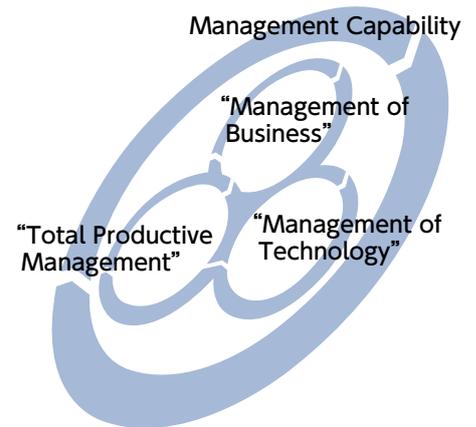
Activities to strengthen “Management of Business” : Set a target that is a testament to our high level of competitiveness and offers customer delight.

Activities to strengthen “Management of Technology” : Realize our own unique process/equipment and plant development with a high level of competitiveness.

Activities to strengthen “Total Productive Management” : Implement further improvements and manage maintenance.

We will reach all our business targets by promoting and achieving greater synergy effects among our three IBI-TECHNO capabilities through our activities to strengthen our management capability.

Competitiveness in the market stems directly from human resources. We continue to challenge ourselves to meet our own high expectations by using the method “Genchi (actual scene), Genbutsu (actual thing), and Jigakari (on-site solution of problems)” aiming to achieve results through cross-sectional teamwork that goes beyond hierarchy and organizational hurdles and promotes the spirit of teamwork, skills, and the sense of satisfaction derived from a job well done. As we challenge ourselves to achieve higher goals, the success of “spiral up” will follow.



**Image of “Spiral Up” for IBI-TECHNO promotion activities**

# Corporate Responsibility Goal Summary

To realize its corporate philosophy, the IBIDEN Group has deployed CSR activities based on the IBIDEN Group Charter of Behavior. We have worked to manage the practices based on the IBIDEN Management System as well as management system of each group company. The activities implemented to address various issues are as follows.

Article 1: Compliance with laws, regulations, and ethics	
We comply with laws, regulations and ethical requirements of the countries and regions where its business operations are based. We work against corruption in all its forms, and carry out open and fair corporate activities with the intention of becoming a company that enjoys the confidence of the international community. We also protect and properly manage personal and customer data and other types of information.	
Item implemented in fiscal year 2017 and management indices for outcomes	Item for implementation plan and targets in fiscal year 2018
<ul style="list-style-type: none"> <li>Continuously drove operation of corporate compliance system through the IMS.</li> <li>Continuously implemented workplace inspections by our administrators based on the IBIDEN SR Management Standards (implemented by 93.7% of IBIDEN's administrators).</li> <li>Improved understanding of the IBIDEN SR Management Standards by managers of domestic group companies.</li> <li>Continuously conducted education of the IBIDEN Code of Conduct and monitoring of the compliance status (approximately 6,100 participants of employees of IBIDEN and its domestic affiliated companies, and in-house contractors).</li> </ul>	<ul style="list-style-type: none"> <li>Continuously driving operation of the corporate compliance system through the IMS.</li> <li>Continuously implementing workplace inspections by our administrators based on the IBIDEN SR Management Standards.</li> <li>Continuously conducting education of the Standards for Employee Behavior and monitoring of the compliance status.</li> </ul>
<ul style="list-style-type: none"> <li>Continuously conducted fraud prevention education for administrators and checked every workplace.</li> <li>Continued internal audits by the Audit group to prevent fraud.</li> <li>Reinforced internal rules regarding gifts and treatments; no record of legal violations with a major impact on business activities.</li> </ul>	<ul style="list-style-type: none"> <li>Continuously conducting fraud prevention education for administrators and checking every workplace.</li> <li>Continuing internal audits by the Audit group to prevent fraud.</li> <li>Reinforcing internal rules regarding gifts and proper treatment.</li> </ul>
<ul style="list-style-type: none"> <li>Secured physical security through continuous operation of a security zone.</li> <li>Enhanced education and dissemination of information leakage risks; no record of significant information leakage.</li> </ul>	<ul style="list-style-type: none"> <li>Securing physical security through continuous operation of a security zone.</li> <li>Enhancing education and dissemination of information leakage risks.</li> <li>Implementing quality data audit related to information risk.</li> </ul>

Article 2: Development together with stakeholders	
We develop together with our stakeholders, so we enhance the transparency of management and build a trustworthy relationship through communication. We also actively engage in community-based activities that contribute to society as a good corporate citizen.	
Item implemented in fiscal year 2017 and management indices for outcomes	Item for implementation plan and targets in fiscal year 2018
<ul style="list-style-type: none"> <li>Identified and assessed the risk in the event of a large-scale disaster.</li> </ul>	<ul style="list-style-type: none"> <li>Implementing countermeasures for risks in the event of a large-scale disaster.</li> </ul>
<ul style="list-style-type: none"> <li>Identified collaboration themes and issues to be addressed for effective communication between labor and management, and addressed the issues (IBIDEN).</li> <li>Continuously implemented information exchange with local residential associations, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Implementing labor-management communication.</li> <li>Continuously conducting close information exchange with local communities.</li> </ul>
<ul style="list-style-type: none"> <li>Revised the CSR guidelines for suppliers in August 2017 and raised awareness.</li> <li>Continuously conducted CSR surveys and audits for suppliers. —Compliance rate in CSR survey: 89.9%* No record of significant violations. (IBIDEN)</li> </ul> <p>* The rate is average for all survey items.</p>	<ul style="list-style-type: none"> <li>Continuously conducting CSR surveys and audits for suppliers.</li> <li>Raising the level of supply chain capabilities through following up on improvement activities of CSR surveys and audits.</li> </ul>
<ul style="list-style-type: none"> <li>Continuously held the IBIDEN Tours, and held plant tours for families and local students.</li> <li>Expanded social contribution programs tailored to the region, such as exchange in sports and cultural events, and tree-planting activities.</li> </ul>	<ul style="list-style-type: none"> <li>Continuously conducting such program activities as the global environment protection, next generation development, contribution to social welfare and local communities, and disaster relief.</li> <li>Continuously expanding social contribution programs tailored to the region.</li> </ul>

Article 3: Providing customer delight	
We provide customer delight, so we have a good understanding of social trends, future needs and develop. We provide safe and secure products and services to maximize our customer's satisfaction by growing IBI-Techno.	
Item implemented in fiscal year 2017 and management indices for outcomes	Item for implementation plan and targets in fiscal year 2018
<ul style="list-style-type: none"> <li>Conducted activities to monitor customer satisfaction, identify issues, and address them: Acquisition of a high evaluation in terms of continuous quality improvement from major customers.</li> </ul>	<ul style="list-style-type: none"> <li>Monitored customer satisfaction, and highlighted various issues.</li> </ul>
* Additionally we are addressing with the following targets: monitor of market demands, challenges to new fields, and reform and improvement of existing fields.	

Article 4: Management based on global standards	
We manage our group based on global standards. We respect human rights and other international norms of behavior. Also, we respect culture and customs in each country or region concerned when carrying out our corporate activity.	
Item implemented in fiscal year 2017 and management indices for outcomes	Item for implementation plan and targets in fiscal year 2018
<ul style="list-style-type: none"> <li>Revised the Standards for Employee Behavior and the SR Management Standards in August 2017, and raised awareness of them. (E-learning attendance rate after revision: 97% of IBIDEN's managers)</li> <li>Notified the domestic affiliated companies' managers of the SR Management Standards.</li> <li>Improved activity levels of the entire Group by sharing issues to be addressed among the Group companies.</li> <li>Continuously facilitated information-sharing on examples of CSR activities at the CSR Promotion Conference.</li> </ul>	<ul style="list-style-type: none"> <li>Revising the Standards for Employee Behavior and the SR Management Standards, and raising awareness of them.</li> <li>Notifying the domestic affiliated companies' managers of the SR Management Standards.</li> <li>Grasping activity issues and improving activity levels of the overseas Group companies.</li> <li>Continuously facilitating information-sharing on examples of CSR activities at the CSR Promotion Conference.</li> </ul>

<ul style="list-style-type: none"> <li>Expanded activities to promote awareness of the IBIDEN Way.</li> <li>Conducted education on the Standards for Employee Behavior using the E-learning system: E-learning attendance rate was 92% (IBIDEN and domestic affiliated companies).</li> </ul>	<ul style="list-style-type: none"> <li>Expanding activities to promote awareness of the IBIDEN Way.</li> <li>Conducting level-specific education on the Standards for Employee Behavior on a regular basis.</li> </ul>
<ul style="list-style-type: none"> <li>Continuously conducted education activities for compliance hotlines such as the compliance consultation service: The compliance consultation service was used in 38 cases (IBIDEN and domestic affiliated companies).</li> <li>Prevented violation and recurrence through utilization of case studies.</li> <li>Implemented enlightenment, education and guidance on efforts to prevent recurrence, which the Harassment Prevention Committee played a central role in.</li> <li>Continuously conducted education regarding harassment.</li> </ul>	<ul style="list-style-type: none"> <li>Continuously implementing education and awareness activities for compliance hotlines such as the compliance consultation service.</li> <li>Continuously conducting level-specific education regarding harassment.</li> </ul>
<ul style="list-style-type: none"> <li>Implemented internal audits to expand IMS to the Group companies.</li> </ul>	<ul style="list-style-type: none"> <li>Simultaneously promoting the Group policy thoroughly and strengthening internal control by expanding IMS to the Group companies.</li> </ul>

### Article 5: Harmony with nature

We harmonize with nature in all areas of our corporate activities. We manage to develop technologies to achieve good balance between the environment and business, and we provide environmentally friendly products and services by promoting energy and resource conservation activities.

Item implemented in fiscal year 2017 and management indices for outcomes	Item for implementation plan and targets in fiscal year 2018
(Energy conservation activities) <ul style="list-style-type: none"> <li>Minimized energy loss during production.</li> <li>Minimized energy consumption at production pause.               <ul style="list-style-type: none"> <li>—A reduction of 11% in the energy unit load compared to fiscal year 2016. (IBIDEN domestic plants).</li> <li>—An increase of 4% in CO<sub>2</sub> emission per basic unit of production compared to fiscal year 2012. (Target not achieved)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Promoting efficient energy management</li> <li>Introducing new energy-saving technology into existing/new facilities to reduce energy consumption               <ul style="list-style-type: none"> <li>—A reduction of 5% in CO<sub>2</sub> emission per basic unit of production compared to fiscal year 2017. (fiscal year 2022)</li> </ul> </li> </ul>
(Resource circulation) <ul style="list-style-type: none"> <li>Ensured proper use of resource according to fluctuations in production volume, and promoted waste reduction.</li> <li>Ensured compliance with waste management.               <ul style="list-style-type: none"> <li>—A reduction of 17% or more in the solid waste unit load rate compared to fiscal year 2012. (Target achieved)</li> <li>—A reduction of 28% or more in the water withdrawal unit load rate compared to fiscal year 2012. (Target achieved)</li> </ul> </li> </ul>	(Resource circulation) <ul style="list-style-type: none"> <li>Ensuring proper use of resource according to fluctuations in production volume, and promoting waste reduction.</li> <li>Ensuring compliance with waste management.               <ul style="list-style-type: none"> <li>—A reduction of 5% or more (annually 1% reduction) in the solid waste unit load rate compared to fiscal year 2017. (fiscal year 2022)</li> <li>—A reduction of 5% or more (annually 1% reduction) in the water withdrawal unit load rate compared to fiscal year 2017. (fiscal year 2022)</li> </ul> </li> </ul>
(Environmental risk management) <ul style="list-style-type: none"> <li>Conducted global management of related laws and regulations through the Chemical Control Committee.</li> <li>Continuously conducted pipe end management to prevent environmental impact such as spill, noise, and odor; No record of significant spill incidents.</li> </ul>	(Environmental risk management) <ul style="list-style-type: none"> <li>Promoting compliance through the global management in compliance with chemical substance-related laws and regulations.</li> <li>Enhancing the level of pipe end management to prevent environmental impact on local residents, such as spill, noise, and odor from the plans.</li> </ul>
<ul style="list-style-type: none"> <li>Signed a 10-year extension agreement on IBIDEN' s Forest creation with the Gifu prefectural government and the Ibigawa town government</li> </ul>	<ul style="list-style-type: none"> <li>Implementing a forest conservation activities "IBIDEN' s Forest" after extension of agreement.</li> </ul>

### Article 6: Attractive and vibrant company

We aim to become an attractive and vibrant company on the basis of fair, equitable and result oriented employee evaluation personnel system. We aim to have a safe and comfortable working environment. We create a rewarding corporate culture that the employee can respect for each diversity, and fully exercise their skills and abilities.

Item implemented in fiscal year 2017 and management indices for outcomes	Item for implementation plan and targets in fiscal year 2018
<ul style="list-style-type: none"> <li>Promoted an efficient work style through the Good Job with Good Communication (Good JC) activities.</li> <li>Strengthened monitoring for overtime work and especially management for overtime work after 19:00 and an interval in which employees are given a minimum amount of rest between working days.</li> <li>Appointed female managers.               <ul style="list-style-type: none"> <li>—Certified as a "Gifu Prefecture Work Life Balance Excellent Company" (IBIDEN).</li> <li>—The rates of return to work and retention were 94% and 100%, respectively (IBIDEN).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Promoting an efficient work style and strengthening communication in the workplace.</li> <li>Strengthening efforts to reduce actual working hours.</li> <li>Enhancing support measures for balancing work, childcare and nursing care (IBIDEN).</li> <li>Holding career training for females, and strengthening in-house information dissemination (IBIDEN).</li> </ul>
<ul style="list-style-type: none"> <li>Reviewed target setting and educational content for assessors and continuously implemented training (IBIDEN).</li> </ul>	<ul style="list-style-type: none"> <li>Firmly establishing feedback with a results-oriented target management assessment system (IBIDEN).</li> </ul>
<ul style="list-style-type: none"> <li>Implemented a thorough investigation of the cause of accidents and countermeasures across the Group.</li> <li>Confirmed the effectiveness of risk assessment by an administrator.</li> <li>Implemented countermeasures on issues that were identified by total inspection for the eradication of explosion and fire.               <ul style="list-style-type: none"> <li>—The occupational accident frequency rate was 1.56%. (IBIDEN and domestic Group companies).</li> <li>—The number of occupational injuries that were equal to or greater than accidents requiring four days' leave was 26 (overseas Group companies).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Reviewing the safety system to implement safety patrols by division managers.</li> <li>Implementing essential countermeasures against disasters to achieve zero recurrence of occupational accidents.</li> <li>Promoting field-oriented safety circle activities and improving the effectiveness of activities.</li> </ul>
<ul style="list-style-type: none"> <li>Formulated the "IBIDEN Group Health Management Declaration."</li> <li>Implemented health promotion and health management activities based on the Health105 Plan.</li> <li>Certified as a "White 500" company (IBIDEN, TAK, IBIDEN Engineering and IBIDEN Bussan).</li> </ul>	<ul style="list-style-type: none"> <li>Facilitating health management activities mainly through the Health Subcommittees based on the new "Smart 110 plan" .</li> </ul>

# Corporate Information

## Company Outline

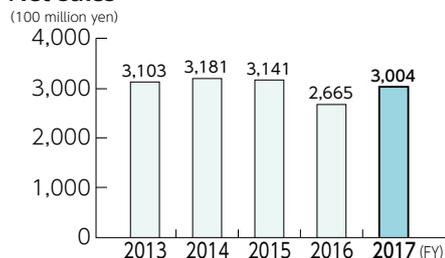
Trade name: IBIDEN CO., LTD.  
 Established: November 25, 1912  
 Capital: ¥64,152 million (As of March 31, 2018)  
 Representative: Takeshi Aoki, President & CEO  
 Number of employees: Consolidated 15,574 Non-consolidated 3,515 (As of March 31, 2018)  
 Office and Plants  
 Head office: 2-1, Kanda-cho, Ogaki City, Gifu 503-8604, Japan Tel: 0584-81-3111  
 Branches: Tokyo  
 Plants: Gifu Prefecture (Ogaki, Ogaki Central, Aoyanagi, Gama, Ogaki-Kita, Godo);  
 Aichi Prefecture (Kinuura)  
 Number of Subsidiaries: Consolidated subsidiaries: 37 (17 in Japan, 20 overseas) (As of March 31, 2018)

## Main Business Lines

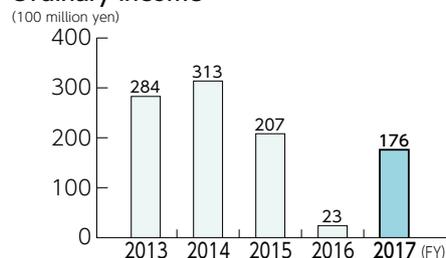
Business Segments	Main Products/Business Areas
Electronics Operation	Printed wiring boards and package substrates
Ceramics Operation	Environment-related ceramics products, graphite specialty products, fine ceramics products, High temperature insulation wool
Other Operations	Housing equipment, melamine decorative laminates and decorative laminates related products
	Design and construction of civil engineering works including slop protection construction and landscape gardening, as well as of environmental facilities
	Synthetic resin processing, agriculture, livestock, and fishery processing, oil products sales, provision of information and other services

## Change in Business Results (As of March 31, 2018)

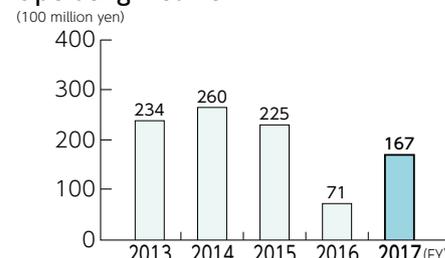
### Net sales



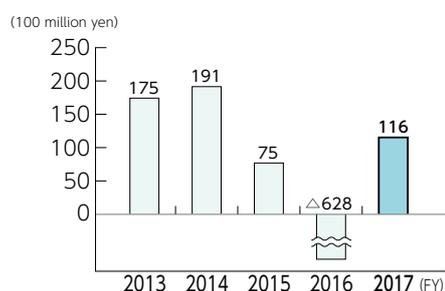
### Ordinary income



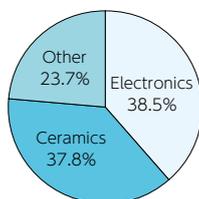
### Operating income



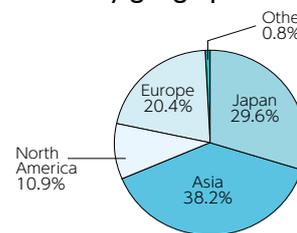
### Net income



### Net sales composition by business segments



### Net sales by geographical segments



Net sales are classified by country or region based on the location of customers.

## Disclosure of Financial Information

IBIDEN takes steps to disclose information at appropriate times to shareholders and investors in a fair, accurate, and easy-to-understand manner. Pursuant to the Timely Disclosure Rule of the Tokyo Stock Exchange, our information disclosure standards require the disclosure of information relevant to our operations, scope of business, and assets that could significantly affect investment judgments, as well as any changes or suspension of important corporate information that has already been published. Our policy is to disclose such information proactively and fairly. We will also disclose corporate information that could significantly influence investment judgments even if the Timely Disclosure Rule does not apply, as accurately, promptly and appropriately as possible.



Website for shareholders and investors  
<https://www.ibiden.co.jp/ir/index.html>

## Main Subsidiaries and Affiliates

Company- Japan	Location	Main Business
IBIDEN Greentec Co., Ltd.	Ogaki, Gifu	Design and construction of special works
IBIDEN Chemicals Co., Ltd.	Ogaki, Gifu	Manufacture and sales of chemical products
IBIKEN Co., Ltd.*	Ogaki, Gifu	Sale of housing materials
IBIDEN Graphite Co., Ltd.	Ogaki, Gifu	Manufacture of graphite products
IBIDEN Industries Co., Ltd.	Ogaki, Gifu	Sale of products and equipments
TAK Co., Ltd.	Ogaki, Gifu	Information services
IBIDEN Jushi Co., Ltd.	Ibi-gun, Gifu	Manufacture of foamed-resin products
IBIDEN Bussan Co., Ltd.	Motosu, Gifu	Processing of agricultural and marine products
IBIDEN Engineering Co., Ltd.	Ogaki, Gifu	Design and construction of mechanical facilities
IBIDEN Career Techno Corp.	Ogaki, Gifu	Temporary staffing services

Company- Overseas	Location	Main Business
IBIDEN U.S.A. Corp.	U.S.A.	Investment and finance in U.S.A., and sales of products
Micro Mech, Inc.	U.S.A.	Manufacture of graphite products
IBIDEN México, S.A. de C.V.	Mexico	Manufacture of ceramic products
IBIDEN Europe B.V.	Netherlands	Investment and finance in Europe, and sales of the products
IBIDEN Hungary Kft.	Hungary	Manufacture of ceramic products
IBIDEN DPF FRANCE S.A.S.	France	Manufacture of ceramic products
IBIDEN Porzellanfabrik Frauenthal GmbH	Austria	Manufacture of ceramic products
IBIDEN Asia Holdings Pte., Ltd.	Singapore	Investment and finance in Asia
IBIDEN Electronics Malaysia Sdn. Bhd.	Malaysia	Manufacture of electronics substrates
IBIDEN Electronics (Beijing) Co., Ltd.	P.R.C.	Manufacture of electronics substrates
IBIDEN Graphite Korea Co., Ltd.	Korea	Manufacture of graphite products
IBIDEN Philippines, Inc.	Philippines	Manufacture of electronics substrates
IBIDEN Electronics (Shanghai) Co., Ltd.	P.R.C.	Sales of products
IBIDEN Singapore Pte. Ltd.	Singapore	Sales of products
IBIDEN Korea Co., Ltd.	Korea	Sales of products
IBIDEN Taiwan Co., Ltd.	Taiwan	Sales of products

The Company had 37 consolidated subsidiaries including the above companies as of March 31, 2018.

## Board of Directors/Organization

### Directors

**Chairman of the Board,  
Representative Director**

Hiroki TAKENAKA

**President & CEO,  
Representative Director**

Takeshi AOKI

**Representative Director &  
Executive Vice Presidents**

Kozo KODAMA

**Director & Executive  
Managing Officer**

Masahiko IKUTA

**Outside Director**

Chiaki YAMAGUCHI

Toshio MITA

Koichi YOSHIHISA

**Director, Audit and  
Supervisory Committee  
Member (Full -time)**

Keiichi SAKASHITA

Yoichi KUWAYAMA

**Director, Audit and  
Supervisory Committee  
Member (Outside)**

Fumio KATO

Masaki HORIE

Nobuko KAWAI

**Senior Managing Officers:**

Sotaro Ito

Koji Kawashima

Shuichi Kubo

**Managing Officers:**

Honchin Endo

Yasuji Hiramatsu

Hisashi Sano

Yasushi Inagaki

Kota Noda

Kazushige Ono

Board of Directors

Audit and  
Supervisory Committee

CSR Promotion Division

Division Manager:  
Yamanaka Managing Officer

Strategic Corporate Planning Operation

President of Strategic Corporate Planning Operation :

Ikuta Executive Managing Officer

Vice President of Strategic Corporate Planning Operation :

Sano Managing Officer

Vice President of Strategic Corporate Planning Operation :

Ono Managing Officer

Vice President of Strategic Corporate Planning Operation :

Kawasaki Managing Officer

Strategic Manufacturing Operation

President of Strategic Manufacturing Operation :

Kodama Executive Vice President

Vice President of Strategic Manufacturing Operation :

Yamanaka Managing Officer

R&D Operation

President of Corporate R&D Operation :

Kubo Senior Managing Officer

Vice President of Corporate R&D Operation :

Yamada Managing Officer

Vice President of Corporate R&D Operation :

Takahashi Managing Officer

Energy Control Division

Unit Manager: Asai

Electronics Operation

President of Corporate Electronics Operation :

Kawashima Senior Managing Officer

Vice President of Corporate Electronics Operation :

Inagaki Managing Officer

Vice President of Corporate Electronics Operation :

Noda Managing Officer

Ceramics Operation

President of Corporate Ceramics Operation :

Ito Senior Managing Officer

Vice President of Corporate Ceramics Operation:

Hiramatsu Managing Officer

ECP Unit

Unit Manager :

Asano Managing Officer

Deputy Unit Manager :

Yamamura Managing Officer

AFP Unit

Unit Manager :

Matsushita

FGM Unit

Unit Manager :

Kunieda

(As of June 16, 2018)

# Editorial Policy

The IBIDEN 2018 Corporate Social Responsibility Report, covering mainly the environmental and social aspects of the IBIDEN Group's policy and performance, is published to inform stakeholders about the IBIDEN Group's CSR activities in an easy-to-understand format. In recognition of the fact that CSR is closely linked to our corporate management, this report focuses on the key themes based on matters of interest to our stakeholders and our four themes—internal control, human resource management, environmental management, and social contribution—including in “Develop and promote CSR management globally” which is one of the pillars of our medium-term management plan.

## Period covered

This report focuses primarily on activities during fiscal year 2017 (April 1, 2017 to March 31, 2018), but also includes details of selected ongoing initiatives and more recent activities.

## Date of publication

September 2018 (previous report: August 2017, next report: August 2019)

## Guidelines used as reference

ISO26000:20100 Guidance on social responsibility  
 GRI Sustainability Reporting Standards, Global Reporting Initiative (GRI)  
 Environmental Reporting Guidelines (fiscal year 2012 version), Ministry of the Environment  
 Environmental Accounting Guidelines (fiscal year 2005 version), Ministry of the Environment  
 Note: GRI Standards comparison table can be found at the end of the report.

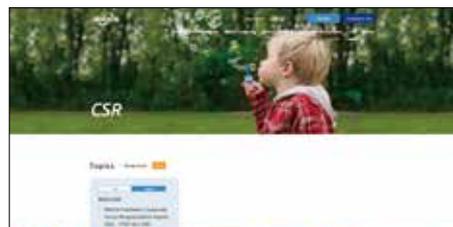
## Supplementary information regarding the contents

As for the basic unit data presented in the environmental management, the criteria for calculation of production volume conversion for the basis of the basic unit data has been changed in accordance with the current product configuration since fiscal year 2015. In case any revision was made to the data, reasons for such revision have been stated individually.

## Disclosure of CSR Information

The IBIDEN Group's CSR report is published on our website. We will update social and environmental information in an appropriate manner.

Furthermore, our website serves as a venue to disclose in a timely manner a wide range of information such as financial information including the Group's business report and its consolidated financial statements as well as nonfinancial information such as various policies and management indicators concerning CSR.



### Website

**IBIDEN Group's web site** <https://www.ibiden.com/>  
**IBIDEN Group's CSR web site** <https://www.ibiden.com/csr/>

## Process of Determining Reporting Items

### (1) List of Reporting Themes

Based on the IBIDEN Group Charter of Behavior, the issues that the IBIDEN Group should tackle, including the items of the IBIDEN SR Management Standards, are identified. Furthermore, themes in which our stakeholders might be interested are identified including industry-wide items such as the Responsible Business Alliance (RBA) Code of Conduct, requests received from customers, evaluations and feedback received from external agencies such as social responsibility investment (SRI) investors, feedback on our CSR report, themes involving the labor/management relationship, and direct communication with other stakeholders such as members of local communities. A reference table listing these themes alongside the Global Reporting Initiative (GRI) Sustainability Reporting Standards (hereafter the “GRI Standards”) is then prepared. Themes that do not fall under any GRI Standards categories are added to the list as new items.

### (2) Evaluation of Materiality

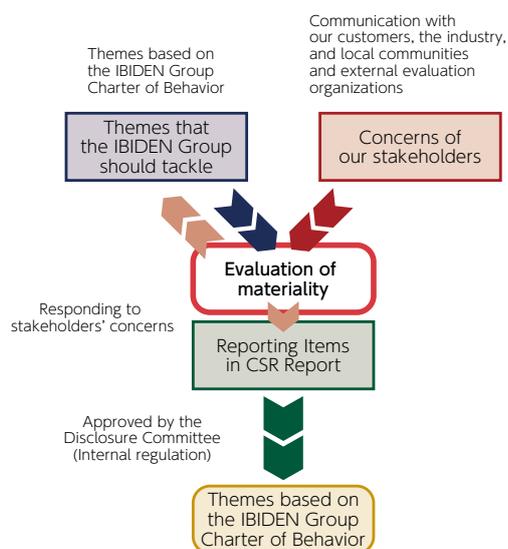
A degree of materiality of each issue is then calculated based on its effect on the IBIDEN Group and the materiality of the issue for our stakeholders. Items at the top of the list are then identified as priorities.

As a result, we have selected 20 reporting themes, including our own identified four items, with a high level of materiality out of the list in (1).

Materiality reporting themes are identified clearly at the end of this document in the GRI Standards comparison table.

### (3) Reporting Items in the Report

Focusing on these issues, the report explains why the items are material to the IBIDEN Group and describes the management structure as well as the indexes. Each reporting theme is divided into groups based on four viewpoints of our CSR management (internal control, human resource management, environmental management, and social contribution).

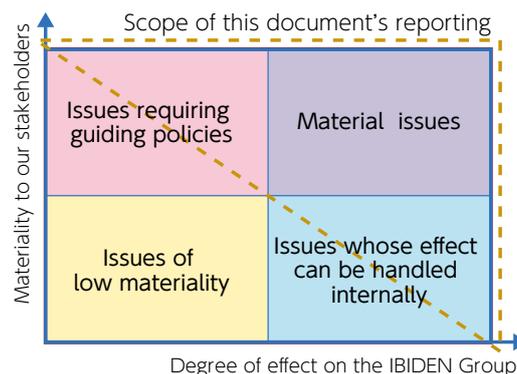


Flow chart of Determining Reporting Items

This report is intended for the stakeholders who are highly interested in CSR. The report includes not only the reporting themes of high materiality but also items in which many of our stakeholders expressed a strong interest and wanted us to tackle. We also include the issues that the Company has been working hard to address, so that our stakeholders can gain a deeper understanding of our plan of action as well as our point of view.

**(4) Disclosure of Reporting Content**

This CSR report is published after undergoing the above-mentioned process to select reporting items and is based on the Company's disclosure rules. It was also approved by the Disclosure Committee.



**Figure: Issue Placement and Scope of Reporting**

**Coverage**

As a rule, the contents of this report relate to IBIDEN Co., Ltd. ( “we” / “IBIDEN” / “the Company” ) and domestic and overseas companies belonging to the IBIDEN Group. Parts of this report that do not relate to the IBIDEN Group ( “the Group” ) are specified on an individual basis. Selected environment data are only applicable to IBIDEN's domestic plants. Such data are marked as “IBIDEN domestic plants” and include IBIDEN Co., Ltd. and selected domestic Group companies.

The details of the scope (significant subsidiaries) of this report are as follows:

Domestic	Internal Control	Human Resource Management	Environmental Management	Environmental Data	Social Contribution	Remark
IBIDEN Greentec Co., Ltd.	○	○	○	◎	○	
IBIDEN Chemicals Co., Ltd.*1	○	○	○	◎	○	
IBIKEN Co., Ltd.*1	○	○	○	○	○	Except for manufacturing
IBIDEN Graphite Co., Ltd.*1	○	○	○	◎	○	
IBIDEN Industries Co., Ltd.	○	○	○	◎	○	
TAK Co., Ltd.	○	○	○	○	○	Except for manufacturing
IBIDEN Jushi Co., Ltd.	○	○	○	◎	○	
IBIDEN Bussan Co., Ltd.	○	○	○	◎	○	
IBIDEN Engineering Co., Ltd.*1	○	○	○	◎	○	
IBIDEN CAREER TECHNO Corp*1	○	○	○	○	○	Except for manufacturing

\*1 This is the domestic Group company included in “IBIDEN domestic plants.” The Interior Construction division of IBIKEN Co., Ltd. and the Water Treatment division of IBIDEN Engineering Co., Ltd. are also included in “IBIDEN domestic plants.”

Global	Internal Control	Human Resource Management	Environmental Management	Environmental Data	Social Contribution	Remark
IBIDEN U.S.A. Corp.	○	○	○	-	○	Except for manufacturing
Micro Mech, Inc.	○	○	○	○	○	
IBIDEN México, S.A. de C.V.	○	○	○	◎	○	
IBIDEN Europe B.V.	○	○	○	-	○	Except for manufacturing
IBIDEN Hungary Kft.	○	○	○	◎	○	
IBIDEN DPF France S.A.S.	○	○	○	◎	○	
IBIDEN Porzellanfabrik Frauenthal GmbH.	○	○	○	◎	○	
IBIDEN Asia Holdings Pte., Ltd.	○	○	○	-	○	Except for manufacturing
IBIDEN Electronics Malaysia Sdn. Bhd.	○	○	○	◎	○	
IBIDEN Electronics (Beijing) Co., Ltd.	○	○	○	◎	○	
IBIDEN Graphite Korea Co., Ltd.	○	○	○	◎	○	
IBIDEN Philippines, Inc.	○	○	○	◎	○	
IBIDEN Electronics (Shanghai) Co., Ltd.	○	○	○	○	○	
IBIDEN Singapore Pte. Ltd.	○	○	○	-	○	Except for manufacturing
IBIDEN Korea Co., Ltd.	○	○	○	-	○	Except for manufacturing
IBIDEN Taiwan Co., Ltd.	○	○	○	-	○	Except for manufacturing

\*2 ◎ denotes bases as shown in the graphs including a basic unit ratio. Since fiscal year 2015, the environmental data has included those of IBIDEN Mexico, S.A. de C.V.

Please note that each report is completed by specifying the scope in the graphs and the text in the report. Furthermore, the effects on entities outside the Company such as its supply chain are described individually within the report.

# GRI Index Table

In making the IBIDEN CSR Report 2018, we referred to the GRI\* Standards. This report is based on the Core option used as an objective measure of the extent to which the standards have been applied.

\*GRI (Global Reporting Initiative): An independent institution whose mission is to develop and disseminate globally applicable Sustainability Reporting Guidelines.

Items on General Disclosures that are required for the Core option are in blue.  

Items that are not required are posted on the index table below to enable better understanding of the Company's efforts.

General Disclosure			IBIDEN Co., Ltd. CSR Report 2018	
			Page	Disclosure Title
<b>1. Organizational Profile</b>				
102-1	Name of the organization.	a. Name of the organization.	P59	Corporate Information
102-2	Activities, brands, products, and services	a. A description of the organization's activities. b. Primary brands, products, and services, including an explanation of any products or services that are banned in certain markets.	P59	Corporate Information
102-3	Location of headquarters	a. Location of the organization's headquarters.	P59	Corporate Information
102-4	Location of operations	a. Number of countries where the organization operates, and the names of countries where it has significant operations and/or that are relevant to the topics covered in the report.	P59-60	Corporate Information
102-5	Ownership and legal form	a. Nature of ownership and legal form.	P7 P8-9 P59	Basic Views on Corporate Governance Overview of Corporate Governance System Corporate Information
102-6	Markets served	a. Markets served, including: i. geographic locations where products and services are offered; ii. sectors served; iii. types of customers and beneficiaries.	P59-60	Corporate Information
102-7	Scale of the organization	a. Scale of the organization, including: i. total number of employees; ii. total number of operations; iii. net sales (for private sector organizations) or net revenues (for public sector organizations); iv. total capitalization (for private sector organizations) broken down in terms of debt and equity; v. quantity of products or services provided.	P59	Corporate Information
102-8	Information on employees and other workers	a. Total number of employees by employment contract (permanent and temporary), by gender. b. Total number of employees by employment contract (permanent and temporary), by region. c. Total number of employees by employment type (full-time and part-time), by gender. d. Whether a significant portion of the organization's activities are performed by workers who are not employees. If applicable, a description of the nature and scale of work performed by workers who are not employees. e. Any significant variations in the numbers reported in Disclosures 102-8-a, 102-8-b, and 102-8-c (such as seasonal variations in the tourism or agricultural industries). f. An explanation of how the data have been compiled, including any assumptions made.	P20	Constitution of Employees
102-9	Supply chain	a. A description of the organization's supply chain, including its main elements as they relate to the organization's activities, primary brands, products, and services.	P17	CSR Management in the Supply Chain
102-10	Significant changes to the organization and its supply chain	a. Significant changes to the organization's size, structure, ownership, or supply chain, including: i. Changes in the location of, or changes in, operations, including facility openings, closings, and expansions; ii. Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations); iii. Changes in the location of suppliers, the structure of the supply chain, or relationships with suppliers, including selection and termination.	P60	Main Subsidiaries and Affiliates
102-11	Precautionary Principle or approach	a. Whether and how the organization applies the Precautionary Principle or approach.	P11-12	Risk Management
102-12	External initiatives	a. A list of externally-developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes, or which it endorses.	P4-5	CSR Policy and Promotional structure
102-13	Membership of associations	a. A list of the main memberships of industry or other associations, and national or international advocacy organizations.	P4-5 P39	CSR Policy and Promotional structure Appropriate Chemical Control
<b>2. Strategy</b>				
102-14	Statement from senior decision-maker	a. A statement from the most senior decision-maker of the organization (such as CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy for addressing sustainability.	P2 P3 P4-5	Top Message IBIDEN WAY / To The Next Stage 110 Plan CSR Policy and Promotional structure
102-15	Key impacts, risks, and opportunities	a. A description of key impacts, risks, and opportunities.	P2 P4-5 P11-12 P57-58	Top Message CSR Policy and Promotional structure Risk Management Corporate Responsibility Goal Summary
<b>3. Ethics and integrity</b>				
102-16	Values, principles, standards, and norms of behavior	a. A description of the organization's values, principles, standards, and norms of behavior.	P3 P4-5 P13-17	IBIDEN WAY CSR Policy and Promotional structure Compliance
102-17	Mechanisms for advice and concerns about ethics	a. A description of internal and external mechanisms for: i. seeking advice about ethical and lawful behavior, and organizational integrity; ii. reporting concerns about unethical or unlawful behavior, and organizational integrity.	P13-17	Compliance
<b>4. Governance</b>				
102-18	Governance structure	a. Governance structure of the organization, including committees of the highest governance body. b. Committees responsible for decision-making on economic, environmental, and social topics.	P7	Basic Views on Corporate Governance
102-19	Delegating authority	a. Process for delegating authority for economic, environmental, and social topics from the highest governance body to senior executives and other employees.	P7 P11-12 P13-17	Basic Views on Corporate Governance Risk Management Compliance Organization chart of Occupational Health and Safety Management
102-20	Executive-level responsibility for economic, environmental, and social topics	a. Whether the organization has appointed an executive-level position or positions with responsibility for economic, environmental, and social topics. b. Whether post holders report directly to the highest governance body.	P28 P32	Environmental Management

General Disclosure			IBIDEN Co., Ltd. CSR Report 2018	
			Page	Disclosure Title
<b>4. Governance</b>				
102-21	Consulting stakeholders on economic, environmental, and social topics	a. Processes for consultation between stakeholders and the highest governance body on economic, environmental, and social topics. b. If consultation is delegated, describe to whom it is delegated and how the resulting feedback is provided to the highest governance body.	P7	Basic Views on Corporate Governance
102-22	Composition of the highest governance body and its committees	a. Composition of the highest governance body and its committees by: i. executive or non-executive; ii. independence; iii. tenure on the governance body; iv. number of each individual's other significant positions and commitments, and the nature of the commitments; v. gender; vi. membership of under-represented social groups; vii. competencies relating to economic, environmental, and social topics; viii. stakeholder representation.	P7 P8-9 P61	Basic Views on Corporate Governance Overview of Corporate Governance System Board of Directors/Organization
102-23	Chair of the highest governance body	a. Whether the chair of the highest governance body is also an executive officer in the organization. b. If the chair is also an executive officer, describe his or her function within the organization's management and the reasons for this arrangement.		
102-24	Nominating and selecting the highest governance body	a. Nomination and selection processes for the highest governance body and its committees. b. Criteria used for nominating and selecting highest governance body members, including whether and how: i. stakeholders (including shareholders) are involved; ii. diversity is considered; iii. independence is considered; iv. expertise and experience relating to economic, environmental, and social topics are considered.	P8-9 P9	Overview of Corporate Governance System Compensation of Directors
102-25	Conflicts of interest	a. Processes for the highest governance body to ensure conflicts of interest are avoided and managed. b. Whether conflicts of interest are disclosed to stakeholders, including, as a minimum: i. Cross-board membership; ii. Cross-shareholding with suppliers and other stakeholders; iii. Existence of controlling shareholder; iv. Related party disclosures.	P7 P8-9 P9 P13-17 *	Basic Views on Corporate Governance Overview of Corporate Governance System Compensation of Directors Compliance *Note: *As partly disclosed on page 34, "Board of Directors," page 37, "Corporate Governance," in the 165rd Annual Security Report.
102-26	Role of highest governance body in setting purpose, values, and strategy	a. Highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental, and social topics.	P4-5 P57-58	CSR Policy and Promotional structure Corporate Responsibility Goal Summary
102-27	Collective knowledge of highest governance body	a. Measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental, and social topics.	-	
102-28	Evaluating the highest governance body's performance	a. Processes for evaluating the highest governance body's performance with respect to governance of economic, environmental, and social topics. b. Whether such evaluation is independent or not, and its frequency. c. Whether such evaluation is a self-assessment. d. Actions taken in response to evaluation of the highest governance body's performance with respect to governance of economic, environmental, and social topics, including, as a minimum, changes in membership and organizational practice.	-	
102-29	Identifying and managing economic, environmental, and social impacts	a. Highest governance body's role in identifying and managing economic, environmental, and social topics and their impacts, risks, and opportunities – including its role in the implementation of due diligence processes. b. Whether stakeholder consultation is used to support the highest governance body's identification and management of economic, environmental, and social topics and their impacts, risks, and opportunities.	P4-5 P6 P11-12	CSR Policy and Promotional structure Dialogue and Cooperation with Stakeholders Risk Management
102-30	Effectiveness of risk management processes	a. Highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental, and social topics.	P11-12	Risk Management
102-31	Review of economic, environmental, and social topics	a. Frequency of the highest governance body's review of economic, environmental, and social topics and their impacts, risks, and opportunities.	P11-12	Risk Management
102-32	Highest governance body's role in sustainability reporting	a. The highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material topics are covered.	P62-63	Process of Determining Reporting Items
102-33	Communicating critical concerns	a. Process for communicating critical concerns to the highest governance body.	P7 P8-9 P11-12 P13-17	Basic Views on Corporate Governance Overview of Corporate Governance System Risk Management Compliance
102-34	Nature and total number of critical concerns	a. Total number and nature of critical concerns that were communicated to the highest governance body. b. Mechanism(s) used to address and resolve critical concerns.	P13-17	Compliance
102-35	Remuneration policies	a. Remuneration policies for the highest governance body and senior executives for the following types of remuneration: i. Fixed pay and variable pay, including performance-based pay, equity-based pay, bonuses, and deferred or vested shares; ii. Sign-on bonuses or recruitment incentive payments; iii. Termination payments; iv. Clawbacks; v. Retirement benefits, including the difference between benefit schemes and contribution rates for the highest governance body, senior executives, and all other employees. b. How performance criteria in the remuneration policies relate to the highest governance body's and senior executives' objectives for economic, environmental, and social topics.	P9	Compensation of Directors
102-36	Process for determining remuneration	a. Process for determining remuneration. b. Whether remuneration consultants are involved in determining remuneration and whether they are independent of management. c. Any other relationships that the remuneration consultants have with the organization.	-	
102-37	Stakeholders' involvement in remuneration	a. How stakeholders' views are sought and taken into account regarding remuneration. b. If applicable, the results of votes on remuneration policies and proposals.	-	
102-38	Annual total compensation ratio	a. Ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country.	-	
102-39	Percentage increase in annual total compensation ratio	a. Ratio of the percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country.	-	

General Disclosure			IBIDEN Co., Ltd. CSR Report 2018	
			Page	Disclose Title
<b>5. Stakeholder engagement</b>				
102-40	List of stakeholder groups	a. A list of stakeholder groups engaged by the organization.	P4-5 P6	CSR Policy and Promotional structure Dialogue and Cooperation with Stakeholders
102-41	Collective bargaining agreements	a. Percentage of total employees covered by collective bargaining agreements.	*	*Note: As partly disclosed on page 10, "Employee Situation," in the 165th Annual Securities Report
102-42	Identifying and selecting stakeholders	a. The basis for identifying and selecting stakeholders with whom to engage.	P4-5 P6	CSR Policy and Promotional structure Dialogue and Cooperation with Stakeholders
102-43	Approach to stakeholder engagement	a. The organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.	P6 P62-63	Dialogue and Cooperation with Stakeholders Assessment by Third-Party Organizations and Our Actions Process of Determining Reporting Items
102-44	Key topics and concerns raised	a. Key topics and concerns that have been raised through stakeholder engagement, including: i. how the organization has responded to those key topics and concerns, including through its reporting; ii. the stakeholder groups that raised each of the key topics and concerns.	P6 P57-58	Dialogue and Cooperation with Stakeholders Assessment by Third-Party Organizations and Our Actions Corporate Responsibility Goal Summary
<b>6. Reporting practice</b>				
102-45	Entities included in the consolidated financial statements	a. A list of all entities included in the organization's consolidated financial statements or equivalent documents. b. Whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report.	P63	Coverage
102-46	Defining report content and topic Boundaries	a. An explanation of the process for defining the report content and the topic Boundaries. b. An explanation of how the organization has implemented the Reporting Principles for defining report content.	P62-63	Process of Determining Reporting Items
102-47	List of material topics	a. A list of the material topics identified in the process for defining report content.	This table (P64-69)	GRI Index Table
102-48	Restatements of information	a. The effect of any restatements of information given in previous reports, and the reasons for such restatements.	P62	Supplementary information regarding the contents
102-49	Changes in reporting	a. Significant changes from previous reporting periods in the list of material topics and topic Boundaries.	P62 P63	Supplementary information regarding the contents Coverage
102-50	Reporting period	a. Reporting period for the information provided.	P62	Period covered
102-51	Date of most recent report	a. If applicable, the date of the most recent previous report.	P62	Date of publication
102-52	Reporting cycle	a. Reporting cycle.	P62	Date of publication
102-53	Contact point for questions regarding the report	a. The contact point for questions regarding the report or its contents.	Cover page	Contact point (a website is also available: <a href="https://www.ibiden.com/utility/inquiry.html">https://www.ibiden.com/utility/inquiry.html</a> )
102-54	Claims of reporting in accordance with the GRI Standards	a. The claim made by the organization, if it has prepared a report in accordance with the GRI Standards, either: i. 'This report has been prepared in accordance with the GRI Standards: Core option'; ii. 'This report has been prepared in accordance with the GRI Standards: Comprehensive option'.	This table (P64-69)	GRI Index Table
102-55	GRI content index	a. The GRI content index, which specifies each of the GRI Standards used and lists all disclosures included in the report. b. For each disclosure, the content index shall include: i. the number of the disclosure (for disclosures covered by the GRI Standards); ii. the page number(s) or URL(s) where the information can be found, either within the report or in other published materials; iii. if applicable, and where permitted, the reason(s) for omission when a required disclosure cannot be made.	This table (P64-69)	GRI Index Table
102-56	External assurance	a. A description of the organization's policy and current practice with regard to seeking external assurance for the report. b. If the report has been externally assured: i. A reference to the external assurance report, statements, or opinions. If not included in the assurance report accompanying the sustainability report, a description of what has and what has not been assured and on what basis, including the assurance standards used, the level of assurance obtained, and any limitations of the assurance process; ii. The relationship between the organization and the assurance provider; iii. Whether and how the highest governance body or senior executives are involved in seeking external assurance for the organization's sustainability report.	—	The CO <sub>2</sub> emissions of IBIDEN and overseas group companies posted in the previous CSR reports have obtained third-party verification although it is not disclosed in this report. The results are available on our website. <a href="https://www.ibiden.com/csr/">https://www.ibiden.com/csr/</a>
		a. The Aspect Boundary within the organization for each material Aspect.	P62-63	Process of Determining Reporting Items
		a. The Aspect Boundary outside the organization for each material Aspect.	P63	Coverage

Based on the GRI standards 2016, material issues are selected. Page numbers in which the material issues are described on this report are shown below. Exceptional material issues for the Company are in blue  . Material issues that are not required for the GRI standards are also described in the index table below.

GRI Standard	Topic Specific Disclosure		IBIDEN Co., Ltd. CSR Report 2018	
			Page	Discloure Title
<b>Management Approach</b>				
Explanation of the material topic and its Boundary	103-1	a. An explanation of why the topic is material. b. The Boundary for the material topic, which includes a description of: i. where the impacts occur; ii. the organization' s involvement with the impacts. For example, whether the organization has caused or contributed to the impacts, or is directly linked to the impacts through its business relationships. c. Any specific limitation regarding the topic Boundary.		
The management approach and its components	103-2	a. An explanation of how the organization manages the topic. b. A statement of the purpose of the management approach. c. A description of the following, if the management approach includes that component: i. Policies ii. Commitments iii. Goals and targets iv. Responsibilities v. Resources vi. Grievance mechanisms vii. Specific actions, such as processes, projects, programs and initiatives	P3 P4-5 P6  P7-19 P32-44 P57-58	To The Next Stage 110 Plan CSR Policy and Promotional structure Dialogue and Cooperation with Stakeholders Internal Control/Corporate Governance Environmental Management Corporate Responsibility Goal Summary
Evaluation of the management approach	103-3	a. An explanation of how the organization evaluates the management approach, including: i. the mechanisms for evaluating the effectiveness of the management approach; ii. the results of the evaluation of the management approach; iii. any related adjustments to the management approach.		
<b>Category : Economic</b>				
Economic Performance	201-1	Direct economic value generated and distributed	P10 P59 *	Timely disclosure, Communication with Shareholders and Investors Corporate Information * As described on page 44, "Financial Statements," in the 165th Annual Security Report
	201-2	Financial implications and other risks and opportunities due to climate change	P11-12 P35-37	Risk Management Coping with Climate Change Issues
	201-3	Defined benefit plan obligations and other retirement plans	*	* As described on page 72, "Retirement Benefits," in the 165th Annual Security Report.
	201-4	Financial assistance received from government		
Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage		
	202-2	Proportion of senior management hired from the local community		
Indirect Economic Impacts	Management approach disclosures (Reporting recommendations)	1.2.1 describe work undertaken to understand indirect economic impacts at the national, regional, or local level; 1.2.2 explain whether it conducted a community needs assessment to determine the need for infrastructure and other services, and describe the results of the assessment.		
	203-1	Infrastructure investments and services supported		
203-2	Significant indirect economic impacts			
Procurement Practices	204-1	Proportion of spending on local suppliers		
Anti-corruption	205-1	Operations assessed for risks related to corruption	P11-12	Risk Management
	205-2	Communication and training about anti-corruption policies and procedures	P13-17	Compliance
	205-3	Confirmed incidents of corruption and actions taken	P13-17	Compliance
Anti-competitive Behavior	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	P13-17	Compliance
Emergency countermeasures		Preparation for an emergency disaster	P11-12	Risk Management
<b>Category : Environmental</b>				
Materials	301-1	Materials used by weight or volume	P44	The IBIDEN Group's Material Balance (Input and Output)
	301-2	Recycled input materials used		
	301-3	Reclaimed products and their packaging materials		
Energy	302-1	Energy consumption within the organization	P35-37 P44	Coping with Climate Change Issues The IBIDEN Group's Material Balance (Input and Output)
	302-2	Energy consumption outside of the organization		
	302-3	Energy intensity	P35-37	Coping with Climate Change Issues
	302-4	Reduction of energy consumption	P35-37	Coping with Climate Change Issues
	302-5	Reductions in energy requirements of products and services		
Water	303-1	Water withdrawal by source	P38 P44	Resource Circulation The IBIDEN Group's Material Balance (Input and Output)
	303-2	Water sources significantly affected by withdrawal of water	P38 P44	Resource Circulation The IBIDEN Group's Material Balance (Input and Output)
	303-3	Water recycled and reused	P38 P44	Resource Circulation The IBIDEN Group's Material Balance (Input and Output)
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	P40	Understanding the Influence on Biodiversity
	304-2	Significant impacts of activities, products, and services on biodiversity		

GRI Standard	Topic Specific Disclosure		IBIDEN Co., Ltd. CSR Report 2018	
			Page	Discloure Title
<b>Category : Environmental</b>				
Biodiversity	304-3	Habitats protected or restored	P40	Understanding the Influence on Biodiversity
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations		
Emissions	Management approach disclosures	When reporting on GHG emissions targets, the reporting organization shall explain whether offsets were used to meet the targets, including the type, amount, criteria or scheme of which the offsets are part.		We do not use offsets by fiscal year 2017.
	305-1	Direct (Scope 1) GHG emissions	P35-37 P44	Coping with Climate Change Issues The IBIDEN Group's Material Balance (Input and Output)
	305-2	Energy indirect (Scope 2) GHG emissions	P35-37 P44	Coping with Climate Change Issues The IBIDEN Group's Material Balance (Input and Output)
	305-3	Other indirect (Scope 3) GHG emissions	P44	The IBIDEN Group's Material Balance (Input and Output)
	305-4	GHG emissions intensity	P35-37	Coping with Climate Change Issues
	305-5	Reduction of GHG emissions	P35-37	Coping with Climate Change Issues
	305-6	Emissions of ozone-depleting substances (ODS)		
	305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	P44	The IBIDEN Group's Material Balance (Input and Output)
Effluents and Waste	306-1	Water discharge by quality and destination	P44	The IBIDEN Group's Material Balance (Input and Output)
	306-2	Waste by type and disposal method	P44	The IBIDEN Group's Material Balance (Input and Output)
	306-3	Significant spills	P34	Environment and Occupational Health and Safety-Related Laws and Regulations
	306-4	Transport of hazardous waste		
	306-5	Water bodies affected by water discharges and/or runoff		
Environmental compliance	307-1	Non-compliance with environmental laws and regulations	P34	Environment and Occupational Health and Safety-Related Laws and Regulations
Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	P17-19 P39	CSR Management in the Supply Chain Appropriate Chemical Control
	308-2	Negative environmental impacts in the supply chain and actions taken	P17-19 P34 P39	CSR Management in the Supply Chain Environment and Occupational Health and Safety-Related Laws and Regulations Appropriate Chemical Control
<b>Category : Social</b>				
Employment	401-1	New employee hires and employee turnover	P20	Human Resource Management
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees		
	401-3	Parental leave	P24-26	Respecting Diverse Work Styles
Labor/Management Relations	402-1	Minimum notice periods regarding operational changes		
Occupational	403-1	Workers representation in formal joint management-worker health and safety committees	P28	Organization chart of Occupational Health and Safety Management
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	P29-31	Activity Guidelines for Occupational Health and Safety and Results
	403-3	Workers with high incidence or high risk of diseases related to their occupation		
	403-4	Health and safety topics covered in formal agreements with trade unions	P29-31	Activity Guidelines for Occupational Health and Safety and Results
Training and Education	404-1	Average hours of training per year per employee	P23-24	Development of Human Resource
	404-2	Programs for upgrading employee skills and transition assistance programs	P23-24 P24-26	Development of Human Resource Respecting Diverse Work Styles
	404-3	Percentage of employees receiving regular performance and career development reviews	P22	Equitable Evaluation and Treatment
Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees		
	405-2	Ratio of basic salary and remuneration of women to men		
Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	P13-17 P21-22	Compliance Respect for Human Rights
Freedom of Association and Collective Bargaining	Management approach disclosures (Reporting recommendations)	The reporting organization should describe any policy or policies considered likely to affect workers' decisions to form or join a trade union, to bargain collectively or to engage in trade union activities.		
	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk		
Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	P21-22	Respect for Human Rights
Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	P21-22	Respect for Human Rights
Security Practices	410-1	Security personnel trained in human rights policies or procedures		
Rights of Indigenous Peoples	411-1	Incidents of violations involving rights of indigenous peoples		
	412-1	Operations that have been subject to human rights reviews or impact assessments		
	412-2	Employee training on human rights policies or procedures	P21-22	Respect for Human Rights
Human Rights Assessment	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening		
	413-1	Operations with local community engagement, impact assessments, and development programs	P50-54	Social Contribution
Local Communities	413-2	Operations with significant actual and potential negative impacts on local communities	P34	Environment and Occupational Health and Safety-Related Laws and Regulations

GRI Standard	Topic Specific Disclosure		IBIDEN Co., Ltd. CSR Report 2018	
			Page	Disclosure Title
<b>Category : Social</b>				
Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	P17-19	CSR Management in the Supply Chain
	414-2	Negative social impacts in the supply chain and actions taken	P13-17 P17-19	Compliance CSR Management in the Supply Chain
Public Policy	Management approach disclosures (Reporting recommendations)	1.2.1 the significant issues that are the focus of its participation in public policy development and lobbying; 1.2.2 its stance on these issues, and any differences between its lobbying positions and any stated policies, goals, or other public positions.		
		415-1	Political contributions	
Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories		
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services		
Marketing and Labeling	417-1	Requirements for product and service information and labeling		
	417-2	Incidents of non-compliance concerning product and service information and labeling		
	417-3	Incidents of non-compliance concerning marketing communications		
Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	P13-17	Compliance
Socioeconomic Compliance	419-1	Non-compliance with laws and regulations in the social and economic area	P13-17	Compliance
Conflict Minerals	Responding to conflict minerals		P17-19	CSR Management in the Supply Chain
Working Hour	Working hour management		P26-27	Labor and Management Cooperation to Create a Worker-Friendly Workplace

# Comparison Table of Sustainable Development Goals (SDGs) and the IBIDEN Group's ESG Initiatives

Established at the United Nations Summit in September 2015, the SDGs are an international agenda to achieve sustainable development by 2030. The Group has held discussions with customers and other stakeholders on the relationship between global social issues and the Group's business activities. In the medium-term management plan launched in fiscal year 2018, we have started to review how our business activities impact SDGs and which goals IBIDEN should contribute toward. The goals of SDGs highly related to the Group's business activities, which are listed on this CSR Report, are as follows.

Related SDGs		Initiatives highly related to the SDGs listed on this CSR Report 2018	Page
Material issues in the environmental dimension	 Ensure availability and sustainable management of water and sanitation for all	Effective utilization and reduction of water resources	P38
		Environmental data for individual plants and Group companies	P45
	 Ensure access to affordable, reliable, sustainable and modern energy for all	Measures to supply clean energy	P35
		Environmental contribution through business and products	P41
	 Ensure sustainable consumption and production patterns	Resource circulating activities	P38
		Appropriate chemical control	P39
		The IBIDEN Group's material balance (input and output)	P44
	 Take urgent action to combat climate change and its impacts	Energy Conservation	P36
Trends of CO <sub>2</sub> emissions		P36	
Material issues in the social dimension	 Ensure healthy lives and promote well-being for all at all ages	Managing employee health	P31
	 Achieve gender equality and empower all women and girls	Promotion of female advancement	P24
 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Respect for human rights	P21	
	Supporting work life balance	P24	
Material issues in the governance dimension	 Ensure sustainable consumption and production patterns	CSR management in the supply chain	P17
		(Issuance of CSR Report 2018)	This booklet
	 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	Compliance	P13



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Please use the survey form always available on our web site to tell us what you think.