



IBIDEN Co.,Ltd.
Integrated Report 2020
Year Ended March 31, 2020





Power to overcome many adversities with all our employees
and to continue to exist



Wisdom and vitality that have achieved dramatic
growth in recent years



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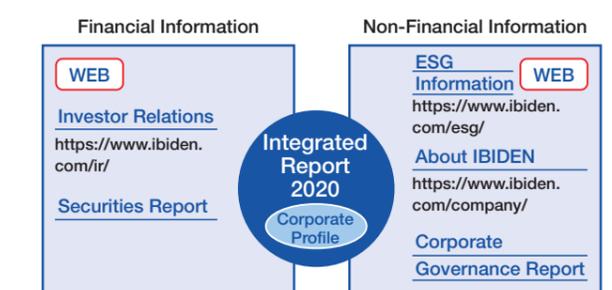
We endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in August 2020.

Editorial Policy

We have published this report with the aim of deepening the understanding of the Company's medium- to long-term initiatives toward value creation for all stakeholders including shareholders and investors.

In this report, we have compiled information on the mechanisms for future value creation by comprehensively editing financial and non-financial information with a focus on value creation stories. This report has been issued following approval by the Board of Directors.

Information Disclosure Structure



Notices on Forward-Looking Statements

This report includes forward-looking statements and future plans based on information currently available to IBIDEN Co., Ltd. Statements contain potential risks and uncertainties and may differ from actual business results and future operational developments. Therefore, the accuracy of forward-looking statements and statements on future plans are not guaranteed.

Period Under Review for Reporting

April 1, 2019 to March 31, 2020

※ Some information outside the applicable period is also included.

Scope of Reporting

IBIDEN Co., Ltd. and its group companies
※ Some items individually state the scope of reporting.

Guidelines Used as Reference

- Ministry of Economy, Trade and Industry / Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation
- IIRC / The International <IR> Framework



IBIDEN's DNA or IBIDEN WAY

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



SPIRIT

Trust through Integrity

Gaining customer and societal trust through "Genchi Genbutsu."[※]

※ Genchi Genbutsu: Go and See for yourself to thoroughly understand the situation

“Wa” Teamwork and Synergy

Integrating knowledge and wisdom from the employee involvement for greater power.

Challenge with Passion

Anticipating change, and acting boldly to create new value.

IBI-TECHNO Innovation

Evolving by overcoming hurdles through creativity and ingenuity.

“IBI-TECHNO”

The common spirit of all company people, expressing our determination to create new technologies through fusions and composites of our proprietary technologies.

Co-Creation of Value with Society – ESG Management of IBIDEN –

IBIDEN Group's approach to ESG

IBIDEN Group upholds a "harmonious relationship with the natural environment" and the "realization of the progression of society" as key goals in its Corporate Philosophy. The Group has continued to grow by developing products that can lead to solving social problems with its innovative technologies. Considering that contribution to the progression of society and solving social problems through its business are the essence of its Corporate Philosophy, the Group has engaged in ESG (environment, society and governance) activities.

Evolving from CSR to ESG Activities

The Group strives to contribute to the progression of society while achieving continuing existence by meeting our Corporate Social Responsibility. Based on the Corporate Philosophy and Group Charter of Behavior, the Group has built a foundation for meeting its Corporate Social Responsibility as part of its CSR management in four areas: internal control, human resource management, environmental management, and social contribution. Since fiscal year 2018, we have conducted relevant activities as part of our ESG management, being highly rated by external evaluation for our performance of the activities from the perspective of ESG (environment, society and governance). In the future, we will offer solutions to social problems with our technologies to achieve a sustainable society, which the international community jointly aims to realize, through our businesses and operational activities.

IBIDEN Group and the SDGs

We believe that to positively contribute to achieving the Sustainable Development Goals (SDGs)[※] through its businesses is a mission that IBIDEN should fulfill for society based on the IBIDEN WAY.

We will tackle social problems faced by our society, with our innovative technologies evolved from and combined with the core technologies of the Group, through responsible corporate activities in harmony with human life and the global environment, thereby contributing to the achievement of the SDGs.

※ In September 2015, the "Transforming our world: 2030 Agenda for Sustainable Development" was adopted by the United Nations General Assembly. In this agenda, the "SDGs: Sustainable Development Goals," which comprise 17 goals and 169 targets, were formulated.



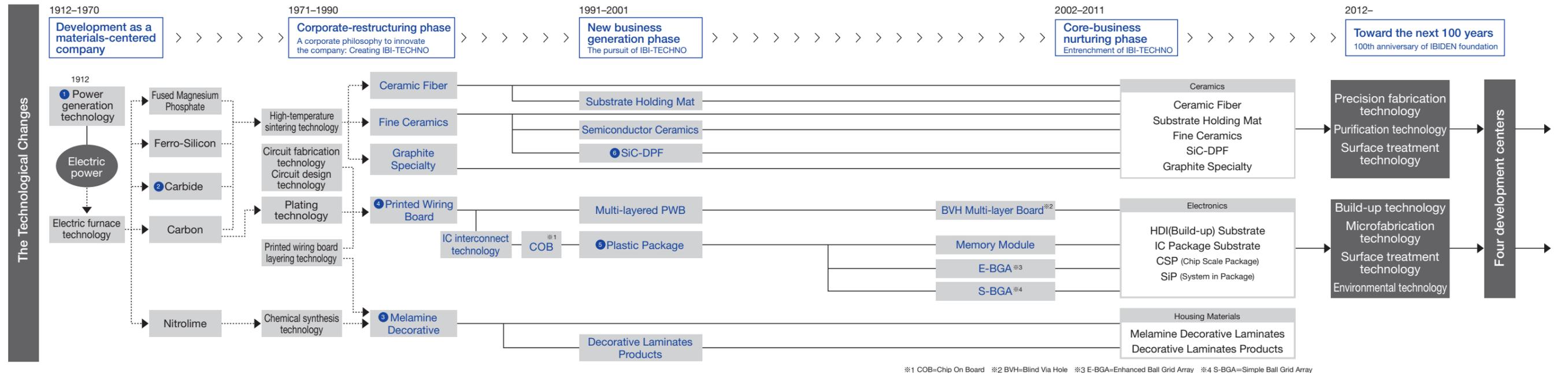
IBIDEN Group's Business Domains and Contribution to the SDGs

	Social problems	IBIDEN Group's business activities	Reference
Business	Information society Development of digital transformation	We will contribute to the realization of global digital innovation by producing IC package substrates of high performance and reliability that support communication technologies such as data centers.	P7-8
	Environmental pollution Serious air pollution in emerging countries	Through the supply of diesel particulate filters (DPF), substrate holding mats (AFP), SCR Catalysts (SCR) that purify exhaust gas from vehicles, we will contribute to the global improvement of air quality.	P9-10
	Climate change issues Increased demand for clean energy Higher risk of natural disasters CO ₂ emission from internal combustion engines	Through our energy solution business, including hydroelectric power generation, which is our original business, and solar power generation, we will contribute to the supply of renewable energy.	P10
		We will contribute to disaster prevention in local communities with our construction methods to protect and secure slopes in difficult weather and soil conditions in mountainous areas.	P38
Basic activities	Decreased working population in Japan Promotion of female advancement and diversity Improvement of productivity Safe and secure working environment	We aim to realize a work environment where the career development and appointment of female employees is promoted and diverse human resources can exercise their abilities, including people with disabilities and foreign workers, thereby creating an active corporate culture.	P34
		By utilizing IT tools and taking other measures to achieve efficiency, we will realize both rewarding work for employees and high productivity.	P33
		We will foster a corporate culture that minimizes risks for employees and negative impact on their health, and gives priority to safety.	P35
	Environmental impact in a product lifecycle Management of chemical substances and waste Emission control of greenhouse gases	In cooperation with our business partners, we will reduce environmental loads from the whole supply chain by properly managing the use of harmful chemical substances.	P38
	We will reduce greenhouse gas emissions with more energy-saving operational processes and highly efficient energy generation.	P37	

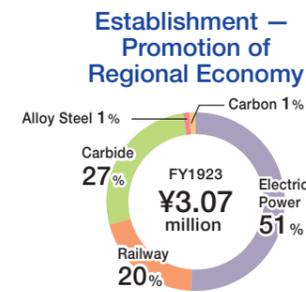
※ We believe that our Group's technologies and business activities can also widely contribute to other goals not specified above. (P31)

Changes in Creating Value

IBIDEN's technology stems from hydroelectric power generation. The Company has expanded into the electrochemical business with the aim of utilizing electric power efficiently and has incorporated a variety of technologies such as high-temperature sintering technology, chemical synthesis technology, and printed wiring board layering technology. Changes in our technologies have been steadily inherited by the current Electronics Operation and Ceramics Operation.



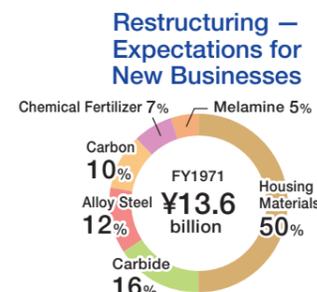
※1 COB=Chip On Board ※2 BVH=Blind Via Hole ※3 E-BGA=Enhanced Ball Grid Array ※4 S-BGA=Simple Ball Grid Array



Ibigawa Electric Power Co., Ltd. was established with the aim of promoting the regional economy through hydroelectric power generation utilizing abundant water source. It was in the era when there was no construction machinery that we launched an electric power business which continues to this day despite the impact of recessions and the world wars.



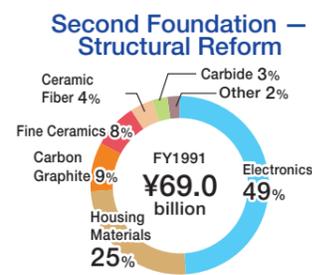
1 Nishi-Yokoyama Power Plant (1916-1963)



In order to make effective use of electric power, we began manufacturing carbide. Although that supported the post-war recovery, demand was replaced by petrochemical materials. Against this backdrop, housing materials business grew by applying the technologies cultivated in the melamine operation. We have changed our main operations according to changes of the times.



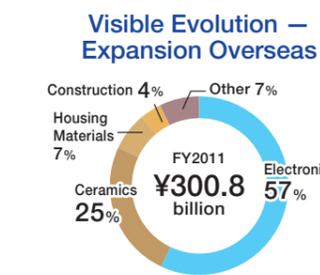
2 Carbide (1917-1991)



We were among the first to grasp the needs of the digital age, and succeeded in producing printed wiring boards and IC package substrates. We have created the Electronics Operation that continues to be active as a core business. Thereafter, we expanded the market and our "Second Foundation" is a success.



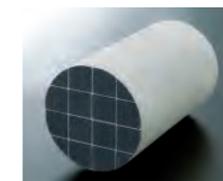
4 Printed Wiring Board (1972-present)



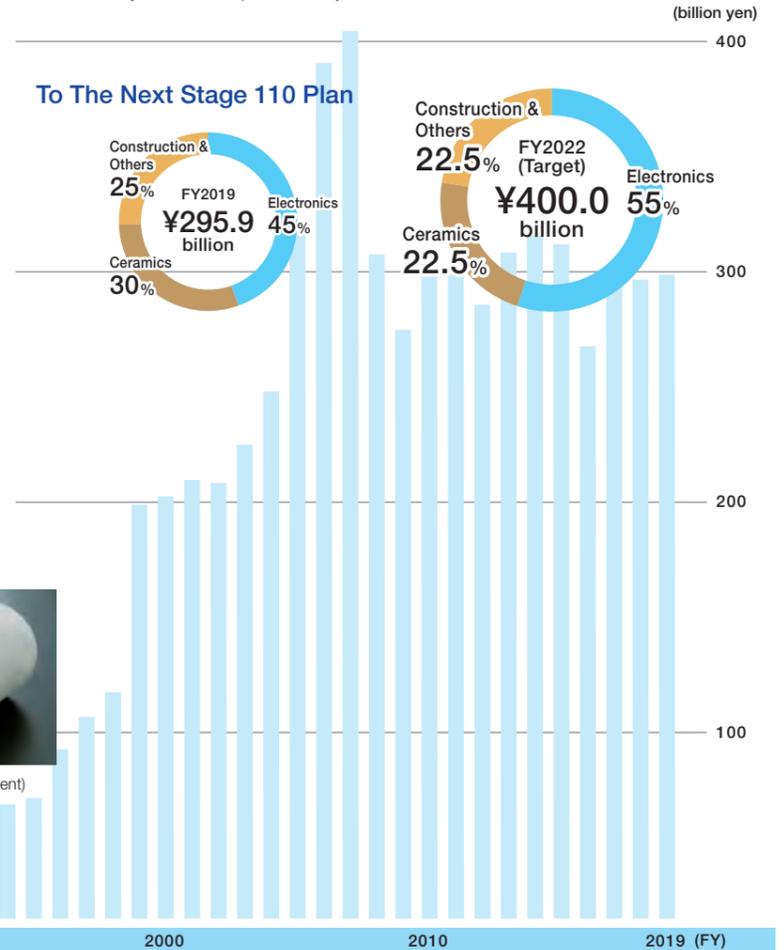
Awareness of environmental issues has increased around the world. In the Ceramics Operation, we have developed products that can contribute to the environment in the exhaust gas field with the desire to "to clean up the world's skies." We have grown into a company that plays an active role globally through transactions with top overseas companies.



5 IC Package Substrate (1988-present)



6 SiC-DPF (1999-present)



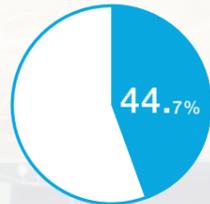
Main Operations and Core Technology

Electronics

We will contribute to the realization of global digital innovation by producing IC package substrates of high performance and reliability that support communication technologies such as data centers.

Refer to page 27-28 for growth strategies of the Electronics Operation.

Contributing SDGs ■ FY2019 ratio of net sales



Data Center

A large number of microprocessors are used at data centers that process huge quantities of data. The demand for IC packaging substrates used in data centers is on the rise as more and more services are handling big data. IBIDEN supports the superior reliability of data centers with IC packaging featuring high-functionality and high-reliability.

Computer & Smartphone

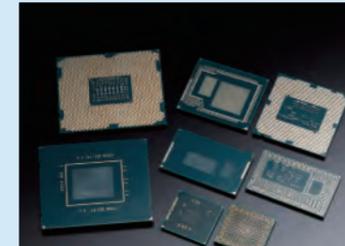
At the heart of computers, semiconductors are small chips with a size of only a few millimeters to a few dozen millimeters. IC package substrates are used to implement these semiconductors with techniques that allow the chips to function at 100% performance. Various electronic devices and peripheral equipment are incorporated in smartphones featuring a variety of functions. Thin printed wiring boards with many layers are used to bring out the capabilities of multiple electronic devices within limits on size and thickness.



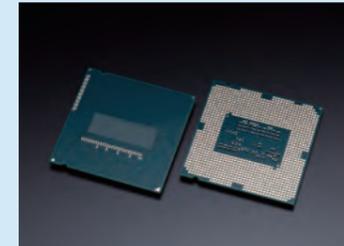
Core Technologies in Electronics

IC Package Substrate

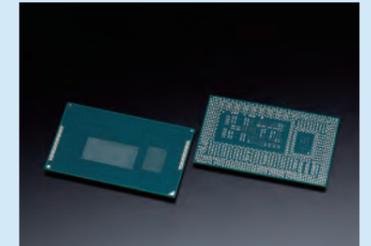
Focusing on MPUs (micro processor unit) for personal computers and the Data Center, and GPUs (graphic processor unit) for AI and vehicle-mounted applications, we provide state-of-the-art IC packaging substrates. IC packaging substrate is an important component that functions together with IC chips. IBIDEN has always enhanced added values along with IC chip evolution.



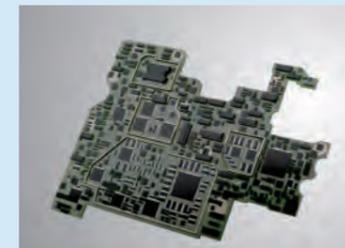
IC package substrates



IC Package Substrate for desktop PC



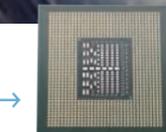
IC Package Substrate for mobile PC



Printed Wiring Board for Smartphones

Printed Wiring Board

Focusing on high-end smartphones, we provide high-function and high-density printed circuit boards. A printed circuit board is an important component that supports the manufacturing of small and high-function products in line with the full-fledged dissemination of 5G. IBIDEN meets its customers' needs using Modified Semi Additive Process (MSAP) which enables free circuit design and high-density wiring.



IC package substrate

Car Electronics

The number of electronic components and sensors installed on automobiles have dramatically increased against a backdrop of advancements in analysis using big data and high-speed communication networks. Semiconductors used on all systems that control automobiles, IC package substrates to which these are installed, as well as motherboards on which those packages are implemented, are used widely as components for automobiles that require strict reliability.

TOPICS

Selected as one of the "Global Niche Top Companies Selection 100 (New GNT Companies) for FY2020" Certified by the Ministry of Economy, Trade and Industry

GNT Companies are recognized for winning in niche areas even in a challenging economic environment and handling highly important parts and materials in their supply chains.

This time, our cutting-edge IC package substrate was selected as one of the New GNT Companies Selection 100.

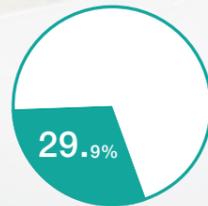
Main Operations and Core Technology

Ceramics

Through the supply of diesel particulate filters (DPF), substrate holding mats (AFP), SCR Catalysts (SCR) that purify exhaust gas from vehicles, we will contribute to the global improvement of air quality.

Refer to page 29-30 for growth strategies of the Ceramics Operation.

Contributing SDGs ■ FY2019 ratio of net sales



Automobile

Many products are being used, including SiC-DPF (diesel particulate filter), which removes the black smoke emitted by diesel engines, catalysts for cleaning exhaust gases installed in exhaust pipes, and felt-like ceramic fibers (alumina fibers) that prevent leakage of exhaust gas by stabilizing catalysts. We will continue developing high-performance products for the next generation, contributing to reducing the environmental burden of automobiles.



SiC-DPF

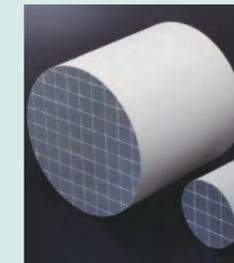


Substrate Holding Mat



Core Technologies in Ceramics

SiC-DPF



By collecting over 99% of black smoke emitted from diesel engines, SiC-DPF greatly contributes to cleaning exhaust gas. Having the advantages of SiC (silicon carbide), which have high thermal conductivity, high strength, and high heat resistance, the product is designed to withstand high thermal stresses via a segmented assembly method, making it easy to adapt to a variety of shapes.

Substrate Holding Mat (MAT)



FLECS series are high-quality products widely used in automobiles helping to improve environment, utilizing ceramic fibers (alumina fiber) due to their high retaining, sealing and insulating properties for catalytic substrate (used for catalyst, DPF, etc).

※ FLECS: FLExible Ceramic Sheet

SCR Catalyst



Our SCR catalysts are used as a key component of systems to effectively and efficiently reduce the NOx content of exhaust gas, helping to improve the global environment. That are used in many industrial applications like coal fired power plant and diesel automotive application due to the tighten NOx regulations.

Graphite Specialty (FGM)



Specialty graphite (graphite) has fine ingredient characteristics, combining characteristics of both metals and ceramics including high strength, high purity, and high durability. It meets the various needs of industrial fields from general purpose materials to high-grade materials, including high-grade materials for semiconductor manufacturing machinery, electrode materials for electrical discharge machining, and materials for machinery manufacturing solar panels.

High Temperature Insulation Material



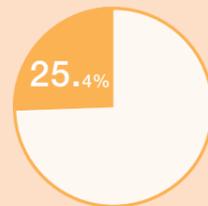
Offering excellent heat resistance and insulating performance, this is widely used in various industries such as sintering equipment, fuel cells, non-ferrous metals, and aircraft. Besides, this is a green procurement product, which is exempt from carcinogenicity classifications and regulations related to man-made amorphous fiber.

Construction & Others

Uniquely competitive products provided by each of our domestic group companies have been successful in a variety of fields.

Refer to page 31 for new businesses.

Contributing SDGs ■ FY2019 ratio of net sales



Wall greening system (Photo: Toyosu Foresia)
※ Awarded the Minister of Land, Infrastructure, Transport and Tourism Prize of the Organization for Landscape and Urban Green Infrastructure
[IBIDEN Greentec Co., Ltd.]



DOMA LONE"BinO"
[IBIKEN Co., Ltd.]



Development and production of dehydrated food
[IBIDEN Bussan Co., Ltd.]



Retect Viruhael:high pressure laminates with antiviral effect/wall surface
Monde Booth/toilet booth
Stylish Counter/counter
[IBIKEN Co., Ltd.]

Electric Power Business

The Company, which began with hydroelectric power generation, still owns three hydroelectric power plants today, including the Higashi Yokoyama Power Plant. In 2016, renovations were conducted to support the renewable energy feed-in tariff (FIT), supporting the Company's business as stable sources of revenue over the medium to long term. Technologies fostered in hydroelectric power generation are deployed in various power generation operations, such as solar power, and contribute to providing renewable energy that puts little stress on the environment.

Refer to page 37 for information on environmental measures.

Contributing SDGs



Higashi-Yokoyama Power Plant



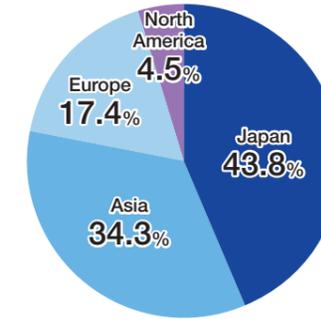
Kinuura Plant Water floating solar power generation plant

IBIDEN's Global Support Structure

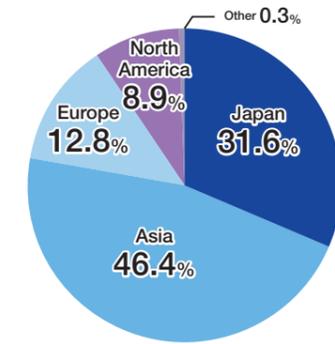
Since establishing IBIDEN U.S.A. Corp. in the United States as a foothold for overseas expansion in 1987, the Company has achieved full-blown expansion in overseas areas. Maintaining technology and quality fostered in Japan, we have established a global support structure by adapting to business environments, customer needs, and geographical risk.



Ratio of employees by region (Ibiden Group)



Ratio of net sales by region



Major manufacturing bases

We establish structures to ensure the stable supply of products by selecting appropriate manufacturing bases in consideration of geographical risk.



Main Financial Data (Consolidated)

Fiscal years ended on March 31

	157th	158th	159th	160th	161th	162th	163th	164th	165th	166th	167th
	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Net sales (Millions of yen)	274,204	304,968	300,863	285,946	310,268	318,072	314,119	266,459	300,403	291,126	295,999
Operating income (Millions of yen)	21,271	33,811	15,515	5,419	23,442	26,039	22,570	7,141	16,702	10,138	19,686
Operating income to net sales ratio (%)	7.76	11.09	5.16	1.90	7.56	8.19	7.19	2.68	5.56	3.48	6.65
Ordinary profit (Millions of yen)	19,447	33,575	16,256	10,890	28,401	31,314	20,798	2,301	17,603	12,600	21,364
Profit (loss) attributable to owners of parent (Millions of yen)	11,896	19,740	10,647	2,232	17,479	19,107	7,530	(62,848)	11,583	3,306	11,330
Total assets (Millions of yen)	361,914	394,580	425,871	430,040	462,113	519,847	476,110	405,783	436,425 ^{*1}	423,057	518,619
Return on assets (%)	3.14	5.20	2.59	0.52	3.92	3.89	1.51	(14.25)	2.76 ^{*2}	0.77	2.41
Total net assets (Millions of yen)	268,364	271,249	274,901	286,705	322,562	360,091	331,520	260,940	286,367	276,305	273,935
Equity ratio (%)	72.88	66.98	63.35	65.61	68.91	68.50	68.75	63.21	64.43 ^{*3}	64.03	51.74
Return on equity (%)	4.57	7.45	3.97	0.81	5.82	5.67	2.20	(21.53)	4.31	1.20	4.20
Interest-bearing debt (Millions of yen)	21,699	23,463	63,737	63,925	61,574	75,855	70,128	70,062	70,005	70,030	150,030
Free cash flow (Millions of yen)	34,711	23,391	(21,920)	(13,224)	11,729	6,659	20,060	2,532	5,736	519	(11,987)
Capital expenditures (Millions of yen)	18,697	60,335	47,313	43,262	37,731	56,350	40,955	20,997	22,409	22,892	57,076
Depreciation and amortization (Millions of yen)	38,769	40,697	42,387	42,697	35,702	39,428	44,056	33,147	24,566	25,136	24,222
Research and development costs (Millions of yen)	12,679	14,553	16,123	15,125	15,031	15,512	15,203	14,111	15,368	14,753	16,200
Net assets per share (yen)	1,813.57	1,861.11	1,885.53	2,043.29	2,305.93	2,578.85	2,459.63	1,927.53	2,012.60	1,938.59	1,920.19
Basic earnings (loss) per share (yen)	81.80	137.21	74.41	15.97	126.58	138.37	55.29	(472.26)	83.21	23.66	81.08
Dividends per share (yen)	30	40	30	30	30	35	35	35	35	35	35
Dividend payout ratio (%)	45.80	29.15	40.32	187.81	23.7	25.29	63.30	-	42.06	147.90	43.17
Numbers of employees (persons)	11,959	13,051	11,374	11,879	14,122	14,306	14,290	13,961	15,574	14,718	13,019

*1 Net assets per share are calculated based on the total number of shares issued and outstanding at the end of the fiscal year.

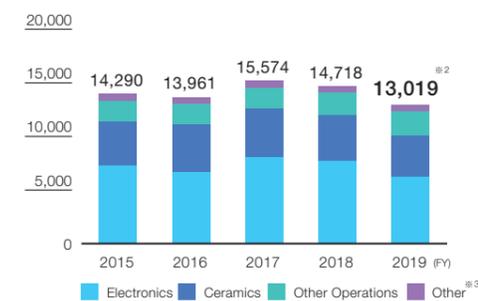
*2 Basic earnings (loss) per share is calculated based on the average number of shares issued and outstanding during the period. The average number of shares issued and outstanding during the period is based on the number of shares after deducting the number of treasury shares.

*3 "Partial Amendments to Accounting Standard for Tax Effect Accounting, etc." (ASBJ Statement No. 28, February 16, 2018) have been applied from the beginning of the 166th term, and the main management indicators, etc. (*1, 2, 3) related to the 165th term are indicators, etc. after retroactively applying the said accounting standard, etc.

Main Non-Financial Data

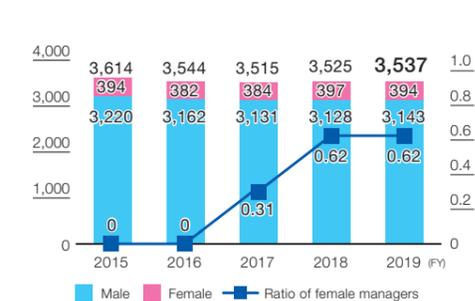
Number of consolidated employees by business^{*1} (persons)

13,019

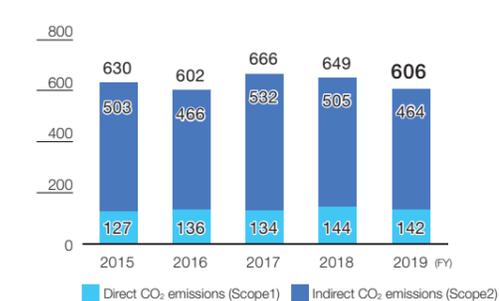


Number of non-consolidated employees by gender^{*4} (persons) and ratio of female managers^{*5} (%)

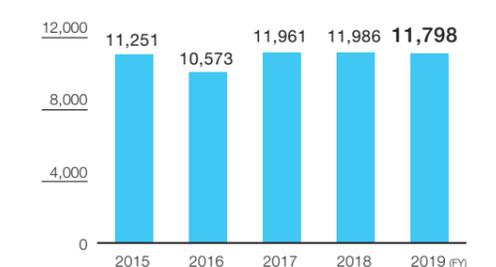
0.62%



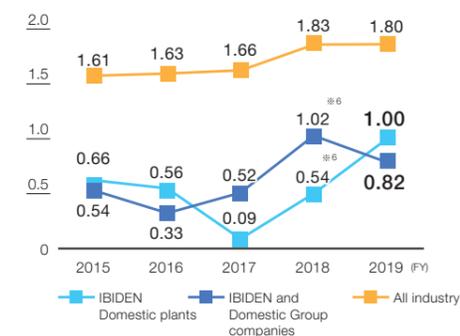
GHG emissions^{*7} (thousand tons of CO₂) 606 thousand tons of CO₂



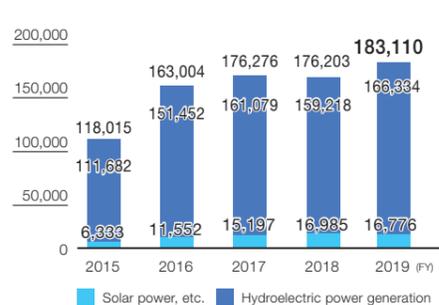
Water withdrawal^{*7} (thousands of m³) 11,798 thousands of m³



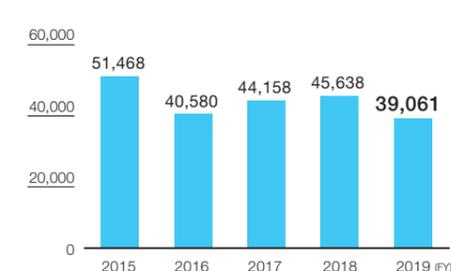
Occupational accident frequency rate^{*5} 0.82



Renewable energy generation^{*7} (MWh) 183,110 MWh



Solid waste^{*7} (t) 39,061 t



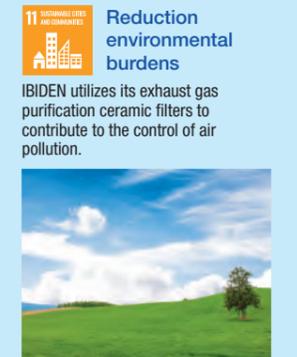
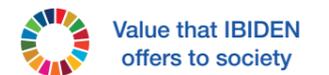
*1 This indicates the number of persons in employment, and does not include temporary employees.
 *2 A decrease of 1,699 in the number of employees in fiscal 2019 is mainly attributable to personnel streamlining in consolidated overseas manufacturing companies.
 *3 This indicates employees of the Management Division.
 *4 Figures are for IBIDEN Co., Ltd. This indicates the number of persons in employment, and does not include temporary employees. Also, the number of non-consolidated employees does not include seconded employees.
 *5 This indicates the number of work-related injury or death cases (equivalent to or more serious than cases of occupational accidents resulting in lost workdays) among a total of 1 million actual working hours.
 *6 Due to reviews on the scope of aggregation, this figure was corrected based on the values in past reports.
 *7 Figures are for IBIDEN Group.
 *8 With regard to the CO₂ emission factor at the time of calculation, we used the factor provided by the "List of Calculation Methods/Emission Factors in the Calculation, Report and Publication System" of the Ministry of the Environment and the Ministry of Economy, Trade and Industry in Japan as well as by gas distribution companies. From fiscal 2020, when calculating the indirect CO₂ emissions (Scope 2), we use the conversion factors published by the International Energy Agency (IEA) when the CO₂ emission factors of electric utility companies are uncertain, in order to provide information closer to the actual state. There are changes in the CO₂ emission values between fiscal 2015 and 2018 from those that had been disclosed until the previous fiscal year because they were retroactively reviewed.

Value Creation Story

We will realize sustainable value creation through innovating “IBI-TECHNO”, with respect for both “individuals” and “the global environment”.

Our company, which was founded as a hydroelectric power generation company intended to promote the regional economy, has long valued people and the global environment, and as a technology development company has contributed to society’s development with its state -of-the art technologies. From now, we will also continue to take up challenges in new value creation by continuously innovating “IBI-TECHNO,” which is to develop new technologies by evolving and uniting our original technologies.

Investment in Value Creation / Evolution of Core Technologies and Correspondence



Changes in Business Environment and Medium- to Long-Term Management Strategy

Business results and issues accumulated from the past medium-term management plan, as well as risks and opportunities in relation to changes in the external environment, are important issues for us. This section explains important issues and the outlook for our current medium-term management plan in an easy-to-understand manner.

Summary of Measures and Issues in the Previous Medium-Term Management Plan

Challenge IBI-Techno 105 Plan FY2013 – FY2017	
Background	<ul style="list-style-type: none"> Contraction in the PC market and commoditization of the smartphone market Higher demand in the large vehicle market in developing countries
Outline of Plan	<p>① Reconstruct and enhance competitiveness of core operations Vitalize TPM activities on a global scale with the aim of increasing worksite capabilities, and work on creating revolutionary technologies in materials, facilities, and manufacturing processes.</p> <p>② Work on the creation of new business In addition to developing new products in the electronics and ceramics fields, commercialize product development in new fields.</p> <p>③ Develop and promote CSR management globally Focus on nurturing human resources who will be successful globally.</p>
Results	<p><Electronics></p> <ul style="list-style-type: none"> Established a structure that can flexibly accommodate user needs by integrating product operations for IoT, in-vehicle, and data centers. <p><Ceramics></p> <ul style="list-style-type: none"> Established a global supply structure in order to support markets in developing countries, where strong demand for DPF is expected.
Compound Annual Growth Rate (CAGR)	Net sales 1.6% Operating income 9.8%
Issues	<p><Electronics></p> <ul style="list-style-type: none"> Mitigate high dependency on specific large-scale users. Select and concentrate on manufacturing structures and product lineups in response to changes in the market. <p><Ceramics></p> <ul style="list-style-type: none"> Develop products with new materials that can support weight reduction and comfort toward the proliferation of EVs.

Our Awareness of Risks Based on Internal and External Issues

Risks and Opportunities Related to Changes in Business Environment and Our Measures

	Risks and Opportunities	Impact on the Company	Responsive Measures for Specific Impact
Risks	Slowdown in the PC market	Changes in product needs in the personal computer and smartphone markets <small>Expected risk duration</small> short-term - medium-term	Withdrawal from unprofitable businesses and flexible investment in growth fields in terms of personnel and other resources from the perspective of selecting and concentrating
	Sluggish growth of the high-end smartphone market		
	Electric passenger vehicle market	Decrease in DPF demand due to postponement of exhaust gas-related regulations and accelerated diffusion of EVs and hybrid vehicles <small>Expected risk duration</small> long-term	Transition to a production and supply structure focused on growth markets in response to the contraction of the European diesel passenger vehicle market
	Accelerating Climate Change	Rising energy procurement costs due to tighter climate change-related regulations <small>Expected risk duration</small> medium-term - long-term	Realization of energy efficient production processes, including increasing power generation facilities with high power generation efficiency
		Suspension of operations at our plants or disruption of supply chains due to increased natural disasters <small>Expected risk duration</small> short-term - long-term	Formulation of business continuity and recovery plans in the event of local disasters due to natural disasters
	Pandemics	Sluggish supply chains on a global scale, including the suspension of operations in various countries due to the spread of infectious diseases and the ban on visits <small>Expected risk duration</small> short-term - medium-term	Maintaining business continuity levels that are essential to corporate survival, and resuming and recovering operations systematically while putting top priority on the safety of employees and communities
	Geopolitical risks	Unexpected suspension of shipments or operations due to sudden changes in systems, laws, regulations, etc., arising from political and social tensions in specific regions <small>Expected risk duration</small> short-term - medium-term	Efforts to stabilize revenues in each region, including expanding business domains and reducing production of products that are susceptible to seasonal fluctuations to the utmost so as to smooth out the impact
Opportunities	Decrease in domestic working population	Shortage of human resources due to the declining working population caused by the declining birthrate and aging population in Japan <small>Expected risk duration</small> medium-term - long-term	Improving efficiency through the use of IT tools, etc., and supporting active participation of diverse human resources (senior employees, women, people with disabilities, etc.), which we have been working on
	Expansion of ICTs	Increase in demand for finer cutting-edge, next-generation packages with high functionality, in which we excel, in line with market expansion in such areas as data centers and AI due to the spread of 5G and IoT <small>Expected duration</small> short-term - long-term	Increasing production capacity by investing in large-scale production facilities centered on the Ogaki Central Plant to meet demand for next-generation high-function packages
	Transition to a low-carbon society or decarbonized society	Growing demand for new technologies at the time of transition to low carbon and decarbonization <small>Expected duration</small> short-term - long-term	Development of new products that contribute to low carbon, including lightweight and highly heat resistant ceramic composite components that contribute to improved fuel efficiency of aircraft engines
	Strengthening of environmental regulations in emerging countries	Increase in demand for DPF in large vehicle markets in developing countries due to stricter exhaust gas regulations and expansion of market scale <small>Expected duration</small> short-term - medium-term	Establishment of a global DPF supply system in the three regions of Japan, Europe, and North America to meet demand in growing markets
	Increase in populations of emerging countries		
Growing needs for reducing environmental burdens	Requests for reduction in environmental impact of the entire supply chain, including codes of conduct set by industry organizations and voices of customers who wish to operate businesses with clean energy <small>Expected duration</small> short-term - long-term	Promoting use of hydroelectric power, solar power, etc., and activities such as reduction of environmental risks, energy conservation, and circulating resources throughout the supply chain	

Changes in the Business Environment from Macro Perspective



Message from the President



President&CEO

Takeshi Aoki

We aim to achieve sustainable corporate growth by responding to changes in the business environment.

IBIDEN's DNA that Has Overcome Countless Adversities

We would like to express our deepest condolence to those who passed away from natural disasters and COVID-19 around the world. We also express our heartfelt sympathies to those who suffered from the disaster and are still being treated for the disease. We also express our heartfelt respect to those who are still committed to recovery around the world and to those who support healthcare operations amid the ongoing vigilance against COVID-19.

Our living environment is undergoing a major transformation amid rapid advances in digital technologies such as ICT and 5G. On the other hand, in order to prevent the spread of infectious diseases, a variety of measures are being taken in daily life by making full use of technology to establish social connections while maintaining physical distance between people.

Teleworking is advancing rapidly in companies, and the phrase "new daily life" has become popular.

Today, we face an era that can be called a turning point in history. We cannot survive the coming era in the same way as before. The key is the ability of each company to rethink its respective strengths and uniqueness and survive amid the changing times.

Looking back on history, IBIDEN was established in 1912 as a hydroelectric power plant company named Ibigawa Electric Power Co., Ltd., and it has since changed its business structure according to changes in the times in order to overcome many adversities such as the period during and after the war, high economic growth, the oil crisis, and collapse of the bubble economy. At our foundation lies IBIDEN's DNA to "create what will be needed by the society in the future based on core technologies." It is this DNA of IBIDEN that I am more keenly aware of amid the crisis currently confronting society than ever before.

Progress in our Medium-Term Management Plan "To The Next Stage 110 Plan"

The Group is working on a five-year medium-term management plan, "To The Next Stage 110 Plan" for overcoming changing environment and moving onto the next stage by developing new operations toward the next generation, while strengthening the competitiveness of existing operations nurtured by our predecessors. Under the medium-term management plan, in addition to steady growth in existing businesses such as Electronics and Ceramics Operations, we are building a well-balanced business portfolio by accumulating new businesses as new revenue sources. At the initial stage of the plan, we targeted net sales of ¥430 billion, operating income of ¥45 billion, and an operating income ratio of 10.5% in FY2022, the last fiscal year of the plan. With regard to sales, despite the impact of COVID-19 and changes in the market environment, we will not change our operating income target for the final year of the plan, with our target performance indicators of ¥400 billion

in net sales, ¥45 billion in operating income, and an operating income ratio of 11.3%, as we intend to shift to highly profitable, high-value-added products against the backdrop of high competitiveness.

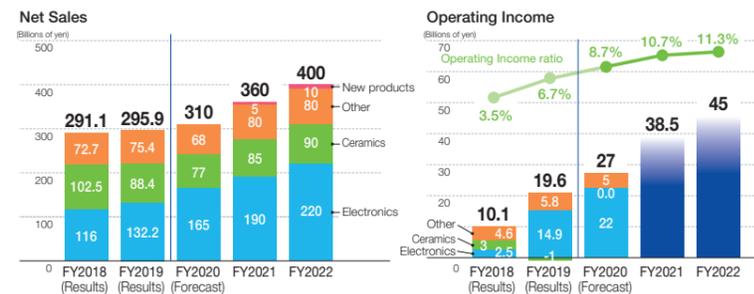
Our target performance indicators for FY2019, the second year of the medium-term management plan, were net sales of ¥300 billion, operating income of ¥17 billion, and an operating income ratio of 5.7%. Despite a deterioration of economic environment, including slowdown in the Chinese economy due to trade issues between the U.S. and China, and the impact of COVID-19 at the end of the fiscal year, steady growth in new markets in the Electronics Operation, particularly the server market for data centers, resulted in net sales of ¥295.9 billion, approximately the same level as the target, while operating income was ¥19.6 billion and the operating income ratio was 6.7%, exceeding the target.

Mid-Term Management Plan To The Next Stage 110 Plan

Four Pillar of the strategy

1. Strengthening competitiveness of existing businesses
2. Expanding new businesses
3. Development of human resources
4. Driving ESG-central operation

Targeted Management Indicators



Main operations that have responded to changes in the external environment

Our mainstay businesses are the Electronics and Ceramics Operations. In FY2019, the Electronics Operations accounted for 44.7% of net sales of ¥295.9 billion, at ¥132.1 billion, and the Ceramics Operation accounted for 29.9% at ¥88.4 billion.

Among these two operations, changes in the environment related to the Electronics Operation are particularly rapid, and we have faced various changes in our history up to the present day. First, with the full-scale popularization of personal computers in the 1990s, we grew significantly, centered on IC package substrates (PKG) for personal computers. Since the 2000s, we have been riding the wave of rapid growth in demand for mobile phones and smartphones, which have dramatically changed our lifestyles, and we achieved further growth by increasing sales of thin compact package substrates (CSP) and motherboard printed wiring boards (PWB). In the 2010s, however, the personal computer market shrank and the smartphone market became increasingly commoditized, resulting in a contraction of the entire Electronics Operation, which was our main market. Demand for high-end smartphones is currently continuing to decline. However, due to the impact of infectious diseases this year, the field of ICT utilization is rapidly expanding, including the promotion of teleworking by companies, the introduction of ICT to school education, and remote diagnosis in healthcare settings. Furthermore, we expect demand for more sophisticated and finer electronic components to expand in the data center market due to the launch of 5G services and advances in ICT. In addition, demand for automotive image analysis and other products is expected to grow.

In the Ceramics Operation, in order to respond to environmental issues triggered by automobile exhaust gas regulations, demand for DPF has risen in developed countries mainly in Europe, since the 2000s and has grown into the second pillar. To meet strong demand globally, we have established supply structures in Japan, Hungary, France, and Mexico. In recent years, however, there have been changes in the market environment, including a shift toward EVs and a shift away from diesel vehicles.

Electronics Operation Looking Ahead to Growth with Unprecedented Investment

I would like to explain our growth strategies in more detail for these two main operations in response to the changes in the environment they face.

In the Electronics Operation, demand for high-function IC package substrates is expected to rise due to the full-scale spread of 5G, increased data processing volumes accompanying the advancement of ICT, and automotive image analysis. In response to this growing demand, we decided to invest a total of ¥70 billion in the Ogaki Central Plant and Ogaki Plant in FY2018 (phase one investment) in order to improve the production capacity of high-function IC package substrates. Furthermore, in April of this year, we decided to invest ¥60 billion in the Ogaki Central Plant (2nd Building) as the phase two investment in order to renew production facilities and increase capacity in anticipation of next-generation technology responses in addition to meeting demand for high-function IC package substrates. The reason we were able to decide on these investments is that we have made progress in restructuring our businesses, which enabled us to stop unprofitable operations and allocate resources to growth fields, and that we are strategically sharing our future roadmaps with our customers on the back of our advanced technological capabilities.

Until two years ago, the Electronics Operation consisted primarily of three operations: PKG, CSP and PWB. However, we decided to reduce CSP, which is not expected to generate future earnings, allocated personnel and capital expenditures to PKG in anticipation of the full-scale arrival of the 5G era, and realigned resources into markets with growth potential. We established a new structure with the two Operations of PKG and MLB. As a result, I feel that we are now ready to speed up information sharing and decision-making for future business development and to respond swiftly to changes.

Technologies required for high-function IC package substrates are particularly difficult, including multi-layering, refined wiring, and miniaturization, and only a few companies globally can respond to this technology. Although the technical difficulty demanded by our customers is extremely high, we have determined that we can control it through our



accumulated technological capabilities. Investment in high-function IC packages is an unprecedented scale, totaling ¥130 billion. We intend to seize the wave of demand to ensure stable growth in the Electronics Operation.

We will continue to boldly restructure our businesses and proactively invest in growth fields. In FY2022, we expect net sales in the Electronics Operation to increase by ¥20 billion to ¥220 billion, compared with net sales of ¥200 billion at the beginning of the medium-term management plan.

Ceramics Operation Capturing Demand in Emerging Countries

In the DPF operation, which is the mainstay of the Ceramics Operation, in order to respond to changes in the business environment, such as a shift toward EVs and a shift away from diesel mainly in Europe, we announced the dissolution of our DPF production plant in France, which is one of our production bases, in FY2018, and we have reorganized our global supply system by consolidating it into our plant in Hungary for Europe. Against this backdrop, due to the spreading impact of COVID-19, which followed slowing growth in the global automobile market, it is unavoidable for sales of our products for the conventional passenger vehicle market to decline. On the other hand, in emerging countries, regulations on the environment will become more stringent in the future, including stricter exhaust gas regulations that will begin this year. In addition to rising demand for automobiles due to population growth, the use of heavy commercial vehicles (HD) and construction machinery is expected to increase for the purpose of development. In the heavy commercial vehicle market in North America and emerging countries, we will steadily capture demand mainly at our plants in Mexico. In this way, we will continue to maintain an optimal and efficient production structure in the three regions of Japan, Hungary, and Mexico so that we will increase global productivity and cost competitiveness to rebuild our business into one that can generate stable revenues in the medium term.

Furthermore, in response to the continuing trend

toward tighter environmental regulations in the automobile market, we decided to establish a new production base for substrate holding mat whose demand is expected, in the Chinese market, the world's largest automobile market. The aim is to increase production capacity for high-function substrate holding mat and to strengthen customer support. Operations are scheduled to begin in the first half of FY2021. By proactively making capital investment in markets and fields where demand is expected to grow, we will put the Ceramics Operation as a whole on a stable growth track.

In response to the changing market, we will secure a certain level of profits although we expect net sales for FY2022 for the Ceramics Operation to decrease by ¥30 billion to net sales of ¥90 billion, compared with net sales of ¥120 billion at the beginning of the medium-term management plan, by continuing to select and concentrate on businesses in the future, including reorganizing the DPF production structure and establishing production bases for substrate holding mat.

New Businesses Contributing to Solving Social Issues

At the foundation of our operations lies IBIDEN's DNA to "create what will be needed by the society in the future based on core technologies." In FY2017, we established four development centers within the R&D Operation in order to solve social problems and meet customer needs using existing core technologies. Each of the four centers has been engaged in R&D to realize its aspirations of "making the air on the Earth cleaner" and "extending the healthy life expectancy of people." As a result of R&D for three years, we have reached the stage to set a certain level of target for commercialization. Accordingly, we dissolved four development centers as of the end of FY2019.

One of the product commercialization initiatives is a product called "alternative meat" developed mainly by the Biomaterial Product Development Team, which realizes the flavor and texture of animal protein using vegetable protein such as soybeans. We have developed the product to resolve the future food crisis



caused by the global population increase, but we believe that the time for full-scale market launch will come soon. We have also developed products for hybrid vehicles and electric vehicles to solve environmental and energy issues. We have launched an in-house project, and are now finalizing our commercialization efforts together with the wisdom of DENSO CORPORATION, with which we executed a capital and business alliance agreement.

In addition, measures to reduce the risk of infections and risk management related to food hygiene are increasingly required. The Group is working on technological development to realize safer and more secure hygiene spaces. Originally within the Group, IBI-BOARD Viruhael antiviral melamine decorative laminate was launched in 2015. However, its introduction was limited to new construction and renovation, and how to apply antiviral measures to existing facilities was a challenge. Against this backdrop, we have developed antiviral coating materials and sprays to combat the risk of infectious diseases, which can be used at existing facilities and offers immediacy, sustainability, and durability. These products can be used in a variety of existing facilities, including food facilities, medical and welfare facilities, and school education facilities, and contribute to the realization of safer and more secure health spaces. Going forward, we will continue to conduct research on how to use the technologies and products that our Group has fostered so that people can distance themselves as far as possible from the threat of viruses.

In addition, we are developing advanced ceramics products that contribute to improving the fuel efficiency of aircraft. We will continue to create products that help resolve social issues by leveraging IBIDEN's core technologies.

Development of Human Resources Rich in Diversity

We have evolved our core technologies and created new businesses, from IBIDEN's first business of hydroelectric power generation, to the electrochemical business with the aim of rational utilization of electricity, to the current mainstay of the Electronics and Ceramics Operations. The mindset fostered with the awareness that people are the foundation of supporting technology and business, and that each of

us must take on new challenges and continue changing in order to survive, has supported our technological transformations in the past.

The development of human resources who will support sustainable growth in the future is indispensable for us. In Japan, however, the working population is declining due to the declining birthrate and aging population. We have been aware of this issue from an early stage, and as we promote work style reform, we have been promoting "Good JC activities" to enhance employee motivation by encouraging communications within the organization and thus working more efficiently. This is an abbreviation for Good Job with Good Communication, and is an activity to do good work from good communications. All employees are taking on the challenge of improving operational efficiency and quality by reviewing operations from their purposes and objectives and changing the way of utilizing and developing IT tools. In particular, the general affairs and financial departments, which are called functional departments, have actually achieved tangible results, such as greater efficiency in day-to-day operations and settlement operations, and a significant improvement in operational efficiency. In addition, employee awareness surveys have shown that employees' motivation is enhanced by allowing them to work on higher-value jobs using time spared by more efficient time utilization.

The Company aims to realize a work environment and climate in which diverse human resources can exercise their individual abilities and can feel reasons for living and job satisfaction amidst a trend of advancing globalization and diversification of values. Since FY2010, we have been pursuing activities to promote women's active participation in the workplace, in which we have sought to create a working environment that is easy for women to work in while valuing work-life balance. In addition to the improvement of the work-life balance support system and training, etc., we are also promoting the Act on Promotion for Women's Empowerment, a training program for female employees selected from each department and their immediate supervisors. We are reforming the awareness of workplaces, including the supervisors of female employees, and supporting the development and promotion of female employees at the junior manager level. The ratio of female managers, who will be the backbone of IBIDEN in the future, is gradually increasing. We will continue these

activities with the aim of further empowering female employees. We established IBIDEN Oasis Co., Ltd. to promote employment of people with disabilities so that even more people can play an active role. In April 2019, the company acquired certification as a special subsidiary company. Through hiring of persons with disabilities who are eager to work in a stable manner, we aim to enable their professional independence through ability development. We are also promoting the development of workplaces where senior employees with extensive experience and overseas human resources can play an active role. We intend to continue to create an environment where the IBIDEN Group can maximize its strengths while respecting each individual's lifestyles, abilities, and working styles.

Promoting ESG Management to Enhance Reliability and Transparency

Our corporate philosophy is to contribute to harmony with the natural environment and also to the progression of an affluent society. We promote ESG management based on the belief that solving social issues through business activities leads to the building of a sustainable society. Since its foundation, IBIDEN has been incorporating hydroelectric power and other clean energy and conducting operations that contribute to solving social issues through its products. The reduction of the environmental burden in the manufacturing processes is in response to the requests of our customers and codes of conduct determined by industry associations, but it is without doubt that our awareness of the environment which we valued since our foundation enabled us to respond to these requests and demands. Our Group's efforts, which have been accumulated since the past, have been highly evaluated by ESG evaluation organizations. We will continue to disclose information in good faith, including disclosing environmental policies in response to TCFD recommendations, so that everyone can correctly understand our activities.

Currently, SDGs (Sustainable Development Goals) of the United Nations is being accepted widely in society, but we believe that contributing to SDGs is synonymous with implementing our corporate philosophy. In addition to the environmental aspect, we are contributing to SDGs in a variety of ways through our corporate activities, such as promoting diversity that utilizes a diverse human resources. We will continue to contribute to the realization of an affluent society through the products and corporate activities created by our core technologies.

As we advance ESG management, we are focusing particularly on strengthening our corporate governance system in order to enhance the reliability and transparency of management. In 2017, we transitioned to a Company with Audit and Supervisory Committee with the aim of streamlining management and accelerating decision-making. Furthermore, on April 1, 2020, we implemented changes to our executive system, including the elimination of corporate officers and reduction in the number of executives. This is attributable to the Company's goal

of accelerating decision-making and execution by establishing a governance system that is one step higher in order to respond to the rapidly changing business environment surrounding the Electronics and Ceramics Operations. We have established a system that can respond more quickly to changes in the external environment, so that we are able to appoint personnel with extremely high levels of expertise and new competitiveness as executives. Going forward, we will continue to review our governance system and aim for sustainable growth.

Toward Improving Shareholder Value

With the aim of achieving further growth, in terms of investment, we decided to make a large-scale investment totaling ¥130 billion in the Electronics Operation and also to construct a new production base in China for the Ceramics Operation, which will be our third production base in China. By making the largest-ever investment, free cash flow will temporarily turn negative in FY2020, but from FY2021 onward we plan to achieve positive results by expanding operating cash flow. In addition, we are making steady progress in large-scale investments in IC package substrates in order to achieve profit levels as planned, achieve ROE commensurate with the cost of capital, restore our financial position from the perspective of the equity ratio, and further strengthen our financial structure. Our goal for the ratio of R&D expenditures is at least 5% of net sales, and we will maintain our efforts to create products that will serve as the pillars of the next generation. In terms of capital allocation, for the time being we will prioritize large-scale investments for IC package substrates, but we also maintain our policy of paying stable dividends.

As digital transformation has brought about a new era in the living environment and markets, the unknown virus called COVID-19 has hit us, and there have been major changes in our lifestyle as we have known so far. However, IBIDEN has continued to evolve in response to these changes. I believe that this is precisely the time when the entire IBIDEN Group will work together to confront this challenge by bringing together diverse wisdom and responding to change based on the core technologies that we have built up since our foundation. And in the future, unpredictable events that exceed the current one may hit us. We will return to IBIDEN's DNA so that we can overcome difficulties even in such times, and strive to create products needed by society and to benefit everyone. We would like to ask shareholders and investors for continued support of the Group going forward.

September 2020
President&CEO



Panoramic View of Ogaki Central Plant

Special feature

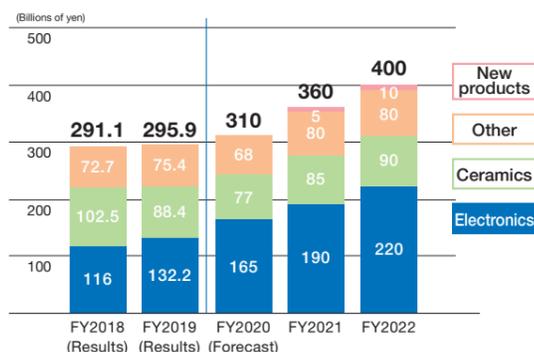
IC Package Plant with Enhanced Production Capacity Ready for the Upcoming 5G and ICT Era

In the semiconductor market, the progress of 5G and advances in ICT are expected to accelerate digitalization and cloud migration mainly in business activities and, as a part of such trend, the growth of data center market and increased demand for image analysis for on-board devices are anticipated. As a result, further demand and more complex specifications are forecast for high-function IC packages. In view of this situation, IBIDEN decided to make the following capital investments in addition to the capital investment of ¥70 billion in total which was announced in November 2018. By responding to these demands steadily, we will strive to establish a solid position in the field of high-function IC packages and continuously grow our Electronics Operation while making active contributions to the promotion of digital innovations that will enrich our daily lives and economic activities.

Capital Investment Outline (Plan)

1 Investment details	Investment in the capacity increase, updating, and promotion of next-generation compatibility of IC package substrate production equipment (Phase two investment)	2 Investment amount	¥60 billion (Total of the investment to be made between FY2020 and FY2022; ¥130 billion together with the amount for the phase one investment)
3 Location	Ogaki Central Plant (2nd Building), etc.	4 Period of operation	The plan is to start operating the Plant's renewed facilities successively as they are completed from the end of FY2020 with mass production starting from FY2021.

Targeted Management Indicators



Sales target of the Electronics Operation in FY2022

Net sales of ¥220 billion
Operating income ratio of over 15%

We will develop our Electronics Operation into a business that will drive the realization of our Medium-Term Management Plan with the aim of achieving ¥220 billion in net sales and operating income ratio of over 15% in FY2022 by successfully making the largest capital investment in our history and starting operation of the renewed facilities successively as they are completed from the end of FY2020.

In our Ogaki Central Plant, not only will we introduce cutting-edge equipment, but also proactively introduce new solutions in energy, security and other aspects to promote sustainable business operations in order to make it into an environmentally and socially responsible plant.

By contributing to the realization of a sustainable society through provision of sustainable plants, IBIDEN will continue proactively contributing to digital innovations that will enrich society.

Introduction of state-of-the-art equipment



High density ultra-fine wiring process

Sales increase in the Electronics Operation by **¥100 billion** (compared to FY2019)

Introduction of low carbon energy



Gas engine cogeneration system

Output **15,000kW**

CO₂ emission reduction by approximately **36%***

The progress of 5G and ICT has realized high-speed communication and increased data capacity, and as a result, compatible package substrates have become larger in size and have a higher count of layers. To meet such demand, we need to boost our production capacity to ensure high quality and high efficiency.

A new production building called Cell 5 being built in our Ogaki Central Plant features a high level of cleanliness that incorporates the concepts of semiconductor plants and introduces cutting-edge processing technologies and processes ahead of its time. The highly competitive Cell 5 will become a plant capable of producing high density package substrates with many layers at stable quality.

To minimize GHG emissions, we are promoting the introduction of a high efficiency gas engine cogeneration system (15,000kW in total.)

By introducing electricity generation using gas engines, we can achieve the high power generation efficiency of 49.5% and reduce GHG emissions by approximately 40% compared to the emissions when using electricity purchased from power companies. In addition, we established an environment in which the energy used by production equipment can be constantly monitored in efforts to realize business operations that use an optimal amount of energy to carry out production activities.

(*Comparison of 0.3kgCO₂/kWh CO₂ emission coefficient of gas engine power generation with 0.472kgCO₂/kWh general emission coefficient of electric power companies [based on the values released by the Ministry of the Environment and Ministry of Economy, Trade and Industry of Japan in January 2020])

Utilization of IT and digital technologies



Smart manufacturing system

Fully-networked facility

For the maximization of production efficiency, stabilization and enhancement of product quality, and cost reduction, we utilize ICT for networking all equipment information.

Currently, we are accumulating not only information on production equipment abnormalities and production results but also data linking the operation information of equipment and product quality (output) with processing information (input) in order to produce more advanced data analysis that will enable us to make improvements faster.

We are aiming for the derivation of optimal solutions with the introduction of AI in the future.

Labor savings by automated guided vehicles



Automated Guided Vehicle (AGV)

1.66 Times Productivity Increase in Target Processes

To automate low-added-value operations and allow onsite workers to concentrate on high-added-value work processes, we introduced an automated transfer system with OHT^{※1} and AGV^{※2} for labor savings.

By automating the transfer of materials and work in process between processes and plants formerly conducted manually by workers, we will strive to reduce costs and create a safer work environment. We will also establish automated transfers according to priority based on processing data by linking transfer systems to an IT system in order to achieve zero time loss due to waiting, thereby contributing to the realization of a highly efficient production system.

※1 OHT : Overhead Hoist Transfer
※2 AGV : Automated Guided Vehicle

Related SDGs



- 7.3 Double the global rate of improvement in energy efficiency
- 8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation
- 9.4 Upgrade infrastructure and improve industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes

Growth Strategies for Operations



Electronics



President of PKG Operation
Koji KAWASHIMA



President of MLB Operation
Kozo KODAMA

Diffusion of information technology has a great potential to enrich people's lives further. Information and our daily lives are becoming more closely interconnected, and access to information communication technology (ICTs) are gaining more importance around the world.

IBIDEN's Electronics Operation supports communication technology such as data centers with highly functional and highly reliable IC package substrates and contributes to the realization of digital innovation of the world.



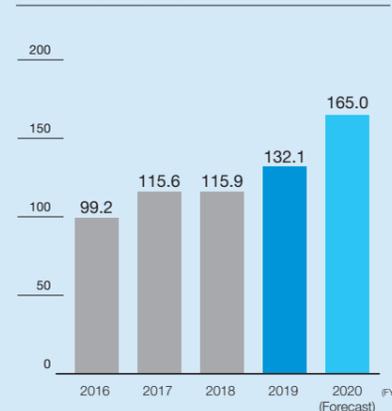
Business Overview and Results for FY2019

In the package (PKG) operation, net sales increased compared to the previous fiscal year due to consistent demand for replacing personal computers and strong demand for IC package substrates for servers used in data centers owing to the increase of data processing volume from the progress of information communication technology.

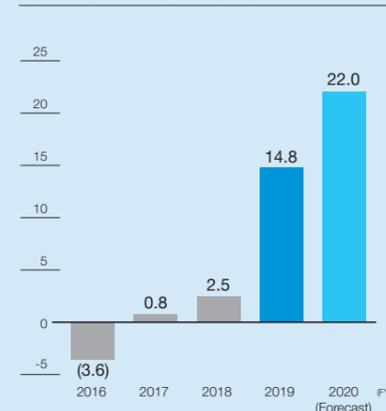
In the motherboard and printed wiring board (MLB) operation, sales of modular substrates remained strong, but sales of high-end smartphones decreased. As a result, net sales decreased compared to the previous fiscal year.

Accordingly, the net sales of the Electronics Operation totaled ¥132.17 billion and increased by 14.0% compared to the previous fiscal year. Operating income of the Electronics Operation was ¥14.892 billion in total, a 487.9% increase compared to the previous fiscal year, resulting from the promotion of selection and concentration of operations through measures such as focusing on high added-value products in the PKG operation and reducing the production of unprofitable products.

Net sales (billion yen)



Operating income (billion yen)



Market Trends and Growth Strategy

In the FY2020 Electronics Operation market, a continuous decrease in demand for high-end smartphones is anticipated. However, due to the ongoing proliferation of 5G and ICT, we expect that the data center market will expand and the demand for more sophisticated and fine electronic components such as the ones for image analysis for on-board devices increase.

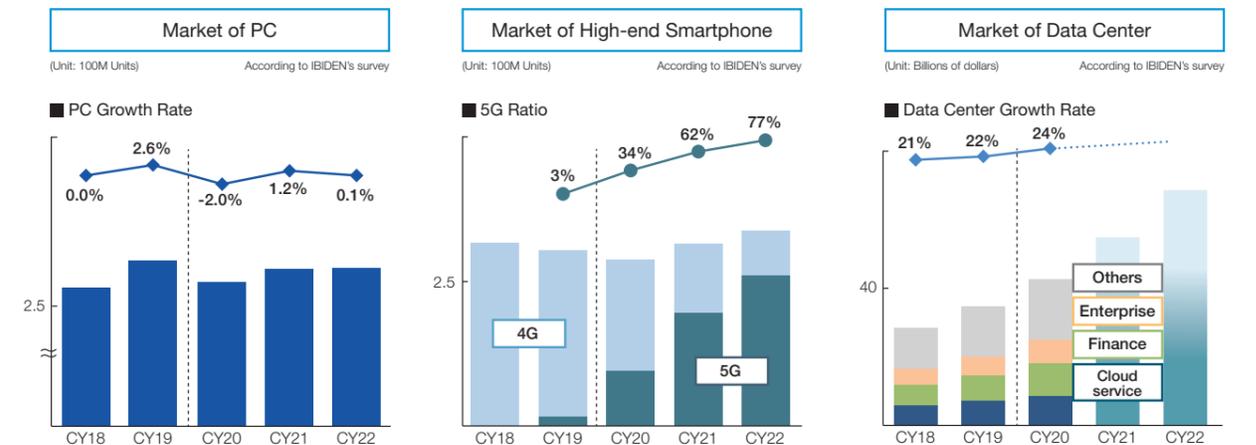
We will strive to increase our share in state-of-the-art

fields which are among IBIDEN's strengths by starting mass production of state-of-the-art IC package substrates to which we have been making large-scale investment.

For more information, please refer to page 25-26.

Moreover, we will continue to promote the selection and concentration of manufacturing systems and product lineup in view of changes in the markets.

- PC:** Forecast Slow Reduction due to Increasing the Number of Teleworks after Round of Replacement Demand of Windows 10.
- High-end Smartphone:** Expect Growth with Starting 5G Network over the Medium Term, Based on Current Negative Trend.
- Data Center:** Predict Over 20% Steady Growth with Accelerating Digitalization and Cloud Computing Mainly among Corporate Activities.



Technical Superiority - IBIDEN's Strength

Features of IBIDEN's IC Package

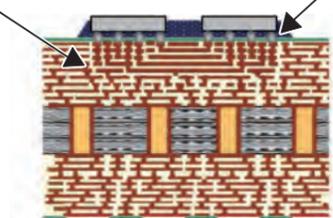
An IC package substrate provides an electrical bridge between an IC chip with a pattern width in the nanometer order, and a motherboard with a pattern width in the micrometer order. It also protects IC chips from dust and humidity. The IC package substrate is an important part that works in conjunction with IC chips, which is why Ibiden is always striving to increasing its added value and match all IC chip advancements.

Adopting Mico-Via with High Connection Reliability

Micro-vias that connect between layers in a multi-layer packaging substrate are the most important part of the board. We continue to reduce the diameter of micro-vias using state-of-the-art laser technology, while maintaining connection reliability. We also strive to make advances in laser technologies, materials, and processes to realize even smaller vias, while maintaining high reliability.

Development of Narrow C4 Pitch to Meet Today's Needs

While the flip-chip has package has become the mainstream mounting method, C4 bumps provide connections between semiconductor chips and packaging. C4 bump pitch is becoming increasingly smaller with each generation of technology. Ibiden has been developing wiring design, bump forming technology, and four-terminal electrical test technology to support narrower C4 bump pitches.



(Cross-section of flip-chip package)

Leading-Edge Patterning Technology to Enable Ultra-Fine Wiring

With the focus on Semi Additive Process (SAP), we provide world-class micro-patterning. We are also promoting development of patterning technologies similar to semiconductor fabrication processes.

Structures Supporting Electrical Characteristics

We provide optimum packages best suited for the electric characteristics required for an IC package by adopting the most suitable materials and structures. Our environment guarantees accurate measurement and monitoring of each component's characteristics, allowing us to fine tune the characteristics to fit the quality requirements of individual customers.

Growth Strategies for Operations

Ceramics



President of Ceramics Operation
Sotaro ITO

Aiming to create towns where people can continue to live their lives for generations, we must minimize the negative effects that our lives and activities have on the environment.

Currently, many countries are introducing tighter environmental regulations across the world, and the entire industrial world needs to contribute to the creation of a cleaner environment.

IBIDEN's Ceramics Operation contributes to the improvement of air quality across the world through provision of diesel particulate filters (DPF) that purify exhaust gas, substrate holding mat (AFP) and SCR catalysts.



Business Overview and Results for FY2019

For diesel particulate filters (DPF), due to a decrease in the ratio of diesel passenger vehicles primarily in the key European market, net sales decreased compared to the previous fiscal year. We will strive to increase our share and acquire new customers in the DPF market for large vehicles in developing countries which is expected to expand due to the introduction of stricter exhaust gas regulations.

For substrate holding mats (AFP), net sales decreased compared to the previous fiscal year as automobile sales declined worldwide.

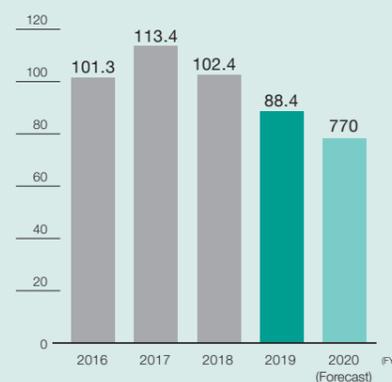
NOx reduction catalysts (SCR) experienced a decrease in net sales compared to the previous fiscal year due to a

decline in the sales of stationary SCR catalysts used mainly at coal fired power plants.

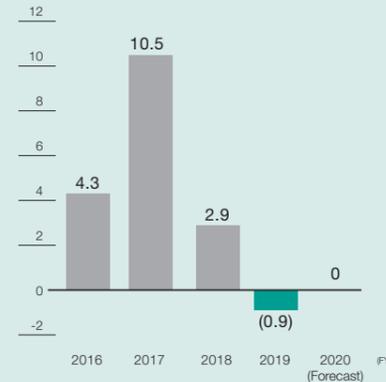
The slowdown of the semiconductor market triggered by U.S.-China trade friction caused a temporary fall in demand for graphite specialty products (FGM), and consequently, net sales declined compared to the previous fiscal year.

Accordingly, the net sales of the Ceramics Operation totaled ¥88.427 billion and decreased by 13.7% compared to the previous fiscal year. Operating loss was ¥0.981 billion in the Ceramics Operation (¥2.966 billion in operating income in the previous fiscal year).

Net sales (billion yen)



Operating income (billion yen)



Market Trends and Growth Strategy

With regard to our mainstay DPF Operation in the Ceramics Operation, in addition to a slowdown in the global automobile markets, a decline in the ratio of diesel passenger vehicles is expected to continue mainly in Europe. In the meantime, due to stricter exhaust gas regulations to be imposed from this year, the demand in developing countries and for large vehicles are expected to increase. Therefore, we will make sure that we receive

orders in these markets while striving to reshape our Ceramics Operation into a business that can generate stable profits in the medium term by globally enhancing the Operation's productivity and cost competitiveness.

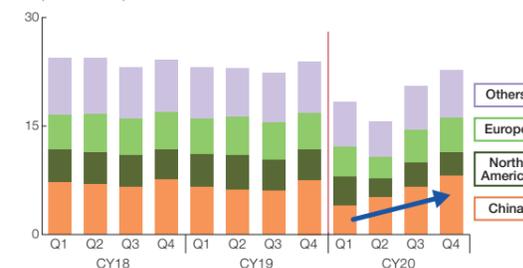
Moreover, in the AFP and FGM operations, by proactively making capital investments in the markets and fields where demand is expected to grow, we will put the Ceramics Operation as a whole on a stable growth track.

Long-Term Forecast for Automobile Market

Passenger Car Market: Forecast Current Rapid Deceleration due to COVID-19 but Recovery on or after the 3rd Quarter.
Medium/Heavy Commercial Vehicle Market: Predict Demand Expansion by Tightening of Emission Control in Emerging Countries over the Medium-to-Long Term.

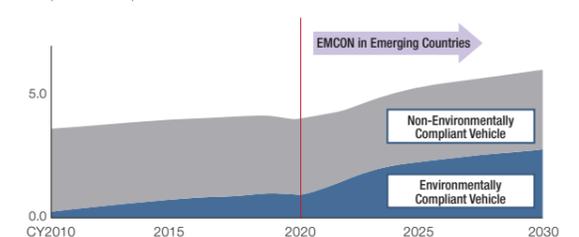
Passenger car

(Unit: Million Unit) based on IBIDEN's research



Medium and Heavy Commercial Vehicle

(Unit: Million Unit) based on IBIDEN's research

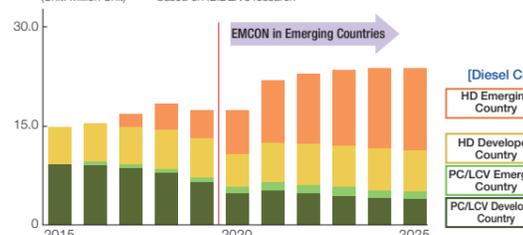


Exhaust System Business

Maintain Optimum and Efficient Production System in Hungary-Mexico-Japan Trilateral Framework along with Market Change.
Expand Demand of Catalyst Carriers and Sealing Materials Mainly in China by the Tightening of Emission Control.

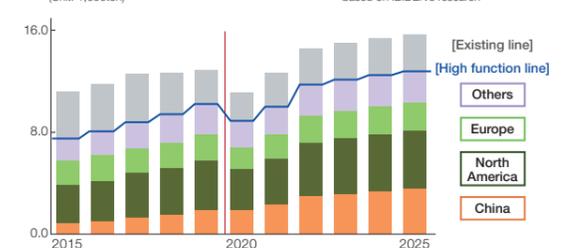
Exhaust Filter Market

(Unit: Million Unit) based on IBIDEN's research



Catalyst carriers holding mats for automobiles

(Unit: 1,000ton) based on IBIDEN's research



※ PC : Passenger Car ※ LCV : Light Commercial Vehicle ※ HD : Heavy Duty Car (Converted value : Passenger Car x 3)

Global Supply System - IBIDEN's Strength

We have established a supply system for ceramic products including mainstay DPF products, which is the main product of the Ceramics Operation, in the three regions of Japan (Asia), Europe, and North America. The ongoing trend of diversification of power trains is expected to continue, primarily in passenger vehicle markets. Bearing this in mind, we will globally promote the optimization and efficiency of production systems focusing on growing markets.

TOPICS

Establishment of New Substrate Holding Mat Production Site in China

We are to establish a new plant in China, which is expected to expand demand of catalyst carriers and sealing materials for automobiles by the tightening of environmental regulations, in order to strengthen support for more orders and more customers.



Perspective Image

<Overview of Investment Plan>

- (1) Company: IBIDEN Fine Ceramics (Suzhou) Co.,Ltd.
- (2) Investment Value: About 2.5 bn. yen
- (3) Location: Jiangsu in China
- (4) Start Operation (Plan): The first term of FY 2021



Catalyst Carriers and Sealing Materials

Growth Strategies for Operations Technological Development



President of R&D Operation
Syuichi KUBO

Message from the Operation Manager, Technological Development Division

We established four development centers in FY2017, and we have been working on the research and development of new products that aim to resolve social issues and reflect customers' needs by utilizing our existing core technologies. As a result of our R&D efforts over the past three years, we have reached the stage where we know the directions to which we should proceed in our R&D activities. Therefore, at the end of FY2019, we dissolved four development centers on a positive note, and launched two internal projects, one for biomaterial products and the other for next-generation mobility products. For these projects, we are entering the final phase for commercialization. In other development domains, we will promote the development of products that help resolve social issues. Such products include antiviral coating materials to reduce the risk of infection and advanced ceramic products that significantly improve the fuel efficiency of aircraft engines.

Application of Technologies to Solve New Social Issues

Contribution to the realization of a society where everyone can have access to better nutrition

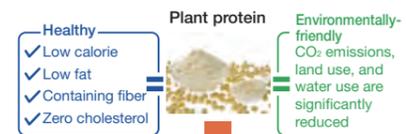


One of the SDGs is "End hunger, achieve food security and improved nutrition and promote sustainable agriculture."

IBIDEN has been looking into the potential of plant protein to contribute to improved nutrition and sustainable production for people around the world. As a part of these efforts, our DPF operation successfully developed an alternative meat made of soy protein whose texture and flavor closely resembles those of real meat by applying IBIDEN's high-precision molding technology that we have fostered over the years.

Aiming for the provision of safe and reliable foods

We are developing food products in cooperation with IBIDEN Bussan Co., Ltd. a company specializing in food processing that has already adopted a sanitation operating procedure based on HACCP principles, in order to deliver safe and reliable products to consumers.



IBIDEN's original product development



Contributing to the realization of society capable of dealing with viruses well



To achieve the SDG of "Ensure healthy lives and promote well-being for all at all ages," it is important to build a society that is well prepared to deal with infectious diseases.

In the IBIDEN Group, antiviral melamine decorative laminates of the Housing Materials Operation have been used for the walls of various buildings and structures. However, how to address virus infection risks in existing buildings and structure have remained a challenge for us.

To resolve this issue, we developed an antiviral coating material which can be used for existing facilities and has an immediate and enduring effect and durability.

Recently, measures for reducing the risk of virus infections and risk control for food sanitation are increasingly in demand, and the IBIDEN Group will continue to commit itself to developing technologies that will help create safer and reliable clean spaces.



Gifu General Health Checkup Center with counters and knobs coated with the antiviral coating material (Gifu City, Gifu Prefecture)

Toward Greater Adoption of Clean and Environmentally-Conscious Technologies



The SDG of "Greater adoption of clean and environmentally sound technologies and industrial processes" is one of the important themes for the manufacturing industry to pursue in improving sustainability. We are continuously working on the development of a wide variety of products and materials by utilizing our core technologies to help realize a low carbon/ decarbonized society as a countermeasure against climate change.

Products for Mobility to Help Resolve Environmental and Energy Problems

IBIDEN develops high-efficiency and high-function intake and exhaust systems based on our ceramic molding and sintering technology which aim for cleaner emissions. At present, our newly-launched internal project for next generation mobility products is entering its final phase for commercialization.

In other development domains, we have been working on

the development of materials and components for electronic vehicles to control electric power and heat in particular as well as advanced ceramic products that significantly improve the fuel efficiency of aircraft engines based on the technologies to control the physical properties of materials that we have fostered over the years.



Details of our advanced ceramic products are introduced as a case study on innovation in the Challenge Zero website of Keidanren (Japan Business Federation).
<https://www.challenge-zero.jp/en/casestudy/337>



For Further Creation of Innovation

We believe that it is essential for us to not only utilize internal resources but also collaborate with external bodies to create further innovation. We are building partnerships with various organizations and proactively promoting open innovation that will help solve various issues by combining the technology and knowledge possessed by different fields. In addition, we will pursue the possibility of promoting innovation inside the Company by, for example, encouraging the development of internal venture projects.

Partnership Agreement with Plug and Play

In April 2019, IBIDEN and Plug and Play based in Silicon Valley in the United States reached a partnership agreement. We believe that this partnership will provide us with opportunities to cooperate or collaborate with startups* around the world and incorporate their latest technologies and know-how.



* Companies with potential to grow significantly in the short term and drastically change the market environment with their new business models.

Registration in INNOVATOR'S GARAGE

In July 2019, IBIDEN became a member of INNOVATOR'S GARAGE which was jointly established by the Central Japan Economic Federation and the City of Nagoya as a place to induce innovation from intercommunication with different types and fields of businesses. By interacting with people from different fields through INNOVATOR'S GARAGE, we are rediscovering our technologies and driving the development of human resources capable of generating innovation.



With Respect for Both Individuals and the Global Environment

Human Resource Development

Contributing SDGs



Basic Approach

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

For the development of human resources which is one of the pillars of our Medium-Term Management Plan, we have been implementing five measures of (1) Human resource training system; (2) Productivity improvement; (3) IT utilization; (4) Thorough working hour management; and (5) Creation of environment in which diverse employees can play active roles as part of the work style reform to achieve a good work-life balance.

Human Resource Training System

Human resources are the sources of IBIDEN's 100 years of history and also what will build the next century of our development. The Company has established human resource training systems in an effort to develop the human resources necessary to accurately grasp changes in the business environment and create new products and technologies.

We implement standardized education across the Company (stratified training programs by age group and by job grade) and provide specialized education for selected personnel based on our basic education and training structure. The training programs by age group were completely revised from life plan-based training to career plan-based training in line with changes in our times such as the extension of the mandatory retirement age to 65, while in specialized education, we opened the Human Resource Development Center in 2017. We also focus on the development of personnel who can flourish globally by promoting not only foreign language but also cross-cultural communication training programs.

TOPICS Human Resource Development Center for Improving Technical Skills

We have established the Human Resource Development Center dedicated to the training of engineers in order to keep handing down our technological capabilities for the next hundred years. Training provided by the Center ranges from the fundamental education required for engineers to training in specialized fields. Nurturing people to be well equipped with skills for the next-generation developments will lead to enhanced technological strengths for IBIDEN. The Center focuses not only on providing knowledge to trainees but also helping them develop the engineer mindset by providing practical education through skill practices. Furthermore, in addition to these human resource development efforts, the Center is tasked with the role of a transactive memory that incorporates the technology and expertise held by each department with the aim of achieving efficient R&D and creating new innovation. It plays an important part as a source to continue creating the IBI-TECHNO of the future.

Productivity Improvement and IT Utilization

IBIDEN regards productivity improvement activities as opportunities for human resource development and has been focusing on having employees master how to do the work with a kaizen (continuous improvement) mind. Instead of pursuing the results of activities, we started from solving problems faced by employees in everyday routine work. We review their operations thoroughly including their objectives and purposes, improve work flow in ways that can generate satisfactory results naturally and efficiently, and proactively introduce IT including RPA* to prevent a return to previous conditions. In addition, since these efforts have been carried out across the Company, improvements in cooperation with other departments have been made easily, and as a result, work quality in pursuit of overall optimization has also improved.

※ Robotic Process Automation: Automation of work processes by robots

Comment from a Person in Charge of Promotion in the Strategic Corporate Planning Operation

In the Strategic Corporate Planning Operation, each department manager took leadership and worked on theme activities first as role models and later deployed activities to members. We focus on promoting activities in which all members can take part and participants think together using the same concepts and the same method, and provide support and guidance to each other. In addition, we hold monthly activity reporting meetings where everyone from the President of the Operation and his subordinates attend to apply or use success stories of other departments and maintain motivation. In a 2019 employee awareness survey, we found that more employees said that their work productivity improved.



Junior Manager, General Affairs Division, Strategic Corporate Planning Operation
Ms. Noriko Sugiyama



Thorough Work Hour Management

In Japan, work style reforms have been promoted and, as a part of the reforms, rectifying the practice of long work hours has become one of the important issues to be addressed. Even though laws and regulations relating to work hours have been tightened, mental illness and occupational accidents caused by long work hours have become a serious problem, and companies are being asked to further efforts to rectify the practice.

IBIDEN and its Group companies in Japan set a goal of reducing the average annual work hours per employee to less than 2,000 hours.

▶ Visit our website for details of the Human Resource Development Center.

<https://www.ibiden.com/tech/origin/>

Based on this goal, presidents of Operations established their policies on work hours and heads of departments set their targets, and are tracking progress toward those targets. Measures to encourage employees to take annual paid holidays and reduce overtime are also being taken.

As a result of these measures, labor management has become more complicated. To make managers better able to handle the complex labor management processes, we provide them with necessary training and make sure that all of them understand the processes.



Creation of Environment in which Diverse Employees Can Play Active Roles

Our Group aims to realize a work environment and climate in which diverse human resources can exercise their individual abilities and can feel reasons for living and job satisfaction amidst a trend of advancing globalization and diversification of values.

Female Advancement

The Company launched an initiative called Act on Promotion for Women's Empowerment in FY2017, and has been promoting activities to achieve the goal of having at least five female managers (in Manager or higher-level positions).

Thanks to these efforts, the number of female managers and candidates is steadily increasing.

	April 2019	April 2020
Division manager level	0	1
Middle manager level	2	1
Junior manager level	11	14

Senior Employees Playing Active Roles

Due to an increase in senior employees and changes in the social environment in Japan, discussions between labor and management were held and through these discussions, we introduced an extension to the mandatory retirement age system from FY2020.

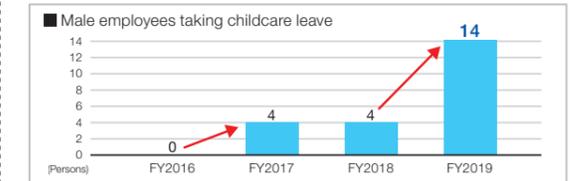
For the treatment of senior employees, we established a reward system based on the employees' roles and achievements to keep them motivated and make full use of their expertise and worksite skills fostered over the years.

Skill Development for Persons with Disabilities

In April 2019, IBIDEN OASIS Co., Ltd. was certified as a special subsidiary company, and entered business. In addition to its basic operations of environmental maintenance in IBIDEN Group plants, the company received orders for data input, business card creation, and enclosing documents and advertising fliers in envelopes in an effort to develop new skills.

Acquisition of Childcare Leave by Male Employees

Due to the efforts we made to enhance and promote the work-life balance support system, more male employees are proactively participating in child rearing and becoming aware of the importance of the balance between work and personal life. As a result, the number of male employees taking childcare leave significantly increased in FY2019.



Retention of Junior Employees

We established a mentor system in which senior members in the workplace support new employees so that they will not feel isolated in their assigned workplaces.

New employees appoint their own mentors after a preparatory period, and the mentors support their mentees for one year, for example, providing advice and assistance with work and their specialized fields and helping the mentees cooperate with other departments.

Development of Non-Japanese Employees

We decided to accept a total of 200 employees from IBIDEN Philippines, Inc., an IBIDEN overseas Group company, as technical interns.

Learning state-of-the-art technologies in Japan and bringing the know-how to the Philippines will enable the interns to upgrade technical levels of their company.



Respect for Human Rights

The IBIDEN Group clarifies in the IBIDEN Standards for Employee Behavior our respect for the basic rights of workers as internationally declared and that we will not aid in the infringement of human rights including the use of any form of forced or involuntary labor or child labor.

We provide training on fair employment and human rights to those in charge of labor affairs management as well as staff members and managers in charge of hiring while striving to keep all employees well-informed on workers' rights through

our Standards for Employee Behavior.

In Japan, we provide managers and employees with human rights-related training programs in efforts to prevent any form of abuse of power. Our manager training programs teach participants things they should know and practice as managers, including daily communication skills, responses when being consulted by staff members and the handling of information.

▶ Visit our website for details of our human resource management.

<https://www.ibiden.com/company/talent-management/>



Measures for Occupational Health and Safety

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

Strengthening Activity for Zero Occupational Accidents

We are working on occupational health and safety activities so that all employees of the entire IBIDEN Group can establish safe and comfortable workplaces and work vigorously with an awareness of “safety first” by putting in place pillars of activities: “zero recurrence of occupational accidents” and “accident/incident prevention”.

The occupational accident frequency rate of the Company and group companies in Japan stands at 0.82, which is lower than the national average of manufacturing companies. However, because the number of work-related accidents in the Company increased, we are striving to strengthen management with the aim of preventing recurrence of similar accidents by analyzing what caused them and putting in place fundamental measures for prevention.

Promoting Health and Productivity Management^{※1}

The Group believes that the physical and mental health of each and every employee constitutes the basis for supporting the Group’s competitiveness, and actively helps employees maintain good health.

As a promoting structure, we have organized the “IBIDEN Group Health Subcommittee,” mainly with representatives from the Health Management Promotion Center (industrial physicians, public health Nurses), Human Resources, Environment & Safety, IBIDEN Health Insurance Society, and IBIDEN Labor Union.

As measures to support employees’ mental health, the employees, workplaces, the Health Management Promotion Center, and Human Resources respectively play their roles, and use external resources for the prevention and treatment of mental health issues.

Acquired Recognition for “the Certified Health & Productivity Management Outstanding Organization – White 500”

We were again certified as the Health & Productivity Management Outstanding Organization for 2020. In the program, the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi recognize outstanding enterprises engaging in efforts for health and productivity management.



Our activities to encourage employees to get into the habit of exercising by joining walking events, etc. and the excellent support system of our Health Management Promotion Center were highly evaluated.

Large Enterprise Category	Small and Medium Enterprise Category
White 500^{※2} IBIDEN Co., Ltd. TAK Co., Ltd.	IBIDEN Engineering Co., Ltd. IBIDEN Bussan Co., Ltd.
First time IBIDEN Jushi Co., Ltd.	
First time IBIDEN Industries Co., Ltd.	

※1 Registered trademark of the Workshop for the Management of Health on Company and Employee
 ※2 Top 500 enterprises certified in the Large Enterprise Category

With Respect for Both Individuals and the Global Environment Relationship with the Society

Basic Approach

We will strive to develop IBIDEN into a company trusted by the international community by harnessing our corporate strengths to engage in activities, including the creation of a better living environment and fostering of local human resources and carrying out activities as a global corporate citizen suitable for the culture and climate of each country and region such as participating in and supporting activities conducted by organizations engaged in such initiatives.

Protection of the Global Environment through “IBIDEN’s Forest” Activity

In FY2008, we embarked on a forest building initiative as part of our global environmental protection activities. This activity takes place chiefly in Higashi-Yokoyama, the place where IBIDEN was founded, and where the Company operates its initial hydroelectric power generation business.

Business activities of our Group are receiving the blessings of nature such as the stable supply of water resources while having an impact on biodiversity at the same time. In consideration of this, we will continue our efforts for the conservation of biodiversity through activities to conserve the forests.

In these activities, we also work together with organizations outside of the Company including local municipal governments, and we participate in the Japan Business and Biodiversity Partnership promoted by Keidanren (Japan Business Federation) and other organizations for information sharing.

地球のいのち、つないでいこう

わたしたちは「生物多様性民間参画パートナーシップ」に参加しています

▶ Visit our website for details of our social contribution activities.
<https://www.ibiden.com/esg/contribution/>

Community Support through a Scholarship Program in the Philippines

IBIDEN Philippines, Inc. has been providing a scholarship program in cooperation with the country’s high schools for high school students from poor families as part of its educational support activities throughout the year by collecting voluntary donations from our employees since FY2009.

142 employees’ donations helped 222 students in FY2019.



With Respect for Both Individuals and the Global Environment Harmony with Nature

Contributing SDGs



Basic Approach

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



Energy (climate change):

Aim for zero CO₂ emissions with the energy conservation and the use of renewable energy, and business contributions.

Blessing of water:

Value the blessing of water and reduce the impact on water resources to the minimum.

Waste (resources):

Reduce waste by minimizing the use of resources and maximizing recycling.

Chemical substances:

Thoroughly control chemical substances contained in raw materials on a global basis.

TOPICS

Action to the Task Force on Climate-related Financial Disclosures (TCFD)

In August 2020, we announced our support for the recommendations of the TCFD. To achieve sustainable growth, we will appropriately assess our climate-related risks and opportunities, clarify their impact on our business operations and necessary measures, and actively disclose such information to a wide range of stakeholders, including investors.



	Activity Updates
Governance	To promote environmental activities including responses to climate change, we established a company-wide Environment Committee chaired by the director in charge of Corporate Strategic Manufacturing Operation who is in charge of company-wide environment, health and safety matters. The Environment Committee has assumed control of the practice of environmental activities.
Strategy	We recognize highly important business risks and opportunities to be brought about by climate change and continue to respond to them under the Medium-Term Management Plan. Refer to page 18 for details of the changes in the business environment and our responses to risks. We plan to verify the impacts to be brought about on our Company’s operations as well as our strategies and goals by using scenario analysis and other methods.
Risk Management	In the company-wide risk management process, we analyze a wide variety of risks surrounding management and addresses items that will seriously impact our business. A company-wide Risk Management Committee chaired by the President & CEO is held annually.
Metrics and Targets	Under our current Medium-Term Management Plan, we have been working on the reduction of GHG emissions per production volume. Furthermore, we will set a goal for further contributions to the reduction of GHG emissions in the medium-to-long term perspective.

▶ Please visit our website for details of our environmental initiatives.
<https://www.ibiden.com/esg/environment/>



Actions to Climate Change Issues

We regard the acceleration of climate change as one of the risks surrounding our Company. Therefore, with the aim of achieving the goal of zero GHG emissions by 2050, we have been promoting activities with four pillars including the use of hydroelectric power generation which utilizes the blessing of water passed down from our ancestors.

1. Use of Blessings from Our Ancestors with Hydroelectric Power Generation

Hydraulic power generation is clean energy without greenhouse gas emissions. IBIDEN has owned and operated hydraulic power generation plants since our foundation, and currently operates three facilities located at the upstream section of Ibigawa River in Gifu Prefecture (27,900kW in total). Power generation capacity updating was completed by 2015).



Higashi-Yokoyama Power Plant

2. Energy Use Reduction with Energy Efficient Technologies

The IBIDEN Group consumes a large amount of energy in its production activities, including energy uses for temperature control in the manufacturing process in the Electronics Operation and electric furnaces for the Ceramics Operation.

Therefore, we set targets, monitor energy use company-wide, and conduct improvement activities to realize an energy efficient production process.

GHG Emissions Reduction Target

FY2018-FY2022 (Medium-Term Management Plan)

Aiming to reduce the basic unit per converted production volume **by 5%** compared to FY2017.

We will continue to set emission reduction targets in coordination with future medium-to-long term growth strategies.

Blessing of water

A large amount of water resources is used in the manufacturing process of electronic products, particularly for cleansing. Ogaki City in Gifu Prefecture, where our domestic production bases are concentrated, is rich in underground water thanks to the Ibigawa River system. However, water shortages are a serious problem in the world today.

Actions to water risk

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

3. Low Carbon Energy Use by In-house Power Generation

IBIDEN installed a highly energy efficient in-house power generation gas engine cogeneration system to generate low carbon energy. In fiscal year 2019, we installed the latest cogeneration equipment to promote energy conservation, and worked to strengthen our BCP. These initiatives were highly appreciated by the Advanced Cogeneration and Energy Utilization Center JAPAN (ACEJ)*, and we were granted the grand prize of the Cogeneration Award by ACEJ.

Moreover, we install solar power generation equipment in each plant to generate renewable energy. In the future, we aim to establish a system whereby each plant is connected to our own power grid so that privately generated electricity can be optimally supplied in accordance with demand between each plant.



※ ACEJ Website:
https://www.ace.or.jp/web/gp/gp_0010.html

4. Contribution to Expansion of the Renewable Energy Market by the Power Generation Business

Our Group company, IBIDEN Engineering Co., Ltd. specializes in business in the energy solution field.

Through an integrated approach, in which its business includes design proposal, construction and maintenance, IBIDEN Engineering has a track record in many power generation projects ranging from equipment for hydroelectric power plants and power substations to systems for solar power generation plants and small hydroelectric power plants.

We will continue to promote business solutions for energy problems within and beyond the Group.



Water floating solar power generation plant (Certificated output:1.99MW)

Wastewater Control

Our Group's business activities are supported by the rich water resources in the Ogaki area of Gifu Prefecture.

Underground water pumped to the surface passes through wastewater treatment after use, and is released into rivers or a sewage treatment facility under the strict control of our Group based on our own standards that are stricter than the ones required by laws and regulations.

Resource Circulating Activities

IBIDEN believes that it is an important responsibility of businesses to make effective use of the world's scarce resources and to take part in a global effort to conserve resources. We promote the so-called 3R activity, which consists of initiatives to Reduce, Reuse and Recycle the resources we consume. In doing so, we aim to improve the resources efficiency.

Currently, each plant and Group companies are working on sorting out and recycling wastes. Together with improved production efficiency, we set a goal of reducing the waste basic unit per production volume by 5% in our Medium-Term Management Plan.

Chemical Control

Compliance with Laws and Regulations related to Substances Contained in Products and Chemical Substances in the Manufacturing Process and Management of the Work Environment

A variety of chemical substances are used in the manufacturing process in the Group. They may cause environmental pollution or pose health hazards to humans. It is a great responsibility for businesses to properly manage chemical substances to secure product safety, reduce environmental burdens, and promote occupational safety.

Regarding chemical substances, the laws and regulations of each country, including the REACH Regulations and the RoHS Directive, as well as the standards demanded by our customers, are becoming increasingly stringent. To prevent risks caused by chemical substances, we are working to properly manage chemical substances throughout the entire supply chain by identifying substances whose use should be eliminated or reduced in the Green Procurement Guidelines.

1) Initiatives for Laws and Regulations related to Chemical Substances

Although some chemical substances used in the ceramic business fall under the category of substances whose inclusion in products is restricted under the EU REACH Regulations, we completely replaced them with alternative substances in fiscal 2018.

Additionally, in Japan, according to the country's basic plan, equipment containing polychlorinated biphenyls (PCB) and PCB waste must be controlled. The IBIDEN Group has been taking action in a planned manner by setting deadlines earlier.

2) Considerations on the Health of Employees with regard to Chemical Substances

To ensure the health and safety of our employees, we provide employees who handle chemical substances with education regarding the harmfulness and proper handling of such substances before the employees are assigned to such operations. When they engage in the operations, they are provided with appropriate protective equipment and are obliged to wear it.

Environmental Contribution through Business and Products

Based on our corporate missions, the IBIDEN Group aims to contribute to the growth of an enriched society with our products and services created from our business activities.

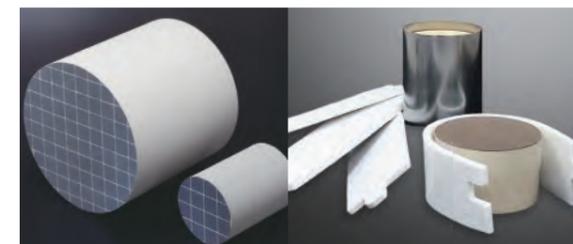
While the goal of reducing our environmental burden continues, our automobile exhaust parts contribute to realizing cleaner air by reducing particulate matter in emission gas.

We will continue to develop high-efficiency and high-function intake and exhaust systems based on our ceramic molding and sintering technology which aim for cleaner emissions.

Related businesses in our Group also utilize their

accumulated technologies to provide products and services that will help reduce the environmental burden.

IBIDEN Greentec Co., Ltd. continues to provide new construction methods that achieve both disaster prevention and environmental protection, such as the "Totally Green" method.



Slope constructed using the GT frame®

Supply Chain Management

Contributing SDGs



Basic Approach

To earn the trust of international community while operating business globally, both the Group and the entire supply chain must responsibly take actions that respond to social demands.

Basic Procurement Policy

- ① We will comply with laws, regulations and customs and build relationships based on mutual cooperation and trust with suppliers.
- ② We will offer fair trading opportunities to suppliers.
- ③ We will fulfill our human rights, environmental and other social responsibilities through our procurement activities.

» IBIDEN Group Supplier CSR Guidelines

In order to lead globally developing operations into sustainable growth with our suppliers, we unveiled “the IBIDEN Group Green Procurement Guidelines” in 2009 as a system for green procurement, designed to procure parts and materials that feature reduced environment impact. In addition, we published “the IBIDEN Group Supplier CSR Guidelines” (hereinafter called “CSR Guidelines”) in 2011. These guidelines provide our suppliers with requests by our customers, the industry and the international community and items that should be managed by the Group. The items are divided into subcategories according to themes such as labor, health and safety, environmental protection, ethics and fair business practices.

Measures for Supply Chain Management

» Communication and Cooperation with Supplier

In order to thoroughly implement CSR Guidelines throughout the entire supply chain, we request our suppliers, including new suppliers, to pledge to comply with CSR Guidelines, as well as to evaluate the status of guideline compliance through CSR investigation and report annually. Furthermore, to confirm the actual status of suppliers and promote improvements, we make requests on improving issues addressed in CSR investigation as well as conduct site visits and audits to ask the suppliers for improvements to their activities. Each guideline is published on the Company's website so that they may be reviewed by all stakeholders.

» Risk Management of the Supply Chain

The IBIDEN Group controls the whole supply chain, not limited to the suppliers from whom we procure materials. In Japan, with regard to contractors and dispatched workers, labor management is becoming complicated by various factors such as the increased number of foreign workers. Amid such circumstances, risk management of the supply chain has become increasingly crucial for us. To ensure the soundness of the supply chain, we periodically share information through personal interviews and confirm the current status in cooperation with our suppliers.

» Responsible Sourcing of Resources (Conflict Minerals[※])

Illegal mining of resources in conflict areas and high-risk areas has become a major international issue as it abets human rights violations and environmental destruction. Our “CSR Guidelines” clearly state that the suppliers should refrain from illegal mining in conflict areas as well as procuring resources that may support human rights violations. Furthermore, we will conduct reasonable investigations into the mineral supply routes and disclose the findings in good faith.

※ The targets are tin, tantalum, tungsten, gold, and cobalt.

» Suppliers' Compliance Counter

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

Quality Management

Basic Approach

By consistently developing cutting-edge technologies, IBIDEN contributes to the creation of a comfortable IT society as well as a society where cars and nature coexist through the proposal and supply of high-value-added products. Based on its “customer first” policy, the Group meets the needs of customers through unique technologies and designs that take into account the global environment. We understand that our greatest mission is to consistently supply safe and reliable products.

The basic policy for the quality

Electronics

Based on the concept of quality first, we will achieve customer satisfaction by clearly grasping customer needs and producing and providing reliable products through IBI-TECHNO.

Ceramics

Through IBI-TECHNO, we will incorporate customers' real and potential needs and add values to such needs while striving to provide moving experiences to customers through our product making, which continually gives top priority to quality.

» IBIDEN Management System “IMS”

IBIDEN globally adopts the IBIDEN Management System (IMS) which aims to continuously improve the Group's business competitiveness and customer satisfaction level. Based on quality management systems ISO9001 and IATF16949, we integrated environment management system ISO14001, occupational health and safety management system ISO45001, and corporate management systems to improve the quality of every single operation process. We will continue to build and operate systems that allow us to provide high quality products globally so that we can offer products and services exceeding the expectations of society and our customers.

In addition, the Group has received ISO9001 certification at main domestic and overseas manufacturing plants and

IATF16949 in operations related to the automotive industry. ISO9001 and IATF16949 are international quality management system standards.

» Measures to improve quality

IBIDEN is striving to contribute to society and customers through product quality. We hold review meetings at each process phase from the development of cutting-edge technologies, product planning, and design to mass production in order to evaluate compliance with requirements. To improve quality further, we offer guidance and audits, including assessment by the president, at workplaces in Japan and overseas and group companies on quality improvement. In addition, we also provide support and guidance to our suppliers for the purpose of quality improvement.

TOPICS

Control and Response to Changes by IT System

IBIDEN believes that the standardization of work quality at each base in the IT system is important for global management. For the ongoing IT system construction conducted globally, we are carrying out required tasks by separating them into two domains of control-focused tasks and response-focused tasks.

System Construction in the Control Perspective

In domains such as purchasing, accounting, and asset management, our global IT system construction focuses on control, and migration to Cloud ERP[※] is being promoted. Standardization of work flow and work management method with Cloud ERP will eliminate uneven work quality and ensure uniform quality of operations. In addition to the completion of migration in our Hungary branch, migration was completed in our offices in Japan and Germany in FY2019. In the future, migration to Cloud ERP is scheduled to be completed in all bases in and outside of Japan by 2025.

※ Enterprise Resource Planning: Management technique to realize optimization of the entire company by centralized management of corporate management resources

System Construction to Respond to Changes

Our global IT system construction for domains that are directly connected to businesses such as production, sales, production control, quality control, and revenue management focuses on the response to changes. For these domains, the System Promotion Unit plays a key role in developing and globally operating the Group's original applications. The introduction of original systems will enable us to follow changes in requirements from customers and production changes inside the Company.

Corporate Governance

Basic Views

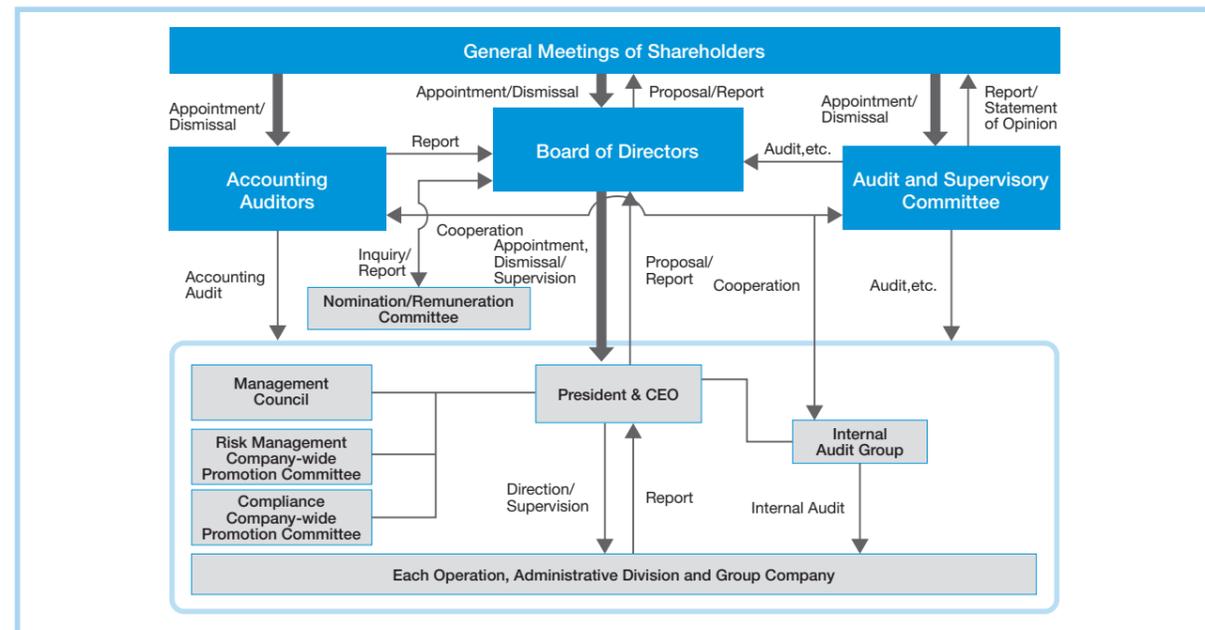
The Group considers corporate governance to be a key management mechanism for transparent, fair, prompt and resolute decision-making, and all Group companies are thus actively committed to improving corporate governance. As part of our Group's corporate governance, we are enhancing internal control by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

Overview of the Corporate Governance Structure

The Company has adopted the organizational form of a company with Audit and Supervisory Committee. To ensure fair and transparent company management, six (6) Outside Directors attend Board of Directors meetings and there provide advice on company management. For fair and transparent procedures applied to nominate these Outside Directors and to determine their compensation, the Company has voluntarily established Nomination/Remuneration Committee.

An Executive Officer System has been introduced to permit rapid management decision-making and quicker execution of operations, which can clarify each role for Executive Directors and Senior Executive Directors and can get the right person in the right place with flexibility and mobility. The Audit and Supervisory Committee has also been given robust check-and-balance functions to help them monitor decision-making by the Board of Directors and the execution of operations by representative Directors.

Chart of IBIDEN Group's Internal Control System



Efforts to Strengthen the Functions of Audit and Supervisory Committee members

Audit and Supervisory Committee Members attend the Board of Directors meetings and other important meetings and audit Directors' performance of their professional duties, and full-time Audit and Supervisory Committee Members collaborate with Internal Audit Division and Accounting Auditor in conducting audits of the Company and the Group companies in accordance with all applicable laws and regulations and rules. The presence of three (3) Outside Audit and Supervisory Committee Members with a considerable level of knowledge in financial affairs, accounting, and tax practice and law suitably ensures that the above functions are performed.

Posting of Information on Securing Independent Directors

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

Toward Strengthening Corporate Governance

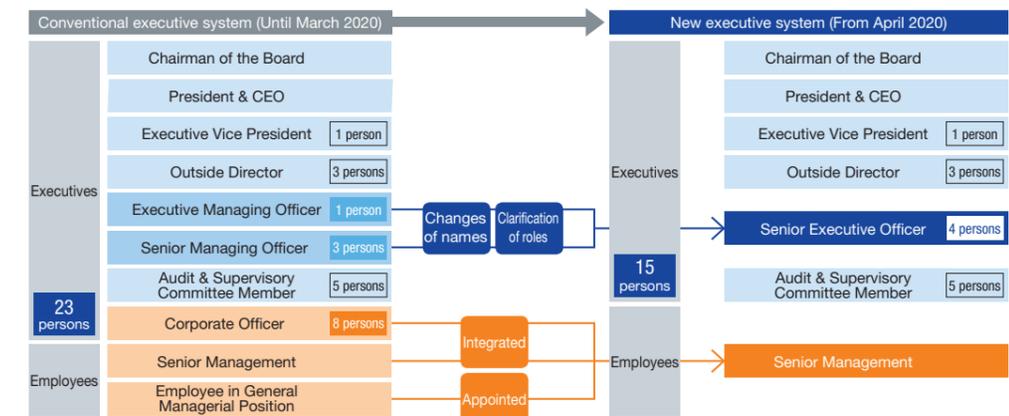
Currently, the Electronics and Ceramics Operations, which are both our main businesses, are confronted with a rapidly changing business environment.

Against this backdrop, in 2017, we transitioned to a Company with an Audit and Supervisory Committee with the aim of streamlining management and accelerating decision-making. Moreover, we considered the further acceleration of decision-making and execution speed as necessary for maintaining and increasing our competitiveness. Accordingly, as of April 1, 2020, we streamlined the structure of our executive system as follows.

- **Discontinuation of Corporate Officer Positions and Reduction of the Number of Executives (from 23 to 15)**
Executives are Chairman of the Board, President, Vice President, Outside Directors, Executive Managing Officer, Senior Managing Officers and Audit and Supervisory Committee Members.
- **Change of Titles of Executive Managing Officers and Senior Managing Officers to Senior Executive Officers**
The title change was made to clarify the roles of leading the execution of operations as the heads of departments and working on the resolution of company-wide management challenges as management leaders.
- **Integration of the Positions of the Corporate Officers and Senior Managements into Senior Managements (Employees)**

This change was made to clarify their roles of making quick decisions as the heads of workplaces as well as assuming the responsibilities and authorities for execution in their respective fields.

As a result, the agile assignment of the right person to right place becomes possible.



History of Corporate Governance Enhancement

	2016	2017	June 2020
Institutional Design			Shift from a Company with a Board of Auditors to Company with an Audit and Supervisory Committee
Executive system			Discontinuation of Executive Officer position
Board of Directors	Directors (From FY2017 and later, Directors who are not Audit and Supervisory Committee Members)	Inside: 9 persons	Reduction to 4 Corporate Directors
		Outside: 2 persons	Increase to 3 Outside Directors
	Audit & Supervisory Committee Member (Audit Committee in FY2016)	Inside: 2 persons	
		Outside: 2 persons	Increase to 3 Outside Directors
	Of which female Directors	0 person	Increase to 1 Director → Increase to 2 Directors
Evaluation of Effectiveness of Board of Directors			Started analysis and evaluation
Compensation of the Senior Management and Directors			Introduction of a New Stock Compensation Plan

Evaluation of Effectiveness of Board of Directors

The Company conducts annual analysis and evaluation to verify whether the Board of Directors functions effectively or not, with an aim to improve further function of the Board of Directors by continuing process to take measures to remedy problems and strengthen advantages.

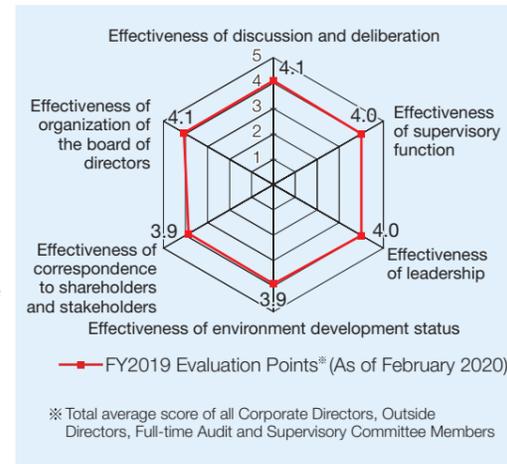
1. Evaluation Method

All Directors including Outside Directors and Audit and Supervisory Committee Members performed self-evaluations by answering questionnaires about effectiveness of the Board of Director's function, which is prepared by an administrative office for the Board of Directors.

2. Overview of Results of Analysis and Evaluation

As a result of questionnaire tabulation, Outside Directors, Audit and Supervisory Committee Members rated all evaluation items, as 3.5 points or above. The results could be analyzed and evaluated as that the Board of Directors largely secured the effectiveness in its function.

On the other hand, the questionnaire results tabulation found that there were still tasks and room for improvements on the items below. The Company and the Board of Directors will place priority on those.



Challenges and Issues Recognized

- ① Establishment of an effective risk management structure that can support appropriate risk taking
- ② Arrangement of a system that enables Outside Directors to develop their further understanding of agendas with ample time to consider them in advance

Further Company Actions

- ① The Company is to establish more effective risk management system with collecting information, providing guidelines by the Headquarters and using chief area companies because there are level differences on risk management systems between main overseas manufacturing plants and small-scale locations.
- ② The Company intends to further improve environments in order to enhance the effectiveness of discussions with implementing share of exclusive materials and minutes of the Board Meeting in the process of the Board Meeting. When important issues in need of business judgement are provided, the administrators or a head of the drafting of the proposal explains properly with an ample amount of time in advance.

Transition of Cross-Shareholdings

1. Policy on Cross-Shareholding

Our basic policy when engaging in investment for purposes other than pure investment is to give comprehensive consideration to the shares we hold in terms of their importance in implementing our business strategy and strengthening business alliances for the sake of improving corporate value over the medium-to-long term. Meanwhile, the Company appropriately proceeds to sell the shares deemed unnecessary in order to make an effort to reduce holding shares. Furthermore, the profitability in consideration of the status of the listed shares we hold, the purpose and the capital cost is reported to the Board of Directors on an annual basis to examine the policy on cross-shareholdings. When the shares deemed necessary, the Company discloses the purpose of them in Securities Reports.

Transition of Cross-Shareholdings (Non-consolidated)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
Total Number of Stocks	60	53	53	55	54	50
Recorded amount in balance sheet (million yen)	49,801	36,562	41,464	49,985	37,509	33,026
Ratio in consolidated total assets (%)	9.6	7.7	10.2	11.4	8.7	6.4

2. Standards for the Exercising Voting Rights

The voting rights for these shares are exercised based not only upon the sustainable growth of the investee company but upon the enhancement of the corporate value in which the Company holds shares for the medium and long term, while considering the strategic status of cross-shareholding through dialogues with respective companies.

Compensation of the Senior Management and Directors

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

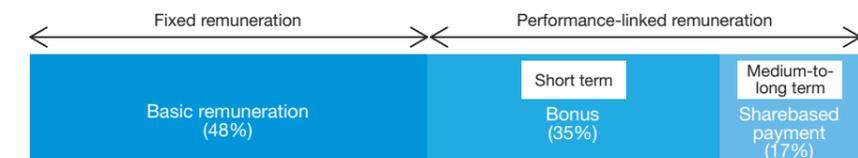
The compensation for the Company's Corporate Directors who are not Audit and Supervisory Committee Members, and Senior Executive Officers comprises monthly fixed remuneration, bonuses depending on their performances and the Stock Distribution Trust for Officers. The monthly remuneration for Corporate Directors who are not Audit and Supervisory Committee Members is calculated based on their job positions, within the limits approved by the general meeting of shareholders, and is entrusted to President & CEO in accordance with deliberations and reports by Nomination/Remuneration Committee, which is resolved by the Board of Directors. The bonus allotments for Corporate Directors who are not Audit and Supervisory Committee Members are based on the degree to which each Director contributed to the Company's operations, within the scope of the total amount of bonuses calculated using the stipulated formula. These are entrusted to President & CEO in accordance with deliberations and reports by Nomination/Remuneration Committee, which is resolved by the Board of Directors.

The monthly compensation for Senior Executive Officers is entrusted to President & CEO in accordance with deliberations and reports by Nomination/Remuneration Committee, which is approved by the Board of Directors. In determining the

compensation, broad consideration is given to a suitable balance with the monthly compensation for Corporate Directors who are not Audit and Supervisory Committee Members, assessments of respective Senior Executive Officers' job performance, and other factors. The amounts of bonuses to be paid are entrusted to President & CEO in accordance with deliberations and reports by Nomination/Remuneration Committee, which is resolved by the Board of Directors. The bonus amounts are calculated in accordance with the degree of the Senior Executive Officers' contribution to the Company's business results and other factors. Outside Directors who are not Audit and Supervisory Committee Members and Members of Audit and Supervisory Committee, being in positions independent of the execution of operations, are only paid a set basic compensation.

The Company has also introduced Performance-linked Remuneration to Directors who are not Audit and Supervisory Committee Members, so that they shall make a clearer linkage between stock values and the compensation for themselves and elevate their awareness of contributing to improving the medium-to-long term operating results and increasing corporate value by sharing with shareholders, the benefits and risks involved in stock price fluctuations.

Compensation configuration image



※ % in the chart is based on the total payment amount to Corporate Directors who are not Audit and Supervisory Committee Members in FY2019

Amount of compensation, etc., of Directors (Fiscal Year 2019)

Position	Number of recipients	Total remuneration paid	Total amount of remuneration by type		
			Basic remuneration	Bonus	Sharebased payment
Directors who are not Audit and Supervisory Committee Members	Directors	4	182	134	65
	Outside Directors	3	34		
	Subtotal	7	217	134	65
Directors who are Audit and Supervisory Committee Members	Directors	2	66		
	Outside Directors	3	35		
	Subtotal	5	102		
Total	12	519	319	134	65

1. 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.
2. In addition to the remuneration mentioned above in 1, 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.
3. At the Board of Directors meeting held on May 15, 2020, a resolution was approved stipulating that Directors are to receive a total of ¥134 million of the bonuses mentioned above in 2, in accordance with reports related to individual allotments of the bonuses by the Nomination/Remuneration Committee based on comprehensive deliberation on the respective Director's job position and performance of the operations they supervised.
4. 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.
5. These figures are rounded down to nearest million yen.

Message from an Outside Director



Outside Director **Chiaki YAMAGUCHI**

IBIDEN appoints multiple Independent Directors to enable highly effective supervision of the executive management team including Directors that execute business operations. Our Independent Outside Director Yamaguchi provides advice and supervision from the long term perspective on how to enhance the corporate value of our group based on his wealth of experience in international business and corporate management.

Evaluation of Management Structure and Roles of Outside Directors

» IBIDEN's Management Structure

I assumed the post of Outside Director in June 2014, and over the past several years since then, our Company has implemented drastic governance reforms such as transitioning to a company with an Audit and Supervisory Committee, increasing the number of Outside Directors, and streamlining the executive system. These reforms have been implemented based on the recognized needs to respond to changes in the business environment, globalize our businesses and operations, and comply with Japan's corporate governance code, and I feel we have steadily built up the reforms.

Through the reforms, I personally witnessed how a compact management structure centered around the Chairman of the Board and President, who are united while utilizing different personalities for management enabled speedy decision making and execution. I feel that IBIDEN has become a suitable structure to survive in the rapidly and significantly changing environment such as the electronics industry in which 5G and ICT are evolving.

» Atmosphere of Board of Directors Meetings and Active Discussions

Our Board of Directors meetings feature a very open atmosphere realized by the amazing personality of the President and great corporate culture, and I feel very comfortable with making comments. Recently, I think that management experience over the years has made the President more confident and comfortable, which brings out more active discussions.

Since the start of my tenure, I have felt that Board of

Directors meetings were open and friendly. The atmosphere made everyone including Outside Directors feel comfortable with expressing opinions even from the examination phase. Of course, an appropriate feeling of professionalism is maintained, but I can say we communicate with each other honestly without hesitation.

Since reference materials are shared and prior explanations are made before each Board of Directors meeting, we do not have extended discussions in the meetings very often. However, I believe Board of Directors meetings serve as an important occasion to directly confirm the preparedness and risk awareness of top management.

» What I Consider Important in the Role of Outside Director

Through my eight-year experience as corporate auditor at Toyota Motor Corporation, I learned how difficult it is to put the brakes on or monitor management skillfully. Owing to this experience, I always try to evaluate objectively by understanding the thoughts and positions of corporate executives and judge management decisions in the larger framework. In addition, the most important thing is not to interrupt management. Major accidents and scandals that shake up management are absolutely not an option, but I try to understand and support desperate decisions made by corporate executives in uncertain times as much as possible. After doing all these, I clearly express my concerns from my experience in management and international business in the role of providing advice to and supervising management. What is important is how to control the risk assumed by management for the future.

For Further Enhancement of Management Structure

» Strengths and Challenges of IBIDEN

IBIDEN, which started from hydroelectric power generation, has reformed its business structures drastically and flexibly and continued to grow over 100 years of history. We should be very proud of that fact. In addition, IBIDEN continues to skillfully manage and operate a wide variety of businesses with different features such as Electronics, Ceramics, and original group company businesses as well, which is the Group's another strength.

The corporate culture is a great combination of family-like atmosphere and professionalism about work, and I think people who are eager to work must feel very comfortable at IBIDEN. Another great feature about IBIDEN is that the Company has solidly taken root, and expanded its presence in the surrounding local communities. However, in order to develop further as a global company, IBIDEN needs to upgrade its current corporate culture to something that can be shared with people from outside of Japan including, among others, employees of our overseas group companies. Approximately 60% of our employees work overseas, and our non-Japanese employees outnumber our Japanese employees. Therefore, I believe we should further consider advancement of diversified human resources including non-Japanese people in depth. What will be important at that time is sharing our mission and sense of values founded upon our 100-year history.

» For Further Strengthening Functions of the Board of Directors

For the governance system, six members comprising a majority of the Board of Directors are Outside Directors (all are Independent Directors), and there are five Audit and Supervisory Committee Members (three of which are Independent Directors). I think our governance system has reached the top level in Japan. In addition, the current composition of members of the Board of Directors is well balanced in terms of knowledge, experience, and competence, and I feel all of us are able to proactively state opinions from our respective positions. In the current Board of Directors, I



feel that dynamism of management is being fully exerted. In order not to undermine the dynamism, I would like to be a little cautious about promoting further reforms.

For the important role I should play, I believe I should steer decisions to a direction that will serve the best interests of our shareholders over the long term if anything happens that may endanger the existence of the Company. To that end, I would like to continue supporting decisions by management through providing the necessary advice to and supervision of management by harnessing the experience and knowledge that I fostered through working globally and as a corporate manager.

» In Response to Opinions from Outside Directors

We regularly receive honest opinions from Outside Directors including Director Yamaguchi, I greatly appreciate the comments Mr. Yamaguchi shared on this occasion concerning our management structure and challenges confronted by our Company. I feel that his insightful advice based on his experience in international business and corporate management are helping us control risks, an essential task we need to fulfill in developing our operations globally.

Our challenge in diversified human resources including non-Japanese people that Director Yamaguchi pointed out is a very important perspective to strengthen our diversity management and upgrade our globalization. We would like to work on the diffusion of our mission and human resource development by considering the climate of each country and region while respecting the life styles, competence, and work styles of individual employees.

By receiving advice and supervision from Outside Directors from diversified perspectives, we will continue to maintain a governance system that enables proactive and bold decision making even in a highly-uncertain management environment to strive for developing our business persistently.

President&CEO Takeshi Aoki



Senior Management and Directors (As of September 2020)

**Hiroki TAKENAKA**

Chairman of the Board, Representative Director,
Chairman of the Board Meeting,
Administrator of Corporate Business Operation

April	1973	Joined IBIDEN Co., Ltd.
June	1997	Director
June	2001	Managing Director
June	2005	Director & Executive Managing Officer
April	2007	President & CEO, Representative Director, Administrator of Corporate Business Operation (present)
January	2015	Corporate Executive Director of R&D Operation
March	2016	Corporate Executive Director of Affiliates and Subsidiaries
June	2017	Chairman of the Board, Representative Director (present)
June	2018	Corporate Executive Director of Electronics Operation

**Takeshi AOKI**

President & CEO, Representative Director,
Administrator of Corporate Business Operation,
Corporate Executive Director of Ceramics Operation,
R&D Operation and Internal Audit Division

April	1981	Joined IBIDEN Co., Ltd.
April	2008	Corporate Officer
June	2013	Director & Corporate Officer
April	2014	Director & Managing Officer, Vice President of Ceramics Operation
March	2016	Executive Vice President, Representative Director, President of Ceramics Operation
April	2017	Administrator of Corporate Business Operation (present), Corporate Executive Director of Ceramics Operation (present)
June	2017	President & CEO, Representative Director (present)
June	2018	Corporate Executive Director of R&D Operation (present)
April	2019	Corporate Executive Director of Internal Audit Division (present)

**Noriko ASAI**

Outside Director

March	1997	Assistant Instructor at the School of Economics of Nagoya University
March	1999	Nagoya University Ph.D. in Economics
April	2003	Associate Professor at the School of Management of Chukyo University
April	2007	Professor at the School of Management of Chukyo University (present)
June	2015	Outside Director of CKD Corporation (present)
June	2020	Outside Director of IBIDEN Co., Ltd. (present)

**Keiichi SAKASHITA**

Full-time Member of Audit and Supervisory Committee,
Specific Member of Audit and Supervisory Committee

April	1981	Joined IBIDEN Co., Ltd.
June	2007	Director & Managing Officer
April	2009	Corporate Executive Director of Ceramics Operation, Operation Manager of DPF Operation
April	2011	Operation Manager of Strategic Manufacturing Operation
April	2013	Director & Executive Managing Officer
January	2015	Corporate Executive Director of Audit, Corporate Executive Director of IMS Promotion
June	2015	Full-time Corporate Auditor
June	2017	Full-time Member of Audit and Supervisory Committee (present)

**Kozo KODAMA**

Executive Vice President, Representative Director,
Corporate Executive Director of Quality Unit, Engineering Unit,
Production Unit and System Promotion Unit,
President of Strategic Manufacturing Operation and MLB Operation,
President of IBIDEN Electronics Beijing, Chairman of IBIDEN Electronics Malaysia

April	1986	Joined IBIDEN Co., Ltd.
April	2012	Corporate Officer, Vice President of IBIDEN Philippines Inc.
January	2015	Managing Officer, Vice President of Electronics Operation
June	2015	Director & Managing Officer
March	2016	Executive Vice President, Representative Director (present)
April	2017	President of Corporate Strategic Manufacturing Operation (present), Corporate Executive Director of CSR Promotion Division and Energy Control Division
February	2018	Chairman of IBIDEN Electronics Malaysia (present)
June	2018	Corporate Executive Director of Quality Unit, Engineering Unit & Production Unit (present)
December	2018	President of MLB Operation (present), President of IBIDEN Electronics Beijing (present)
April	2019	President of System Promotion Unit (present)

**Masahiko IKUTA**

Director & Senior Executive Officer,
President of Strategic Corporate Planning Operation,
Corporate Executive Director of PKG Operation and IR

April	1985	Joined IBIDEN Co., Ltd.
April	2010	Corporate Officer
October	2013	Corporate Executive Director of FGM Operation, Corporate Executive Director of IR, President of Strategic Corporate Planning Operations (present)
June	2014	Director & Managing Officer
March	2016	Director & Executive Managing Officer
April	2017	Corporate Executive Director of Affiliates and Subsidiaries
June	2017	Executive Managing Officer
June	2018	Director & Executive Managing Officer
April	2019	Corporate Executive Director of PKG Operation (present)
April	2020	Director & Senior Executive Officer (present)

**Yoichi KUWAYAMA**

Full-time Member of Audit and Supervisory Committee

April	1983	Joined IBIDEN Co., Ltd.
April	2008	Corporate Officer
April	2011	Operation Manager of DPF Operation
April	2012	Managing Officer
June	2012	Director & Managing Officer
April	2014	Director & Executive Managing Officer, Operation Manager of Ceramics Operation
March	2016	Corporate Executive Director of Audit
June	2016	Full-time Corporate Auditor
June	2017	Full-time Member of Audit and Supervisory Committee (present)

**Fumio KATO**

Outside Director,
Outside Member of Audit and Supervisory Committee,
Chairman of Audit and Supervisory Committee

July	2000	Deputy Manager of Investigation Department Nagoya Regional Taxation Bureau
July	2001	Superintendent of Showa Tax Office
August	2002	Registered as certified tax accountant, Opened Fumio Kato Certified Tax Accountant Office, Representative of Fumio Kato Certified Tax Accountant Office (present)
July	2004	Outside Corporate Auditor of Seino Holdings Co., Ltd. (retired on June 2020)
November	2014	Outside Corporate Auditor of HIMARAYA Co.,Ltd.
June	2015	Outside Corporate Auditor of IBIDEN Co., Ltd.
November	2015	Outside Director who is an Audit and Supervisory Committee Member of HIMARAYA Co.,Ltd. (present)
June	2017	Outside Corporate Director who is Audit and Supervisory Committee Member of IBIDEN Co., Ltd. (present)

**Chiaki YAMAGUCHI**

Outside Director, Chairman of Nomination/
Remuneration Committee

June	2003	Full-time Corporate Auditor of Toyota Motor Corporation (retired on June 2011)
June	2011	Executive Managing Director of Toyota Industries Corporation
June	2012	Representative Director & Senior Vice President of Toyota Industries Corporation (retired on June 2015)
June	2014	Outside Director of IBIDEN Co., Ltd. (present)
June	2015	President & Representative Director of Towa Real Estate Co., Ltd. (retired on June 2018), Outside Director of Nakanihon Kogyo Co., Ltd. (retired on June 2019)
June	2018	Outside Auditor of Central Nippon Expressway Company Limited (present), Advisor of Towa Real Estate Co., Ltd. (retired on June 2019)
June	2019	Contract Officer for Special Duties of Towa Real Estate Co., Ltd. as former President & Representative Director (present)

**Toshio MITA**

Outside Director

April	1969	Joined Chubu Electric Power Co., Inc.
June	2003	Managing Officer, Tokyo Office Manager of Chubu Electric Power Co., Inc.
June	2005	Director, Senior Managing Executive Officer, President of Sales Company of Chubu Electric Power Co., Inc.
June	2006	President & CEO of Chubu Electric Power Co., Inc.
June	2007	President & CEO, Representative Director of Chubu Electric Power Co., Inc.
June	2010	Chairman of the Board at Chubu Electric Power Co., Inc.
June	2015	Advisor of Chubu Electric Power Co., Inc. (present), Outside Auditor of NYK Line (retired on June 2019)
June	2017	Outside Director of IBIDEN Co., Ltd. (present)
June	2018	Outside Auditor of Nagoya Railroad Co., Ltd. (present)
June	2019	Outside Auditor of Chubu-Nippon Broadcasting Co., Ltd. (present)
July	2020	Advisor of Chubu Electric Power Co., Inc. (present)

**Masaki HORIE**

Outside Director
Outside Member of Audit and Supervisory Committee

April	1973	Joined PricewaterhouseCoopers Co., Ltd.
November	1980	Joined Ito Accounting & Consultancy Office
July	1997	Senior Partner of Ito Accounting & Consultancy Office
January	2001	Senior Partner of Chuo-Aoyama Audit Corporation
September	2006	Senior Partner of Arata Audit Corporation
July	2010	Opened Masaki HORIE Certified Public Accountant Office, Director of the Office (present)
June	2011	Outside Corporate Auditor of Tokai Rika Co.,Ltd.
June	2015	Outside Corporate Auditor of Futaba Industrial Co., Ltd.
June	2016	Outside Director of Futaba Industrial Co., Ltd. (present), Outside Auditor of IBIDEN Co., Ltd.
June	2017	Outside Corporate Director who is Audit and Supervisory Committee Member of IBIDEN Co., Ltd. (present)

**Nobuko KAWAI**

Outside Director,
Outside Member of Audit and Supervisory Committee

April	1992	Registered as attorney (The First Tokyo Bar Association)
January	1995	Switched the registration as attorney to Nagoya (currently Aichi Prefecture) Bar Association
April	1998	Opened Nobuko KAWAI Law Office, Representative of the office (present)
January	2004	Mediator for Civil Trial of Jury of Nagoya Summary Court (Part-Time Judge)
April	2009	Deputy Chairman of Aichi Bar Association
April	2012	Professor At Law School of Nagoya University (Practice of Law)
June	2015	Outside Corporate Director of FUJI CORPORATION (present)
June	2017	Outside Corporate Director who is Audit and Supervisory Committee Member of IBIDEN Co., Ltd. (present)

Overview of the Board of Directors (As of June 17, 2020)

Name	Diversity Score									
	Independence (Outside Directors only)	Experience as a President	Finance and accounting	Electronics	Ceramics	Marketing and sales	International business	Innovation	Manufacturing technologies	Legal affairs
Hiroki TAKENAKA		●		●		●	●	●		
Takeshi AOKI		●			●	●	●	●		
Kozo KODAMA				●			●		●	
Masahiko IKUTA			●	●	●	●	●			
Chiaki YAMAGUCHI	●	●				●	●			
Toshio MITA	●	●				●				
Noriko ASAI	●							●		
Keiichi SAKASHITA					●					
Yoichi KUWAYAMA					●					
Fumio KATO	●		●							
Masaki HORIE	●		●							
Nobuko KAWAI	●									●

Within brackets () is attendance at Board of Directors and committee meetings in FY2019. (Meetings attended / Total meetings)

● Chairperson

Risk, Compliance, Governance	● Male ● Female	Members of each committee and meeting					
		Board of Directors	Audit and Supervisory Committee	Nomination / Remuneration Committee	Management Council	Risk Management Company-wide Promotion Committee	Compliance Company-wide Promotion Committee
	●	● (11/11)		● (8/8)	●	●	●
	●	● (11/11)		● (8/8)	●	●	●
	●	● (11/11)			●	●	●
	●	● (11/11)			●	●	●
	●	● (11/11)		● (8/8)			
	●	● (11/11)		● (8/8)			
	●	● (-)		● (-)			
●	●	● (11/11)	● (12/12)	● (8/8) ※	●	●	●
●	●	● (11/11)	● (12/12)		●	●	●
●	●	● (11/11)	● (12/12)				
●	●	● (11/11)	● (12/12)				
●	●	● (11/11)	● (12/12)				

※ Indicates a Specific Member of Audit and Supervisory Committee without voting rights, who is a member of the Nomination/Remuneration Committee.

Policies and Procedures for the Selection of Corporate Managers and the Assignment of Director Candidates by the Board of Directors

Candidates for Corporate Management Members 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, skills and evaluation of business performance, etc. among the Corporate Management Team/the Board of Directors overall. Candidates for Audit and Supervisory Committee Members are also selected/assigned from the perspective of placing the right person in the right job, with due consideration given to a balance among knowledge of accounting, tax and legal matters, knowledge about the Company's business, and other perspectives pertinent to corporate management. Given the above, the assignment for

Audit and Supervisory Committee Member candidates is resolved by the Board of Directors after Audit and Supervisory Committee deliberates and agrees on it. The assignment for Corporate Director candidates, prior to a resolution of the Board of Directors, after it has been sufficiently deliberated by Nomination/Remuneration Committee as an advisory body to the Board of Directors and reported to the Board of Directors. The standards for dismissal from a Corporate Director or a Senior Executive Officer is determined pursuant to Director and Senior Executive Officer Regulations; dismissal of Directors is resolved in the Shareholders Meeting and one of Senior Executive Officers is resolved in the Board of Directors Meeting following the standards and the deliberation by Nomination/Remuneration Committee.

Training Policy for Directors and Policy for the Development of Next Generation Management Executives

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

members and better understand their roles and duties as the members. We are arranging courses on the Companies Act and other content suited to the circumstances at the time to be conducted by internal and external experts for Company Directors and Managing Officers who are not Audit and Supervisory Committee Members and Senior Executive Officers. For the development of next generation management executives, we newly established a Senior Management system in FY2020. We position employees in Senior Management positions as next generation management executive candidates, and have these employees participate in Executive training. In addition, by developing the educational program for employees in Senior Management positions, we will develop human resources in a planned way.

Communication with Shareholders and Investors

The Company issued approximately 140 million shares and had about 23,000 shareholders as of March 31, 2020. We held a general meeting of shareholders in the multi-purpose hall in the IBIDEN Headquarters Building on June 17, 2020. We have sought to establish a more open environment by adopting the voting rights exercise platform from fiscal year 2006 and making possible the exercise of voting rights via the Internet and smart phones, etc., for shareholders who are unable to attend the meeting. (The ratio of voting rights exercised at the 167th general meeting of shareholders: 86.57%).

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

As for other IR activities, we hold periodic briefings for analysts and institutional investors after the announcement of business results for the full year and those for the interim term, and release materials for the briefings on our website.

Furthermore, we take part in a range of events as briefings for individual investors, providing them with opportunities to invest in shares of the Company.



Notice of the Ordinary General Meeting of Shareholders



Website for shareholders and investors

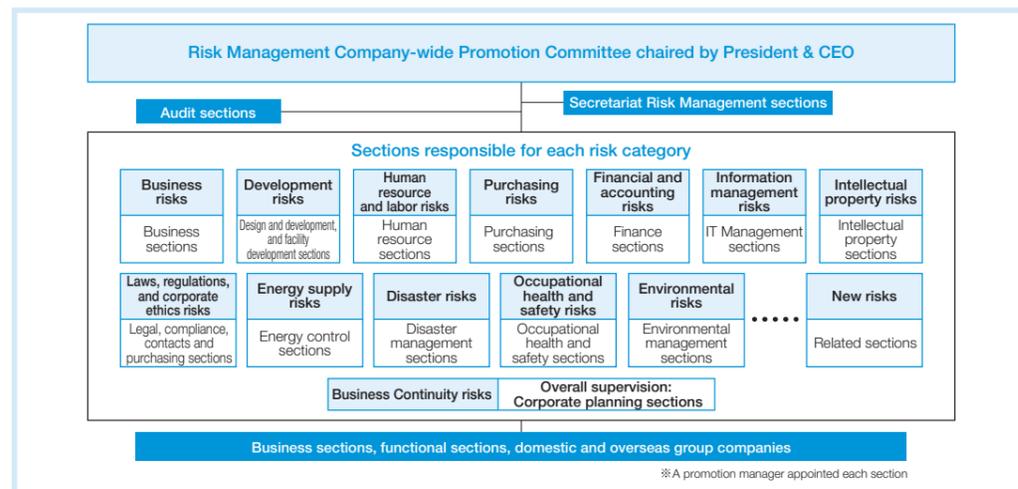
Risk Management



Risk Management Basic Approach

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

Structure for Advancing Risk Management



Activities for Advancing Risk Management

1. Business Continuous Plan

We conduct our activities pursuant to the Action Plan to prevent damage and loss to the safety and health of employees, suppliers, shareholders, customers, and local communities, etc.

① Measures Taken against the Spread of New Infectious Disease (COVID-19)

In line with guidelines and response procedures, we organized a task force to minimize the impact of COVID-19 on our employees and the local societies, in preparation for the pandemic period. As preparation in ordinary times, we have shared information on our intranet, taken hygiene measures to prevent infection, and formulated necessary rules. As measures to combat the spread of the pandemic, the task force has centrally managed information such as the occurrence of infection in each area, the impacts of the infection, and relevant restrictions. We are thus striving to operate our businesses while minimizing the risk of infection, through measures such as changing the work systems depending on the relevant restrictions and the spread of infection.

② Natural Disaster Preparedness

Considering the occurrence of large-scale natural disasters, such as earthquakes or floods, in areas where our plants are located as an important risk theme, we are taking measures to prepare for the occurrence of such disasters. As for measures to be taken when disasters such as earthquakes occur, we believe that lifesaving comes first, followed by the early supply of products to customers. With regard to concrete risk themes in the event of a natural disaster, including confirmation of the safety of employees, supply of materials by suppliers, equipment failure and occurrence of utility problems, we are building a response system, mainly led by the divisions that cope with such risks.

Actually, based on a damage scenario assuming the occurrence of a Nankai Trough Megathrust Earthquake which may affect our plants and domestic affiliated companies, we have already advanced disaster mitigation measures, such as ceiling fall prevention, hazardous liquid medicine leak prevention, and equipment fall prevention.

2. Information Security Measures

Information concerning the operation, technologies and management of the Company is a valuable asset, and for a technology-development-oriented company like us, proper management of information including confidential information of customers and suppliers and prevention of leakage are important issues and responsibilities.

We have established a framework for information security promotion to block illegal access, etc. from the outside, and stipulated fundamental rules to comply with in utilizing and maintaining information assets we own such as trade secrets, personal information and information technologies (IT) under the "Regulations for Information Management." To improve the protection and utilization of information, we have kept all employees well-informed through the IT Promotion Committee and relevant education. As for personal information, we have established a personal information protection policy and stipulated procedures necessary for the collection, management and utilization of personal information. Recently, falsification of data has become a social problem. Against this background, we introduced a data integrity audit, and are working to prevent falsification and incorrect handling of data for provision to customers.

▶ Please visit our website for details of our risk management.
<https://www.ibiden.com/company/risk-management/>



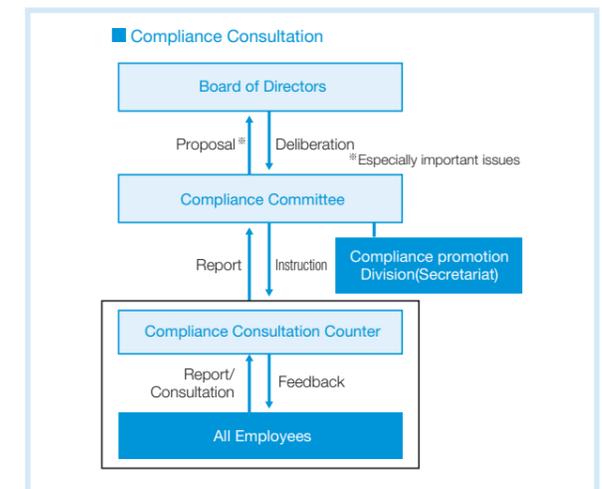
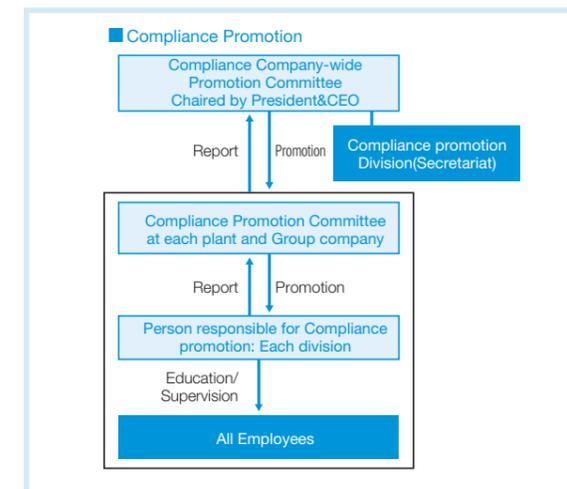
Compliance



Compliance Basic Policy

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

Structure for Promoting Compliance Program



Bolstering Compliance Activities

1. Compliance Education

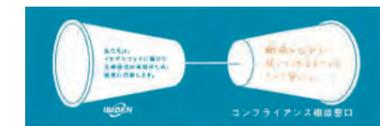
When promoting compliance activities, it is crucial that employee awareness is continuously maintained at a high level. We have created an environment where employees can systematically receive education and training on the Standards for Employee Behavior, which define the standards for our employees and executives to practice compliance, immediately after hiring. To deepen the understanding of the details of the Standards for Employee Behavior, we have issued Case Examples for Enlightenment (Case Book), which introduces cases of violation of the Standards and points to remember for compliance, reading them through the workplace to raise employees awareness of compliance.

2. Efforts for Fraud Prevention including Anti-bribery

The Group upholds the IBIDEN Group Charter of Behavior to make efforts to prevent every form of corruption. In the Standards for Employee Behavior also, we demand ethical behavior and strictly prohibit unlawful actions and acts of conflict of interest including bribery. To avoid misconduct, we have appropriately developed a system for ensuring a certain prevention of corruption in line with the current conditions of each site, including measures such as stricter authorization when paying social expenses, the establishment of Gift-giving and -receiving Guidelines, and the development of a Whistleblowing System. In fiscal year 2019, we did not confirm any instances of the imposition of fines or settlement money for malpractice, or any events subject to disciplinary actions.

3. Whistleblowing System

In addition to the formal channel of reporting, the Group has established a compliance consultation service to facilitate reporting when an officer or employee discovers a violation of compliance. Through this service, officers and employees may report violations nominally to employees in charge of the compliance consultation service or anonymously to outside experts. The consultation counters have been operated with due consideration for the protection of rights of whistleblowers, such as privacy protection and ensuring no disadvantageous treatment. Furthermore, to deepen understanding and enhance the reliability of the system, we have established a support channel that averts conflict of interest at the time of reporting.



Compliance consultation service card

4. Self-Check of Activities and Awareness Survey

We conduct a self-check on the status of compliance with the Standards for Employee Behavior and a survey on compliance awareness each year, covering all employees including those of domestic Group companies. With these measures, we clarify our challenges that need to be overcome through improvement activities in the following year.

▶ Please visit our website for details of our compliance policy.
<https://www.ibiden.com/company/compliance/>



Analysis of Our Business Performance and Financial Condition

Overview of the Fiscal Year Under Review

During the fiscal year under review, the global economy saw moderate growth earlier, supported by a strong U.S. economy, however, uncertainties increased including a slowdown in the Chinese economy stemming from trade disputes between the U.S. and China, as well as a deceleration of economic activity caused by COVID-19. In addition, in the domestic economy, the management environment surrounding companies is severe, with weaknesses seen in parts of export and production due to the effects of trends in the uncertain world economy and the impact of COVID-19.

In the semiconductors and electronic components market, the smartphone market saw negative growth from the previous year. However, due to consistent demand for replacement in the personal computer market and overall strong performance of new markets centered around the server market for data centers, the semiconductors and electronic components market grew upward as a whole.

The exhaust system components market in the automotive industry remained under harsh conditions due to a continued decrease in the ratio of diesel passenger vehicle sales in the European passenger vehicle market, in addition to significant negative growth in global automobile sales.

Given this situation, under the new five-year medium term management plan "To The Next Stage 110 Plan" that started in April 2018, we proactively allocated management resources into growing markets, and have been working on measures for the realization of stable growth by increasing competitiveness of our existing businesses along with expanding new businesses.

As a result, net sales for the fiscal year under review amounted to ¥295,999 million, an increase of ¥4,873 million (1.7%) compared to the previous fiscal year. Operating income totaled ¥19,686 million, an increase of ¥9,548 million (94.2%) compared to the previous fiscal year. Ordinary profit amounted to ¥21,364 million, an increase of ¥8,764 million (69.6%) compared to the previous fiscal year. Profit attributable to owners of parent for the period stood at ¥11,330 million, an increase of ¥8,023 million (242.7%) compared to the previous fiscal year.

Analysis of Financial Situation

① Assets

Total assets at the end of the fiscal year under review were ¥518,619 million (an increase of 22.6% compared to the end of the previous fiscal year). Current assets amounted to ¥300,245 million (a 31.1% increase), and fixed assets were ¥218,374 million (a 12.5% increase).

The significant contributing component in the increase in current assets was an increase of ¥61,658 million in cash and deposits.

The significant contributing component in the increase in fixed assets was an increase of ¥35,389 million in construction in progress.

② Liabilities

Total liabilities at the end of the fiscal year under review were ¥244,684 million (a 66.7% increase). Current liabilities amounted to ¥120,736 million (a 2.2% increase), and long-term liabilities were ¥123,948 million (a 332.4% increase).

The significant contributing component in the change in current liabilities was an increase of ¥10,000 million in short-term borrowings and a decrease of ¥25,000 million in current portion of bonds.

The significant contributing component in the increase in long-term liabilities was an increase of ¥35,000 million in bonds and an increase of ¥60,000 million in long-term debt.

③ Net assets

Total net assets at the end of the fiscal year under review were ¥273,935 million (a 0.9% decrease).

The significant contributing component in the decrease in total net assets was a decrease of ¥5,821 million in translation adjustments.

As a result, equity ratio decreased from 64.0% at the end of the previous fiscal year to 51.7%. In addition, net assets per share decreased from ¥1,938.59 at the end of the previous fiscal year to ¥1,920.19.

Analysis of Management Results

① Net Sales and Operating Income

Net sales amounted to ¥295,999 million (an increase of 1.7% year-on-year).

Cost of sales was ¥227,845 million (a 2.1% decrease year-on-year). The cost-to-sales ratio increased 3.0 percentage points to 77.0%.

Accordingly, operating income totaled ¥19,686 million (a 94.2% increase year-on-year).

② Non-operating Income and Expenses and Ordinary Profit

Non-operating income and expenses decreased from ¥2,462 million (net) in the previous fiscal year to ¥1,678 million (net) in the fiscal year under review. This was mainly due to an increase of ¥146 million in bond issuance expenses, decreases of ¥854 million in compensation income, and ¥369 million in compensation expenses.

Accordingly, ordinary profit amounted to ¥21,364 million (a 69.6% increase year-on-year).

③ Extraordinary Income or Loss

Extraordinary income or loss worsened from loss of ¥3,273 million (net) in the previous fiscal year to loss of ¥3,839 million (net). This was mainly due to an increase of ¥1,511 million in loss on disposal of property and equipment and other assets, decreases of ¥4,646 million in gain on sales of investment securities, and ¥6,079 million in loss on liquidation of subsidiaries and affiliates.

Accordingly, profit before income taxes amounted to ¥17,525 million (an 87.9% increase year-on-year).

④ Income Taxes (Including Income Taxes – Deferred)

Income taxes increased from ¥5,754 million in the previous fiscal year to ¥5,987 million in the fiscal year under review.

Accordingly, profit amounted to ¥11,537 million (a 222.9% increase year-on-year).

⑤ Profit Attributable to Non-Controlling Interests

Profit attributable to non-controlling interests decreased from ¥267 million in the previous fiscal year to ¥208 million in the fiscal year under review.

⑥ Profit Attributable to Owners of Parent

Profit attributable to owners of parent was ¥11,330 million (an increase of 242.7% year-on-year).

Basic earnings per share was ¥81.08 (an increase of 242.7% year-on-year).

Return on equity (ROE) stood at 4.2%.

Cash Flow Conditions

Cash and cash equivalents (hereinafter "net cash") at the end of the fiscal year under review amounted to ¥174,884 million, up ¥61,391 million compared to the end of the previous fiscal year.

The following is a summary of cash flow activities.

① Cash Flow from Operating Activities

Net cash provided by operating activities totaled ¥26,096 million (versus ¥18,556 million in the previous fiscal year). This primarily reflected increases from ¥24,422 million in depreciation and amortization, ¥17,525 million in profit before income taxes, and ¥6,808 million in an increase in notes and accounts payable, despite decreases from ¥9,624 million in an increase in notes and accounts receivable, and ¥6,044 million in income taxes paid.

② Cash Flow from Investing Activities

Net cash used in investing activities totaled ¥38,083 million (versus ¥18,036 million in the previous fiscal year). This was mainly due to payment of ¥37,269 million for purchases of property and equipment.

③ Cash Flow from Financing Activities

Net cash provided by financing activities totaled ¥74,484 million (versus ¥4,926 million in net cash used in the previous fiscal year). This was mainly due increases from ¥70,000 million in proceeds from long-term debt and ¥35,000 million in proceeds from issuance of bonds, despite ¥25,000 million in redemption of bonds, and ¥4,897 million in cash dividends paid.

Consolidated Financial Statements (March 31, 2020)

Consolidated Balance Sheet

	Millions of yen		Thousands of U.S. dollars (Note)
	2020	2019	2020
Assets			
Current assets:			
Cash and deposits	¥ 175,152	¥ 113,493	\$ 1,609,703
Notes and accounts receivable:			
Trade	69,013	60,278	634,257
Other	3,351	2,483	30,794
Allowance for doubtful accounts	(136)	(98)	(1,252)
Inventories:			
Merchandise and finished goods	12,417	17,794	114,115
Work in process	13,249	11,358	121,759
Raw materials and supplies	19,615	19,619	180,273
Other current assets	7,584	4,046	69,695
Total current assets	300,245	228,973	2,759,344
Property, plant and equipment:			
Land	19,800	19,962	181,970
Buildings and structures	180,432	186,286	1,658,228
Machinery and equipment	433,064	458,242	3,980,006
Leased assets	269	262	2,468
Construction in progress	48,731	13,342	447,856
Accumulated depreciation	682,296 (508,782)	678,094 (531,384)	6,270,528 (4,675,872)
Property, plant and equipment, net	173,514	146,710	1,594,656
Investments and other assets:			
Investment securities :			
Unconsolidated subsidiaries and affiliates	17	33	162
Other	34,444	39,110	316,553
Long-term loans receivable	9	9	82
Deferred income taxes	4,463	2,916	41,019
Other assets	6,171	5,568	56,711
Allowance for doubtful accounts	(244)	(262)	(2,245)
Total investments and other assets	44,860	47,374	412,282
Total assets	¥ 518,619	¥ 423,057	\$ 4,766,282

	Millions of yen		Thousands of U.S. dollars (Note)
	2020	2019	2020
Liabilities and net assets			
Current liabilities:			
Short-term borrowings and current portion of long-term debt	¥ 30,030	¥ 45,030	\$ 275,986
Notes and accounts payable			
Trade	39,002	37,310	358,447
Other	32,463	12,982	298,343
Lease obligations	267	141	2,455
Accrued expenses	6,153	6,187	56,550
Income taxes payable	3,018	2,259	27,736
Accrued bonuses for employees	3,907	3,439	35,904
Accrued bonuses for directors and audit and supervisory board members	132	89	1,213
Provision for loss on liquidation of subsidiaries and affiliates	764	4,865	7,018
Other current liabilities	5,000	5,781	45,956
Total current liabilities	120,736	118,083	1,109,608
Long-term liabilities:			
Long-term debt	120,000	25,000	1,102,840
Lease obligations	39	44	357
Liability for retirement benefits	827	672	7,603
Provision for share based compensation	250	180	2,299
Deferred income taxes	1,645	1,974	15,115
Other long-term liabilities	1,187	799	10,911
Total long-term liabilities	123,948	28,669	1,139,125
Net assets:			
Shareholders' equity			
Common stock:			
Authorized – 230,000,000 shares			
Issued – 140,860,557 shares in 2020 and 2019	64,152	64,152	589,584
Capital surplus	64,579	64,579	593,506
Retained earnings	128,578	122,145	1,181,674
Less treasury stock, at cost	(2,575)	(2,602)	(23,671)
Total shareholders' equity	254,734	248,274	2,341,093
Accumulated other comprehensive income:			
Net unrealized holding gain on other securities	9,232	12,415	84,849
Surplus arising from land revaluation	160	160	1,472
Translation adjustments	4,192	10,013	38,521
Total accumulated other comprehensive income	13,584	22,588	124,842
Non-controlling interests	5,617	5,443	51,614
Total net assets	273,935	276,305	2,517,549
Total liabilities and net assets	¥ 518,619	¥ 423,057	\$ 4,766,282

Consolidated Statement of Income

	Millions of yen		Thousands of U.S. dollars (Note)
	2020	2019	2020
Net sales	¥ 295,999	¥ 291,126	\$ 2,720,329
Cost of sales	227,845	232,806	2,093,974
Gross profit	68,154	58,320	626,355
Selling, general and administrative expenses	48,468	48,182	445,436
Operating income	19,686	10,138	180,919
Other income (expenses):			
Interest and dividend income	1,323	1,342	12,158
Interest expense	(195)	(159)	(1,790)
Gain (loss) on sales of investment securities	(25)	4,667	(228)
Other, net	(3,264)	(6,661)	(29,996)
Profit before income taxes	17,525	9,327	161,063
Income taxes:			
Current	(6,471)	(6,509)	(59,474)
Deferred	484	755	4,448
	(5,987)	(5,754)	(55,026)
Profit	11,538	3,573	106,037
Profit attributable to:			
Non-controlling interests	(208)	(267)	(1,912)
Owners of parent	¥ 11,330	¥ 3,306	\$ 104,125

Note : U.S. dollar amounts have been converted for convenience only at the rate of ¥108.81 = US\$1, the rate of exchange on March 31, 2020.

Consolidated Statement of Comprehensive Income

	Millions of yen		Thousands of U.S. dollars (Note)
	2020	2019	2020
Profit	¥ 11,538	¥ 3,573	\$ 106,037
Other comprehensive income (loss):			
Net unrealized holding gain (loss) on other securities	(3,207)	(7,827)	(29,476)
Deferred gain on hedges	—	(77)	—
Translation adjustments	(5,812)	(826)	(53,414)
Total other comprehensive income (loss)	(9,019)	(8,730)	(82,890)
Comprehensive income (loss)	¥ 2,519	¥ (5,157)	\$ 23,147
Comprehensive income (loss) attributable to:			
Owners of parent	¥ 2,326	¥ (5,445)	\$ 21,373
Non-controlling interests	193	288	1,774

Consolidated Statement of Changes in Net Assets

Millions of yen

	Number of shares issued (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, 2018	140,861	¥ 64,152	¥ 64,579	¥ 123,736	¥ (2,609)	¥ 20,247	¥ 77	¥ 160	¥ 10,856	¥ 5,170	¥ 286,368
Cash dividends	—	—	—	(4,896)	—	—	—	—	—	—	(4,896)
Profit attributable to owners of parent	—	—	—	3,306	—	—	—	—	—	—	3,306
Purchases of treasury stock	—	—	—	—	(3)	—	—	—	—	—	(3)
Retirement of treasury stock	—	—	—	(1)	10	—	—	—	—	—	9
Other changes	—	—	—	—	—	(7,832)	(77)	—	(843)	273	(8,479)
Balance at March 31, 2019	140,861	¥ 64,152	¥ 64,579	¥ 122,145	¥ (2,602)	¥ 12,415	¥ —	¥ 160	¥ 10,013	¥ 5,443	¥ 276,305
Cash dividends	—	—	—	(4,897)	—	—	—	—	—	—	(4,897)
Profit attributable to owners of parent	—	—	—	11,330	—	—	—	—	—	—	11,330
Purchases of treasury stock	—	—	—	—	(3)	—	—	—	—	—	(3)
Retirement of treasury stock	—	—	—	—	30	—	—	—	—	—	30
Other changes	—	—	—	—	—	(3,183)	—	—	(5,821)	174	(8,830)
Balance at March 31, 2020	140,861	¥ 64,152	¥ 64,579	¥ 128,578	¥ (2,575)	¥ 9,232	¥ —	¥ 160	¥ 4,192	¥ 5,617	¥ 273,935

Thousands of U.S. dollars

	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, 2019	\$ 589,584	\$ 593,506	\$ 1,122,550	\$ (23,915)	\$ 114,103	\$ —	\$ 1,472	\$ 92,019	\$ 50,021	\$ 2,539,340
Cash dividends	—	—	(45,001)	—	—	—	—	—	—	(45,001)
Profit attributable to owners of parent	—	—	104,125	—	—	—	—	—	—	104,125
Purchases of treasury stock	—	—	—	(27)	—	—	—	—	—	(27)
Retirement of treasury stock	—	—	—	271	—	—	—	—	—	271
Other changes	—	—	—	—	(29,254)	—	—	(53,498)	1,593	(81,159)
Balance at March 31, 2020	\$ 589,584	\$ 593,506	\$ 1,181,674	\$ (23,671)	\$ 84,849	\$ —	\$ 1,472	\$ 38,521	\$ 51,614	\$ 2,517,549

Consolidated Statement of Cash Flows

Millions of yen

Thousands of
U.S. dollars (Note)

	2020	2019	2020
Operating activities			
Profit before income taxes	¥ 17,525	¥ 9,327	\$ 161,063
Adjustments to reconcile profit before income taxes to net cash provided by operating activities:			
Depreciation and amortization	24,222	25,136	222,613
Loss on impairment of fixed assets	458	330	4,210
Reversal for accrued bonuses for employees	470	(389)	4,316
Reversal for accrued bonuses for directors	43	(1)	395
Reversal of allowance for doubtful accounts	21	(10)	192
Increase (decrease) in liability for retirement benefits	36	56	332
Interest and dividend income	(1,323)	(1,342)	(12,158)
Interest expense	195	159	1,790
Share of profit of entities accounted for using equity method	(0)	(1)	(0)
Gain on sales of property and equipment	(7)	(51)	(58)
Loss on disposal of property and equipment and other assets	2,198	916	20,198
Gain (loss) on sales of investment securities	25	(4,667)	228
Loss from suspended operation	92	—	843
Loss on liquidation of subsidiaries and affiliates	458	5,288	4,214
Decrease (increase) in notes and accounts receivable, trade	(9,624)	1,197	(88,451)
Decrease (increase) in inventories	2,520	(9,018)	23,161
Increase (decrease) in notes and accounts payable	6,808	875	62,564
Increase (decrease) in accrued expenses	(34)	(386)	(308)
Other, net	(13,072)	(1,520)	(120,141)
Subtotal	31,011	25,899	285,003
Interest and dividends received	1,324	1,370	12,163
Interest paid	(195)	(158)	(1,790)
Income taxes paid	(6,044)	(8,555)	(55,544)
Net cash provided by operating activities	¥ 26,096	¥ 18,556	\$ 239,832
Investing activities			
Purchases of property and equipment	¥ (37,269)	¥ (23,438)	\$ (342,514)
Proceeds from sales of property and equipment	844	147	7,760
Purchases of intangible assets	(1,226)	(1,174)	(11,268)
Purchases of investment securities	(26)	(281)	(243)
Proceeds from sales of investment securities	177	6,873	1,629
Purchases of investments in subsidiaries resulting in change in scope of consolidation	—	(88)	—
Increase in short-term loans receivable	(1)	—	(12)
Collection of long-term loans receivable	0	0	2
Other, net	(582)	(75)	(5,353)
Net cash used in investing activities	(38,083)	(18,036)	(349,999)
Financing activities			
Increase in short-term borrowings, net	—	30	—
Increase in long-term debt	70,000	—	643,323
Repayment of long-term debt	—	(6)	—
Proceeds from issuance of bonds	35,000	—	321,662
Redemption of bonds	(25,000)	—	(229,758)
Purchases of treasury stock	(3)	(3)	(27)
Proceeds from sales of treasury stock	30	10	271
Cash dividends paid	(4,897)	(4,896)	(45,001)
Cash dividends paid to non-controlling interests	(15)	(15)	(135)
Repayments of lease obligations	(565)	(46)	(5,193)
Other, net	(66)	—	(611)
Net cash (used in) provided by financing activities	74,484	(4,926)	684,531
Effect of exchange rate changes on cash and cash equivalents	(1,106)	139	(10,157)
Increase (decrease) in cash and cash equivalents	61,391	(4,267)	564,207
Cash and cash equivalents at beginning of year	113,493	117,760	1,043,037
Cash and cash equivalents at end of year	¥ 174,884	¥ 113,493	\$ 1,607,244

Corporate Information / Stock Information (As of March 31, 2020)

Corporate Data

Trade name	IBIDEN CO., LTD.
Established	November 25, 1912
Capital	¥64,152 million
Number of employees	Consolidated: 13,019 Non-consolidated: 3,537
Plants	Head office 2-1, Kanda-cho, Ogaki City, Gifu 503-8604, Japan Tokyo branch Marunouchi Bldg. 29F, 2-4-1, Marunouchi, Chiyoda-ku, Tokyo 100-6329, Japan Plants Gifu Prefecture: Ogaki, Ogaki Central, Aoyanagi, Gama, Ogaki-Kita, Godo Aichi Prefecture: Kinuura
Number of subsidiaries	Consolidated subsidiaries: 39 (18 in Japan, 21 overseas)

Stock Information

Fiscal year-end	March 31
Annual meeting of shareholders	June
Independent Auditors	KPMG AZSA LLC
Domestic stock exchange listings	Tokyo, Nagoya
Date of record for dividend payout	Interim dividend: September 30 Year-end dividend: March 31
Authorized shares	230,000,000
Shares issued and outstanding	140,860,557 (including 959,195 shares of treasury stock)
Number of shareholders	22,925

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



Website for shareholders and investors <https://www.ibiden.com/ir/>

External Corporate Evaluation regarding ESG

Our company, after being assessed by external assessment bodies, was selected as a component of major ESG investment-related indexes.

FTSE4Good Index Series^{※1}



FTSE4Good

FTSE Blossom Japan Index^{※1}



FTSE Blossom Japan

MSCI Japan ESG Select Leaders Index



2020 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX

• MSCI ESG Ratings AAA^{※3}



• S&P/JPX Carbon Efficient Index

• SOMPO Sustainability Index

• The ISS ESG Corporate rating "Prime"

※1 FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that IBIDEN Co., Ltd. has been independently assessed according to the FTSE4Good criteria and FTSE Blossom Japan criteria, and has satisfied the requirements to become constituents of both Index Series. Created by the global index provider FTSE Russell, these indices are designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices. These indices are used by a wide variety of market participants to create and assess responsible investment funds and other products. Visit below website for each index details.
FTSE4Good: <http://www.ftse.com/products/indices/FTSE4Good>
FTSE Blossom Japan Index: <http://www.ftse.com/products/indices/blossom-japan>

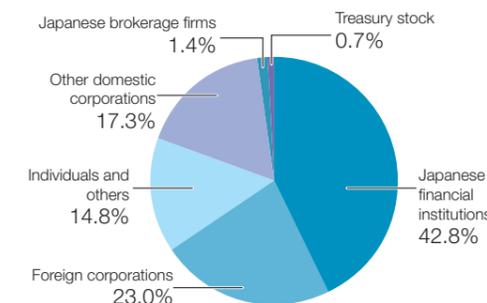
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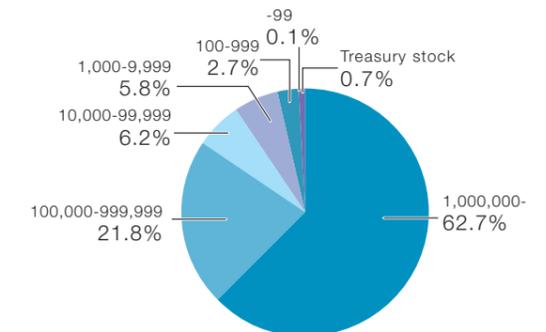
Principal Shareholders (top 10)

Name of Shareholder	The number of shares held (thousands)	Percentage of owned shares to outstanding shares (%)
Japan Trustee Services Bank, Ltd. (Trust Account)	14,753	10.55
The Master Trust Bank of Japan, Ltd. (Trust Account)	13,120	9.38
DENSO Corporation	7,712	5.51
Toyota Industries Corporation	6,221	4.45
The Ogaki Kyoritsu Bank, Ltd.	4,150	2.97
The Juroku Bank, Ltd.	4,130	2.95
IBIDEN Partner Shareholding Association	4,091	2.92
Japan Trustee Services Bank, Ltd. (Trust Account 9)	3,188	2.28
IBIDEN Employee Shareholding Association	2,992	2.14
TAIJU LIFE INSURANCE COMPANY LIMITED	2,539	1.82

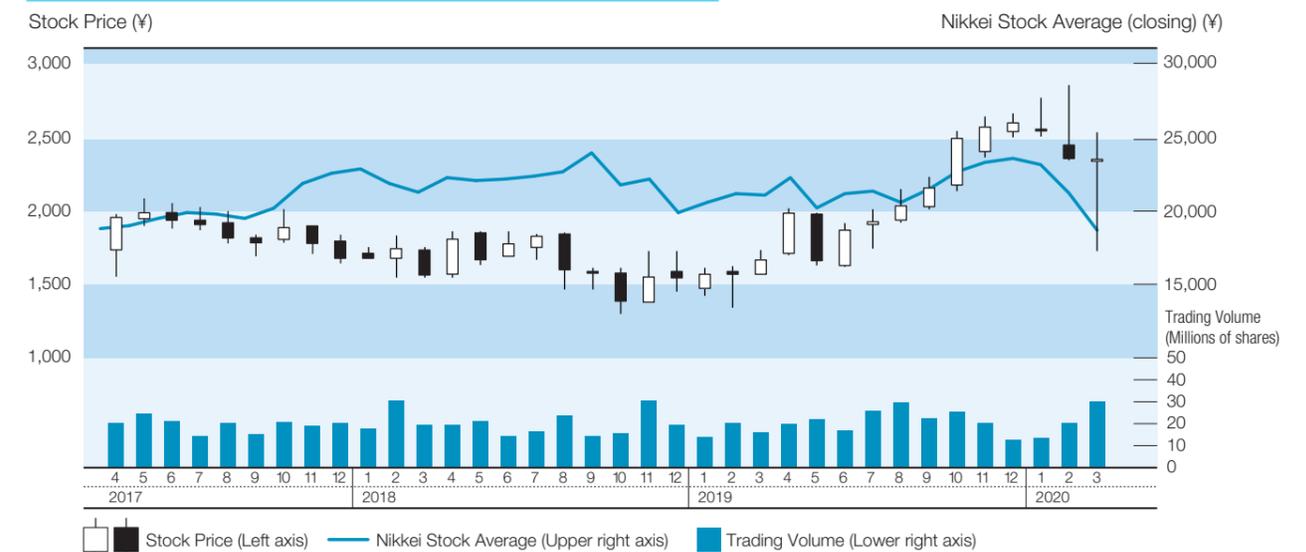
Breakdown by Type of Shareholder



Breakdown by Size of Holding



Stock Price Range and Trading Volume (Common Stock)





IBIDEN Co., Ltd.
<https://www.ibiden.com/>

2-1, Kanda-cho, Ogaki, Gifu
503-8604, Japan
Tel: +81-584-81-3111



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