

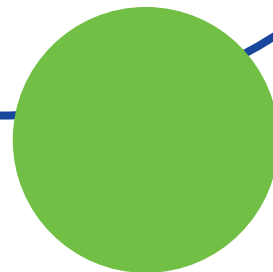


# IBIDEN Co.,Ltd. **ANNUAL REPORT 2018**

Year Ended March 31, 2018



Next Leap  
with  
IBIDEN



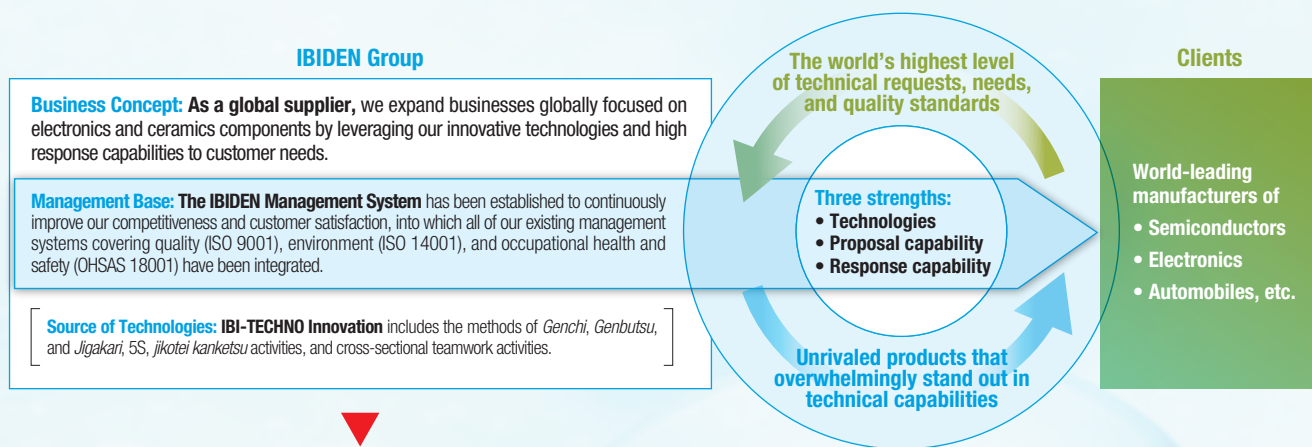
## Profile

IBIDEN was established in 1912 as an electric power company to bring growth to the regional economy. Ever since then, we at IBIDEN have pioneered new business operations and continued to grow by fusing and combining our own innovative core technologies to create new technologies. At present, we are rolling out operations and steadily expanding our record of performance on a global scale, centering on electronics and ceramics products.

To celebrate the 100th anniversary of the Company's foundation, IBIDEN renewed its corporate philosophy, IBIDEN WAY, and brand logo mark in November 2012. The renewed IBIDEN WAY and logo embody our commitments that; every one of our employees will work with integrity and respects for the harmony with others. We also will practice the corporate values by courageously meeting challenges given by the changing time, and realize the sustainable development of "IBI-TECHNO"—our unique technologies and values into the future.

For all stakeholders, we aim to strengthen responsible corporate management and become a corporate group that enjoys sustained growth.

## Business Model



Corporate culture produces a technical breakthrough through human resource development + Spiral of growth → True competitive advantages

Notes: **Genchi:** Actual places where issues are arising.  
**Genbutsu:** Matters relevant to the issues. "Genchi Genbutsu" means "go to an actual place and see actual things for yourself to make sure of the fact."  
**Jigakari:** In-house activities to deal with problems by yourself and find out the root cause for the solutions.  
**5S:** Five S represents "Seiri (sorting), Seiton (setting in order), Seiso (cleaning), Seiketsu (standardization), and Shitsuke (discipline)."

**Jikotei kanketsu:** Consider the next process as your customer, and build up quality of work with a sense of ownership to meet the customers' needs and satisfaction.  
**Cross-sectional teamwork:** Team work activities by the members from different sections to achieve the same objective under common understanding between organizations.

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### Forward-Looking Statements

Forward-looking statements made in this annual report concerning performance or business strategies have been determined according to assumptions and beliefs based on information available at the time of publication and may contain elements of risk and uncertainty.

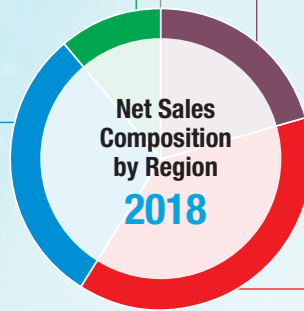
Other 0.0%

North America 10.9%

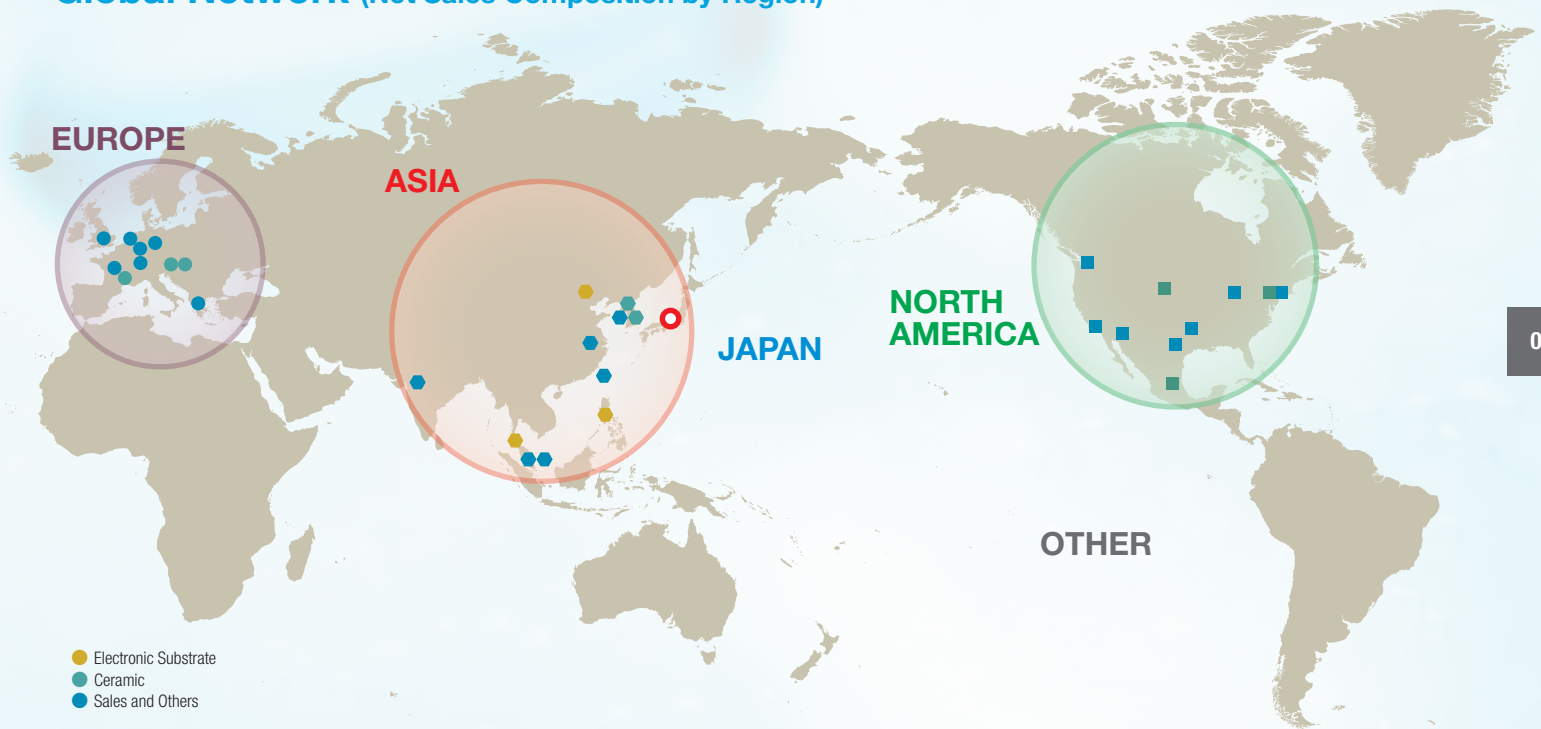
Japan 29.6%

Europe 20.4%

Asia 38.2%

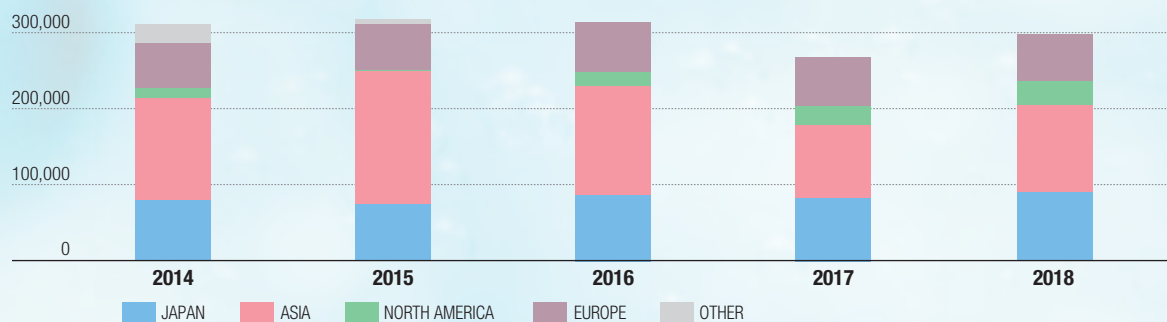


## Global Network (Net Sales Composition by Region)



## Net Sales by Region

(Millions of Yen)



# Five-Year Consolidated Financial Summary

## IBIDEN CO., LTD. and Consolidated Subsidiaries

For the years ended March 31, 2018, 2017, 2016, 2015, and 2014

For the year:	Millions of yen					Thousands of U.S. dollars (Note)
	2018	2017	2016	2015	2014	2018
Net sales	¥ 300,404	¥ 266,460	¥ 314,119	¥ 318,072	¥ 310,268	\$ 2,827,331
Operating income	16,702	7,142	22,571	26,039	23,442	157,197
Profit (loss) before income taxes	18,550	(60,772)	12,129	29,604	25,484	174,592
Profit (loss) attributable to owners of parent	11,583	(62,849)	7,531	19,107	17,479	109,021
Comprehensive income (loss)	18,154	(65,904)	(14,236)	42,042	40,724	170,863
EBITDA	41,269	40,290	66,628	65,467	59,144	388,412
Capital expenditures	22,409	20,997	40,955	56,350	37,731	000,000
Depreciation and amortization	24,567	33,148	44,057	39,428	35,702	231,215
Research and development cost	15,369	14,112	15,204	15,512	15,031	144,648
Net cash provided by operating activities	27,040	28,813	59,499	61,547	50,093	254,497
Net cash used in investing activities	(21,303)	(26,280)	(39,439)	(54,888)	(38,364)	(200,502)
Net cash provided by (used in) financing activities	6,725	(5,135)	(20,479)	9,835	(6,935)	63,292
Free cash flow	5,737	2,533	20,060	6,659	11,729	53,995

### At year-end:

Total assets	¥ 438,096	¥ 405,783	¥ 476,110	¥ 519,847	¥ 462,113	\$ 4,123,259
Total net assets	286,368	260,940	331,521	360,092	322,562	2,695,227
Interest-bearing debt	70,006	70,063	70,128	75,855	61,574	658,877
Cash and cash equivalents	117,760	104,102	107,875	110,479	91,679	1,108,331
Total number of shares issued (shares)	140,860,557	140,860,557	150,860,557	150,860,557	150,860,557	

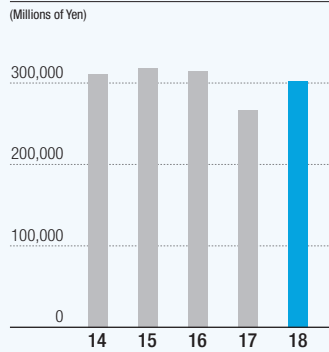
Per share data:	Yen					U.S. Dollars (Note)
	Basic profit (loss) attributable to owners of parent	¥ 83.21	¥ (472.26)	¥ 55.29	¥ 138.37	¥ 126.58
Diluted profit (loss) attributable to owners of parent	—	—	—	—	126.15	—
Net assets	2,012.60	1,927.53	2,459.63	2,578.85	2,305.93	18.94

Ratios:	%				
	Equity ratio	64.19%	68.75%	68.50%	68.91%
ROE	4.31	2.20	5.67	5.82	0.81
ROA	2.75	1.51	3.89	3.92	0.52
Price earnings ratio (times)	19.02	24.89	14.65	16.07	91.78

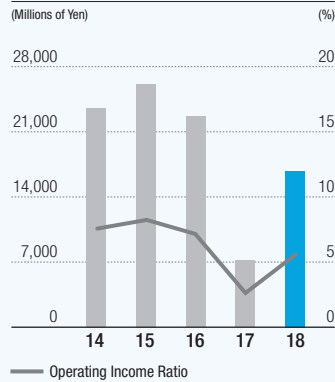
Notes: 1. U.S. dollar amounts have been converted for convenience only at the rate of ¥106.25=US\$1, the rate of exchange on March 31, 2018.

2. EBITDA = Operating income + Depreciation and amortization

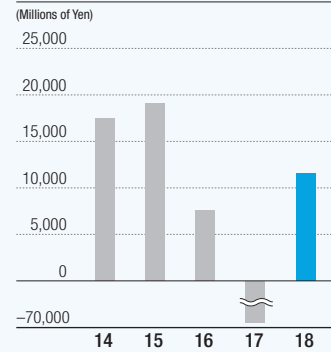
**Net Sales**



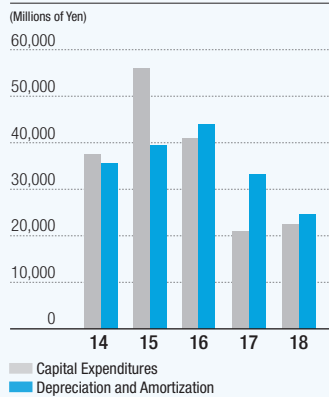
**Operating Income/  
Operating Income Ratio**



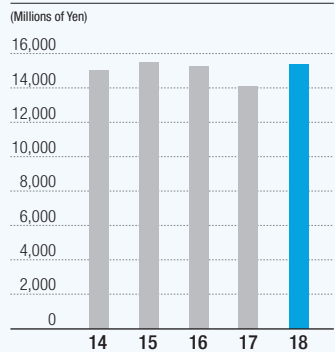
**Profit (loss) attributable to owners of parent**



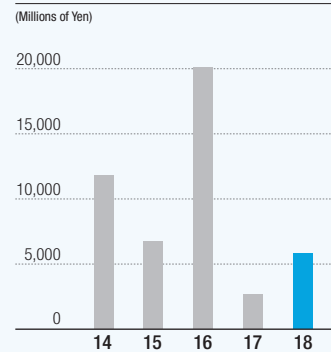
**Capital Expenditures/  
Depreciation and Amortization**



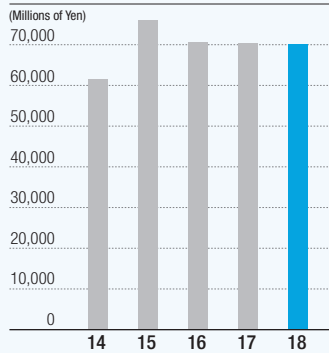
**Research and Development Cost**



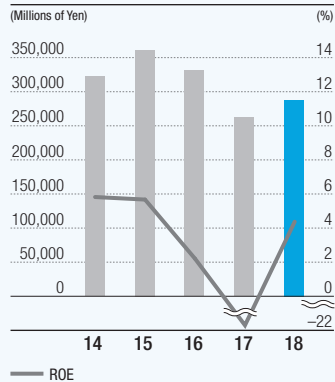
**Free Cash Flow**



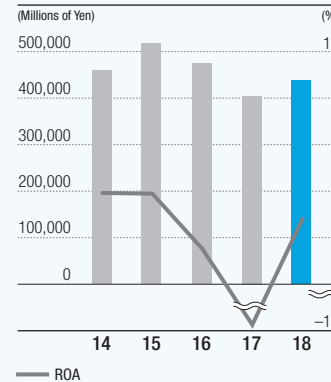
**Interest-Bearing Debt**



**Total Net Assets/  
ROE**



**Total Assets/  
ROA**



## Corporate Philosophy: IBIDEN WAY

The power that has enabled IBIDEN to overcome many adversities with all our employees and to continue to operate, and the wisdom and vitality that have achieved dramatic growth in recent years—these have persisted throughout IBIDEN’s long history of 97 years. The systematization that

carries this on, transcending borders, is the “IBIDEN WAY.”

To mark its 100th anniversary, we have revamped our corporate philosophy, the “IBIDEN WAY,” simplifying it to enhance its understanding by all IBIDEN Group employees worldwide.



## SPIRIT

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

<p>Gaining customer and societal trust through “Genchi Genbutsu**”</p> <p><small>*Genchi Genbutsu: Go and See for yourself to thoroughly understand the situation</small></p>	<p><b>Trust through Integrity</b></p>	<p><b>Challenge with Passion</b></p>	<p>Anticipating change, and acting boldly to create new value.</p>
<p>Integrating knowledge and wisdom from the employee involvement for greater power.</p>	<p><b>“Wa” Teamwork and Synergy</b></p>	<p><b>IBI-TECHNO Innovation</b></p>	<p>Evolving by overcoming hurdles through creativity and ingenuity.</p>

# Message from the President



Takeshi Aoki  
President & CEO

## IBIDEN Is Devoted to Solidification of Its Position and Creation of New Business to Achieve the New Medium-Term Management Plan “To The Next Stage 110 Plan.”

### IBIDEN Value and Business Model

#### ► IBIDEN Has Gone through Innovative Changes from Its Power Generation Business, the Business Our Forebears Started

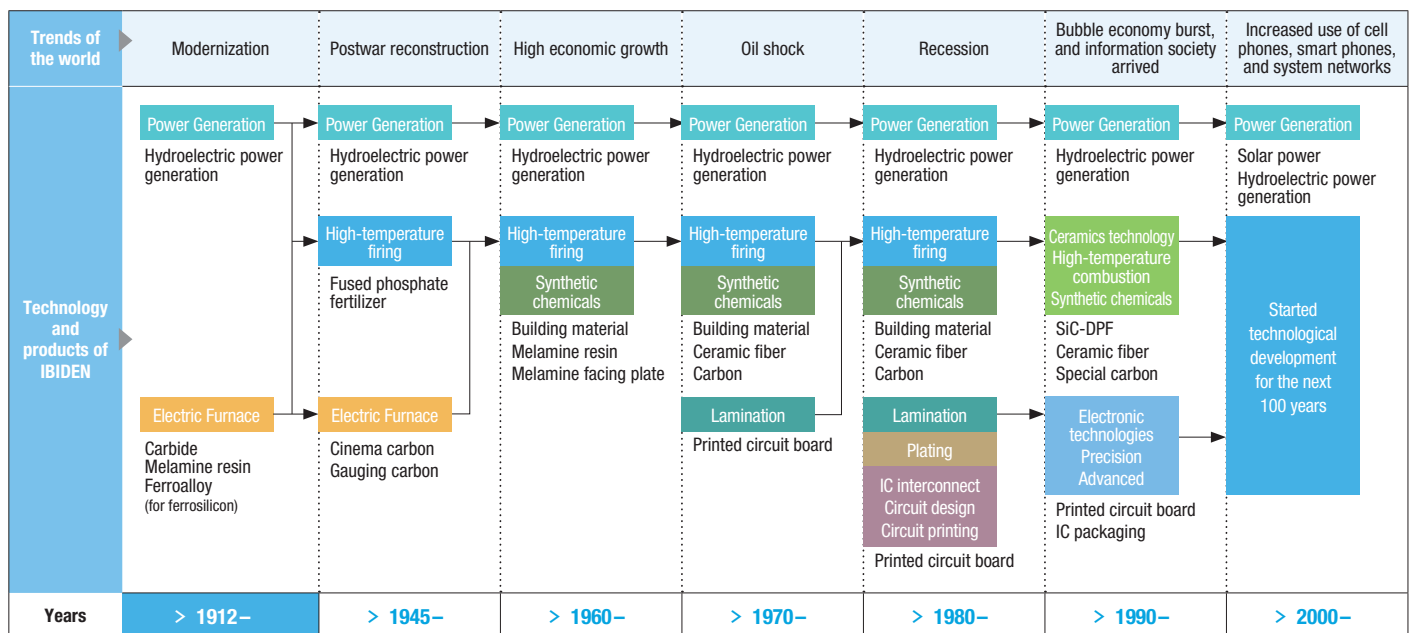
There is a pond called “Yashagaike” deep in the mountains near the border between Fukui Prefecture and Gifu Prefecture. Yashagaike, situated at an altitude of 1,099 meters, is the source of the Sakauchi River, a side stream of the Ibi River, and also the source of IBIDEN’s hydroelectric power plants. The President and board members visit Yashagaike every year to pay our respects. This visit is a very important “ritual” we have continued for over 30 years to remember our gratitude for the blessing of water and the history of reform of the power generation business.

With this visit, I always put a lot of thought into the wisdom and vitality of our forerunners who continually got over challenges they faced in our 106-year history by flexibly changing the business domains.

The history of IBIDEN started with hydroelectric power generation which utilized the abundant source of the Ibi Valley. Later, we advanced into electrochemical engineering which utilized generated power for electric furnaces, starting production of carbide, ferroalloy and carbon products. After the war, industrial revival in Japan evolved around “coal, steel and fertilizer.” Reaping the benefits from this, IBIDEN thrived in production of carbide and coal nitrogen.

#### ► Power to Overcome Various Challenges and Wisdom and Vitality to Realize Dramatic Growth

Subsequently, even surrounded by external circumstances which sometimes brought IBIDEN to a crisis point such as the energy revolution from coal to oil, rapid economic growth and a shift to an information society, we always sensed the needs of the next generation from our customers who were leaders of the respective



industry at that time, and created new technologies/products by applying the accumulated element technology. We also improved our production technology to set up a production line in a short time to deal with early launch and mass production, and met the needs of customers and the times and further strengthened relations with customers. Technologies of products IBIDEN develops are all linked at the core. Today, such technologies are transformed into package substrates (PKG) for PCs and smartphones and diesel particulate filters (DPF) for diesel cars, constituting a major business of IBIDEN.

### ► Our Mission to Respond to Requests from Society with IBI-TECHNO Which Change with the Time

Most of all, we believe the corporate culture where everyone had a sense of ownership even under these changes of circumstances and implemented “Genchi (the actual site),” “Genbutsu (the actual thing)” and “Jigakari (on-site solution of problems),” and “human resources” which aimed to achieve high goals were essential. Such spirit of our forebears is inherited as our “Spirit of taking actions to be shared” signified by the word “IBI-TECHNO.”

As seen from the above, we think it is the tradition and destiny of IBIDEN to constantly change its form in the midst of changes in the social environment and carve out a new path.

Now, the major business which has supported IBIDEN is reaching a turning point.

I, like our forebears, made a fresh resolve to get through changes with the spirit of “IBI-TECHNO” again and respond to requests from society.

### ► Social Issues IBI-TECHNO Is Expected to Resolve to Create a Sustainable Society

In the Electronics Operation, the main area of our current business, introduction of the 5G telecommunications standard and advancement of IoT are being seen, while in the automobile-related business, a global paradigm shift is in progress such as automatic driving and the spread of EV. IBI-TECHNO is expected to solve social issues to create a sustainable society and support Japan's economic development. The trend in the respective area we are aware of is as follows:

#### Digital Innovation

- Speeding-up of telecommunications with higher capacity (Increase of base stations by introducing smaller cells)
- Advancement of ICT technologies (IoT, big data, speeding-up of telecommunications with higher capacity)
- Decline of tasks which require manual labor by utilization of AI

#### Bio Economy

- Population increase
- Climate change

#### Change of Mobility Environment

- Expansion of emerging markets
- Diversification of power train (Needs for existing internal combustion engines including HV and PHV continue for the time being)
- Sophistication of EV, automatic driving, and in-vehicle network such as connected cars
- Change of consumer preference (Spread of car-sharing and ride-sharing)
- Increase of new entrants

#### Emergence of Innovative New Materials

## Review of Previous Medium-Term Management Plan and Understanding of External Environment

### ► Brief History of the Last Quarter Century

To understand the brief history of IBIDEN in the last quarter century it is necessary to understand IBIDEN's strategy and direction of the road ahead.

The history consists of three periods: Post-bubble 1990s; 2000-2007 before collapse of Lehman Brothers; and 10 years from collapse of Lehman Brothers to last year.

First, in the 1990s, the Japanese economy was in turmoil due to the burst of the bubble economy, but at IBIDEN, riding on the wave of increased demand with the dawn of the PC era, the Electronics Operation significantly grew, mainly package substrates (PKG).

During this decade, net sales increased by 10.2% while operating income grew by 11.7% on annual average.

The second period is from 2000 to before the collapse of Lehman Brothers. In the Electronics Operation, mobile phones started to be widely used in addition to PCs as mentioned above, achieving further growth. In the Ceramics Operation, as the demand for DPF exploded due to strengthening of environmental regulations in Europe, IBIDEN developed production bases on a global basis and significantly expanded the scale of our operation. Besides the robust growth of the Electronics Operation, IBIDEN successfully grew out of its over-reliance on the Electronics Operation thanks to the expansion of the



Ceramics Operation due to the rapid growth of DPF. Also, as a result of the expansion of the three business portfolios including Electronics, Ceramics and “Other Operation,” which consists of Domestic Operation and Electric Power Business, net sales increased by 9.1% per year while operating income grew by 22.1% per year between 2000 and 2007, which is a tremendous achievement.

Then, the 10 years between fiscal 2008 to last year was a period of drastic changes of the market environment such as economic stagnation after the collapse of Lehman Brothers in terms of the global economy and turmoil caused by the Great East Japan Earthquake in terms of the domestic economy. In this period, net sales remained at the ¥300 billion level while operating income remained at the ¥20 billion level due to the slowdown of the Electronics Operation mentioned below. However, it was also the period of pushing through business structural reforms in the Electronics Operation and steadily preparing for the next leap including R&D as a response to the changing market environment.

### ► Achievements and Issues of IBI-TECHNO 105

In “Challenge IBI-TECHNO 105 Plan” (2012-2017), the previous medium-term management plan,

- “Reconstruct and enhance competitiveness of core operations”
- “Work on the creation of new business”
- “Develop and promote CSR management globally”

were positioned as pillars of our activities. Specific objectives were 10% growth per year of net sales, 10-20% growth of the operating income ratio and “the Company to aim” to become No. 1 in all operations on a global basis.

Although we could not achieve the objectives of “Challenge IBI-TECHNO 105 Plan (2013-2017)” (IBI-TECHNO 105) which set restructuring after “Global IBI-TECHNO 100 Plan (2008-2012)” (IBI-TECHNO 100) as a goal, we realized some level of achievement in the severe market environment, with 1.6% growth in net sales and 9.8% growth in operating income on average for a period from IBI-TECHNO 100 to IBI-TECHNO 105.

### ► Factors Responsible for These Results

The segments of the Electronics Operation consist of package substrates (PKG) for PCs, chip-scale packages (CSP) for smartphones and tablet devices and motherboards/printed wiring boards (PWB). With regard to the market environment of the Electronics Operation, we initially pictured a scenario in which we would promote the growth of the entire Electronics Operation by offsetting a gradual decline of PKG, our past flagship product, with fast-growing CSP and PWB, but shrinking of the PC market and commoditization of the smartphone market progressed faster than expected. As the growth rate of the high-end smartphone market, our specialty, declined from the 10% level to the single-digit range, the overall electronics market IBIDEN was targeting shrank as a result. As for CSP, demand for IBIDEN’s CSP significantly decreased as our competitor launched a groundbreaking product which replaced our CSP. In addition, for PWB, we had a tough time starting mass production at our overseas motherboard plant for high-end

smartphones. As a result, we had to push through business structural reform in the Electronics Operation, which resulted in recording a huge extraordinary loss. While we need to learn from the fact that we were one step behind in reading market changes, the Electronics Operation went back to the start line toward restructuring due to our bold structural reform. IBIDEN’s Electronics Operation has grown based on “customer-in,” which fully meets the needs of certain major users. This in turn produced risks in that the entire business was easily affected by the development trend of such customers. Thus, to reduce our reliance on certain major users, we actively worked on development of new users and product areas which are expected to advance in the growing market. Furthermore, as barriers between technologies by use are disappearing in products for PCs, smartphones and IoT, in-vehicle and data centers which are expected to grow, we created a system ahead of market changes to flexibly respond to user requests by consolidating the three operations of PKG, CSP and PWB.

Accordingly, the sales for data centers accounted for 30% of the Electronics Operations in the final year of IBI-TECHNO 105, establishing a firm foothold for the next leap forward.

The Ceramics Operation mainly consists of the Exhaust System Operation and the Specialty Carbon Operation. First, as for the Exhaust System Operation, a market for DPF, our main product, was created mainly for diesel passenger vehicles in Europe. IBIDEN has developed a supply system in Japan, Hungary and France, but its business environment is starting to show signs of change.

Specifically, to prepare for compliance with the “Paris Agreement” adopted in December 2015, developed countries continued to shift to EV, and coupled with emissions irregularities by major European car manufacturers, demand in developed countries began to decline.

On the other hand, to deal with the large vehicle market where the diesel engine is dominant and with emerging markets where large demand is expected due to future strengthening of emissions control, we built a plant in Mexico and developed a stable global supply system consisting of Japan, Europe and North America.

The parent company of the NOx reduction catalyst (SCR) business is Ceram in Austria, which IBIDEN acquired in 2012. It serves as a stable revenue source by expanding sales of stationary filters for industrial use whose stable demand is expected, not just filters for large vehicles. The market for the substrate holding mat (AFP) business grew steadily due to its feature of being used for both gasoline and diesel cars and an increase of cars with catalysts and DPF as a result of strengthened environmental control. Based on the increasing demand, we built a production line in Hungary in addition to those in Japan, making them a major revenue source of the exhaust system business.

For the FGM business, which runs the specialty carbon business, we started operating a cutting-edge production base in Korea in 2014 to find a way into unique materials and processing, preparing the way for the next leap forward.

As for the electric power business, which is a part of the Other Operation, we renewed hydroelectric power generation facilities which had been working since the foundation of IBIDEN, turning them state-of-the-art facilities with high power generation efficiency.

In addition to installation of solar panels on the roofs of plants mainly in the Ogaki District, we installed unique water float solar panels in the timber pond of the Kinuura Plant. As such, we completed responses to production activities based on clean energy which will increase and responses to the feed-in tariff (FIT) system for renewable energy. We believe the electric power business will continue to support IBIDEN's revenue base in a stable manner for a long period.

For the business operation at domestic subsidiaries, thanks to proactive supports by the R&D Division of the Company, each subsidiary was able to establish a unique competitive edge. We feel each company gained the power to survive mainly based on external business even in the severe market environment in Japan.

## Points of Strategy in New Medium-Term Management Plan

In the 1990s and before the collapse of Lehman Brothers, we greatly benefited from the so-called first-mover advantage in economic terms. IBIDEN, which grew significantly thanks to first-mover advantage in plastic IC packages (PKG) in the Electronics Operation and DPF in the Ceramics Operation, has pushed ahead with structural reforms for the last decade due to the emergence of competitors and new technologies.

We think IBIDEN is now in a stage similar to just prior to the great success made possible by the Electronics Operation in the late 1990s. IBIDEN had already planted a new seed for the next success stage in the previous medium-term management plan, in addition to bold implementation of the business structural reform. We believe the current medium-term management plan is a period to grow buds that have sprouted from such seed.

The medium-term management plan which started in the fiscal year ending March 31, 2019 is called "To The Next Stage 110 Plan" (hereinafter called the "medium-term plan") and is a five-year plan to create new business and further strengthen our foothold leading to the next stage. During these five years, we aim to achieve a balanced sales mix by adding new business as a new revenue base to the steady growth of the three existing businesses: Electronics, Ceramics

and Other Operation. The quantitative objectives for the fiscal year ending March 31, 2023, the final year of the plan, include ¥430 billion in net sales (CAGR 6.8%), ¥45 billion in operating income (CAGR 20.1%) and 10.5% in operating income ratio.

Taking an overall view of this growth, in the Electronics Operation, net sales and profits are expected to grow considerably mainly based on PKG, whose demand for data centers is expected to increase, and PWB, whose technical difficulty will further increase, backed by market expansion due to digital innovation such as big data, IoT and 5G. In the Ceramics Operation, we think the motor vehicle exhaust system operation represented by the DPF business is in an in-between period (temporary lull) as emission treatment technology is in the process of evolution during the first half of the medium-term plan in addition to changes of the trend of environmental control. However, as we can expect a high margin from the Ceramics Operation thanks to technology differentiation and the demand for large vehicles and construction/farming machinery is expected to grow mainly in emerging countries due to introduction of new emission controls scheduled in 2020, we believe we can secure stable growth during the second half of the medium-term plan.

The following is the details of the medium-term plan.

### The medium-term (five-year) management plan

## To The Next Stage 110 Plan (FY2018 to FY2022)

### Address Future Changes in the Environment and Achieve Sustainable Growth for the Next 100 Years

#### Pillar of the Initiative

#### 1 Enhance Competitiveness of Existing Operations

##### Electronics

- Maintain existing market share for mobiles and PCs
- Expand new market share for the IoT, AI, data centers, and automotive applications

##### Ceramics

- Expand the exhaust system business in emerging markets and develop new applications

##### Domestic

- Secure stable growth by building unique competitiveness (business model)

#### 2 Expand New Business

- Early commercialization of the Development Center
- Advance open innovation with business alliances
- Develop in-house entrepreneurs through the intrapreneurship program

#### 3 Develop Human Resources

- Promote five initiatives for work style reforms to achieve work-life balance

1. Productivity improvement
2. Enhancement of the personnel education system
3. Thorough management of working hours
4. Creation of a workplace where diverse employees can perform to their capacity and feel a sense of pride
5. Utilization of IT technology

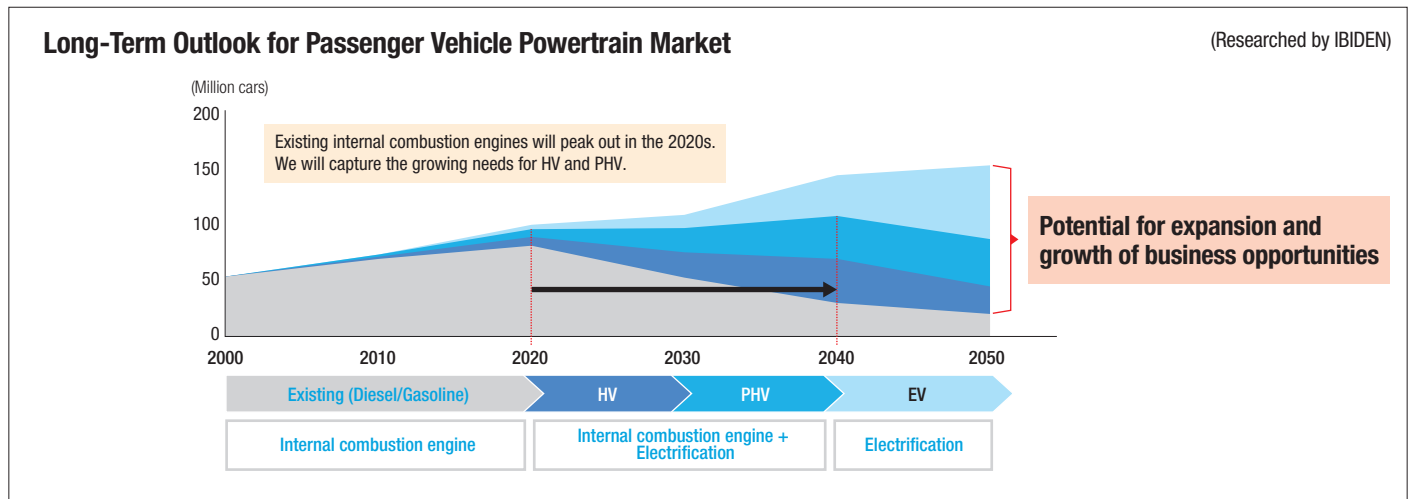
#### 4 Promote ESG Management

- Corporate governance, environmental management, social contribution, and return to shareholders

## ► Dealing with Market Changes by Cross-Business Measures

In the new medium-term management plan, “Enhance competitiveness of existing operations,” “Expand new business,” “Develop human resources” and “Promote ESG management” serve as the

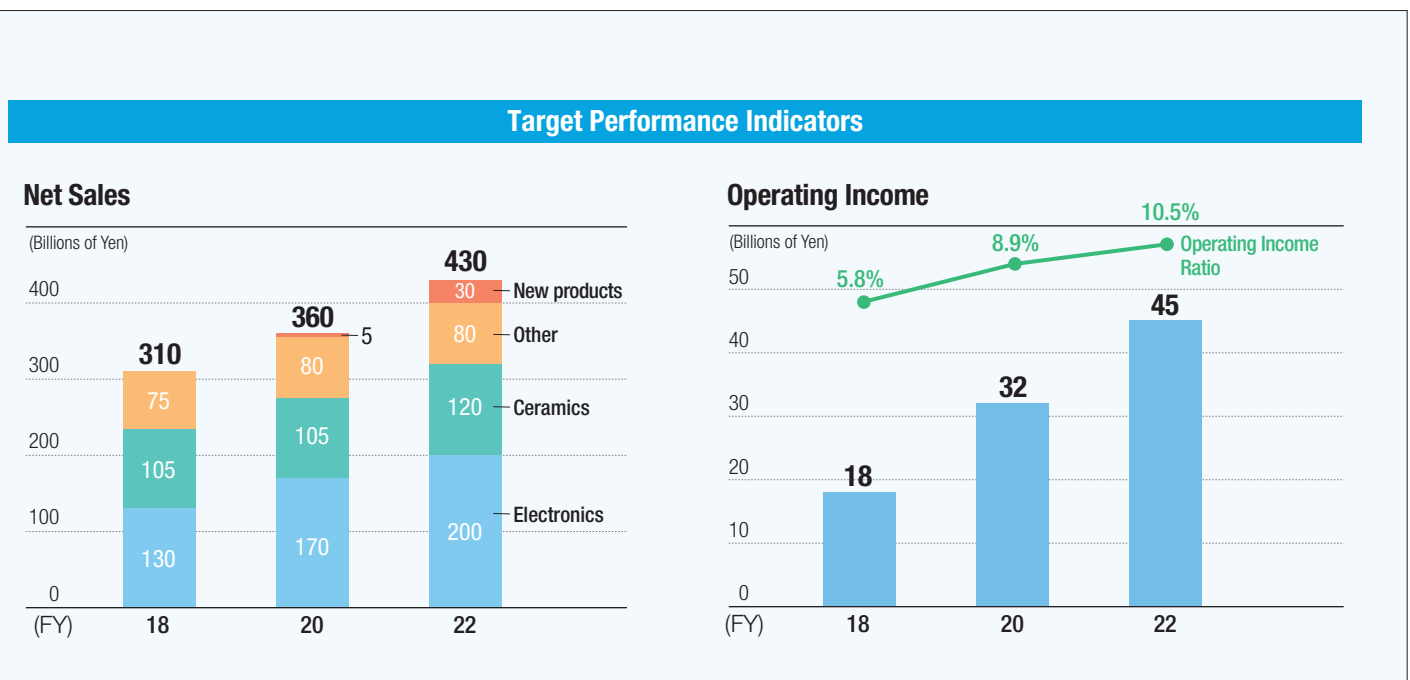
pillars of our activities. Even existing operations which produce profit cannot survive only with technologies which are an extension of current ones. We have to have a perspective to go one step beyond the current use and replace them with new technology which can respond to new requests from customers.



For instance, I take the forecast of powertrain changes as shown in this graph as an opportunity to grow. The size of the exhaust system market we are after will steadily expand by 2040, 22 years from now, while diversifying itself including products for HV and PHV which will grow. Automotive production will increase from 100 million to the 150-million level due to population increase in emerging countries. In these countries, the demand for existing internal combustion engines still remains high, and environmental control will be strengthened. While the market for DPF for passenger vehicles will shrink, we will launch GPF made of materials unique to IBIDEN for gasoline cars. For luxury cars, while cordierite GPF is being introduced, IBIDEN’s high-strength GPF with low pressure loss will also meet the

needs of the market for low- and middle-priced cars by leveraging its price competitiveness. GPF is included in net sales of new products in the medium-term plan. For HV and PHV, we, at the newly launched “Automotive Functional Product Development Center,” are developing a next-generation intake/exhaust system which aims for “Cleaner-than-air” emission based on IBIDEN’s ceramic molding and firing technology, in cooperation with DENSO Corporation.

For example, as frequent engine start/stop is required for HV and PHV, how fast we can warm the catalyst which removes toxic substances at engine start becomes important. We are developing a technology to realize that and aim to announce it during the final year of the medium-term plan.



Other than the exhaust system, we will develop new materials to create a market for EV and PHV. At the “Future Mobility Product Development Center,” we are developing resin windows which make significant weight saving for auto bodies possible compared to current glass windows. This development dates back to the time when we considered a solution to the issue in which scratches made by sand storms on the surface of large mirrors which collected sunlight reduced light collection efficiency at solar thermal power generation facilities often used in desert regions as renewable energy. We focused on the fact that the hardness of silicon carbide, the material of IBIDEN’s DPF, is next to that of diamond and successfully developed a technology to coat mirrors with silicon carbide. This technology will facilitate the move to light resin windows for EV which needs to be lightweight.

In addition, we are now developing a technology to overcome the issue of “sound” of EV. Unlike existing internal combustion engine cars, there is no engine sound in an EV. As road noise, wind noise and motor noise become noises inside and outside a car, we only remove these sounds at a certain frequency.

Other than that, AFP is expected to produce stable revenue with niche/top products used in all internal combustion engines including diesel cars. We believe the package substrate technology IBIDEN has developed in the Electronics Operation will meet the demand for sophisticated in-vehicle telecommunication technology as seen in sensing and control technology which leads to prevention/safety and automatic driving and in the spread of connected cars which improves user convenience and comfort.

As such, not limited to the exhaust control segment, the market IBIDEN should target will expand in the entire mobility-related area including EV.

## ▶ Aiming for a New Segment in the Expanding Electronic Market

Including the mobility segment mentioned above, the advancement of IoT by digital innovation increases the amount of data exchanged between things, and thus ultra-high-speed communication (5G) is required. As communication with high frequency is needed, the demand for electronic parts not installed in existing mobile phones will increase.

In the Electronics Operation, these changes require finer and high-multilayer manufacturing technology, which in turn creates a new business opportunity for the printed wiring board business. Moreover, in 5G communication, as a large amount of data is exchanged at radio wavelengths, base stations need to be increased fivefold. Since many of IBIDEN’s products will be used in this area as well, we expect a large wave of demand from telecommunications carriers from late 2019 to 2020. For data centers, in particular, while it is necessary to significantly increase the number of servers to process and store increased data, there is an issue of securing sufficient space for data centers themselves. Therefore, we will aim to cater to the demand for small high-function package substrates to be used.

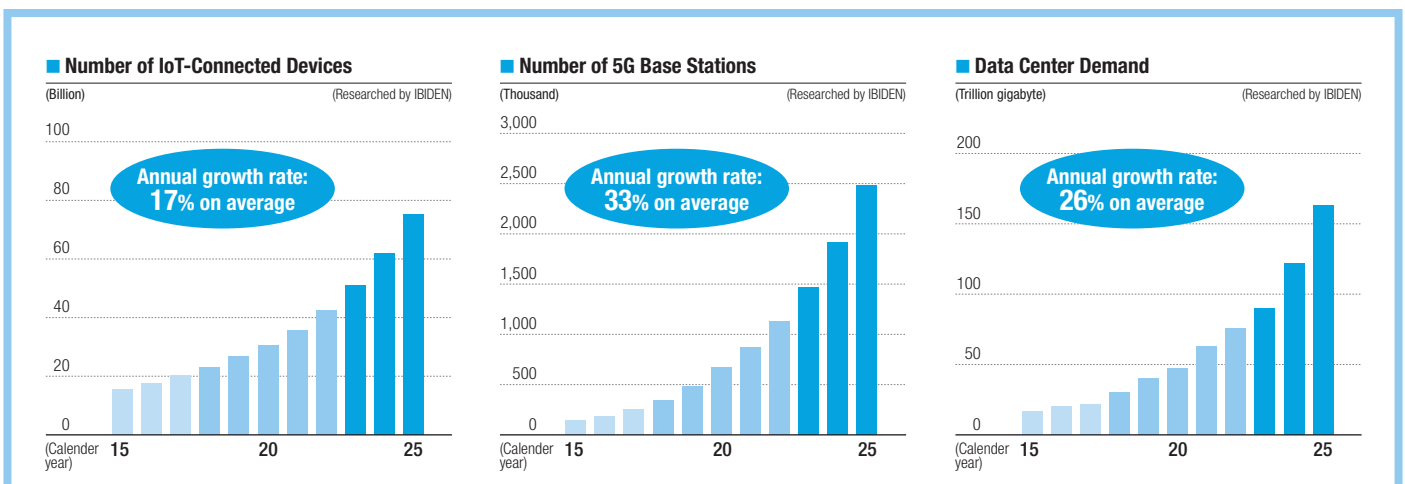
In the Electronics Operation, package substrates are positioned as a high-value-added product with particularly high technical difficulty which require multilayer and fine wiring. As package substrates for data centers which require advanced processing/storage capability need almost twice as many multilayers and fine wiring technologies as those for PCs, the level of technology increases further.

At the moment, only a handful of companies are capable of developing such technology other than IBIDEN on a global level. We will devote a considerable part of capital investment to this package substrate (PKG) to secure first-mover advantage in the 5G era to come and further increase net sales and the income ratio thereof in the Electronics Operation.

## ▶ Expansion of New Business

IBIDEN launched the following four development centers in the fiscal year ended March 31, 2018 to expand new business, the fourth pillar of activities which promote our growth: “Automotive Functional Product Development Center,” “Advanced Ceramics Development Center,” “Future Mobility Product Development Center” and “Biomaterial Product Development Center.”

The “Automotive Functional Product Development Center” and the “Future Mobility Product Development Center” are as described above. In addition, in areas other than existing electronics and mobility, I will introduce the remaining two development centers, which work on development of new applications of IBIDEN’s core technologies



and early commercialization for the purpose of developing a pillar of future business.

The “Advanced Ceramics Development Center,” given the shift of jet engine materials from metal to carbon fiber and ceramics, uses IBIDEN’s ceramic membrane technology and graphite processing technology to offer lightweight and high-thermal-resistant composite ceramic materials which dramatically improve fuel efficiency of jet engines.

The “Biomaterial Product Development Center” develops agricultural materials which enable growing of plants with high productivity/functionality by using IBIDEN’s unique biotechnology accumulated through treatment of waste liquid generated in the manufacturing process of the Electronics Operation, and functional ingredient materials for cosmetics and health food with high human absorbability by using our extraction/low-molecule technology, which taps the high-temperature and high-pressure state of water.

IBIDEN will make R&D investment in these four centers for the next five years and promote development of the pillars of new business and early commercialization.

### ▶ Approach to Investment for Growth and Shareholder Return

IBIDEN aims to increase shareholder value by the above-mentioned measures and believes it is at the top of our agenda to secure financial resources for investment for growth to deal with changes in the business environment (¥190 billion in five years) and for continuous return of profit to shareholders. After examining the required capital structure in a comprehensive manner including the perspective of financial stability and capital cost (efficiency), we will build an optimal financial base to support our stable growth. We will consider shareholder returns based on a consolidated dividend payout ratio of 30% while maintaining the balance with a long-term stable dividend.

## Promotion of ESG Management to Respond to Changes to Come

### ▶ Development of Human Resources Which Support the Evolution of IBI-TECHNO

The past history also tells us that the driving force of “IBI-TECHNO” is “human resources,” and development thereof is the lifeline of IBIDEN. To successfully implement the medium-term management plan and realize sustainable growth, we will develop managerial talent who can strongly promote IBIDEN’s management and business and also diverse human resources such as an innovator who applies IBIDEN’s technologies to create new values and an entrepreneur who successfully turns such values into business. We will also improve the level of human resources by positioning development of a training system and a pleasant working environment where all employees understand/implement the IBIDEN WAY and play an active role as a basic strategy of human resource development.

### ▶ “Human Resource Development Center,” the Source of IBIDEN’s Technologies

For engineers engaged in development, in particular, skills developed through field experience are essential. Even if we improve efficiency by using AI in the future, we still need manufacturing technologies which can fully utilize it. We will promote effective utilization of our Human Resource Development Center as transactive memory and hand down the technologies of our forebears and seasoned employees to the next generation to improve efficiency and productivity of the entire organization.

### ▶ Establishment of Corporate Governance System Which Realizes Highly Transparent Management

The IBIDEN 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. We comply with all items of the corporate governance code. As part of the Group’s corporate governance, we are enhancing internal control by proactively undertaking

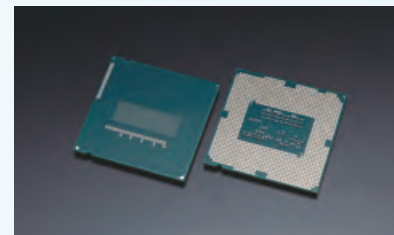
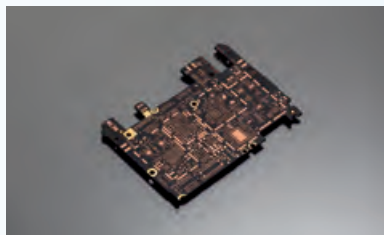
“compliance and risk management promotion activities.” We are expanding/strengthening the management oversight functions of our highly effective Board of Directors, consisting of the optimal number of members, and the audit functions of our Audit and Supervisory Committee. These activities and system development 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.

### ▶ Toward Contribution to the Environment through Practice of Corporate Philosophy and Sustainable Development

IBIDEN’s customers, who strive to realize business management based on the code of conduct of trade associations they belong to and 100% renewable energy, call for high-level requirements for reducing the environmental burden in the manufacturing process. These requirements will become higher. We realize this is also a request from society as a whole. We, in cooperation with the supply chain, will promote production activities by leveraging clean energy produced by various in-house power generation means such as water power, gas turbine cogeneration and solar power all of which IBIDEN is proud of, reduce environmental risk and implement energy saving/resource circulation. In the product segment, products mainly in the exhaust system segment which contribute to the environment such as DPF, AFP and SCR are an important part of our major business. Under our corporate philosophy “We contribute to the progression of an affluent society through innovative technology, with respect for both individuals and the global environment,” IBIDEN aims to win the support of the market and society with further reduction of the environmental burden in its production activities and product development which responds to expected changes of the mobility environment and social issues, and targets sustainable development while coexisting with the global environment.

Electronics Operation

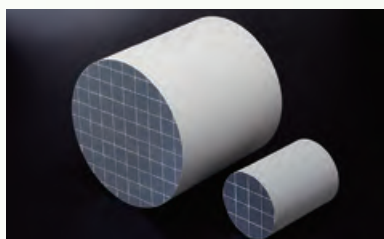
**Electronics Operation**  
**¥115,573 million**  
**38.5%**



Matching today's high speed of technical innovation, our electronics technology continues to develop new products at the cutting edge of the world electronics field. Our built-up substrates for smaller and thinner circuits as well as electronic components and plastic packages for a range of state-of-the-art semiconductors are the materialization of our IBI-TECHNO philosophy.

Ceramics Operation

**Ceramics Operation**  
**¥113,425 million**  
**37.8%**



Over the years, we have developed technologies in essential materials such as carbide and ferrosilicon. In line with our corporate philosophy, IBI-TECHNO, we have emerged as a leading developer of advanced ceramics including environment-related ceramics products, (such as SiC-DPF and substrate holding mats), graphite specialty products, ceramics fibers, and high temperature insulation wool.

Other Operation

**Other Operation**  
**¥71,406 million**  
**23.7%**



This segment comprises the housing materials business, construction business and other business with unique operations, respectively. In the housing materials business, centered on the manufacture and sales of interior-use decorative laminates, we are involved in supplying residential equipment and construction materials and developing our own planning houses. In the construction business, we are promoting livable urban development through a broad range of operations including slope protection construction, landscape gardening, and the installation of industrial equipment and solar power generations. In other business, we have a range of lines of business to answer the changing needs of society, including the development and sale of medical software, and the power generation business.

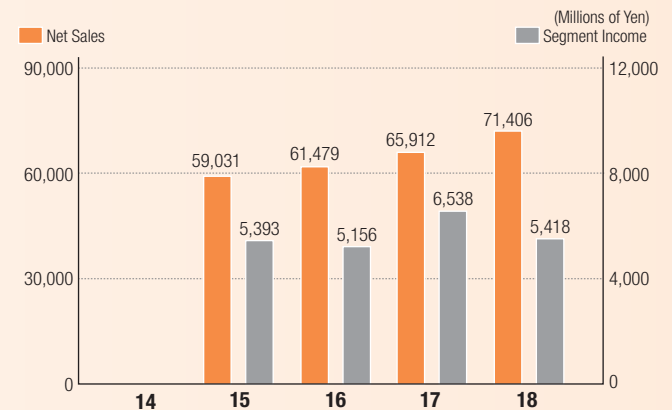
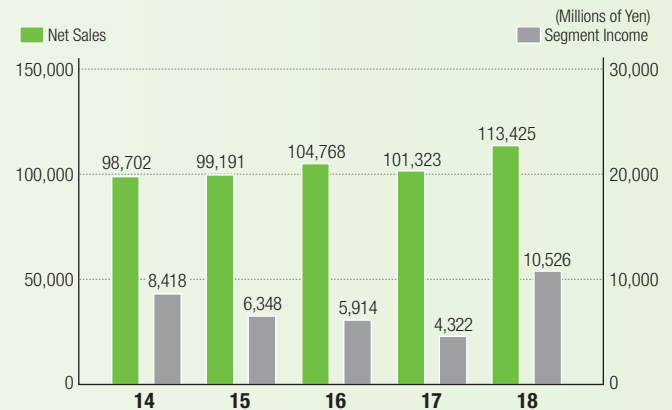
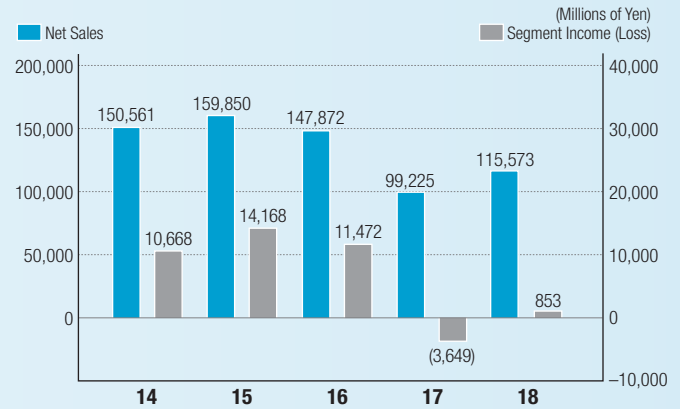
## Segment Strategies

For clients such as IoT, server and 5G communication, in addition to existing PC and high-end smartphone manufactures, we have been manufacturing and selling IC package substrates and printed wiring boards. As of July 2018, the Electronics Operation has organized PKG Business Unit and MLB Business Unit under its operational headquarters following completion of organizational realignment to expand the business in response to market changes and client requests in a timely manner.

Within our Ceramics Operation, we manufacture and sell SiC-DPF, SCR, substrate holding mats, high-temperature insulation wool and graphite specialty products for clients such as major global automotive manufacturers and semiconductor manufacturing equipment manufacturers. Going forward, we will expand business within the large vehicle market in emerging nations and capture demand for new components for vehicle electrification.

In the housing materials, we strive to expand our business by leveraging products with distinguished features such as our unique component housing and antiviral melamine decorative laminates. In the construction business, we use our strength to expand operations in the areas of the slope protection construction and landscape gardening business based on contemporary themes such as environmental conservation and disaster prevention. We are also redoubling efforts to comply with renewable energy feed-in tariffs and expand related business. We continue to solidify the position of the Other Operation as a third source of revenue through expansion of business with distinguished products and long-term stable earnings through the power business.

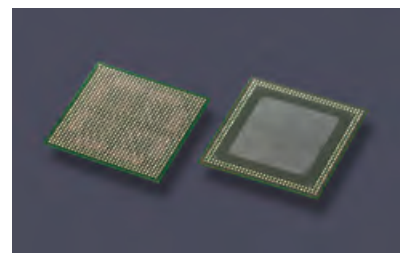
## Net Sales & Segment Income



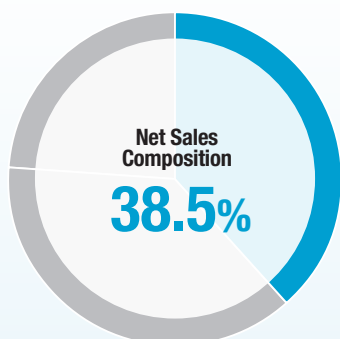
Note: As the Company has changed its segment classification, no data for the years ended March 31, 2014 and 2013 are shown.



**FWSS®** (Free via stacked up structure)

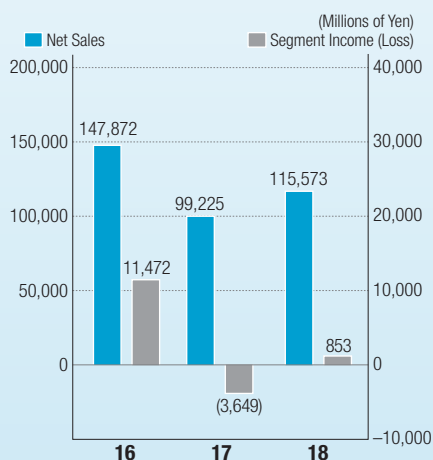


Build up FC-CSP substrate



**Net Sales** **¥115,573** million

**Segment Income** **¥853** million



## Main Products

- **Package substrates (PKG, CSP)**  
(for computers, mobile devices and home information appliances)
- **Printed wiring boards (PWB)**  
(for use in mobile electronic equipment/information communication infrastructure\*)

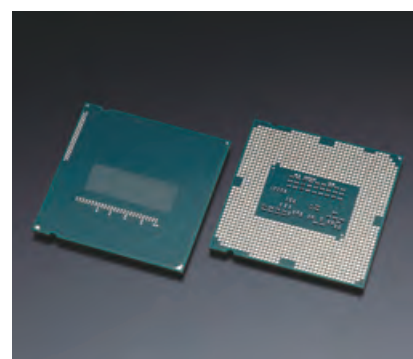
\*Used in servers, routers and other equipment forming high-speed digital communication networks.

In the IC package substrate (PKG) business, sales increased due to efforts to cultivate new market fields and new customers, although the overall PC market continued to show negative growth compared to the previous fiscal year.

In the small and thin IC package for smartphones and tablet-type devices (CSP) business, sales decreased reflecting the continued impact of the launch of fan-out wafer-level packaging (FO-WLP).

In the printed wiring board (PWB) business, sales rose due to progress in the adoption of new thin and high-density PWB for high-end smartphones.

As a result, net sales at the Electronics Operation increased 16.5% from the previous fiscal year to ¥115,573 million. Segment income amounted to ¥853 million, compared to ¥3,649 million in segment loss for the previous fiscal year. This was due to the effect of the business structure reform that we carried out in the previous fiscal year.



High-performance and high-function package substrate



# Ceramics Operation



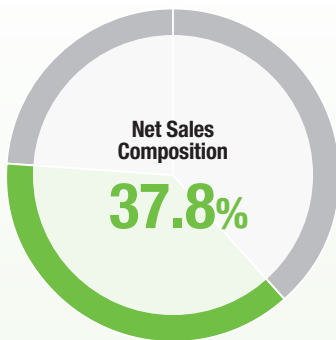
Graphite specialty "EDX-7"



Substrate holding mat

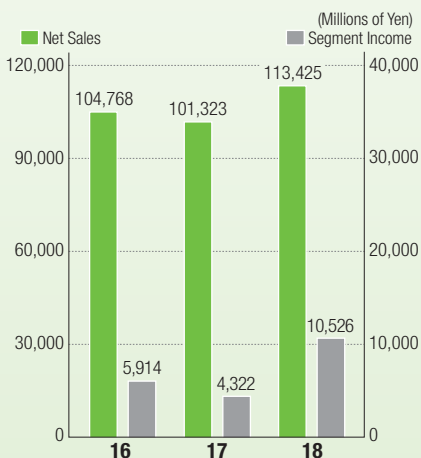


IBI WOOL-E



Net Sales **¥113,425 million**

Segment Income **¥10,526 million**



## Main Products

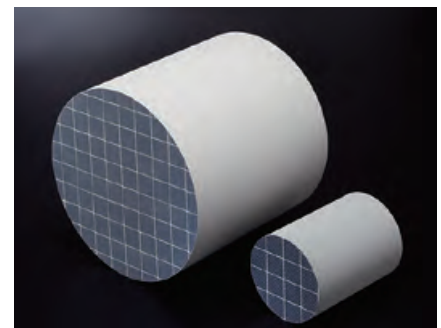
- Diesel particulate filters (DPF)
- Substrate holding mats (AFP)
- NOx reduction catalysts (SCR)
- Graphite specialty products (FGM)  
(for semiconductor manufacturing equipment and new energy-related products)
- High temperature insulation wool
- Fine ceramics products

Sales of diesel particulate filters (DPF) and substrate holding mats (AFP) increased from the previous fiscal year due to steady growth in the automobile market including large vehicles worldwide, especially in Europe.

Sales of NOx reduction catalyst (SCR) rose reflecting steady growth in automobile and energy-related products.

Sales of graphite specialty products (FGM) grew as a result of solid growth in the semiconductor market as well as sales expansion mainly for new technologies and new materials.

Accordingly, net sales at the Ceramics Operation increased 11.9% from the previous fiscal year to ¥113,425 million. Segment income jumped 143.5% to ¥10,526 million due to the effect of increased production mainly for automotive components.



SiC-DPF

Other Operation



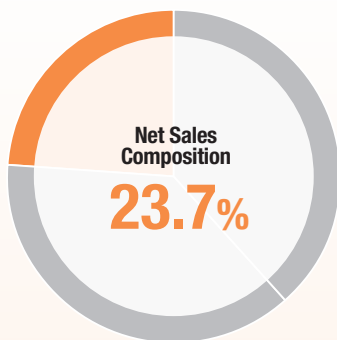
Higashi-Yokoyama Power Plant



The Japan's largest water floating solar power generation

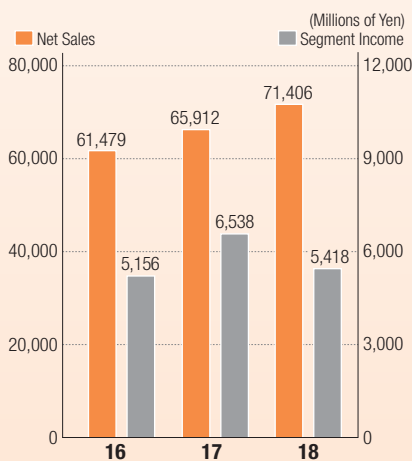


Local Village Ogaki



Net Sales **¥71,406 million**

Segment Income **¥5,418 million**



Main Businesses

- Melamine decorative laminates/ Residential equipment
- Slope and garden construction
- Synthetic resin processing
- Oil products sales

In the housing material business, the laminates-related department saw higher sales from the previous fiscal year as a result of sales expansion for melamine decorative laminates for toilet booths and non-combustible laminates. In the construction business, the slope protection construction department and the landscape gardening department experienced a rise in sales due to an increase in construction works carried over from the previous fiscal year, as well as the focus on orders and completion of construction works to be completed within the fiscal year. In other businesses, sales in the petroleum product sales department expanded reflecting a rise in sales price, which offset a fall in sales volume. The synthetic resin processing department saw lower sales from the previous fiscal year due to a decrease in sales volume of foamed-resin products for the automotive and precision industries.

Consequently, net sales at the Other Operation increased 8.3% from the previous fiscal year to ¥71,406 million, while segment income fell 17.1% to ¥5,418 million.



Retect Viruhael: high pressure laminates with antiviral effect

# Research and Development

R&D activities of the Group are implemented extensively by technology development divisions and manufacturing technology divisions, as well as the technology divisions within each Operation, and at affiliate companies.

At technology development divisions, focusing on the four new R&D fields that create a future of sustainable growth, we have established and operated four development centers to accelerate new products to market that capture the needs of society.

At manufacturing technology divisions, we are working actively to develop new innovative methods and facilities that boost our competitiveness.

Furthermore, at technology divisions within each Operation, we are carrying out development of new technologies and products that aim to expand new growth opportunities over our existing business.

R&D costs of the Group during the fiscal year ended March 31, 2018, on a consolidated basis, amounted to ¥15,369 million. Major R&D activities were as follows:

## Electronics Operation

We have been promoting development of product design, element technology and process technology to expand business to new areas: IoT, AI, data center, and automotive. Furthermore, we are conducting development of PKG and PWB that meet high-speed transmission and low loss requirements, as well as module substrates that achieve high density and multi-function.

During the fiscal year under review, R&D costs for this division amounted to ¥8,241 million.

## Ceramics Operation

Our current focus for R&D is carriers required for high-performance exhaust systems for powertrain of hybrid vehicles (HV) and a plug-in hybrid vehicles (PHV) as well as functional materials and components that enhance the safety and comfort of EV/PHV. Furthermore, we are carrying out R&D for lightweight, high heat-resistant ceramic composite materials targeting next-generation airplanes.

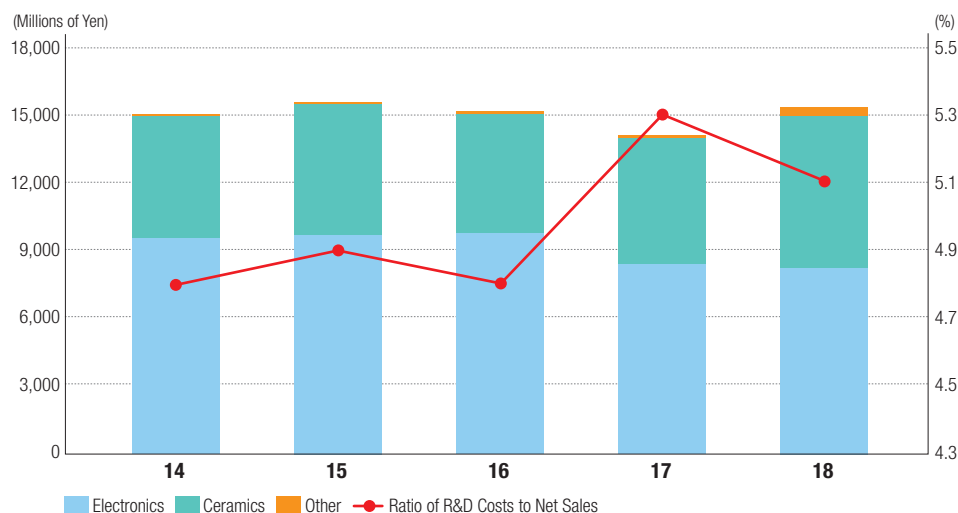
R&D costs for this division amounted to ¥6,793 million in the fiscal year under review.

## Other Operation

In the housing materials business, we are working to develop functional construction materials such as antivirus materials. We are also conducting R&D activities geared toward new fields. Within the slope-related business, we are engaged in development of construction methods and R&D of new products to expand the market of patented technology, the GT Frame Method, which makes possible both slope face disaster prevention and full-out surface vegetation. In landscape gardening, we are conducting R&D focused on technologies for the vegetation of particular spaces such as wall surfaces and roofs. In the agriculture and livestock products processing business, we are engaged in R&D of various dry ingredients used for instant noodles and sprinkles for rice and the like. In the information service business, we are promoting R&D focused on two areas: the next-generation business support system for medical institutions such as health management systems to protect the health of workers by digitalizing their state of mind, body and workstyle; and production support systems using AI technology to achieve labor saving and productivity improvement.

R&D costs for this division totaled ¥332 million in the fiscal year under review.

**R&D Costs and Ratio of R&D Costs to Net Sales**



# Capital Expenditures

During the fiscal year under review, the IBIDEN Group invested a total of ¥22,409 million, primarily to establish new facilities to boost production capacity.

Capital expenditures in the Electronics Operation totaled ¥12,361 million, which was used mainly for production facilities for both IC package substrates (¥6,679 million) and PWB (¥5,682 million).

In the Ceramics Operation, the Group spent ¥6,159 million, primarily for production facilities related to DPF (¥4,577 million) and substrate holding mats (AFP) (¥613 million).

The Other Operation and corporate were allocated ¥3,889 million. Required funds were acquired through self-financing.

Required funds were acquired through self-financing.

During the fiscal year under review, no major sale, removal, or loss of facilities took place that would have a noteworthy impact on production capacity, excluding the disposal and sale of facilities for regular updating.

## Major Projects Completed

IBIDEN	
Segments/bases	Project description
<b>Electronics Operation</b> •Ogaki Plant	Established production facilities for next-generation IC package substrates.
Subsidiaries	
<b>Electronics Operation</b> •IBIDEN Electronics Malaysia Sdn. Bhd.	Established production facilities for next-generation PWB.
<b>Ceramics Operation</b> •IBIDEN Hungary Kft.	Established production facilities for DPF and expanded production facilities for next-generation DPF. Established production facilities for AFP.

## Major Projects Established/Expanded/Updated in Progress

IBIDEN	
Segments/bases	Project description
<b>Electronics Operation</b> •Ogaki Central •Ogaki/Ogaki Central	Established production facilities for state-of-the-art IC package substrates. Expanded production facilities for next-generation IC package substrates.
Subsidiaries	
<b>Electronics Operation</b> •BIDEN Philippines, Inc. •IBIDEN Electronics Malaysia Sdn. Bhd. •IBIDEN Electronics (Beijing) Co., Ltd	Established production facilities for next-generation IC package substrates. Expanded production facilities for next-generation PWB. Expanded production facilities for next-generation PWB.
<b>Ceramics Operation</b> •IBIDEN Hungary Kft.	Expanded production facilities for AFP.

## Capital Expenditures and Depreciation and Amortization

**¥22,409 million**

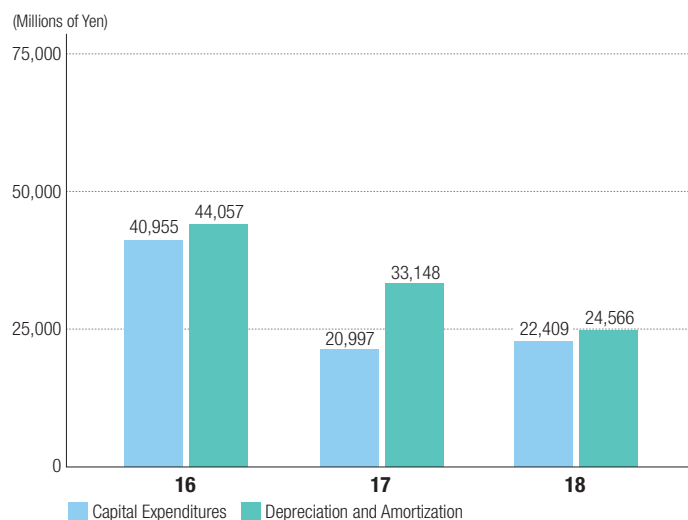
Capital expenditures by geographical areas in the fiscal year under review are summarized as follows:

### Electronics-related:

Japan..... ¥4,400 million  
Overseas ..... ¥8,000 million

### Ceramics-related:

Japan..... ¥200 million  
Overseas ..... ¥5,900 million



## Corporate Governance Structure

### Overview of Corporate Governance Structure and Reasons for Adopting Current Structure

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 the 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. 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, regarding the transition to a Company with Audit and Supervisory Committee, the Company will improve further prompt decision-making structure and an additional layer of strength in the supervisory functions of the Board of Director through having Directors who are Audit and Supervisory Committee Members possess voting rights in the Board of Directors.

The Company's Board of Directors consists of seven Directors (excluding Directors who are Audit and Supervisory Committee Members and including three Outside Directors) and five Directors (including three Outside Directors) who are Audit and Supervisory Committee Members. The term of office of a Director (excluding a Director who is an Audit and Supervisory Committee Member) is one year, and that of a Director who is an Audit and Supervisory Committee Member is two years. All of the six Outside Directors are appointed as Independent Directors. The number of Directors (excluding Directors who are Audit and Supervisory Committee Members) is limited to sixteen, and that of Directors who are Audit and Supervisory Committee Members is limited to seven. Also, the Company has introduced an Executive Officer System in order to make speedy management decisions and expedite the execution of operations.

In addition to the corporate governance system described above, the Company has established a Management Council to further strengthen the said structure of the Group. It is composed of persons responsible for management and execution of operations, such as Representative Directors, Directors, Executive Officers, Managing Officers as well as full-time Directors who are Audit and Supervisory Committee Members. The Management Council deliberates and decides important matters concerning yearly and monthly budget progress and various management issues, being endowed with functions to make preliminary deliberations of proposals to be submitted to the Board of Directors and make decisions set forth under the Authorization Regulations of the Company.

### Status of Development of System to Ensure the Appropriateness of Business Operations at Subsidiaries

The Company made the supervisory management department, which is responsible for internal control of all subsidiaries, the Corporate Planning Group, Office of the President, Strategic Corporate Planning Operation. The Company provides guidance and support to each company in cooperation with other internal control promotion divisions.

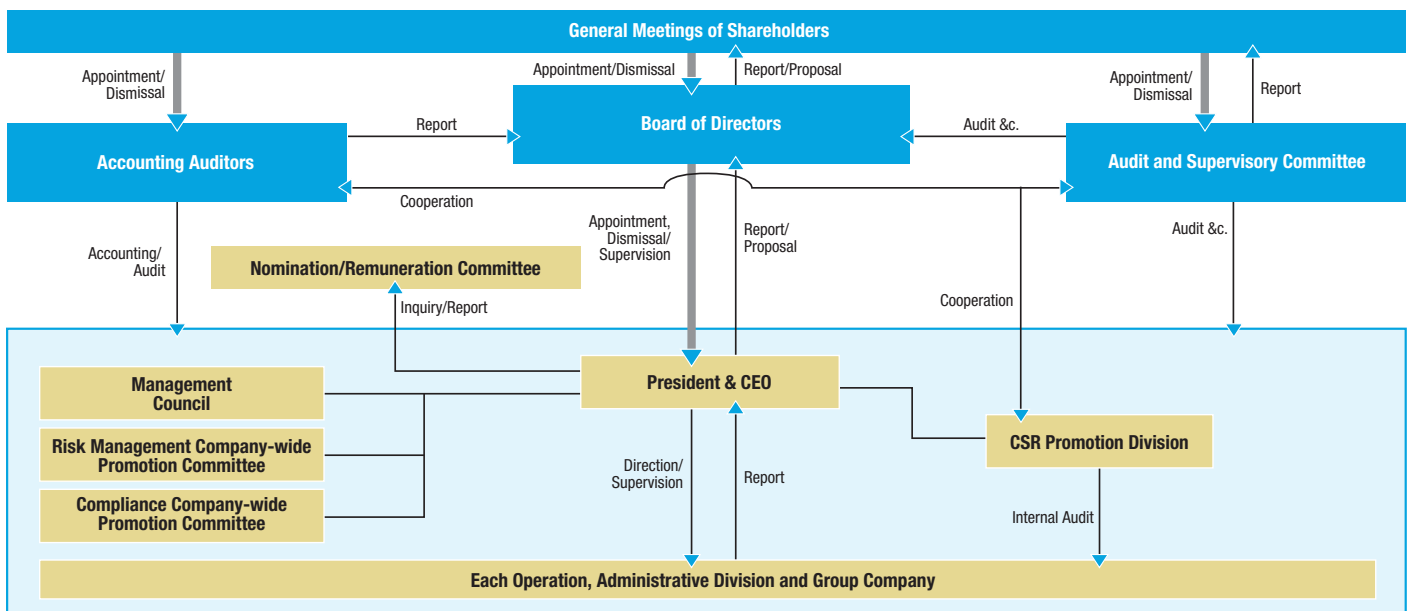
Pursuant to the Regulations for Internal Approvals of Group Companies, a structure is in place under which important business execution by directors and the Board of Directors of subsidiaries is reported to the Company in advance and decision making of the Company is properly carried out.

Furthermore, the Executive Officer in charge of the CSR Promotion Division sufficiently exchanges information with Directors in charge of internal control or the department.

### Current Status of the Internal Control System and Risk Management Structure

Based on the belief that corporate governance is a crucial management issue, the Group's internal control system calls for proactive implementation of measures across the Group aimed at advancing compliance and risk management and further augmentation of monitoring functions. The status of actions and their development are reported regularly by Executive

## The Corporate Governance System



Officers in charge of compliance and risk management promotion to the Board of Directors and the Management Council, and such actions are monitored and reviewed from time to time to make the compliance and risk management structure fairer, stronger and more appropriate.

### Status of Internal Audits and Audits by Audit & Supervisory Committee Members

The Company has assigned five Directors who are Audit and Supervisory Committee Members, including three Outside Directors without any interests in the Company. Two of the five Directors who are Audit and Supervisory Committee Members are a Certified Tax Accountant or a Certified Public Accountant, with high-level insights in all areas of taxation, and they have considerable knowledge in finance and accounting.

Directors who are Audit and Supervisory Committee Members attend important meetings such as the Board of Directors meetings and Management Council meetings and conduct audits on the execution of operations by Directors, and full-time Directors who are Audit and Supervisory Committee Members collaborate with the CSR Promotion Office, which is the Company's internal audit unit, and Accounting Auditors in conducting audits of the Company and of the Group companies in accordance with all applicable laws, regulations and rules.

Officers and employees provide Directors who are Audit and Supervisory Committee Members with necessary reports and information, in accordance with the Audit and Supervisory Committee Regulations, set forth by the Board of Directors, in response to requests from each Director who is an Audit and Supervisory Committee Member.

Furthermore, the Company has established the Audit Group, CSR Promotion Division (composed of six persons) as a unit that conducts internal audits. Directors who are Audit and Supervisory Committee Members and the CSR Promotion Office are working closely with Accounting Auditors by exchanging information and opinions on a regular basis to enhance the effectiveness of the Group's auditing system.

### Outside Directors

As stated in the preceding section, the Company has a governance structure that includes six Outside Directors. The Company anticipates their contribution to proper and fair corporate governance and their valuable advice concerning the Employee's Code of Conduct. Although IBIDEN has no standard or policy of its own with respect to the requirements to ensure the independence of Outside Directors, when electing any of its Outside Directors, IBIDEN makes sure that he or she meets the requirements of being independent and of being unlikely to have any conflict of interest with the general shareholders of IBIDEN.

Chiaki Yamaguchi, who serves as IBIDEN's Outside Director, is president and representative director of Towa Real Estate Co., Ltd. No special relationship exists between the said company and IBIDEN. Toshio Mita, who serves as IBIDEN's Outside Director, is adviser of Chubu Electric Power Co., Inc. No special relationship exists between the said company and IBIDEN. Koichi Yoshihisa, who serves as IBIDEN's Outside Director, is president of Meijo University. No special relationship exists between the said university and IBIDEN. Fumio Kato, representative of Fumio Kato Certified Tax Accountant Office, serves as IBIDEN's Outside Director. No special relationship exists between the said company and IBIDEN. Masaki Horie, representative of Masaki Horie Certified Tax Accountant Office, serves as IBIDEN's Outside Director. No special relationship exists between the said company and IBIDEN. The Outside Director, Nobuko Kawai is representative

of Nobuko KAWAI Law Office. No special relationship exists between the said company and IBIDEN.

At IBIDEN's Board of Directors meetings, Outside Directors express opinions based on their wealth of managerial experiences and provide important advice to advance the IBIDEN Group's governance. The Company believes that the aforementioned Outside Directors, who have demonstrated their independence, have successfully undertaken their responsibilities expected of them by the Company.

### Overview of Limited Liability Agreements

We have entered into limited liability agreements with Outside Directors that limit their liabilities for damages, based on Paragraph 1, Article 423 of the Company Law. Under these agreements, outside directors are subject to the higher of either ¥20 million or the minimum limited amount as specified under Paragraph 1, Article 425 of the Company Law when they have acted in good will and they have committed no material negligence in executing their duties.

### Accounting Audit

We have concluded a accounting auditing agreement with KPMG AZSA LLC, and the certification of the audit is conducted by Certified Public Accountants Jun Fukui, and Tetsuya Nakamura, who are KPMG AZSA's designated and engagement partners.

They are assisted by 13 certified public accountants and 12 other staff in the conduct of their auditing duties.

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

The compensation for Directors who are not Audit and Supervisory Committee Members, Executive Officers and Managing Officers comprises monthly compensation and bonuses. The monthly compensation for 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 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 Directors who are not Audit and Supervisory Committee Members, assessments of respective Executive 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' contribution to the Company's business results and other factors. 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 Directors, the Executive Officers and Managing Officers, and reports to President & CEO. Outside Directors, being in positions independent of the execution of operations, are only paid a set basic compensation.

The Company has also introduced the share-based payment plan 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 by sharing with shareholders, the benefits and risks involved in stock price fluctuations.

## Compensation of Directors and Corporate Auditors

(a) Total remuneration of Directors and Audit and Supervisory Committee Members for the fiscal year ended March 31, 2018 was as follows:

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:

- 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").
- The number of recipients describes the total number of people, and the actual recipients are 18.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

- 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.
- 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.

(b) Total amount of consolidated remuneration of individual directors and corporate auditors

Not recorded because no individual received total consolidated remuneration of ¥100 million or more.

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

Candidates for 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 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 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.

## Resolution Requirement for Appointing Directors

The Company's Articles of Incorporation stipulate that directors may be appointed by a majority vote of shareholders present at a meeting, who collectively hold not less than one-third of the voting rights of all shareholders entitled to exercise the rights.

Furthermore, the Company's Articles of Incorporation also stipulate that appointment of directors shall not be determined by cumulative voting.

## Special Resolution Requirement for General Meetings of Shareholders

The Company has stipulated in the Articles of Incorporation a special resolution requirement at General Meetings of Shareholders, in accordance with the provision of Paragraph 2, Article 309 of the Company Law, as follows: The resolution shall be authorized by a two-thirds majority of the voting rights held by the shareholders present at General Meetings of Shareholders. These voting shareholders must hold shares representing not less than one-third of the voting rights of all shareholders entitled to exercise the rights. This enables General Meetings of Shareholders to progress smoothly.

## Overview of Shareholdings

(a) Investment shares held for purposes other than pure investment

Number of issues: 55

Total recognized on the balance sheet: ¥49,985 million

(b) The main purpose for holding investment shares other than pure investment is to strengthen a stable business relationship.

(c) Shares held purely for investment purposes: None

# Board of Directors, Auditors and Executive Officers (As of June 15, 2018)

## Directors



*Chairman of the Board,  
Representative Director*  
**Hiroki TAKENAKA**  
Date of Birth: January 1, 1951

Apr. 1973 Joined IBIDEN Co., Ltd.  
Jun. 1997 Director  
Jun. 2001 Managing Director  
Jun. 2005 Director & Executive Managing Officer  
Apr. 2007 Representative Director, President & CEO  
Jan. 2015 In charge of R&D Operation  
Mar. 2016 In charge of affiliates and subsidiaries  
Jun. 2017 Representative Director, Chairman of the Board (to present)



*President & CEO,  
Representative Director*  
**Takeshi AOKI**  
Date of Birth: February 4, 1958

Apr. 1981 Joined IBIDEN Co., Ltd.  
Apr. 2006 Executive  
Apr. 2008 Corporate Officer  
Jun. 2013 Director & Corporate Officer  
Apr. 2014 Director & Managing Officer  
Apr. 2014 Deputy Operation Manager of Ceramics Operation  
Mar. 2016 Representative Director, Vice President  
Mar. 2016 Operation Manager of Ceramics Operation  
Apr. 2017 Administrator of Corporate Business Operation, In charge of Ceramics Operation (to present)  
Jun. 2017 Representative Director, President & CEO (to present)



*Representative Director &  
Executive Vice Presidents*  
**Kozo KODAMA**  
Date of Birth: March 23, 1963

Apr. 1986 Joined IBIDEN Co., Ltd.  
Apr. 2008 Executive  
Apr. 2012 Corporate Officer  
Apr. 2012 Vice President of IBIDEN Philippines Inc.  
Jan. 2015 Managing Officer  
Jan. 2015 Deputy Operation Manager of Electronics Operation  
Jun. 2015 Director & Managing Officer  
Mar. 2016 Representative Director, Vice President (to present)  
Mar. 2016 Integrated management of Quality, Engineering and Production (to present)  
Apr. 2017 President of Corporate Strategic Manufacturing Operation, In charge of CSR Promotion Division, In charge of Energy Control Division  
Jun. 2017 In charge of CSR Promotion, in charge of Energy Control Division (to present)  
Feb. 2018 Chairman of IBIDEN Electronics Malaysia Sdn. Bhd. (to present)



*Director & Executive  
Managing Officer*  
**Masahiko IKUTA**  
Date of Birth: August 19, 1962

Apr. 1985 Joined IBIDEN Co., Ltd.  
Apr. 2008 Executive  
Apr. 2010 Corporate Officer  
Oct. 2013 In charge of FGM Operation  
Oct. 2013 In charge of IR, Operations Manager of Strategic Corporate Planning Operations (to present)  
Jun. 2014 Director & Managing Officer  
Mar. 2016 Director & Executive Managing Officer  
Apr. 2017 In charge of affiliates and subsidiaries (to present)  
Jun. 2017 Executive Managing Officer  
Jun. 2018 Director & Executive Managing Officer (to present)



*Outside Director*  
**Chiaki YAMAGUCHI**  
Date of Birth: December 25, 1949

Jun. 2003 Full-time Corporate Auditor of Toyota Motor Corporation  
Jun. 2011 Executive Managing Director of Toyota Industries Corporation  
Jun. 2012 Representative Director & Senior Vice President of Toyota Industries Corporation  
Jun. 2014 Outside Director of IBIDEN Co., Ltd. (to present)  
Jun. 2015 President & Representative Director of Towa Real Estate Co., Ltd.\*  
Jun. 2015 Outside Director of Nakanihon Kogyo Co., Ltd. (to present)

\*Appointed as Advisor of Towa Real Estate Co., Ltd. on June 29, 2018



*Outside Director*  
**Toshio MITA**  
Date of Birth: November 2, 1946

Apr. 1969 Joined Chubu Electric Power Co., Inc.  
Jun. 2003 Managing Officer, Tokyo Office Manager  
Jun. 2005 Director, Senior Managing Executive Officer, President of Sales Company  
Jun. 2006 President & CEO  
Jun. 2007 President & CEO, Representative Director  
Jun. 2010 Chairman of the Board  
Jun. 2015 Adviser (to present)  
Jun. 2015 Outside Audit & Supervisory Board Member of Nippon Yusen Kabushiki Kaisha (to present)  
Jun. 2017 Outside Director of IBIDEN Co., Ltd. (to present)



*Outside Director*  
**Koichi YOSHIHISA**  
Date of Birth: November 29, 1952

Mar. 1981 Tokyo University PhD (Engineering)  
Apr. 1982 Assistant of IIS at Tokyo University  
Apr. 1984 Joined the Faculty of Science and Technology at Meijo University  
Apr. 2000 Professor at Architectural Course of Science and Technology at Meijo University  
Apr. 2003 Manager of at Architectural Course of Science and Technology at Meijo University  
Apr. 2013 Dean of Science and Technology at Meijo University, Chair of Research Department, Councillor at Meijo University (to present)  
Apr. 2015 President of the University, Full-Time Director of Meijo University (to present)  
Jun. 2017 Outside Director of IBIDEN Co., Ltd. (to present)





*Director, Audit and Supervisory Committee Member (Full-time)*  
**Keiichi SAKASHITA**  
 Date of Birth: April 21, 1956

- Apr. 1981 Joined IBIDEN Co., Ltd.
- Apr. 2007 Director & Managing Officer
- Apr. 2009 In charge of Ceramics Operation
- Apr. 2009 Operation Manager of DPF Operation
- Apr. 2011 Operation Manager of Strategic Manufacturing Operation
- Apr. 2013 Director & Executive Managing Officer
- Jan. 2015 In charge of Audit
- Jan. 2015 In charge of IMS promotion
- Jun. 2015 Standing Auditor
- Jun. 2017 Director who is an Audit and Supervisory Committee Member of IBIDEN Co., Ltd. (to present)



*Director, Audit and Supervisory Committee Member (Full-time)*  
**Yoichi KUWAYAMA**  
 Date of Birth: May 30, 1958

- Apr. 1983 Joined IBIDEN Co., Ltd.
- Apr. 2007 Executive
- Apr. 2008 Corporate Officer
- Apr. 2011 Operation Manager of DPF Operation
- Apr. 2012 Managing Officer
- Jun. 2012 Director & Managing Officer
- Apr. 2014 Director & Executive Managing Officer
- Apr. 2014 Operation Manager of Ceramics Operation
- Mar. 2016 In charge of Audit
- Jun. 2016 Standing Auditor
- Jun. 2017 Director who is an Audit and Supervisory Committee Member of IBIDEN Co., Ltd. (to present)



*Director, Audit and Supervisory Committee Member (Outside)*  
**Fumio KATO**  
 Date of Birth: January 20, 1944

- Jul. 2000 Deputy Manager of Investigation Department Nagoya Regional Taxation Bureau
- Jul. 2001 Superintendent of Showa Tax Office
- Aug. 2002 Registered as certified tax accountant, Opened Fumio Kato Certified Tax Account Office, Representative of Fumio Kato Certified Tax Account Office (to present)
- Jul. 2004 Outside Corporate Auditor of Seino Holdings Co., Ltd. (to present)
- Nov. 2014 Outside Corporate Auditor of Himaraya Co., Ltd.
- Jun. 2015 Outside Corporate Auditor of IBIDEN Co., Ltd.
- Nov. 2015 Outside Director who is an Audit and Supervisory Committee Member of Himaraya Co., Ltd. (to present)
- Jun. 2017 Outside Director who is an Audit and Supervisory Committee Member of IBIDEN Co., Ltd. (to present)



*Director, Audit and Supervisory Committee Member (Outside)*  
**Masaki HORIE**  
 Date of Birth: November 25, 1949

- Apr. 1973 Joined PricewaterhouseCoopers Co., Ltd.
- Nov. 1980 Joined Ito Accounting & Consultancy Office
- Jul. 1997 Senior Partner of Ito Accounting & Consultancy Office
- Jan. 2001 Senior Partner of Chuo-Aoyama Audit Cooperation
- Sep. 2006 Senior Partner of Arata Audit Cooperation
- Jul. 2010 Opened Masaki HORIE Certified Public Accountant Office, Director of the office (to present)
- Jun. 2011 Outside Corporate Auditor of Tokai Rika Co., Ltd.
- Jun. 2015 Outside Corporate Auditor of Futaba Industrial Co., Ltd.
- Jun. 2016 Outside Director of Futaba Industrial Co., Ltd. (to present)
- Jun. 2016 Outside Corporate Auditor of IBIDEN Co., Ltd.
- Jun. 2017 Outside Director who is an Audit and Supervisory Committee Member of IBIDEN Co., Ltd. (to present)



*Director, Audit and Supervisory Committee Member (Outside)*  
**Nobuko KAWAI**  
 Date of Birth: December 5, 1961

- Apr. 1992 Registered as attorney (Daiichi Tokyo Bar Association)
- Jan. 1995 Switched the registration as attorney to Nagoya (currently Aichi Prefecture) Bar Association
- Apr. 1998 Opened Nobuko KAWAI Law Office, Representative of the office (to present)
- Jan. 2004 Mediator for Civil Trial of Jury of Nagoya Summary Court (Part-Time Judge)
- Apr. 2009 Deputy Chairman of Aichi Bar Association
- Apr. 2012 Professor at Law School of Nagoya University (Practice of Law)
- Jun. 2017 Outside Director who is an Audit and Supervisory Committee Member of IBIDEN Co., Ltd. (to present)



*Substitute director, Audit & Supervisory Committee Member (Outside)*  
**Shogo KOMORI**  
 Date of Birth: October 23, 1979

- Oct. 2003 Registered as attorney (Daini Tokyo Bar Association) Joined Anderson Law Office
- Oct. 2004 Switched the registration as attorney to Gifu Prefecture Bar Association Joined Mori Law Office
- Mar. 2012 Opened Shogo KOMORI Law Office, Representative of the office (to present)
- Apr. 2012 Vice-chairman of Gifu Prefecture Bar Association
- Jun. 2015 Substitute Outside Corporate Auditor of IBIDEN Co., Ltd.
- Jun. 2017 Substitute Outside Director who is an Audit and Supervisory Committee Member of IBIDEN Co., Ltd. (to present)

## Executive Officers

**Chairman of the Board**  
**Hiroki Takenaka**

**President & CEO**  
**Takeshi Aoki**

**Executive Vice Presidents**  
**Kozo Kodama**

**Executive Managing Officer**  
**Masahiko Ikuta**

**Senior Managing Officers**  
**Sotaro Ito**

**Koji Kawashima**  
**Syuichi Kubo**

**Managing Officers**  
**Honchin Endo**

**Yasuji Hiramatsu**  
**Hisashi Sano**  
**Yasushi Inagaki**  
**Kota Noda**  
**Kazushige Ohno**

## IBIDEN achieves sustainable growth by implementing CSR management in response to globalization.

### 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



Building a trustworthy relationship with all our stakeholders.

### External Corporate Evaluation

The Company conducts gap analyses between targets and results of external corporate evaluations such as SRI evaluation organizations, and identifies elements that are lacking within the Company. The CSR Promotion Division is responsible for analyses. For items which can be improved during the following fiscal year, the relevant departments develop improvement strategies within the action policy. 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.

### Publication of CSR Information

The Group's CSR Report is disclosed on our website in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Standards 2016: Core option.

#### ▶▶▶ CSR Report

<https://www.ibiden.com/csr/csr-report/>



### Internal Control

In establishing the Group's internal control systems, activities must be undertaken to strengthen corporate governance and promote compliance and risk management under the instruction of the responsible executive officers.



## Environmental Management

### Measures to Develop Clean Energy

We have been conducting hydroelectric power generation since our foundation and currently operate three hydroelectric power plants upstream on the Ibi River. The generated power is supplied to power consumers in the region, which is a stable source of earnings in the Other Operation. In addition, we have conducted a business operation that utilizes a variety of energy including photovoltaic power generation and cogeneration systems to meet the demanding standards set by customers who follow the code of conduct of the industry group to which the Company belongs or business management targeting 100% renewable energy.

Hydroelectric power generated in fiscal year 2017

**161,097 MWh**

Equivalent to the annual energy consumption of about 44,700 households.

### Energy Conservation

We are accelerating the improvement of energy conservation practices designed to lower the basic unit of energy consumption in all divisions within the entire Company, striving to strengthen the company-wide CO<sub>2</sub> reduction activities as well as our product-making system.

Global target for fiscal years 2018 to 2022:

**5%** (fiscal year 2017) compared to actual CO<sub>2</sub> emissions for fiscal year 2022.

Notes:

- \*1 The figures are corrected from the previous fiscal year because of a revision of the aggregation of fuel and electricity.
- \*2 The emission factor is based on the List of Calculation Methods/Emission Factors in the Calculation, Report and Publication System published by Japan's Ministry of the Environment and Ministry of Economy, Trade and Industry, as well as the coefficient provided by the gas supply company.
- \*3 CO<sub>2</sub> emissions show figures covering production-related locations in Japan and overseas.
- \*4 The actual results of CO<sub>2</sub> emissions at IBIDEN domestic plants and major overseas group companies in fiscal year 2016 are verified by external organization.

## Environmental Management

### Human Resource Development

We define model employees with the respective qualifications and carry out education and training to enhance our strength, and thus become a company that can grow and develop on a permanent basis.

### Respect for Human Rights

The Group clearly defines its policy to avoid involvement in any violation of human rights and conducts continuous dissemination and education on its policy. In addition, we work to make advances in human rights initiatives throughout the supply chain, by conducting third-party audits of suppliers regarding child labor, forced labor, and so on.

### Occupational Health and Safety

We work to prevent occupational accidents by promoting occupational safety and health activities involving all employees. In fiscal year 2017, the number of occupational accidents increased at domestic group and major overseas production subsidiaries despite a decrease at IBIDEN's domestic plants. We will continue to thoroughly raise safety awareness among all employees.

\*Number of occupational injuries (equal to or exceeding accidents requiring leave) for every million cumulative actual working hours.

## Social Contribution

### Protecting the Global Environment

In fiscal year 2008, we embarked on a forest building initiative: "IBIDEN's Forest." This activity takes place chiefly in Higashi-Yokoyama, where the Company operates its initial hydroelectric power generation business. Together with local residents, employees and former employees, we aim to achieve coexistence with the global environment.

Total area of "IBIDEN's Forest"

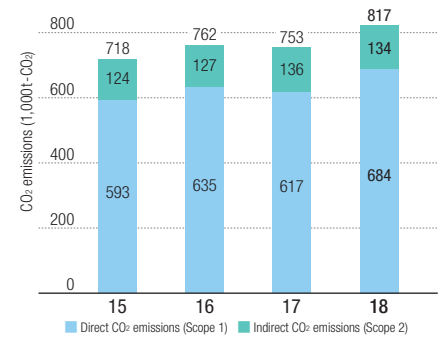
**7.5 ha**

This forest area is equivalent to some 10 football fields.



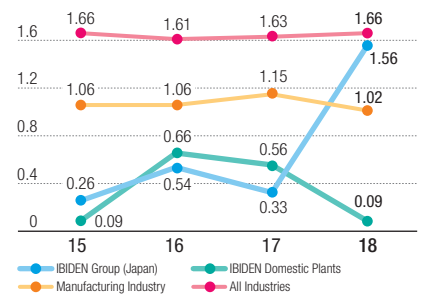
Higashi-Yokoyama power plant

### Trends in CO<sub>2</sub> emissions\*1,2,4 [IBIDEN Group\*3]



Educational training

### Occupational accident frequency rate\* (IBIDEN and Domestic Group companies)



Scene of tree planting activity

## Results for the Fiscal Year Ended March 31, 2018

During the fiscal year under review, the global economy saw modest growth overall, supported by the buoyant U.S. and European economies. The Japanese economy continued on a gradual recovery path in general, reflecting higher capital expenditures and corporate production as well as a pickup in personal consumption.

The semiconductor and the electronic components market experienced a growth trend on the whole due to the growth of new markets including smartphones and data centers. On the other hand, the PC markets saw continued negative growth from the previous fiscal year, despite some signs of upturn in the market.

The automotive exhaust system components market remained strong overall, centered on the large vehicle market mainly in North America and the passenger car market in Europe.

Given this situation, to achieve lasting and steady corporate growth, the Group worked to enhance its corporate constitution centered on human resource development based on *Genchi* (actual site), *Gembutsu* (actual thing), and *Jigakari* (on-site solution of problems). Furthermore, we sought to boost the competitiveness of our businesses with the aim of creating a stable earnings structure consisting of three business segments: the Electronics Operation, the Ceramics Operation, and the Other Operation, which comprises domestic affiliated company businesses and power business. In addition, we have been steadily proceeding with the development of new products to build new business pillars that support medium- and long-term growth. In particular, we established four new development centers in the previous fiscal year, initiated development of new products and the early launch of the product, and formed a capital and business alliance with Denso Corporation on April 27, 2017. Through this alliance, we will kick-start the development of new products by conducting joint R&D on the next generation of exhaust systems and vehicle electrification.

As a result of our activities during the fiscal year under review, consolidated net sales amounted to ¥300,404 million, an

increase of ¥33,944 million or 12.7%. Operating income totaled ¥16,702 million, up ¥9,560 million or 133.9%. Profit attributable to owners of parent for the period stood at ¥11,583 million (compared to ¥62,849 million in loss attributable to owners of parent for the previous fiscal year).

## Analysis of Our Financial Condition and Business Performance

### Analysis of Our Financial Condition

#### (1) Assets

Total assets at the end of the fiscal year under review were ¥438,096 million (an increase of 8.0% from the previous fiscal year-end). Current assets amounted to ¥228,724 million (a 12.0% increase), and fixed assets were ¥209,372 million (a 3.8% increase).

The significant contributing components in current assets were increases of ¥13,578 million in cash and deposits, ¥5,626 million in trade notes and accounts receivable and ¥2,470 million in work in process.

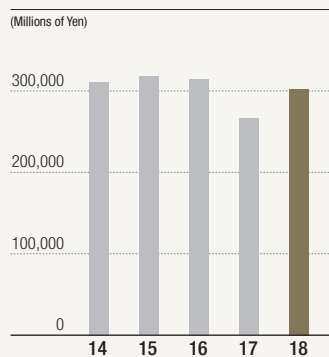
The major factor in fixed assets was a rise of ¥7,849 million in investment securities.

#### (2) Liabilities and Net Assets

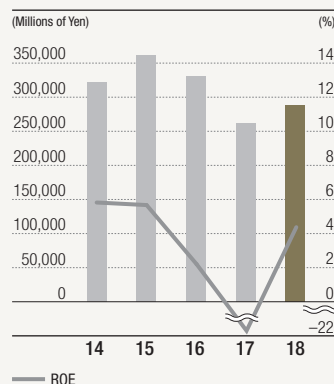
Total liabilities at the end of the fiscal year under review were ¥151,728 million (a 4.8% increase from the previous fiscal year-end). Current liabilities amounted to ¥93,491 million (a 5.6% increase), and long-term liabilities were ¥58,237 million (a 3.5% increase). Major factors attributable to the increase in current liabilities included an increase of ¥13,469 million in notes and accounts payable. The rise in long-term liabilities reflected mainly an increase of ¥1,858 million in deferred income taxes. Total net assets at the end of the fiscal year under review were ¥286,368 million (a 9.7% increase over the previous fiscal year-end) due to a decrease of ¥15,697 million in treasury stock.

As a result of the above, the equity ratio at the year-end rose to 64.2% from 63.2% a year ago. Net assets per share grew to ¥2,012.60 from ¥1,927.53.

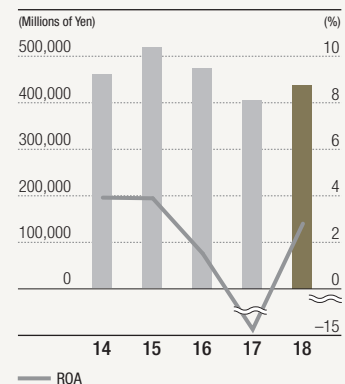
Net Sales



Total Net Assets/  
ROE



Total Assets/  
ROA



## Analysis of Our Business Performance

### (1) Net Sales and Operating Income

Please see “Review of Operations” on pages 14 through 16 for the general status of net sales and segment income for the business segments.

Net sales amounted to ¥300,404 million (a 12.7% increase from the previous fiscal year).

Cost of sales was ¥234,517 million (a 11.3% increase) reflecting higher net sales. The cost-to-sales ratio improved 1.0 percentage point to 78.1%.

Accordingly, operating income totaled ¥16,702 million (a 133.9% increase).

### (2) Other Income (Expenses)

In the category of other income and expenses, the Company recorded other income of ¥1,848 million (net) for the fiscal year under review, compared to ¥67,914 million of other expenses reported one year earlier. The major factor behind the increase in other income was an absence of ¥61,989 million in business structure reform expenses recorded in the previous fiscal year.

Accordingly, profit before income taxes amounted to ¥18,550 million, compared to ¥60,772 million in a loss before income taxes for the previous fiscal year.

### (3) Income Taxes and Profit (Loss)

Income taxes increased from ¥1,847 million in the previous fiscal year to ¥6,696 million in the fiscal year under review. Consequently, profit amounted to ¥11,854 million, compared to ¥62,619 million in a loss for the previous fiscal year.

### (4) Profit (Loss) Attributable to Non-Controlling Interests

Loss attributable to non-controlling interests amounted to ¥271 million versus ¥230 million in the previous fiscal year.

### (5) Profit (Loss) Attributable to Owners of Parent

Profit attributable to owners of parent for this period was ¥11,583

million, compared to ¥62,849 million in loss attributable to owners of parent for the previous fiscal year. Basic profit attributable to owners of parent per share for this period was ¥83.21, compared to ¥472.26 in basic loss attributable to owners of parent per share for the previous fiscal year. Return on equity (ROE) stood at 4.3%.

## Cash Flow Conditions

Cash and cash equivalents (hereafter “cash”) at the end of the fiscal year under review amounted to ¥117,760 million, up ¥13,658 million over the previous fiscal year-end.

The following is a summary of cash flow activities.

### (1) Cash Flow from Operating Activities

Net cash provided by operating activities totaled ¥27,040 million (versus ¥28,813 million in the previous fiscal year). This primarily reflected ¥24,567 million in depreciation and amortization, ¥18,550 million in profit before income taxes, and an increase of ¥6,439 million in notes and accounts payable, despite an increase of ¥5,844 million in inventories and ¥3,708 million in income taxes paid.

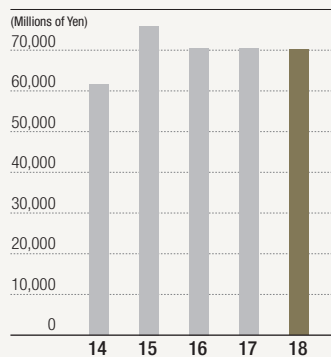
### (2) Cash Flow from Investing Activities

Net cash used in investing activities totaled ¥21,303 million (versus ¥26,280 million in the previous fiscal year). This was mainly due to payments of ¥18,768 million for purchases of property and equipment and ¥2,558 million for purchases of investment securities.

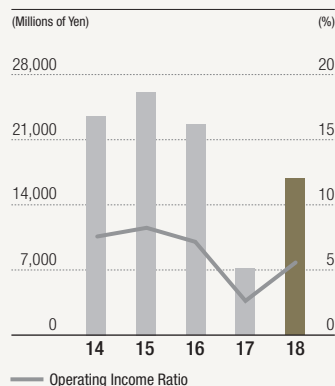
### (3) Cash Flow from Financing Activities

Net cash provided by financing activities totaled ¥6,725 million (versus ¥5,135 million in net cash used in the previous fiscal year). This was mainly due to cash inflows of ¥12,000 million in proceeds from sales of treasury stock, which offset cash outflows of ¥4,760 million in cash dividends paid.

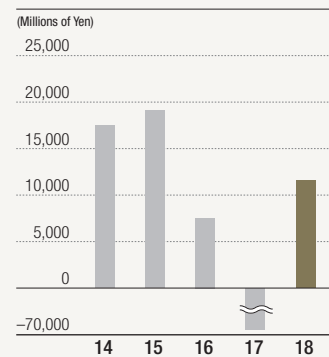
Interest-Bearing Debt



Operating Income/  
Operating Income Ratio



Net (loss) Income Attributable to Owners of Parent



# Consolidated Balance Sheet

## IBIDEN CO., LTD. and Consolidated Subsidiaries

March 31, 2018 and 2017

	Millions of yen		Thousands of U.S. dollars (Note 5)
	2018	2017	2018
<b>Assets</b>			
Current assets:			
Cash and deposits (Notes 6 and 21).....	¥ 117,760	¥ 104,182	\$ 1,108,331
Notes and accounts receivable (Note 6):			
Trade.....	62,236	56,610	585,748
Other.....	2,464	3,260	23,190
Allowance for doubtful accounts.....	(102)	(252)	(956)
Inventories:			
Merchandise and finished goods.....	12,839	10,421	120,840
Work in process.....	9,922	7,452	93,380
Raw materials and supplies.....	17,251	15,765	162,364
Deferred income taxes (Note 12).....	2,389	1,918	22,487
Other current assets.....	3,965	4,814	37,316
Total current assets.....	<b>228,724</b>	204,170	<b>2,152,700</b>
Property, plant and equipment:			
Land (Note 16).....	19,831	19,046	186,646
Buildings and structures (Notes 14 and 15).....	184,443	183,005	1,735,936
Machinery and equipment (Notes 14 and 15).....	449,392	443,160	4,229,567
Leased assets.....	733	1,617	6,902
Construction in progress (Notes 14 and 15).....	10,707	7,135	100,767
	<b>665,106</b>	653,963	<b>6,259,818</b>
Accumulated depreciation.....	(513,797)	(502,810)	(4,835,734)
Property, plant and equipment, net.....	<b>151,309</b>	151,153	<b>1,424,084</b>
Investments and other assets:			
Investment securities (Notes 6, 7 and 9):			
Unconsolidated subsidiaries and affiliates.....	33	891	306
Other.....	51,922	43,215	488,679
Long-term loans receivable.....	11	30	104
Deferred income taxes (Note 12).....	1,124	734	10,581
Other assets.....	5,241	5,900	49,325
Allowance for doubtful accounts.....	(268)	(310)	(2,520)
Total investments and other assets.....	<b>58,063</b>	50,460	<b>546,475</b>
Total assets (Note 23).....	<b>¥ 438,096</b>	¥ 405,783	<b>\$ 4,123,259</b>

	Millions of yen		Thousands of U.S. dollars (Note 5)
	2018	2017	2018
<b>Liabilities and net assets</b>			
Current liabilities:			
Short-term borrowings and current portion of long-term debt (Notes 6 and 8) .....	¥ 20,006	¥ 20,057	\$ 188,289
Notes and accounts payable (Notes 6 and 9):			
Trade .....	37,347	29,264	351,506
Other .....	15,718	10,332	147,936
Lease obligations (Note 10) .....	109	110	1,023
Accrued expenses.....	6,605	5,952	62,162
Income taxes payable (Note 12).....	4,092	1,159	38,518
Deferred income taxes (Note 12) .....	11	10	104
Accrued bonuses for employees.....	3,829	3,354	36,034
Accrued bonuses for directors and audit & supervisory board members.....	90	—	847
Provision for business structure reform expenses (Note 15) .....	—	12,812	—
Other current liabilities .....	5,684	5,499	53,496
<b>Total current liabilities .....</b>	<b>93,491</b>	<b>88,549</b>	<b>879,915</b>
Long-term liabilities:			
Long-term debt (Notes 6 and 8) .....	50,000	50,006	470,588
Lease obligations (Note 10) .....	79	86	743
Liability for retirement benefits (Note 11) .....	525	469	4,942
Provision for share-based compensation (Note 4).....	75	—	705
Deferred income taxes (Note 12) .....	6,167	4,309	58,039
Other long-term liabilities .....	1,391	1,424	13,100
<b>Total long-term liabilities.....</b>	<b>58,237</b>	<b>56,294</b>	<b>548,117</b>
Net assets:			
Shareholders' equity (Note 13):			
Common stock:			
Authorized – 230,000,000 shares			
Issued – 140,860,557 shares in 2018 and 2017 .....	64,152	64,152	603,790
Capital surplus.....	64,579	64,579	607,806
Retained earnings.....	123,736	121,092	1,164,566
Less treasury stock, at cost.....	(2,609)	(18,306)	(24,558)
<b>Total shareholders' equity .....</b>	<b>249,858</b>	<b>231,517</b>	<b>2,351,604</b>
Accumulated other comprehensive income :			
Net unrealized holding gain on other securities .....	20,247	15,987	190,564
Deferred gain on hedges (Note 22) .....	77	640	725
Surplus arising from land revaluation (Note 16).....	160	160	1,507
Translation adjustments .....	10,856	8,211	102,169
<b>Total accumulated other comprehensive income.....</b>	<b>31,340</b>	<b>24,998</b>	<b>294,965</b>
Non-controlling interests .....	5,170	4,425	48,658
<b>Total net assets (Note 19) .....</b>	<b>286,368</b>	<b>260,940</b>	<b>2,695,227</b>
<b>Total liabilities and net assets .....</b>	<b>¥438,096</b>	<b>¥405,783</b>	<b>\$4,123,259</b>

See accompanying notes to consolidated financial statements.

# Consolidated Statement of Income

## IBIDEN CO., LTD. and Consolidated Subsidiaries

Years ended March 31, 2018 and 2017

	Millions of yen		Thousands of U.S. dollars (Note 5)
	2018	2017	2018
Net sales (Note 23) .....	<b>¥300,404</b>	¥266,460	<b>\$2,827,331</b>
Cost of sales .....	<b>234,517</b>	210,641	<b>2,207,218</b>
Gross profit.....	<b>65,887</b>	55,819	<b>620,113</b>
Selling, general and administrative expenses (Note 17) .....	<b>49,185</b>	48,677	<b>462,916</b>
Operating income (Note 23) .....	<b>16,702</b>	7,142	<b>157,197</b>
Other income (expenses):			
Interest and dividend income .....	<b>1,390</b>	1,558	<b>13,078</b>
Interest expense .....	<b>(147)</b>	(188)	<b>(1,380)</b>
Gain on sales of investment securities (Note 7) .....	<b>60</b>	—	<b>567</b>
Other, net (Notes 14, 15 and 18).....	<b>545</b>	(69,284)	<b>5,130</b>
Profit (loss) before income taxes.....	<b>18,550</b>	(60,772)	<b>174,592</b>
Income taxes (Note 12):			
Current .....	<b>(7,399)</b>	(2,391)	<b>(69,634)</b>
Deferred .....	<b>703</b>	544	<b>6,610</b>
Profit (loss) .....	<b>(6,696)</b>	(1,847)	<b>(63,024)</b>
Profit (loss) .....	<b>11,854</b>	(62,619)	<b>111,568</b>
Profit (loss) attributable to:			
Non-controlling interests .....	<b>(271)</b>	(230)	<b>(2,547)</b>
Owners of parent (Note 19).....	<b>¥ 11,583</b>	¥ (62,849)	<b>\$ 109,021</b>

See accompanying notes to consolidated financial statements.



# Consolidated Statement of Comprehensive Income

## IBIDEN CO., LTD. and Consolidated Subsidiaries

Years ended March 31, 2018 and 2017

	Millions of yen		Thousands of U.S. dollars (Note 5)
	2018	2017	2018
Profit (loss).....	<b>¥11,854</b>	¥(62,619)	<b>\$111,568</b>
Other comprehensive income (loss):			
Net unrealized holding gain on other securities .....	<b>4,291</b>	3,532	<b>40,382</b>
Deferred gain (loss) on hedges.....	<b>(563)</b>	442	<b>(5,295)</b>
Surplus arising from land revaluation.....	—	—	—
Translation adjustments .....	<b>2,572</b>	(7,259)	<b>24,208</b>
Total other comprehensive income (loss) (Note 20) .....	<b>6,300</b>	(3,285)	<b>59,295</b>
Comprehensive income (loss) .....	<b>¥18,154</b>	¥(65,904)	<b>\$170,863</b>
Comprehensive income (loss) attributable to:			
Owners of parent.....	<b>¥17,926</b>	¥(66,109)	<b>\$168,714</b>
Non-controlling interests .....	<b>228</b>	205	<b>2,149</b>

See accompanying notes to consolidated financial statements.

# Consolidated Statement of Changes in Net Assets

## IBIDEN CO., LTD. and Consolidated Subsidiaries

Years ended March 31, 2018 and 2017

Millions of yen

	Number of shares in issue (Thousands)	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Net unrealized holding gain on other securities	Deferred gain (loss) on hedges	Surplus arising from land revaluation	Translation adjustments	Non- controlling interests	Total net assets
Balance at March 31, 2016.....	140,861	¥64,152	¥64,579	¥188,599	¥(18,302)	¥12,478	¥ 198	¥160	¥15,469	¥4,188	¥331,521
Cash dividends .....	—	—	—	(4,658)	—	—	—	—	—	—	(4,658)
Loss attributable to owners of parent .....	—	—	—	(62,849)	—	—	—	—	—	—	(62,849)
Purchases of treasury stock .....	—	—	—	—	(4)	—	—	—	—	—	(4)
Retirement of treasury stock .....	—	—	—	(0)	0	—	—	—	—	—	0
Other changes .....	—	—	—	—	—	3,509	442	—	(7,258)	237	(3,070)
Balance at March 31, 2017.....	<b>140,861</b>	<b>64,152</b>	<b>64,579</b>	<b>121,092</b>	<b>(18,306)</b>	<b>15,987</b>	<b>640</b>	<b>160</b>	<b>8,211</b>	<b>4,425</b>	<b>260,940</b>
Cash dividends .....	—	—	—	(4,760)	—	—	—	—	—	—	(4,760)
Profit attributable to owners of parent .....	—	—	—	11,583	—	—	—	—	—	—	11,583
Purchases of treasury stock .....	—	—	—	—	(363)	—	—	—	—	—	(363)
Retirement of treasury stock .....	—	—	—	(4,059)	16,060	—	—	—	—	—	12,001
Change in scope of consolidation.....	—	—	—	(120)	—	—	—	—	—	—	(120)
Other changes.....	—	—	—	—	—	4,260	(563)	—	2,645	745	7,087
Balance at March 31, 2018.....	<b>140,861</b>	<b>¥64,152</b>	<b>¥64,579</b>	<b>¥123,736</b>	<b>¥ (2,609)</b>	<b>¥20,247</b>	<b>¥ 77</b>	<b>¥160</b>	<b>¥10,856</b>	<b>¥5,170</b>	<b>¥286,368</b>

**IBIDEN CO., LTD. and Consolidated Subsidiaries**

Years ended March 31, 2018 and 2017

Thousands of U.S. dollars (Note 5)

	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Net unrealized holding gain on other securities	Deferred gain (loss) on hedges	Surplus arising from land revaluation	Translation adjustments	Non- controlling interests	Total net assets
Balance at March 31, 2017 .....	\$603,790	\$607,806	\$1,139,685	\$(172,288)	\$150,469	\$ 6,020	\$1,507	\$ 77,275	\$41,643	\$2,455,907
Cash dividends .....	—	—	(44,802)	—	—	—	—	—	—	(44,802)
Profit attributable to owners of parent .....	—	—	109,021	—	—	—	—	—	—	109,021
Purchases of treasury stock .....	—	—	—	(3,420)	—	—	—	—	—	(3,420)
Retirement of treasury stock .....	—	—	(38,205)	151,150	—	—	—	—	—	112,945
Change in scope of consolidation .....	—	—	(1,133)	—	—	—	—	—	—	(1,133)
Other changes .....	—	—	—	—	40,095	(5,295)	—	24,894	7,015	66,709
Balance at March 31, 2018 .....	<b>\$603,790</b>	<b>\$607,806</b>	<b>\$1,164,566</b>	<b>\$ (24,558)</b>	<b>\$190,564</b>	<b>\$ 725</b>	<b>\$1,507</b>	<b>\$102,169</b>	<b>\$48,658</b>	<b>\$2,695,227</b>

See accompanying notes to consolidated financial statements.

# Consolidated Statement of Cash Flows

## IBIDEN CO., LTD. and Consolidated Subsidiaries

Years ended March 31, 2018 and 2017

	Millions of yen		Thousands of U.S. dollars (Note 5)
	2018	2017	2018
<b>Operating activities</b>			
Profit (loss) before income taxes .....	¥ 18,550	¥ (60,772)	\$174,592
Adjustments to reconcile profit (loss) before income taxes to net cash provided by operating activities:			
Depreciation and amortization .....	24,567	33,148	231,215
Loss on impairment of fixed assets.....	244	102	2,297
Amortization of goodwill.....	237	905	2,230
Reversal for accrued bonuses for employees.....	437	(283)	4,115
Reversal for accrued bonuses for directors.....	90	(77)	847
Reversal of allowance for doubtful accounts .....	(197)	(40)	(1,854)
Increase (decrease) in liability for retirement benefits .....	(4)	4	(34)
Interest and dividend income .....	(1,390)	(1,558)	(13,078)
Interest expense .....	147	188	1,380
Equity in loss of an affiliate .....	(3)	—	(32)
Gain on sales of property and equipment .....	(89)	(197)	(840)
Loss on disposal of property and equipment and other assets .....	1,698	1,281	15,987
Gain on sales of investment securities .....	(54)	—	(512)
Business structure reform expenses .....	—	59,441	—
Decrease (increase) in notes and accounts receivable, trade.....	(3,402)	859	(32,019)
Decrease (increase) in inventories .....	(5,844)	2,675	(55,000)
Increase (decrease) in notes and accounts payable .....	6,439	(4,671)	60,601
Increase (decrease) in accrued expenses.....	538	(386)	5,068
Other, net .....	(12,436)	382	(117,048)
Subtotal.....	29,528	31,001	277,915
Interest and dividends received.....	1,367	1,615	12,862
Interest paid .....	(147)	(188)	(1,380)
Income taxes paid .....	(3,708)	(4,225)	(34,900)
Income taxes refunded .....	—	610	—
Net cash provided by operating activities.....	¥ 27,040	¥ 28,813	\$254,497

**IBIDEN CO., LTD. and Consolidated Subsidiaries**

Years ended March 31, 2018 and 2017

	Millions of yen		Thousands of U.S. dollars (Note 5)
	2018	2017	2018
<b>Investing activities</b>			
Purchases of property and equipment .....	¥ (18,768)	¥ (25,558)	\$ (176,637)
Proceeds from sales of property and equipment.....	277	182	2,610
Purchases of intangible assets.....	(408)	(1,023)	(3,845)
Purchases of investment securities .....	(2,558)	(38)	(24,073)
Proceeds from sales of investment securities.....	165	2	1,556
Collection of short-term loans receivable .....	—	0	—
Long-term loans receivable made.....	(11)	(11)	(109)
Collection of long-term loans receivable.....	17	19	162
Other, net .....	(17)	147	(166)
Net cash used in investing activities.....	(21,303)	(26,280)	(200,502)
<b>Financing activities</b>			
Increase in long-term debt.....	—	10,000	—
Repayment of long-term debt.....	(57)	(10,065)	(536)
Proceeds from issuance of bonds.....	—	15,000	—
Redemption of bonds.....	—	(15,000)	—
Purchases of treasury stock.....	(363)	(4)	(3,420)
Proceeds from sales of treasury stock .....	12,000	1	112,944
Cash dividends paid to non-controlling interests .....	(20)	(15)	(191)
Cash dividends paid .....	(4,760)	(4,658)	(44,802)
Repayments of lease obligations.....	(75)	(94)	(703)
Other, net .....	—	(300)	—
Net cash (used in) provided by financing activities.....	6,725	(5,135)	63,292
<b>Effect of exchange rate changes on cash and cash equivalents .....</b>	<b>490</b>	<b>(1,171)</b>	<b>4,612</b>
<b>Increase (decrease) in cash and cash equivalents .....</b>	<b>12,952</b>	<b>(3,773)</b>	<b>121,899</b>
<b>Cash and cash equivalents at beginning of year.....</b>	<b>104,102</b>	<b>107,875</b>	<b>979,782</b>
<b>Increase (decrease) in cash and cash equivalents from newly consolidated subsidiary .....</b>	<b>706</b>	<b>—</b>	<b>6,650</b>
<b>Cash and cash equivalents at end of year (Note 22).....</b>	<b>¥117,760</b>	<b>¥104,102</b>	<b>\$1,108,331</b>

See accompanying notes to consolidated financial statements.

# Notes to Consolidated Financial Statements

## IBIDEN CO., LTD. and Consolidated Subsidiaries

March 31, 2018

### 1. Basis of Presentation

IBIDEN CO., LTD. (the "Company") and its domestic subsidiaries maintain their books of account in conformity with accounting principles generally accepted in Japan, and its overseas subsidiaries maintain their books of account in conformity with those of their respective countries of domicile.

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in Japan, which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards, and have been compiled

from the consolidated financial statements prepared by the Company as required by the Financial Instruments and Exchange Act of Japan.

In preparing the accompanying consolidated financial statements, certain reclassifications and rearrangements have been made to the consolidated financial statements issued domestically for the convenience of readers outside Japan. Furthermore, the notes to the consolidated financial statements include certain information which is not required under accounting principles generally accepted in Japan but is presented herein as additional information.

### 2. Summary of Significant Accounting Policies

#### (a) Principles of consolidation and accounting for investments in unconsolidated subsidiaries and affiliates

Under the principles of consolidation, companies are to include in their consolidated financial statements. Significant subsidiaries over which substantial control is exerted either through majority ownership of voting stock and/or by other means. Accordingly, the accompanying consolidated financial statements include the accounts of the Company and its 37 and 33 significant consolidated subsidiaries for the years ended March 31, 2018 and 2017, respectively. For the point of view of group management, Four (4) subsidiaries that were unconsolidated for the year ended March 31, 2017 have been consolidated for the year ended March 31, 2018. In addition, 2 companies were accounted for by the equity method for the year ended March 31, 2018 although there were no companies accounted for the equity method for the year ended March 31, 2017.

Significant investments in affiliates over which the Company has the ability to exercise significant influence with regard to the operating and financial policies of the investees are also accounted for by the equity method.

For the point of view of group management, Two (2) affiliates that were not accounted for by the equity method for the year ended March 31, 2017 have been accounted for by the equity method for the year ended March 31, 2018.

Investments in the remaining unconsolidated subsidiaries and affiliates are carried at cost or less. If the equity method of accounting had been applied to the investments in these companies, the effect on the accompanying consolidated financial statements would not be material. When there has been a permanent decline in the value of such investments, the Company has written them down.

All significant intercompany transactions and accounts have been eliminated in consolidation.

The financial statements of certain overseas consolidated subsidiaries whose fiscal year end is December 31 have been included in consolidation on the basis of a full fiscal year closing on March 31 for consolidation purposes.

The Company has adopted "Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for Consolidated Financial Statements" (ASBJ Practical Issues Task Force ("PITF") NO. 18, March 26 2015 amendment), and necessary modifications have made for consolidation.

#### (b) Foreign currency translation

All monetary assets and liabilities denominated in foreign currencies are translated into yen at the rates of exchange in effect at the balance sheet date and gain or loss on each translation is credited or charged to income.

Revenue and expense items arising from transactions denominated in foreign currencies are generally translated into yen at the rates of exchange in effect at the respective transaction dates. Gain or loss resulting from foreign currency transactions is credited or charged to income in the year in which the gain or loss is recognized for financial reporting purposes.

The balance sheet accounts of the overseas consolidated subsidiaries are translated into yen at the rates of exchange in effect at the balance sheet date except that components of net assets excluding non-controlling interests are translated at their historical exchange rates. Revenue and expense accounts are translated into yen at the average rates of exchange in effect during the year. Adjustments resulting from translating financial statements denominated in a foreign currency are not included in the determination of profit attributable to the owners of the parent, but are reported as translation adjustments and non-controlling interests in net assets in the consolidated balance sheet.

#### (c) Cash equivalents

For the consolidated statement of cash flows, all highly liquid investments with a maturity of three months or less when purchased are considered cash equivalents.

#### (d) Allowance for doubtful accounts

An allowance for doubtful accounts of the Company and its domestic consolidated subsidiaries is provided at an amount based on historical experience of bad debts for ordinary receivables plus an estimate of specific bad debts from customers experiencing financial difficulties.

An allowance for doubtful accounts of the Company's overseas consolidated subsidiaries is provided based principally on estimates of specific bad debts.

#### (e) Inventories

Inventories of the Company and its domestic consolidated subsidiaries are stated principally at the lower of cost determined primarily by the moving average method or net selling value. Inventories of the overseas consolidated subsidiaries are stated principally at the lower of cost or market, with cost determined primarily by the first-in, first-out method.

#### (f) Investment securities

Securities are classified into three categories: trading securities, held-to-maturity debt securities and other securities. Trading securities, consisting of debt and marketable equity securities, are carried at fair value. Gains and losses, both realized and unrealized, are credited or charged to income. Held-to-maturity debt securities are carried at amortized cost. Marketable securities classified as other securities are carried at fair value with any change in unrealized holding gain or loss, net of the applicable income taxes, reported as a separate component of accumulated other comprehensive income (loss). Nonmarketable securities classified as other securities are carried at cost. Cost of securities sold is determined by the moving average method.

#### (g) Depreciation of property, plant and equipment (other than leased assets)

Depreciation of property, plant and equipment of the Company and its domestic consolidated subsidiaries is calculated principally by the declining balance method based on the estimated useful life of the asset and the residual value determined by the Company and each domestic consolidated subsidiary.

Depreciation of property, plant and equipment of the overseas consolidated subsidiaries is calculated principally by the straight-line method based on the estimated useful life of the asset and the residual value determined by each subsidiary.

Estimated useful lives of property, plant and equipment are generally 3 to 75 years for building and structures and 3 to 22 years for machinery and equipment.

Significant renewals and additions are capitalized at cost. Maintenance and repairs are charged to income as incurred.

#### (h) Intangible assets included in other assets (other than leased assets)

Amortization of intangible assets is calculated by the straight-line method. Capitalized computer software intended for internal use is amortized over its estimated useful life of five years.

#### (i) Leases

Leased assets under finance leases are depreciated to their residual value of zero by the straight-line method using the contract term as the useful life.

#### (j) Goodwill

Amortization of goodwill is calculated by the straight-line method over 5 years.

#### (k) Accrued bonuses for employees

Accrued bonuses for employees of the Company and its domestic consolidated subsidiaries are provided for the estimated amount of bonuses to be paid in the following year attributable to the current fiscal year.

**(l) Accrued bonuses for directors and audit & supervisory board members**  
Accrued bonuses for directors and audit & supervisory board members of the Company are provided at the estimated amount of bonuses to be paid in the following year attributable to the current fiscal year.

**(m) Provision for business structure reform expenses**  
Accrued expenses for business structure reform expenses are provided for the current portion of the estimated amount to be occurred in the future.

**(n) Retirement benefits for employees**  
Liability for retirement benefits for employees of certain consolidated subsidiaries is provided principally at an amount based on the retirement benefit obligation.

The retirement benefit obligation of certain consolidated subsidiaries is attributed to each year on a straight-line basis over the estimated remaining years of service of eligible employees. Prior service cost and actuarial gain or loss incurred at certain consolidated subsidiaries are credited or charged to income in the year in which the gain or loss is recognized.

Certain consolidated subsidiaries have adopted a simplified method for the retirement benefits calculation. Under this simplified method, liability for retirement benefits is stated at the amount which would be required to be paid if all eligible employees voluntarily terminated their employment at the balance sheet date.

**(o) Provision for share based compensation**  
A provision is recognized for the estimated share based compensation for directors, etc., to be incurred in the future based on the planned share based compensation.

**(p) Income taxes**  
Deferred tax assets and liabilities have been recognized in the accompanying consolidated financial statements with respect to the differences between the amounts recorded for financial reporting purposes and the tax bases of the assets and liabilities and were measured using the enacted tax rates and laws which will be in effect when the differences are expected to reverse.

### 3. Standards and Guidance Not Yet Adopted

**(a) Recoverability of deferred tax assets**  
The following guidance was issued but not yet adopted.

- “Implementation Guidance on Tax Effect Accounting” (ASBJ Guidance No. 28, February 16, 2018 (hereinafter, “Guidance No. 28”))
- “Implementation Guidance on Recoverability of Deferred Tax Assets” (ASBJ Guidance No. 26 (revised 2018), February 16, 2018 (hereinafter, “Guidance No. 26”))

(Overview)

The above guidance was revised in regard to the treatments for taxable temporary differences for investments in subsidiaries within the context of the nonconsolidated financial statements, and to clarify the treatments in determining recoverability of deferred tax assets in a company which was categorized as ‘Type 1’ according to the guidance.

(Effective date)

Effective from the beginning of the fiscal year ended March 31, 2019.

(Effects of the application of the standards)

The Company and its consolidated domestic subsidiaries are in the process of determining the effects of these new standards on the consolidated financial statements

**(b) Revenue Recognition**  
The following standard and guidance were issued but not yet adopted.

**(q) Deferred assets**  
Bond issuance costs and share issuance costs are charged to expense as incurred.

**(r) Research and development costs**  
Research and development costs are charged to expense as incurred.

**(s) Revenues and related costs**  
Revenues and the related costs and expenses, except for those from construction contracts, are generally recognized on sales of products at the time of shipment. The Company recognizes revenue by applying the percentage-of-completion method for construction projects for which the outcome of the construction activity is deemed certain at the end of the reporting period. To estimate the progress of such construction projects, the Company measures the percentage of completion by comparing costs incurred to date with the most recent estimate of total costs required to complete the project (cost to cost basis). For other construction projects for which the outcome cannot be reliably measured, the completed contract method is applied.

**(t) Derivatives**  
Derivative positions are carried at fair value with any changes in unrealized gain or loss charged or credited to income, except for those which meet the criteria for deferral hedge accounting under which unrealized gain or loss is deferred and reported as deferred gain or loss on hedges in a separate component of accumulated other comprehensive income (loss).

**(u) Distribution of retained earnings**  
Under the Corporation Law of Japan (the “Law”), the distribution of retained earnings with respect to a given fiscal year is made by resolution at a meeting of the Board of Directors of the Company held subsequent to the close of the fiscal year. The accounts for that fiscal year do not, therefore, reflect such distributions. (Refer to Note 24.)

- “Accounting Standard for Revenue Recognition” (ASBJ Statement No. 29, March 30, 2018)
- “Implementation Guidance on Accounting Standard for Revenue Recognition” (ASBJ Guidance No. 30, March 30, 2018)

(Overview)

The above standard and guidance provide comprehensive principles for revenue recognition. Under the standard and guidance, revenue is recognized by applying the following 5 steps:

- Step 1: Identify contract(s) with customers.
- Step 2: Identify the performance obligations in the contract.
- Step 3: Determine the transaction price.
- Step 4: Allocate the transaction price to the performance obligation in the contract.
- Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation.

(Effective date)

Effective from the beginning of the fiscal year ended March 31, 2022.

(Effects of the application of the standards)

The Company and its consolidated domestic subsidiaries are in the process of determining the effects of these new standards on the consolidated financial statements.

### 4. Additional information

**(a) Share based compensation plan for directors**  
The board meeting of the company held on April 27, 2017 resolved to introduce a share-based compensation plan for directors (excluding outside directors and directors who are members of the audit and supervisory committee) and managing officers (hereinafter “directors, etc.” in this section) and introduced the plan.

(Outline of the plan)

The plan is a share-based compensation plan in which the Company will grant points to directors and distribute to them the number of shares of the Company equivalent to the cumulative number of points granted to them.

(The Company’s own stock in the trust)  
The Company own stock in the possession of the trust is recorded as treasury stock under net assets at book value. The book value and number of shares of treasury stock were ¥360 million (\$3,387 thousand) and 186 thousands shares as of the year ended March 31, 2018.

(Scope of those eligible to receive beneficiary rights for the trust and other rights)

Directors (excluding outside directors and directors who are members of the audit and supervisory committee) and managing officers.

# Notes to Consolidated Financial Statements (continued)

## 5. U.S. Dollar Amounts

The U.S. dollar amounts in the accompanying consolidated financial statements have been translated from yen solely for convenience and as a matter of arithmetic computation only at a rate of ¥106.25 to U.S.\$1.00, the rate of exchange

prevailing on March 31, 2018. This translation should not be construed as a representation that the yen amounts have been, could have been or could in the future be converted into U.S. dollars at this or any other rate of exchange.

## 6. Financial Instruments

### Status of financial instruments

The Company and its consolidated subsidiaries (collectively, the "Group") raise funds for capital expenditures principally through the issuance of bonds and loans from banks. The Group manages temporary cash surpluses through highly liquid financial assets. The Group raises short-term capital through loans from banks, and utilizes derivative financial instruments to reduce the risks discussed below and does not enter into derivative transactions for speculative purposes.

Notes and accounts receivable-trade, are exposed to credit risk in relation to customers. In addition, the Group is exposed to foreign currency exchange risk arising from trade receivables denominated in foreign currencies. Short-term investments and investment securities are exposed to market risk. These securities consist mainly of shares of companies with which the Group has business relationships and debt securities through which the Group manages temporary cash surpluses.

Substantially all notes and accounts payable have payment due dates within one year. In addition, the Group is exposed to foreign currency exchange risk arising from those trade payables denominated in foreign currencies.

The Group conducts various financing activities to acquire the funds necessary for working capital investments in property, plant and equipment, etc. Borrowings and bonds with floating interest rates as a part of the financing are exposed to the risk of interest rate fluctuation.

Regarding derivative transactions, the Group enters into forward foreign exchange contracts to reduce the foreign currency exchange risk arising from the receivables and payables denominated in foreign currencies.

In accordance with the internal policies of the Group for managing credit risk (risk of nonperformance by any of the counterparties) arising from trade receivables, the Group monitors the creditworthiness of customers and takes prompt action on outstanding balances in order to mitigate the credit risks. In addition, the Group only acquires held-to-maturity debt securities with high credit ratings.

For trade receivables and payables denominated in foreign currencies, the Company identifies the foreign currency exchange risk for each currency on a

monthly basis and enters into forward foreign exchange contracts to hedge such risk.

In order to mitigate the unfavorable impact caused by foreign currency exchange fluctuations on accounts receivable derived from forecasted export sales transactions, the Company enters into forward foreign exchange contracts to the extent it is probable that those forecasted export sales take place.

For investment securities, the Group periodically reviews market prices and the financial position of the issuers who are business counterparties of the Group and evaluates whether securities other than those classified as held-to-maturity debt securities should be maintained taking into account their fair values and relationships with the counterparty companies.

Derivative transactions are entered into by the division in charge of derivative transactions with the approval from the authorized officers in accordance with the internal policies, which set forth the delegation of authority and the maximum upper limit on positions.

In order to manage liquidity risk (the risk that the Group may not be able to meet its obligations as scheduled) division responsible prepares and updates its cash flow plans on a timely basis based on reports from each division.

The fair value of financial instruments is based on their quoted market price, if available. When there is no quoted market price available, fair value is reasonably estimated. Since various assumptions and factors are reflected in estimating the fair value, different assumptions and factors could result in a different fair value. In addition, the notional amounts of derivatives in Note 22, "Derivatives" are not necessarily indicative of the actual market risk involved in the derivative transactions themselves.

### Estimated Fair Value of Financial Instruments

Carrying value of financial instruments on the consolidated balance sheet and estimated fair value at March 31, 2018 and 2017 are summarized in the table below. Financial instruments for which it is extremely difficult to determine the fair value are not included in the following table.

	2018		
	Carrying value	Estimated fair value	Difference
		(Millions of yen)	
<b>Assets:</b>			
Cash and deposits .....	¥117,760	¥117,760	¥—
Notes and accounts receivable-trade .....	62,236	62,236	—
Investment securities .....	51,198	51,198	—
<b>Total assets .....</b>	<b>¥231,194</b>	<b>¥231,194</b>	<b>¥—</b>
<b>Liabilities:</b>			
Short-term borrowings .....	¥ 20,000	¥ 20,000	¥—
Notes and accounts payable-trade .....	37,347	37,347	—
Notes and accounts payable-other .....	15,718	15,718	—
Long-term debt, including current portion of long-term debt .....	50,006	50,001	(5)
<b>Total liabilities .....</b>	<b>123,071</b>	<b>123,066</b>	<b>(5)</b>
Derivative transactions (*) .....	¥ 281	¥ 281	¥—
		(Millions of yen)	
<b>Assets:</b>			
Cash and deposits .....	¥104,182	¥104,182	¥—
Notes and accounts receivable-trade .....	56,610	56,610	—
Investment securities .....	42,454	42,454	—
<b>Total assets .....</b>	<b>¥203,246</b>	<b>¥203,246</b>	<b>¥—</b>
<b>Liabilities:</b>			
Short-term borrowings .....	¥ 20,000	¥ 20,000	¥—
Notes and accounts payable-trade .....	29,264	29,264	—
Notes and accounts payable-other .....	10,332	10,332	—
Long-term debt, including current portion of long-term debt .....	50,063	50,120	57
<b>Total liabilities .....</b>	<b>109,659</b>	<b>109,716</b>	<b>57</b>
Derivative transactions (*) .....	¥ 1,557	¥ 1,557	¥—



	2018		
	Carrying value	Estimated fair value	Difference
	(Thousands of U.S. dollars)		
<b>Assets:</b>			
Cash and deposits .....	\$1,108,331	\$1,108,331	\$ —
Notes and accounts receivable-trade .....	585,748	585,748	—
Investment securities .....	481,860	481,860	—
<b>Total assets .....</b>	<b>\$2,175,939</b>	<b>\$2,175,939</b>	<b>\$ —</b>
<b>Liabilities:</b>			
Short-term borrowings .....	\$ 188,235	\$ 188,235	\$ —
Notes and accounts payable-trade .....	351,506	351,506	—
Notes and accounts payable-other .....	147,936	147,936	—
Long-term debt, including current portion of long-term debt .....	470,642	470,590	(52)
<b>Total liabilities .....</b>	<b>1,158,319</b>	<b>1,158,267</b>	<b>(52)</b>
<b>Derivative transactions (*) .....</b>	<b>\$ 2,649</b>	<b>\$ 2,649</b>	<b>\$ —</b>

\* Assets and liabilities arising from derivatives are presented at net value. The amount in parentheses represents a net liability position.

Prior to March 31, 2017, long-term receivables were disclosed separately. During the year ended March 31, 2018, the amount decreased significantly. However, the amount was not disclosed for the year ended March 31, 2018 or 2017. The carrying amount and net value of long-term receivables for the year ended March 31, 2018 and 2017 were ¥32 million and ¥31 million, respectively.

Methods to determine the estimated fair value of financial instruments are as follows:

The carrying value of cash and deposits, notes and accounts receivable-trade approximates fair value because these items are settled in a short period of time.

Regarding investment securities, the fair value of shares is based on quoted market prices. The fair value of debt securities is based on either quoted market prices or prices provided by financial institutions.

For information on securities classified by the purpose for which they are held, refer to Note 7, "Investment Securities."

The fair value of long-term loans receivable classified by the maturity and current credit risk of each loan is based on the present value of the total principal and interest discounted by the interest rate determined taking into account

that of Japanese government bonds and the credit spreads of each loan. The fair value in the table above includes the current portion of long-term loans receivable.

The carrying value of short-term borrowings and notes and accounts payable-trade, trade and other approximates fair value because these items are settled in a short period of time.

The fair value of long-term debt is based on the present value of the total principal and interest discounted by the interest rate to be applied if similar new borrowings were entered into. The fair value in the table above includes the current portion of long-term debt.

Regarding fair value of derivatives, refer to Note 22, "Derivatives."

The carrying value of financial instruments for which it was extremely difficult to determine the fair value at March 31, 2018 and 2017 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Unlisted equity securities .....	¥757	¥1,652	\$7,125

The redemption schedule for monetary assets at March 31, 2018 and 2017 was as follows:

	2018			
	Within 1 year	Over 1 year within 5 years	Over 5 years within 10 years	Over 10 years
	(Millions of yen)			
Cash and deposits .....	¥117,760	¥—	¥—	¥—
Notes and accounts receivable-trade .....	62,236	—	—	—
<b>Total (*) .....</b>	<b>¥179,996</b>	<b>¥—</b>	<b>¥—</b>	<b>¥—</b>
	2017			
	Within 1 year	Over 1 year within 5 years	Over 5 years within 10 years	Over 10 years
	(Millions of yen)			
Cash and deposits .....	¥104,182	¥—	¥—	¥—
Notes and accounts receivable-trade .....	56,610	—	—	—
<b>Total (*) .....</b>	<b>¥160,792</b>	<b>¥—</b>	<b>¥—</b>	<b>¥—</b>
	2018			
	Within 1 year	Over 1 year within 5 years	Over 5 years within 10 years	Over 10 years
	(Thousands of U.S. dollars)			
Cash and deposits .....	\$1,108,331	\$—	\$—	\$—
Notes and accounts receivable-trade .....	585,748	—	—	—
<b>Total (*) .....</b>	<b>\$1,694,079</b>	<b>\$—</b>	<b>\$—</b>	<b>\$—</b>

\* Prior to March 31, 2017, long-term receivables were disclosed separately. During the year ended March 31, 2018, the amount decreased significantly. However, the amount was not disclosed for the year ended March 31, 2018 or 2017.

# Notes to Consolidated Financial Statements (continued)

## 7. Investment Securities

(a) Marketable securities classified as other securities at March 31, 2018 and 2017 are summarized as follows:

	2018		
	Acquisition cost	Market value reflected in the balance sheet (Millions of yen)	Difference
Securities whose market value reflected in the balance sheet exceeds their acquisition cost:			
Equity securities .....	¥19,230	¥48,461	¥29,231
Other .....	—	—	—
Subtotal .....	19,230	48,461	29,231
Securities whose market value reflected in the balance sheet does not exceed their acquisition cost:			
Equity securities .....	3,333	2,737	(596)
Other .....	—	—	—
Subtotal .....	3,333	2,737	(596)
Total .....	¥22,563	¥51,198	¥28,635

	2017		
	Acquisition cost	Market value reflected in the balance sheet (Millions of yen)	Difference
Securities whose market value reflected in the balance sheet exceeds their acquisition cost:			
Equity securities .....	¥18,746	¥41,232	¥22,486
Other .....	—	—	—
Subtotal .....	18,746	41,232	22,486
Securities whose market value reflected in the balance sheet does not exceed their acquisition cost:			
Equity securities .....	1,333	1,222	(111)
Other .....	—	—	—
Subtotal .....	1,333	1,222	(111)
Total .....	¥20,079	¥42,454	¥22,375

	2018		
	Acquisition cost	Market value reflected in the balance sheet (Thousands of U.S. dollars)	Difference
Securities whose market value reflected in the balance sheet exceeds their acquisition cost:			
Equity securities .....	\$180,985	\$456,104	\$275,119
Other .....	—	—	—
Subtotal .....	180,985	456,104	275,119
Securities whose market value reflected in the balance sheet does not exceed their acquisition cost:			
Equity securities .....	31,371	25,756	(5,615)
Other .....	—	—	—
Subtotal .....	31,371	25,756	(5,615)
Total .....	\$212,356	\$481,860	\$269,504

Unlisted equity securities (recorded in the accompanying consolidated balance sheet in the amounts of ¥757 million (\$7,125 thousand) and ¥1,652 million at March 31, 2018 and 2017, respectively) are not included in the table above because there were no quoted market prices available and it was extremely difficult to determine the fair value.

Loss on devaluation of investment securities are recorded for the securities whose market value represents a substantial decline of 50% or more and for

those which have declined within a range of 30% or more but less than 50% if the decline is deemed to be irrecoverable.

Loss on the devaluation of investment securities are recorded due to other-than-temporary impairment in the amount of ¥2 million (\$23 thousand) for the year ended March 31, 2018.

(b) The proceeds from sales of and gross realized gain and loss on other securities for the years ended March 31, 2018 and 2017 are summarized as follows:

	2018		
	Proceeds	Gross realized gain (Millions of yen)	Gross realized loss
Equity securities.....	¥166	¥60	¥ 6
Other.....	—	—	—
Total .....	¥166	¥60	¥ 6

	2017		
	Proceeds	Gross realized gain (Millions of yen)	Gross realized loss
Equity securities.....	¥ 2	¥—	¥ 1
Other.....	—	—	—
Total.....	¥ 2	¥—	¥ 1

	2018		
	Proceeds	Gross realized gain (Thousands of U.S. dollars)	Gross realized loss
Equity securities.....	\$1,561	\$567	\$55
Other.....	—	—	—
Total.....	\$1,561	\$567	\$55

### 8. Short-Term Borrowings and Long-Term Debt

Short-term borrowings and the current portion of long-term debt at March 31, 2018 and 2017 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Short-term borrowings.....	¥20,000	¥20,000	\$188,235
Current portion of long-term debt.....	6	57	54
	¥20,006	¥20,057	\$188,289

The weighted average annual interest rates applicable to short-term borrowings outstanding at March 31, 2018 and 2017 were 0.15% and 0.12%, respectively.

Long-term debt at March 31, 2018 and 2017 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Debt without collateral:			
Loans from banks due April 2017 through October 2020 at average interest rates of 0.20% and 0.20% per annum at March 31, 2018 and 2017, respectively.....	¥10,006	¥10,063	\$ 94,172
Bonds in yen due April 2019 at rate of 0.294% .....	25,000	25,000	235,294
Bonds in yen due August 2021 at rate of 0.120% .....	15,000	15,000	141,176
Subtotal .....	¥50,006	¥50,063	\$470,642
Less current portion.....	(6)	(57)	(54)
	¥50,000	¥50,006	\$470,588

The aggregate annual maturities of long-term debt subsequent to March 31, 2018 are summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2019 .....	¥ 6	\$ 54
2020 .....	25,000	235,294
2021 .....	10,000	94,118
2022 .....	15,000	141,176
2023 and thereafter.....	—	—
	¥50,006	\$470,642

### 9. Assets Pledged as Collateral

Assets pledged as collateral for accounts payable of ¥61 million (\$571 thousand) at March 31, 2018 were as follows:

	Millions of yen	Thousands of U.S. dollars
Investment securities .....	¥13	\$123

### 10. Lease Obligations

The aggregate annual maturities of lease obligations subsequent to March 31, 2018 are summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2019 .....	¥109	\$1,023
2020 .....	42	400
2021 .....	18	171
2022 .....	12	110
2023 and thereafter.....	7	62
	¥188	\$1,766

# Notes to Consolidated Financial Statements (continued)

## 11. Retirement Benefits

The Company and certain consolidated subsidiaries have defined contribution plans for retirement benefits. Other consolidated subsidiaries have defined benefit plans, including lump-sum payment plans, covering substantially all

employees who are entitled to lump-sum or annuity payments the amounts of which are determined by reference to their basic rates of pay, length of service and the conditions under which termination occurs.

Certain consolidated subsidiaries calculate the liability for retirement benefits based on the simplified method.

The changes in the retirement benefit obligation for the years ended March 31, 2018 and 2017 are summarized as follows (excluding retirement benefit obligations based on the simplified method):

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Retirement benefit obligation at the beginning of the year .....	¥460	¥457	\$4,333
Service cost.....	26	22	240
Interest cost .....	9	9	87
Foreign currency translation difference.....	42	(26)	394
Actuarial differences .....	(40)	(2)	(373)
Retirement benefit obligation at the end of the year .....	¥497	¥460	\$4,681

The changes in the retirement benefit obligation under the simplified method for the years ended March 31, 2018 and 2017 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Retirement benefit obligation at the beginning of the year .....	¥ 9	¥ 8	\$ 81
Service cost.....	6	1	52
Benefit paid .....	(5)	(0)	(40)
Change in scope of consolidation .....	18	—	168
Retirement benefit obligation at the end of the year .....	¥28	¥ 9	\$261

The balance of retirement benefit obligation and plan assets at fair value at March 31, 2018 and 2017 and liabilities recognized in the consolidated balance sheet at March 31, 2018 and 2017 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Unfunded retirement benefit obligation* .....	¥525	¥469	\$4,942
Net amount of liabilities and assets recognized in consolidated balance sheet.....	525	469	4,942
Liability for retirement benefits.....	525	469	4,942
Asset for retirement benefits .....	—	—	—
Net amount of liabilities and assets recognized in consolidated balance sheet.....	¥525	¥469	\$4,942

\* Certain domestic consolidated subsidiaries have calculated their retirement benefit obligation based on the simplified method.

The components of retirement benefit expenses for the years ended March 31, 2018 and 2017 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Service cost.....	¥ 32	¥23	\$ 292
Interest cost .....	9	9	87
Amortization of actuarial loss .....	(40)	(2)	(373)
Retirement benefit expenses.....	¥ 1	¥30	\$ 6

The actuarial assumptions used in accounting for the above plans were as follows:

	2018	2017
Discount rates .....	2.1-2.3%	1.9-2.1%
Rate of salary increase.....	1.7-4.2%	1.6-4.6%

The required contributions to defined contribution plans of the Company and certain consolidated subsidiaries were ¥1,543 million (\$14,524 thousand) and ¥1,534 million for the years ended March 31, 2018 and 2017, respectively.

## 12. Income Taxes

Income taxes in Japan applicable to the Company and its domestic consolidated subsidiaries consist of corporation tax, inhabitants taxes and enterprise taxes, which, in the aggregate, resulted in a statutory tax rate of approximately

36.1% for the year ended March 31, 2018. Income taxes of the overseas consolidated subsidiaries are based generally on the tax rate applicable in their respective countries of incorporation.

The effective tax rate for the year ended March 31, 2018 differed from the statutory tax rate for the following reasons:

	2018	2017
Statutory tax rates .....	<b>30.1%</b>	—%
Effect of:		
Tax effect of retained earnings in overseas consolidated subsidiaries.....	<b>3.8</b>	—
Permanently nondeductible expenses .....	<b>0.4</b>	—
Difference between statutory tax rate in Japan and income tax rates applied at overseas consolidated subsidiaries .....	<b>(5.6)</b>	—
Tax credits.....	<b>(5.4)</b>	—
Valuation allowance.....	<b>10.6</b>	—
Permanently nontaxable dividends received .....	<b>(0.3)</b>	—
Other, net.....	<b>2.5</b>	—
Effective tax rates .....	<b>36.1%</b>	—%

Due to the recording of loss before income taxes for the year ended March 31, 2017, the reconciliation of the statutory and effective tax rates for the year ended March 31, 2017 is not disclosed.

The significant components of deferred tax assets and liabilities at March 31, 2018 and 2017 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Deferred tax assets:			
Depreciation.....	<b>¥ 4,483</b>	¥ 4,600	<b>\$ 42,193</b>
Tax loss carryforwards.....	<b>624</b>	606	<b>5,870</b>
Accrued bonuses.....	<b>1,169</b>	1,012	<b>11,007</b>
Intercompany profit on sales of property, plant and equipment.....	<b>543</b>	572	<b>5,115</b>
Loss on devaluation of investment securities.....	<b>636</b>	646	<b>5,982</b>
Loss on devaluation of inventories.....	<b>355</b>	349	<b>3,344</b>
Loss on impairment of fixed assets .....	<b>759</b>	843	<b>7,142</b>
Other .....	<b>2,027</b>	1,343	<b>19,074</b>
Gross deferred tax assets.....	<b>10,596</b>	9,971	<b>99,727</b>
Less valuation allowance .....	<b>(3,373)</b>	(3,680)	<b>(31,742)</b>
Total deferred tax assets.....	<b>7,223</b>	6,291	<b>67,985</b>
Deferred tax liabilities:			
Reserve for depreciation for tax purposes .....	<b>(38)</b>	(40)	<b>(352)</b>
Tax effect of retained earnings in overseas consolidated subsidiaries.....	<b>(540)</b>	(754)	<b>(5,086)</b>
Net unrealized gain on land revaluation resulting from inclusion of a subsidiary in consolidation.....	<b>(1,154)</b>	(741)	<b>(10,861)</b>
Net unrealized holding gain on other securities.....	<b>(8,123)</b>	(6,148)	<b>(76,452)</b>
Deferred loss on hedges .....	<b>(33)</b>	(275)	<b>(309)</b>
Total deferred tax liabilities .....	<b>(9,888)</b>	(7,958)	<b>(93,060)</b>
Net deferred tax liabilities.....	<b>¥ (2,665)</b>	¥(1,667)	<b>\$(25,075)</b>

Deferred tax assets and liabilities for the years ended March 31, 2018 and 2017 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Deferred tax assets:			
Current.....	<b>¥ 2,389</b>	¥ 1,918	<b>\$ 22,487</b>
Noncurrent.....	<b>1,124</b>	734	<b>10,581</b>
Deferred tax liabilities:			
Current.....	<b>(11)</b>	(10)	<b>(104)</b>
Noncurrent.....	<b>(6,167)</b>	(4,309)	<b>(58,039)</b>

# Notes to Consolidated Financial Statements (continued)

## 13. Shareholders' Equity

The Japanese Laws provide that an amount equal to 10% of the amount to be disbursed as distributions of capital surplus (other than the capital reserve) and retained earnings (other than the legal reserve) be transferred to the capital reserve and the legal reserve, respectively, until the sum of the capital reserve and the legal reserve equals 25% of the capital stock account. Such distributions can be made at any time by resolution of the shareholders or by the Board of Directors if certain conditions are met.

The additional paid-in capital and legal earnings reserve have been included in capital surplus and retained earnings, respectively, in the accompanying consolidated balance sheet. Under Japanese Laws, legal earnings reserve and additional paid-in capital can be used to eliminate or reduce a deficit by a resolution of the shareholders' meeting. Additional paid-in capital and legal earnings reserve may not be distributed as dividends. All additional paid-

in capital and all legal earnings reserve may be transferred to other capital surplus and retained earnings, respectively, which are potentially available for dividends. The legal reserve of the Company included in retained earnings at March 31, 2018 and 2017 amounted to ¥3,548 million (\$33,398 thousand) and ¥3,548 million, respectively.

Japanese Laws further provide that, in general, an amount equal to the entire amount of paid-in capital for the issuance of new shares be transferred to the common stock account. However, an amount equal to or less than 50% of the entire amount may be transferred to the capital surplus account.

The maximum amount that the Company can distribute as dividends is calculated based on the nonconsolidated financial statements of the Company in accordance with Japanese laws and regulations.

### Treasury stock

Movements in treasury stock during the years ended March 31, 2018 and 2017 are summarized as follows:

	Number of shares			
	March 31, 2017	Increase	Decrease	March 31, 2018
2018				
Treasury stock:				
Common stock .....	7,780,695	187,489	6,826,114	1,142,070
2017				
Treasury stock:				
Common stock .....	7,778,279	2,620	204	7,780,695

The number of shares of treasury stock at March 31, 2018 includes 186 thousand shares entrusted for the share based compensation for directors held by the trust account of Japan Trustee Services Bank, Ltd.

## 14. Loss on Impairment of Fixed Assets

Loss on impairment of fixed assets for the year ended March 31, 2018 is summarized as follows:

2018				
Location	Classification	Description	Millions of yen	Thousands of U.S. dollars
Ogaki City, Gifu Prefecture	Machinery and equipment	Idle	¥ 12	\$116
Ogaki City, Gifu Prefecture	Buildings and structures	Idle	7	66
Ibigawa Town, Gifu Prefecture	Construction in progress	Idle	6	55
Ogaki City, Gifu Prefecture	Machinery and equipment	Idle	0	1
Takashima City, Shiga Prefecture	Others	Idle	1	5
Batangas, Republic of Philippines	Machinery and equipment	Idle	23	214
Courtenay, France	Machinery and equipment	Idle	100	945
Courtenay, France	Construction in progress	Idle	34	319
Frauental, Austria	Construction in progress	Idle	61	576

In general, fixed assets are grouped based on business segment. Although there are no indications of impairment in the business segments, indications of impairment of idle assets is individually determined. The carrying values of idle assets have been reduced to recoverable amounts, and the decrease in the

amount of ¥244 million (\$2,297 thousand) for the year ended March 31, 2018 was recorded as impairment loss. The recoverable amounts were measured at estimated net selling value, and the carrying values of idle assets were reduced to ¥1 (\$0.01) for the year ended March 31, 2018.

Loss on impairment of fixed assets for the years ended March 31, 2017 is summarized as follows:

2017

Location	Classification	Description	Millions of yen
Ogaki City, Gifu Prefecture	Buildings and structures	Idle	¥ 3,480
Ogaki City, Gifu Prefecture	Construction in progress	Idle	434
Godō Town, Gifu Prefecture	Buildings and structures	Idle	517
Ibigawa Town, Gifu Prefecture	Buildings and structures	Idle	4
Batangas, Republic of Philippines	Machinery and equipment	Idle	2,563
Batangas, Republic of Philippines	Construction in progress	Idle	611
Batangas, Republic of Philippines	Others	Idle	58
Courtenay, France	Machinery and equipment	Production facilities	1,253
Penang, Malaysia	Buildings and structures	Production facilities	7,758
Penang, Malaysia	Machinery and equipment	Production facilities	21,555
Penang, Malaysia	Construction in Progress	Production facilities	8,266
Penang, Malaysia	Others	Production facilities	530
Pohang, South Korea	Construction in Progress	Idle	102

In general, fixed assets are grouped based on business segment. The production facilities which can not contribute to the revenue initially expected due to reconsideration of the production system and restructuring of the business and the carrying values of the idle assets which are not anticipated to be utilized in the future due to reconsideration of production system have been reduced to their respective recoverable amounts. The decrease in the amount

of ¥47,131 million for the year ended March 31, 2017 was recorded as impairment loss of ¥102 million and business structure reform expense of ¥47,029 million. The carrying values of the buildings have been reduced to values based on real estate appraisal reports and the carrying amounts of other assets have been reduced to their respective recoverable amounts.

## 15. Business Structure Reform Expenses

The details of business structure reform expenses for the year ended March 31, 2017 were as follows:

Item	Millions of yen
Impairment loss on fixed assets for the electric business reform .....	¥38,108
Impairment loss on fixed assets for the ceramic business reform .....	1,254
Impairment loss on unutilized assets in corporate assets .....	7,667
Evaluation loss on inventories .....	2,548
Reconciliation expense .....	12,412

## 16. Land Revaluation

At March 31, 2002, a consolidated subsidiary revalued its land held for business use in accordance with the "Land Revaluation Law" and the amended "Land Revaluation Law". As a result, the consolidated subsidiary recognized a gain on land revaluation and recorded a deferred tax liability related to this gain. The resulting gain, net of the relevant tax effect, has been accounted for under accumulated other comprehensive income (loss) as surplus arising from

land revaluation. The method followed for this land revaluation was determined in accordance with the "Land Valuation Tax Law" as stipulated in the "Enforcement Act Concerning Land Revaluation" and other regulations. As of March 31, 2018, the fair value of this land was ¥278 million (\$2,616 thousand) less than its carrying value after revaluation.

## 17. Selling, General and Administrative Expenses

The components of selling, general and administrative expenses for the years ended March 31, 2018 and 2017 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Salaries .....	¥10,417	¥11,208	\$ 98,040
Provision for employees' bonuses.....	1,069	1,055	10,061
Provision for directors' bonuses.....	90	—	847
Provision for employees' retirement benefit expenses .....	209	192	1,966
Provision for share compensation expenses .....	71	—	665
Research and development costs.....	15,369	14,112	144,648
Other .....	21,960	22,110	206,689
Total .....	¥49,185	¥48,677	\$462,916

# Notes to Consolidated Financial Statements (continued)

## 18. Other Income (Expenses)

The components of "Other, net" in "Other income (expenses)" for the years ended March 31, 2018 and 2017 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Loss on sales of investment securities .....	¥ (6)	¥ (1)	\$ (55)
Gain (loss) on sales and disposals of property, plant and equipment, net .....	(1,609)	(294)	(15,147)
Loss on impairment of fixed assets .....	(244)	(102)	(2,297)
Foreign exchange gain (loss), net .....	(476)	(1,714)	(4,482)
Share of profit (loss) of entities accounted for using equity method, net .....	3	—	32
Share issuance cost .....	(80)	—	(753)
Loss on disaster .....	(180)	—	(1,690)
Depreciation of inactive fixed assets .....	—	(4,533)	—
Business structure reform expenses .....	—	(61,989)	—
Reversal of provision for business structure reform expenses .....	2,877	—	27,079
Other, net .....	260	(651)	2,443
<b>Total .....</b>	<b>¥ 545</b>	<b>¥(69,284)</b>	<b>\$ 5,130</b>

## 19. Amounts Per Share

	Yen		U.S. dollars
	2018	2017	2018
Basic profit (loss) attributable to owners of parent .....	¥ 83.21	¥ (472.26)	\$ 0.78
Net assets .....	2,012.60	1,927.53	18.94
Cash dividends applicable to the year .....	35.00	35.00	0.33

Basic profit (loss) attributable to the owners of the parent per share for the years ended March 31, 2018 and 2017 was computed based on the profit (loss) attributable to the shareholders of common stock and the weighted average number of shares of common stock outstanding during the year. Diluted profit attributable to the owners of the parent per share for the years ended March 31, 2018 and 2017 is not disclosed as the company had no potentially dilutive common shares for the years ended March 31, 2018 and 2017. Amounts per share of net assets were computed based on the number of shares of common stock outstanding at the year end.

Cash dividends per share represent the cash dividends approved by the Board of Directors as applicable to the respective years together with the interim cash dividends paid.

The number of shares of treasury stock deducted from the average numbers of shares outstanding for the calculation of per share information for the year ended March 31, 2018, includes 186 thousands shares of common stock held by a trust account of Japan Trustee Services Bank, Ltd. (entrusted for share compensation for directors, etc.)

Financial data for the computation of basic profit (loss) per share attributable to the owners of the parent for the years ended March 31, 2018 and 2017 in the table above is summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Profit (loss) attributable to owners of parent .....	¥11,583	¥(62,849)	\$109,021
Thousands of shares			
	2018	2017	
Weighted average number of shares of common stock outstanding during the year .....	139,212	133,081	

Financial data for the computation of net assets per share at March 31, 2018 and 2017 in the above table is summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Total net assets .....	¥286,368	¥260,940	\$2,695,227
Deductions from total net assets:			
Non-controlling interests .....	(5,170)	(4,425)	(48,657)
<b>Total net assets attributable to common stockholders .....</b>	<b>¥281,198</b>	<b>¥256,515</b>	<b>\$2,646,570</b>
Thousands of shares			
	2018	2017	
Number of shares of common stock used in the calculation of net assets per share .....	139,718	133,080	



## 20. Other Comprehensive Income

The following table presents reclassification adjustments and tax effects for other comprehensive income (loss) for the years ended March 31, 2018 and 2017:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Net unrealized holding gain (loss) on securities:			
Amount arising during the year .....	¥ 6,312	¥ 4,995	\$ 59,410
Reclassification adjustments for loss (gain) realized in the statement of income .....	(59)	1	(561)
Before tax effect .....	6,253	4,996	58,849
Tax effect .....	(1,962)	(1,464)	(18,467)
Net unrealized holding gain (loss) on securities .....	4,291	3,532	40,382
Deferred gain on hedges:			
Amount arising during the year .....	110	915	1,033
Reclassification adjustments for (gain) loss realized in the statement of income .....	(915)	(283)	(8,612)
Before tax effect .....	(805)	632	(7,579)
Tax effect .....	242	(190)	2,283
Deferred gain on hedges .....	(563)	442	(5,296)
Surplus arising from land revaluation:			
Tax effect .....	—	—	—
Surplus arising from land revaluation:			
Translation adjustments:			
Amount arising during the year .....	2,572	(7,259)	24,209
Reclassification adjustments for gain realized in the statement of income .....	—	—	—
Translation adjustments .....	2,572	(7,259)	24,209
Total .....	¥ 6,300	¥(3,285)	\$ 59,295

## 21. Supplementary Cash Flow Information

A reconciliation of cash and cash equivalents in the accompanying consolidated statement of cash flows and cash and deposits in the accompanying consolidated balance sheet is presented as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Cash and deposits .....	¥117,760	¥104,182	\$1,108,331
Time deposits with maturities in excess of three months.....	—	(80)	—
Cash and cash equivalents.....	¥117,760	¥104,102	\$1,108,331

## 22. Derivatives

Derivative financial instruments such as forward foreign exchange contracts are utilized by the Company principally in order to manage the risk arising from adverse fluctuation in foreign currency exchange rates. The Company has established a control environment which includes policies and procedures for risk assessment, including an assessment of the effectiveness of hedging, and for the approval, reporting and monitoring of transactions involving derivatives. The Company does not hold or issue derivatives for speculative purposes.

The Company is exposed to certain market risk arising from forward foreign exchange contracts. The Company is also exposed to the risk of credit

loss in the event of nonperformance by any of the counterparties to forward foreign exchange contracts. However, the Company does not anticipate non-performance by any of these counterparties, all of whom are financial institutions with high credit ratings.

Summarized below are the notional amounts and estimated fair value of the derivatives positions outstanding at March 31, 2018 and 2017 for which hedge accounting had not been applied. There were no derivatives with maturities over one year at March 31, 2018 and 2017. The estimated fair value was based on the prices obtained from financial institutions.

	2018		
	Notional amount	Estimated fair value	Unrealized gain
	(Millions of yen)		
Forward foreign exchange contracts:			
Sell:			
U.S. dollars .....	¥14,077	¥141	¥141
Euros .....	4,997	31	31
Total .....	¥19,074	¥172	¥172
	2017		
	Notional amount	Estimated fair value	Unrealized gain
	(Millions of yen)		
Forward foreign exchange contracts:			
Sell:			
U.S. dollars .....	¥13,800	¥546	¥546
Euros .....	4,287	96	96
Total .....	¥18,087	¥642	¥642

# Notes to Consolidated Financial Statements (continued)

	2018		
	Notional amount	Estimated fair value	Unrealized gain
(Thousands of U.S. dollars)			
Forward foreign exchange contracts:			
Sell:			
U.S. dollars.....	\$132,488	\$1,323	\$1,323
Euros.....	47,031	292	292
<b>Total .....</b>	<b>\$179,519</b>	<b>\$1,615</b>	<b>\$1,615</b>

Summarized below are the notional amounts and estimated fair value of the derivative positions outstanding at March 31, 2018 for which hedge accounting had been applied.

There were no derivatives with maturities over one year at March 31, 2018 and 2017. The estimated fair value was based on the prices obtained from financial institutions.

Method of hedge accounting	Transaction	Hedged items	2018	
			Notional amount	Estimated fair value
(Millions of yen)				
Deferral hedge accounting	Forward foreign exchange contracts:	Forecasted transactions denominated in a foreign currency		
	Sell:			
	U.S. dollars		¥ 596	¥ 37
	Euros		3,347	73
	<b>Total</b>		<b>¥3,943</b>	<b>¥110</b>

Method of hedge accounting	Transaction	Hedged items	2017	
			Notional amount	Estimated fair value
(Millions of yen)				
Deferral hedge accounting	Forward foreign exchange contracts:	Forecasted transactions denominated in a foreign currency		
	Sell:			
	U.S. dollars		¥19,882	¥747
	Euros		7,731	168
	<b>Total</b>		<b>¥27,613</b>	<b>¥915</b>

Method of hedge accounting	Transaction	Hedged items	2018	
			Notional amount	Estimated fair value
(Thousands of U.S. dollars)				
Deferral hedge accounting	Forward foreign exchange contracts:	Forecasted transactions denominated in a foreign currency		
	Sell:			
	U.S. dollars		\$ 5,604	\$ 347
	Euros		31,504	687
	<b>Total</b>		<b>\$37,108</b>	<b>\$1,034</b>

## 23. Segment Information

### Overview of reportable segments

The reportable segments of the Group are components for which discrete financial information is available and whose operating results are regularly reviewed by the Company's Board of Directors to make decisions about resource allocation and to assess the business performances of those segments.

The Group classifies the Company and its subsidiaries identified by the respective products and services they provide. Each company plans comprehensive domestic and overseas strategies for its products and conducts related business activities.

Based on the Group's primary business activities, the reportable segments include "Electronics" and "Ceramics." The main products or services of those segments are as follows:

#### Electronics segment:

This reportable segment includes the business of manufacturing and sales of printed wiring boards and package substrates.

#### Ceramics segment:

This reportable segment includes the business of manufacturing and sales of environment-related ceramics products, graphite specialty products, fine ceramics products and ceramics fiber.

### Methods of used to calculate sales, income (loss), assets and other items for the reportable segments

The methods used to account for reportable segments is the same those as described in Note 2, "Summary of Significant Accounting Policies." Segment income is calculated on the basis of operating income in the consolidated statement of income. Intersegment sales are recorded basically at same prices used in transactions with third parties.

A summary of net sales, income (loss), assets and other items by reportable segment for the years ended March 31, 2018 and 2017 is as follows:

Millions of yen							
2018							
	Reportable Segments					Adjustment	Consolidated Financial Statements
	Electronics	Ceramics	Total	Other	Total		
Sales to third parties .....	¥115,573	¥113,425	¥228,998	¥71,406	¥300,404	¥ —	¥300,404
Intersegment sales and transfers .....	5	263	268	7,421	7,689	(7,689)	—
Net sales .....	¥115,578	¥113,688	¥229,266	¥78,827	¥308,093	¥ (7,689)	¥300,404
Segment income .....	¥ 853	¥ 10,526	¥ 11,379	¥ 5,418	¥ 16,797	¥ (95)	¥ 16,702
Segment assets.....	89,294	102,263	191,557	72,326	263,883	174,213	438,096
Depreciation and amortization .....	12,517	9,168	21,685	2,169	23,854	713	24,567
Increase in property, plant and equipment and intangible assets .....	13,254	6,933	20,187	1,402	21,589	1,545	23,134

Millions of yen							
2017							
	Reportable Segments					Adjustment	Consolidated Financial Statements
	Electronics	Ceramics	Total	Other	Total		
Sales to third parties .....	¥99,225	¥101,323	¥200,548	¥65,912	¥266,460	¥ —	¥266,460
Intersegment sales and transfers .....	5	123	128	5,069	5,197	(5,197)	—
Net sales .....	¥99,230	¥101,446	¥200,676	¥70,981	¥271,657	¥ (5,197)	¥266,460
Segment income (loss) .....	¥ (3,649)	¥ 4,322	¥ 673	¥ 6,538	¥ 7,211	¥ (69)	¥ 7,142
Segment assets.....	85,295	94,579	179,874	65,472	245,346	160,437	405,783
Depreciation and amortization .....	19,643	9,920	29,563	2,947	32,510	638	33,148
Increase in property, plant and equipment and intangible assets .....	12,867	6,467	19,334	2,024	21,358	669	22,027

Thousands of U.S. dollars							
2018							
	Reportable Segments					Adjustment	Consolidated Financial Statements
	Electronics	Ceramics	Total	Other	Total		
Sales to third parties .....	\$1,087,748	\$1,067,530	\$2,155,278	\$672,053	\$2,827,331	\$ —	\$2,827,331
Intersegment sales and transfers .....	51	2,475	2,526	69,841	72,367	(72,367)	—
Net sales .....	\$1,087,799	\$1,070,005	\$2,157,804	\$741,894	\$2,899,698	\$ (72,367)	\$2,827,331
Segment income .....	\$ 8,031	\$ 99,067	\$ 107,098	\$ 50,991	\$ 158,089	\$ (892)	\$ 157,197
Segment assets.....	840,419	962,473	1,802,892	680,714	2,483,606	1,639,653	4,123,259
Depreciation and amortization .....	117,806	86,285	204,091	20,416	224,507	6,708	231,215
Increase in property, plant and equipment and intangible assets .....	124,744	65,253	189,997	13,189	203,186	14,545	217,731

Other in the above table includes housing materials, construction, the manufacturing of foamed-resin products, processing of agricultural and marine products, operations of gas stations, software development and network design that were not included in a reportable segment.

The adjustments of segment income in the amount of ¥(95) million (\$892 thousand) and ¥(69) million for the years ended March 31, 2018 and 2017, respectively, are eliminations of intersegment transactions and expenses that can not allocated to business segments.

Segment income is reconciled to operating income in the consolidated statement of income.

The adjustments of segment assets in the amount of ¥174,213 million (\$1,639,653 thousand) and ¥ 160,437 million for the years ended March 31, 2018 and 2017, respectively, are corporate assets that can not allocated to business segments.

The adjustments of depreciation in the amount of ¥713 million (\$6,708 thousand) and ¥638 million for the years ended March 31, 2018 and 2017, respectively, are depreciation from corporate assets that can not allocated to business segments.

The adjustments of increase in property, plant and equipment and intangible assets in the amount of ¥1,545 million (\$14,545 thousand) and ¥669 million for the years ended March 31, 2018 and 2017, respectively, are mainly amounts of corporate assets that can not allocated to business segments.

# Notes to Consolidated Financial Statements (continued)

## Related information

### Geographical information

Net sales to third parties by countries or areas grouped according to geographical classification for the years ended March 31, 2018 and 2017 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Japan .....	¥ 88,940	¥ 82,414	\$ 837,082
Asia (excluding Japan) .....	114,776	95,722	1,080,249
North America .....	32,853	25,747	309,205
Europe .....	61,313	62,453	577,059
Other .....	2,522	124	23,736
Consolidated .....	¥300,404	¥266,460	\$2,827,331

Net sales are categorized by country or geographic area based on the location of the customer.

Sales in Malaysia and China belonging to the Asia area were ¥38,295 million (\$360,426 thousand) and ¥34,899 million (\$328,462 thousand) for the year ended March 31, 2018. Sales in the United States in the North America area were ¥31,023 million (\$291,984 thousand) for the year ended March 31, 2018.

Sales in Malaysia belonging to the Asia area were ¥30,259 million for the year ended March 31, 2017.

Property, plant and equipment by countries or geographical areas at March 31, 2018 and 2017 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Japan .....	¥ 62,670	¥ 64,340	\$ 589,834
Asia (excluding Japan) .....	47,917	47,083	450,985
North America .....	7,645	9,936	71,956
Europe .....	33,077	29,794	311,309
Consolidated .....	¥151,309	¥151,153	\$1,424,084

Property, plant and equipment in Hungary belonging to the Europe area were ¥28,814 million (\$271,191 thousand) and ¥25,132 million for the years ended March 31, 2018 and 2017, respectively.

### Major customer information

Sales to a major customer for the years ended March 31, 2018 and 2017 were as follows:

Customer Name	Millions of yen		Thousands of U.S. dollars
	2018	2017	2018
Intel Corp. ....	¥57,010	¥52,508	\$536,562

### Loss on impairment of fixed assets

Loss on impairment of fixed assets by reportable segment for the year ended March 31, 2017 was summarized as follows:

	Millions of yen						Consolidated Financial Statements
	2017						
	Reportable Segments			Other	Total	Corporate and Elimination	
Electronics	Ceramics	Total					
Loss on impairment of fixed assets.....	¥38,108	¥1,254	¥39,362	¥—	¥39,362	¥7,769	¥47,131

Due to the immateriality of the amount, loss on impairment of fixed assets for the year ended March 31, 2018 is not disclosed.

**Amortization and remaining balance of goodwill**

Amortization and the remaining balance of goodwill by reportable segment as of and for the years March 31, 2018 and 2017 are summarized as follows:

Millions of yen							
2018							
	Reportable Segments			Other	Total	Corporate and Elimination	Consolidated Financial Statements
	Electronics	Ceramics	Total				
Goodwill:							
Amortization.....	¥—	¥237	¥237	¥—	¥237	¥—	¥237
Remaining balance.....	—	—	—	—	—	—	—

Millions of yen							
2017							
	Reportable Segments			Other	Total	Corporate and Elimination	Consolidated Financial Statements
	Electronics	Ceramics	Total				
Goodwill:							
Amortization.....	¥—	¥905	¥905	¥—	¥905	¥—	¥905
Remaining balance.....	—	229	229	—	229	—	229

Thousands of U.S. dollars							
2018							
	Reportable Segments			Other	Total	Corporate and Elimination	Consolidated Financial Statements
	Electronics	Ceramics	Total				
Goodwill:							
Amortization.....	\$—	\$2,230	\$2,230	\$—	\$2,230	\$—	\$2,230
Remaining balance.....	—	—	—	—	—	—	—

**24. Subsequent Event****Cash dividends**

The following distribution of retained earnings of the Company, which was not reflected in the accompanying consolidated financial statements for the year ended March 31, 2018, was approved at a meeting of the Board of Directors held on May 16, 2018:

	Millions of yen	Thousands of U.S. dollars
Year-end cash dividends		
(¥20 = (\$0.19) per share).....	¥2,798	\$26,335

The total amount of dividends includes dividends of ¥4 million (\$35 thousand) to the shares of treasury stock of the Company (for the share-based compensation for directors) held by the trust account of Japan Trustee Services Bank, Ltd.



## Independent Auditor's Report

To the Board of Directors of IBIDEN CO., LTD. :

We have audited the accompanying consolidated financial statements of IBIDEN CO., LTD. and its consolidated subsidiaries, which comprise the consolidated balance sheet as at March 31, 2018, and the consolidated statement of operations, statement of comprehensive income, statement of changes in net assets and statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

### **Management's Responsibility for the Consolidated Financial Statements**

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

### **Auditor's Responsibility**

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, while the objective of the financial statement audit is not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Opinion**

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of IBIDEN CO., LTD. and its consolidated subsidiaries as at March 31, 2018, and their financial performance and cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

### **Other Matter**

The consolidated financial statements of IBIDEN CO., LTD. as at and for the year ended March 31, 2017 were audited by another auditor who expressed an unmodified opinion on those statements on June 16, 2017.

### **Convenience Translation**

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2018 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 5 of the Notes to the Consolidated Financial Statements.

July 6, 2018  
Nagoya, Japan

KPMG AZSA LLC

KPMG AZSA LLC, a limited liability audit corporation incorporated under the Japanese Certified Public Accountants Law and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

## Domestic Base

### **IBIDEN Greentec Co., Ltd.**

3-55, Gama-cho, Ogaki, Gifu 503-0021, Japan  
Tel: 0584-81-6111

### **IBIDEN Chemical Co., Ltd.**

300, Aoyanagi-cho, Ogaki, Gifu 503-8503, Japan  
Tel: 0584-89-7491

### **IBIKEN Co., Ltd.**

1-60, Gama-cho, Ogaki, Gifu 503-8561, Japan  
Tel: 0584-74-3355

### **IBIDEN Graphite Co., Ltd.**

300, Aoyanagi-cho, Ogaki, Gifu 503-8503, Japan  
Tel: 0584-89-6425

### **IBIDEN Industries Co., Ltd.**

1-197, Uchiwara, Ogaki, Gifu 503-0936, Japan  
Tel: 0584-89-0777

### **TAK Co., Ltd.**

4-35-12, Kono, Ogaki, Gifu 503-0803, Japan  
Tel: 0584-75-6501

### **IBIDEN Jushi Co., Ltd.**

360, Shirotori, Ikeda-cho, Ibi-gun, Gifu 503-2413, Japan  
Tel: 0585-45-2405

### **IBIDEN Bussan Co., Ltd.**

339, Arisato, Motosu, Gifu 501-0415, Japan  
Tel: 058-324-1151

### **IBIDEN Engineering Co., Ltd.**

1122, Kido-cho, Ogaki, Gifu 503-0973, Japan  
Tel: 0584-75-2301

### **IBIDEN CAREER TECHNO Corp.**

300, Aoyanagi-cho, Ogaki, Gifu 503-8503, Japan  
Tel: 0584-89-7435

## Global Base

### **NORTH AMERICA**

#### **IBIDEN U.S.A. Corp. (Head Office)**

3900 Freedom Circle #130 Santa Clara,  
CA 95054, U.S.A.  
Tel: +1-408-991-9801

#### **Micro Mech, Inc.**

33 Turnpike Road, Ipswich, MA 01938, U.S.A.  
Tel: +1-978-356-2966

#### **IBIDEN México, S.A. de C.V.**

Av. América 100 Parque Industrial, Desarrollo  
Logistik II Laguna de San Vicente Villa de Reyes,  
San Luis Potos C.P. 79526  
Tel: +52-444-834-8430

### **EUROPE**

#### **IBIDEN Europe B.V. (Head office)**

Polarisavenue 85f 2132 JH Hoofddorp,  
The Netherlands  
Tel: +31-23-554-3180

#### **IBIDEN Hungary Kft.**

2336 Dunavarsany, Ipari Park, Neumann  
Janos u.1, Hungary  
Tel: +36-24-501-300

#### **IBIDEN DPF France S.A.S.**

24, Route de Joigny 45320 Courtenay, France  
Tel: +33-2-3897-2650

#### **IBIDEN Porzellanfabrik Frauenthal GmbH.**

Gamserstrasse 38, 8523 Frauental, Austria  
Tel: +43-3462-2000

### **ASIA**

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

15#, Rongchang East Street, BDA, Beijing 100176, P.R.C.  
Tel: +86-10-6788-2288

#### **IBIDEN Electronics (Shanghai) Co., Ltd.**

1/FA, Building 73, No. 17 Hancheng Road,  
China (Shanghai) Pilot Free Trade Zone, Pudong,  
Shanghai, P.R.C.  
Tel: +86-21-5046-5200

#### **IBIDEN Asia Holdings Pte., Ltd.**

31 Kaki Bukit Road 3 #06-22 Techlink Singapore 417818  
Tel: +65-6296-0096

#### **IBIDEN Singapore Pte. Ltd.**

31 Kaki Bukit Road 3 #06-22 Techlink Singapore 417818  
Tel: +65-6296-0096

#### **IBIDEN Taiwan Co., Ltd.**

8F-5, No. 366 Bóai 2nd Rd., Zuoying Dist., Kaohsiung City  
81358, Taiwan  
Tel: +886-7-550-8599

#### **IBIDEN Graphite Korea Co., Ltd.**

41, 75 South Road Yeongil Industrial Complex,  
Heunghae-eup, Buk-gu, Pohang-si, Gyeongsangbuk-do,  
37948, Korea  
Tel: +82-54-271-3000

#### **IBIDEN Korea Co., Ltd.**

#1314, Hi Brand Bldg, 13F, 215, Yangjae-Dong,  
Seoch-gu, Seoul, 137-924, Korea  
Tel: +82-2-2155-3400

#### **IBIDEN Philippines, Inc.**

First Philippine Industrial Park Brgy.  
Sta. Anastacia, Sto. Tomas, Batangas, Philippines  
Tel: +63-43-405-5250

#### **IBIDEN Electronics Malaysia Sdn. Bhd.**

No. 1049, Jalan Perindustrian Bukit Minyak 8,  
Kawasan Perindustrian Bukit Minyak  
14100 Simpang Ampat, Penang, Malaysia  
Tel: +60-4-504-9999

## Corporate Data

<b>Trade name</b>	IBIDEN CO., LTD.
<b>Established</b>	November 25, 1912
<b>Capital</b>	¥64,152 million
<b>Number of employees</b>	Consolidated: 15,574 Non-consolidated: 3,515
<b>Plants</b>	
<b>Head office</b>	2-1, Kanda-cho, Ogaki City, Gifu 503-8604, Japan
<b>Tokyo branch</b>	Marunouchi Bldg. 29F, 2-4-1, Marunouchi, Chiyoda-ku, Tokyo 100-6329, Japan
<b>Plants</b>	Gifu Prefecture: Ogaki, Ogaki Central, Aoyanagi, Gama, Ogaki-Kita, Godo  Aichi Prefecture: Kinuura
<b>Number of subsidiaries</b>	Consolidated subsidiaries: 37 (17 in Japan, 20 overseas)

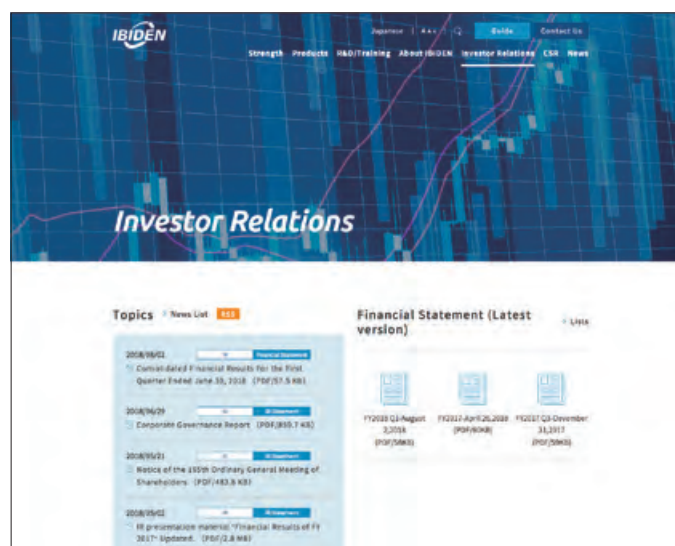
## Stock Information

<b>Fiscal year-end</b>	March 31
<b>Annual meeting of shareholders</b>	June
<b>Independent Auditors</b>	KPMG AZSA LLC
<b>Domestic stock exchange listings</b>	Tokyo, Nagoya
<b>Date of record for dividend payout</b>	Interim dividend: September 30  Year-end dividend: March 31
<b>Authorized shares</b>	230,000,000
<b>Shares issued and outstanding</b>	140,860,557 (including 956,470 shares of treasury stock)
<b>Number of shareholders</b>	28,799

## 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.com/ir/>



Top page of IR website

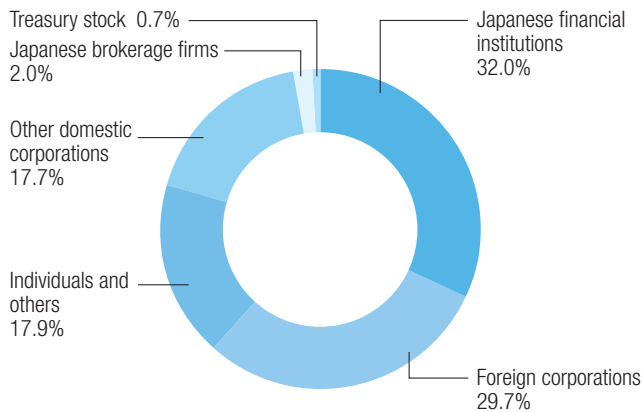


## Principal Shareholders

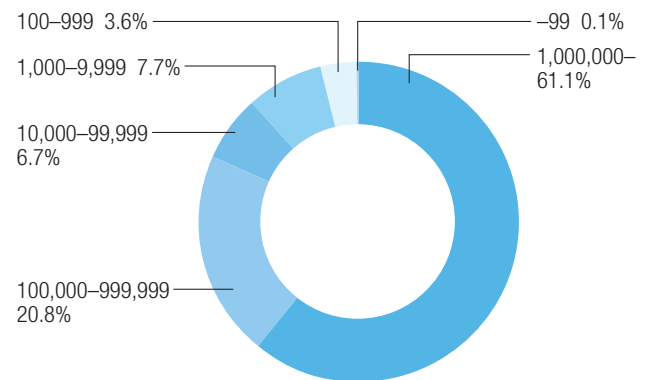
Name of Shareholder	Number of Shares (thousands)	Percentage
Japan Trustee Services Bank, Ltd. (Trust Account)	9,006	6.44
NORTHERN TRUST CO. (AVFC) RE SILCHESTER INTERNATIONAL INVESTORS INTERNATIONAL VALUE EQUITY TRUST	7,764	5.55
DENSO CORPORATION	7,712	5.51
The Master Trust Bank of Japan, Ltd. (Trust Account)	6,784	4.85
Toyota Industries Corporation	6,221	4.45
NORTHERN TRUST CO. (AVFC) RE U.S. TAX EXEMPTED PENSION FUNDS	4,373	3.13
The Juroku Bank, Ltd.	4,130	2.95
The Ogaki Kyoritsu Bank, Ltd.	4,120	2.94
IBIDEN Business Partners' Shareholding Association	3,676	2.63
IBIDEN Employees' Shareholding Association	2,859	2.04

Note: The Company holds 956,470 shares of treasury stock, which is excluded from the major shareholders listed above.

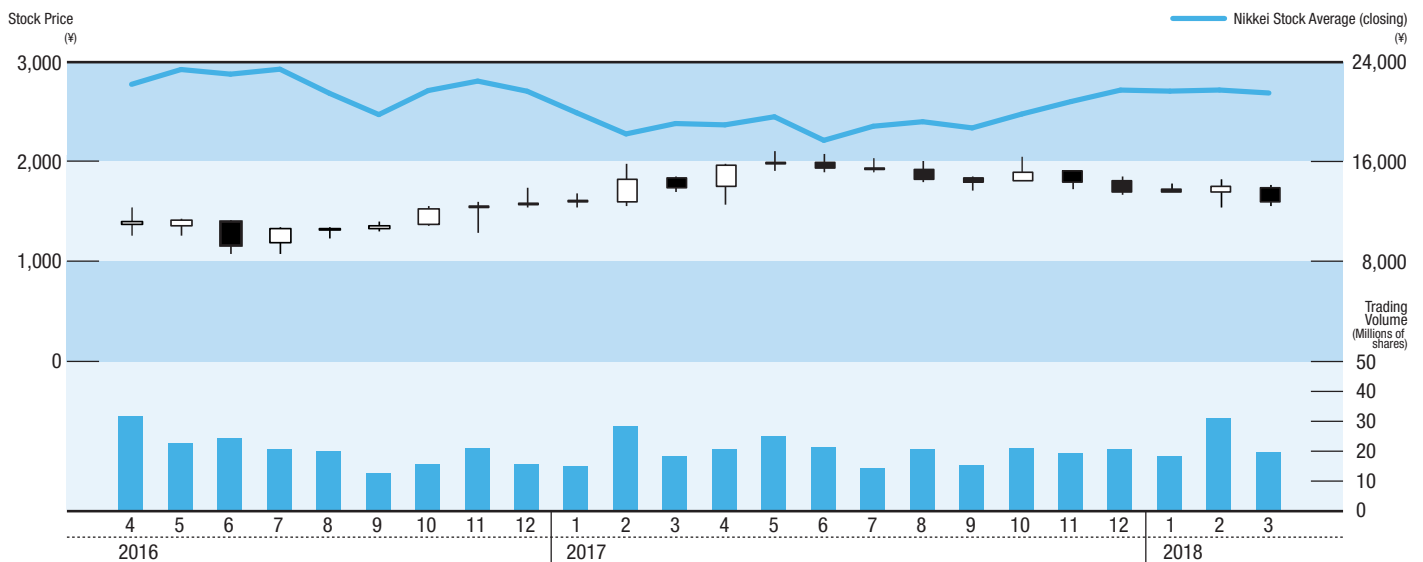
## Breakdown by Type of Shareholder



## Breakdown by Size of Holding



## Stock Price Range and Trading Volume (Common Stock)



**IBIDEN Co.,Ltd.**

[www.ibiden.com](http://www.ibiden.com)