



Isamu Oguni President and CEO

OPTEX GROUP (6914)



## Company Information

Market	TSE 1st Section
Industry	Electric equipment (manufacturer)
President and CEO	Isamu Oguni
HQ Address	4-7-5, Nionohama, Otsu, Shiga Prefecture
Year-end	December
Homepage	<a href="https://www.optexgroup.co.jp/en/">https://www.optexgroup.co.jp/en/</a>

## Financial information

Sales	Operating profit	Ordinary profit	Net profit	Total assets	Net assets	ROA	ROE
¥37,517 million	¥2,856 million	¥2,876 million	¥2,197 million	¥43,967 million	¥32,372 million	6.6%	6.8%

\*Results for the term ended Dec. 2019. Net profit means profit attributable to owners of parent. ROA stands for return on asset.

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## 1. Company Overview

OPTEX GROUP Co., Ltd. is a holding company centered around OPTEX Co., Ltd. that manufactures and sells outdoor security sensors (top share of 40% in the global market), automatic door sensors (30% share of the global market and 50% share of the domestic market) and environment-related products, etc. OPTEX GROUP holds subsidiaries including OPTEX FA CO., LTD., which deals with FA related sensing business; CCS Inc., which holds the global top share (30%) in the LED lighting business for image processing; Three Ace Co., Ltd., which specializes in the development of various systems, applications, and digital content; OPTEX MFG CO., LTD., which is responsible for manufacturing Group products, FIBER SENSYS INC. (US), which deals with optical fiber intrusion detection systems; and RAYTEC LIMITED (UK), which has attained the largest global share (about 50 %) for supplemental lights for CCTV. As of the end of Dec. 2019, the company operates business with 80 footholds around the world, including 26 overseas companies.

OPTEX Co., Ltd.	Develops and sells sensors for various uses, such as security sensors and sensors for automatic doors
OPTEX FA CO., LTD.	Development and sales of photoelectric sensors, displacement sensors, industrial image inspection systems and measuring instruments
CCS Inc.	Development, manufacturing and sales of LED lighting devices and systems for image processing
THREE ACE CO., LTD.	Development of various systems, applications, and digital content
OPTEX MFG CO., LTD.	Manufactures products for the Group and provides contract manufacturing services for electronic equipment
SICK OPTEX CO., LTD.	Development of general-purpose photoelectric sensors. A joint venture of SICK AG (Germany) and OPTEX FA CO., LTD.
GIKEN TRASTEM CO., LTD.	Development, manufacturing and sales of people counting systems, customer traffic counting/management systems
ZENIC INC.	Contracted development of IC and LSI for image processing, and design and sales of FA systems
OPAL OPTEX Co., Ltd.	Management of membership sports clubs and environmental hands-on learning programs
FIBER SENSYS INC. (US)	Development, manufacturing and sales of fiber-optic intrusion detection systems
FARSIGHT SECURITY SERVICES LTD. (UK)	Security company providing remote video surveillance services
RAYTEC LIMITED (UK)	Development, manufacturing and sales of supplemental lighting for surveillance cameras
GARDASOFT VISION LIMITED. (UK)	Development, manufacturing, and sale of LED lighting controllers for machine vision

### 【1-1. Corporate History】

In May 1979, Mr. Toru Kobayashi (currently serving as a director and senior corporate adviser), who was developing security sensors in a manufacturer of anti-crime devices in Kyoto, established OPTEX Co., Ltd. with the spirit of the endeavor to “make their products recognized in the world as much as possible.”

In November 1979, the company developed “the world’s first far-infrared sensor for automatic doors.” Around that time, pressure-sensitive rubber mats were used for automatic doors, and an automatic door sensor that utilizes far-infrared light was epoch-making. OPTEX was unrivaled in maintenance and installation services, and seized the largest share in the market of automatic door sensors in the third year after inauguration (currently occupying about 50% of the Japanese market).

Since then, the company has developed a wide array of products for security, automatic doors, and industrial equipment with its unique ideas and technologies that embodies them.

In the 1980s, the company entered overseas markets. While it had been considered impossible to set a far-infrared sensor outdoors because external factors, such as light, would cause errors, the company developed the outdoor far-infrared sensor “VX-40” with its original technology, and that sensor was highly evaluated mainly in the European market, and occupied the largest share in the global market of outdoor intrusion detection sensors.

Through business expansion, the company became an over-the-counter company (equivalent to being listed in the JASDAQ market) in 1991. Then, it was listed in the second section of Tokyo Stock Exchange (TSE) in 2001, and in the first section of TSE in 2003.

Recently, the company has been strengthening solutions based on image processing technologies and high-end security systems. In 2008, it reorganized ZENIC INC., which undertakes the development of ICs and LSI for image processing, etc., into a subsidiary. In 2010, it acquired FIBER SENSYS INC. (US), which has plenty of experience handling high-end security systems (optical fiber intrusion detection systems) for important facilities in Europe and the U.S., as a subsidiary. In 2012, it acquired RAYTEC LIMITED (UK), which handles supplemental lighting for cameras of high-end security systems for important large-scale facilities, as a subsidiary.

In May 2016, it acquired CCS Inc., which has the world’s largest share in the market of LED lighting for image processing, as a subsidiary, and transformed it into a 100% subsidiary in July 2018.

With the aim of adopting next-generation business administration and pursuing group synergy, it shifted to the holding company system on January 1, 2017.

Under the baton of Mr. Isamu Oguni, who was appointed as President and CEO in March 2019, they aim to grow further as the No.1 company in the global niche market, by reforming their business models, enhancing their capability of proposing solutions, and so on.

**【1-2. Corporate Ethos】**

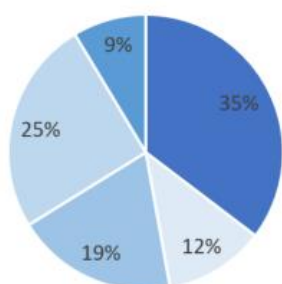
Ethos of the OPTEX GROUP	<p>“We aim to become a corporate group full of venture spirit.”</p> <p>The venture spirit means the ambition to contribute to the growth of society by reforming the behavior and creating new businesses.</p>
Course of action	<p>To improve the capabilities, vigor, and efficiency of personnel and organizations, to maximize the value of the entire corporate group.</p> <p>To mutually respect the values of personnel and organizations, and use diversity as a source of energy for business activities.</p> <p>To enhance the autonomy of personnel and organizations, and remain a corporate group that can be boasted in society.</p>

As the company commemorated the 40<sup>th</sup> anniversary of inauguration in 2019, the most emphasized evaluation item is to exert its venture spirit, and the company is developing an environment for fostering the venture spirit in order to strengthen human capital, which is the largest intangible asset for the company.

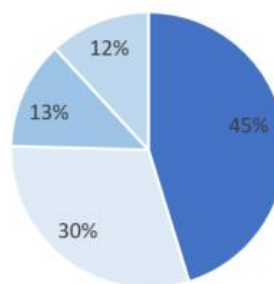
**【1-3. Business description】**

The business of OPTEX can be classified into “Sensing Solution (SS) business,” which provides mainly security-related and automatic door-related products, “Factory Automation (FA) business,” which handles sensors for industrial equipment, “Machine vision lightning (MVL) business,” which offers LED lighting devices and systems for image processing, “EMS business,” which undertakes contract manufacturing services for electronic equipment in China, and “Other business,” which operates sports clubs and develops applications and digital content.

Sales composition by segment (FY 12/2019)



Sales composition by region (FY 12/2019)

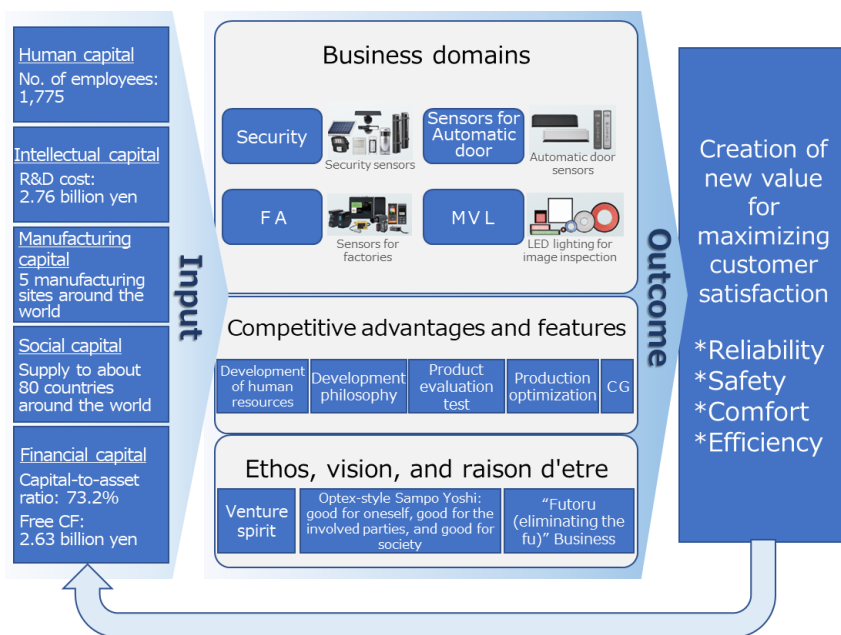


■ Security-related ■ Automatic door-related ■ FA ■ MVL ■ Other

■ Japan ■ EMEA ■ AMERICAS ■ Asia

Business segment		Business description
SS business	Security-related	Major products include various sensors used indoors and outdoors, wireless security systems, and LED lighting control systems. In the global market of outdoor sensors, the company has a lion's share. Recently, the company has been developing automobile detection sensor utilizing the microwave technology.
	Automatic door-related	The company developed an automatic door sensor using far-infrared rays for the first time in the world. Major products include automatic door opening/closing sensors, sensors for factory shutters, and wireless touch switches.
	Other	Development and sale of equipment for measuring water quality, transportation equipment (tools for supporting safe driving), customer traffic counting/management systems, image processing-related products, etc.
FA business		Main products include photoelectric sensors used for quality control and automation in production lines of factories, displacement sensors, image sensors, LED lights, etc. In Japan, these products are provided to a wide range of industries such as food or pharmaceutical for quality control of production lines. Outside Japan, its products are sold via OEMs throughout Europe through its technological partner SICK AG (Germany) that has the largest share in industrial sensor market. Also, its house-brand products have been launched in various regions such as Japan, other Asian countries, and North America.
MVL business		The business of LED lighting for image processing has a lion's share in the global market. The company cooperates with enterprises related to peripheral devices and software, etc. to offer the "best solution."
EMS-related business		Contract manufacturing services for electronic equipment, developed at a factory in China
Other business		Operation of sports clubs and development of applications and digital content

**[1-4. Flowchart for value creation]**



\* The amounts of human capital, intellectual capital, and financial capital are the results for the term ended Dec. 2019.

Based on ethos, vision, and raison d'etre since its foundation, the OPTEX GROUP develops unique products in four business domains, by utilizing its competitive advantages, including excellent human capital. They offer value, such as "reliability, safety, comfort, and efficiency," to society as the No.1 enterprise in the global niche market.

## 2. Interview with President Oguni

### ●Corporate Philosophy, Vision and Social Significance

**Q. In recent years, the entire society has been striving for sustainable growth. As your company is one of society's important players, its corporate philosophy, vision, mission, and social significance are very important.**

**Firstly, could you tell us about your corporate philosophy?**

Our philosophy is “aiming to become a corporate group full of venture spirit!” and “endeavoring to do new things.”

When our founder established the company 41 years ago, he believed that for society to accept the company he established from scratch, the company must benefit the world by making wholly new and different products instead of rehashing existing ones. That is why he decided to attempt new challenges and endeavor to create new products.

This led to the development of “the world's first automatic door sensor that uses far-infrared rays,” which is an original product that achieved high market shares in Japan and overseas.

In 2017, three years ago, we transitioned to a holding company structure.

As this marked our second start-up phase, we went back to the starting point again, which made us decide to reestablish “aiming to become a corporate group full of venture spirit!” and “endeavoring to do new things” as our corporate philosophy.

We started to value our initial corporate philosophy again by trying to add more value not only by endeavoring to do new things in product development but also in our daily routine work.



Isamu Oguni, President and CEO

**Q. OPTEX GROUP follows an “Optex-style Sampo Yoshi” business philosophy as well, right?**

I think many people are familiar with Ohmi merchants' “Sampo Yoshi (good for all three sides)” philosophy, which means “good for the seller, good for the buyer, and good for society.”

This philosophy entails that although it is important for businesses to increase their profits, they should not pursue only their gains, but also satisfy the sellers and the buyers. This philosophy is that by doing so, they will contribute to society, which would benefit their businesses.

For example, if we apply this to our business, when we purchase parts, no one would sell us molds when we order it unless they trust us. So, if you want to expand a business sustainably, you should not think “the person buying the product is the most important,” but you should value both the buyer and the seller in the same way.

Our Group, headquartered in Shiga Prefecture, has added its unique interpretation to the Ohmi merchants' “Sampo Yoshi,” which is “the Optex-style Sampo Yoshi: good for oneself, good for the involved parties, and good for society.”

This is a belief we have cherished since our founding. First, we want to make the “involved parties” happy, and that leads to our own (the company's) profit.

For our group, “parties involved” do not only include customers who directly buy our products and services, but also suppliers and partner companies. Our stance is “Let's grow together!”

Also, the “parties involved” includes rival companies.

That is because our group is always pursuing highly unique ideas and technologies. When our group and rival companies engage in positive rivalry, we could create a product no one has ever created before. Then, there will be no futile and mutually detrimental price competition. Groundbreaking products will expand the market, offering more choices to users. That, in turn, will be “good for society.”



**Optex-style Sampo Yoshi**

Therefore, the spirit of “Optex-style Sampo Yoshi” that emphasizes the relationship of trust with all stakeholders is an important philosophy that underpins the foundation of the Group.

**Q. What is the “Futuru (eliminating the fu) Business” concept, which is one of the guidelines for your Group's business activities?**

The “Futuru Business” concept is our striving to become a global niche No.1 sensor manufacturer.

The “Futuru Business” means eliminating the customers' “anxieties,” “inconvenience,” and “dissatisfaction” (不安 “fuan,” 不便 “fuben” and 不満 “fuman,”) and replacing them with “reliability,” “safety,” “convenience” and “satisfaction,” respectively. In other words, it means eliminating all the “不 (fu)” that the clients have by developing and providing products and services.

We believe that the purpose of the OPTEX GROUP's business is to contribute to society by providing comfort and efficiency through this “Futuru Business” concept.

However, even though our group is a technology company, what our customers are seeking is “solving problems,” and achieving that does not necessarily have to be through cutting-edge technology and high technology. That is why we believe that we must always examine the essence of what our customers are seeking.

And so, “aiming to become a corporate group full of venture spirit!,” “Optex-style Sampo Yoshi” and “Futuru Business” are our Group's corporate culture and DNA since its founding.

**●Recognition and Perspectives of ESG**

**Q. Could you tell us about the relationship between the philosophy you have just explained and ESG?**

In recent years, the perspective of Environment, Society, and Governance (ESG) has been considered essential in corporate growth.

Environmental and social issues are also part of the “不 (fu)” that exists in the world.

Since its establishment, our group has been developing its business to contribute to a safe, secure, and comfortable society and industry by making full use of its competitive sensing technology. In other words, as I said earlier, engaging more in eliminating various anxieties, discomfort and inconvenience (不安 “fuan,” 不快 “fukai” and 不便 “fuben”) that exist in the world [=Futuru (eliminating “fu”) Business] .

In that sense, we are confident that by continuing to promote this “Futuru Business,” we will be able to contribute to the resolution of environmental and social problems, as well as expand all our businesses and increase corporate value.

Also, we believe that “Optex-style Sampo Yoshi” represents our attitude towards the ESG as it aims to build relationships with diverse



stakeholders.



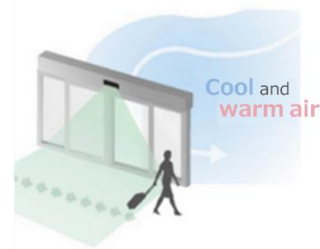
**“Introduction of Specific Products of the Futoru Business”**

**① Automatic door sensor**

The sensors for automatic doors provided by OPTEX Co., Ltd. are used in detecting the movement of people more reliably and using automatic doors more safely.

In particular, the recently released e-Smooth Sensor is equipped with sensors and imaging technologies to read the walking speed and direction of pedestrians, reducing unnecessary opening triggered by pedestrians passing by an automatic door.

By operating doors only when necessary, it improves air conditioning efficiency in buildings and leads to power consumption that is approximately 30% lower than that of conventional automatic door sensors.



e-Smooth Sensor monitors the direction of people walking to reduce the unnecessary opening operations for automatic doors



Optex Automatic Door Viewer  
A smart device application where you can check the contribution rate to the environment

**② Outdoor security sensor**

OPTEX Co., Ltd. was quick to focus on the importance of outdoor pre-crime security “alerting before an intrusion.” In 1996, the company developed the Outdoor Security Sensors for Detecting Intrusion VX-40 that operates accurately, even in the outdoor environment where there are many malfunction factors such as rain, sunlight, and wind.

Especially in Europe and other overseas countries, “pre-crime” security, which is the detection and reporting of intruders before they enter the building, is spreading among ordinary households.

As there are cases of illegal intrusions and crimes occurring regardless of whether the inhabitants are at home or not, this product can help you recognize the presence of intruders early so that you can ensure your safety by reporting and defending yourself.

Nowadays, the products are used in buildings and facilities around the world as they have been recognized for their high reliability and have about 40% share of the global market.



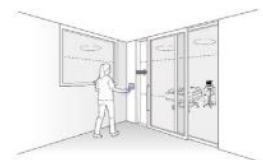
Outdoor security sensors for detecting intrusion  
BXS, VXS and HX Series



**③ Contact-free switch for automatic doors**

OPTEX Co., Ltd. released Clean Switch, a contact-free switch which is used for opening and closing partitions and shutters of doors and warehouses of food factories and medical facilities. (April 2020)

You can make the contact-free switch respond by merely holding your hand out without touching the doorknob or switch. It is useful in places that are concerned about hygiene and reduction of viral and



bacterial infection risks.  
 Clean Switch is a contact-free switch that opens the door when you put your hand within 10 to 50 cm range from it.  
 By expanding the line-up of contact-free switches, they can be used not only for public facilities, offices, and commercial facilities but also for sanitary control in a variety of sites such as food factories and medical facilities.



**• Characteristics, Strengths and Competitive Advantage**

**Q. What are the characteristics, strengths, and competitive advantages of your company?**

By incorporating our sensing technologies with lighting technologies and various elemental technologies, our group advanced the technologies that allow them to look at changes and conditions, examine the invisible, and observe and judge. By doing so, we have made valuable proposals and offered solutions to diversifying customer needs.

It is crucial to have multiple elemental technologies, know-how, and algorithms that control physical changes to realize reliable and stable sensing.

The technologies, know-how, and the unique sensing algorithms which are suitable for such applications are our group's major strength and competitive advantage. Thus, I believe they are behind the group's brand power as it is the reason for achieving a large market share in all product categories.

**“Main Technologies”**

Anti-noise technology	<ul style="list-style-type: none"> <li>• Hardware design to minimize various noises</li> <li>• Commercialization only for products that have passed numerous independently-determined environmental assessments</li> </ul>
Meticulous optical design	<ul style="list-style-type: none"> <li>• Full coverage of high-density areas using optical simulation</li> <li>• Packaging technology for miniaturization</li> </ul>
Compliant to public standards for reliability	<ul style="list-style-type: none"> <li>• Conformance and compliance with all types of global standards</li> <li>• Conformance and compliance with standards and guidelines stipulated in each industry (CE marking, EN standard [TUV certified], ANSI, JIS, etc.)</li> </ul>
Eco-friendly design	<ul style="list-style-type: none"> <li>• Stipulating 15 types of restricted-use materials and 10 types of voluntary-control materials, and ensuring all components are harmless</li> <li>• Compliant to RoHS directive, lead-free solder alloy</li> <li>• Design that minimizes the impact of CO<sub>2</sub> during usage</li> </ul>
Security and safety control	<ul style="list-style-type: none"> <li>• Using self-diagnosis and fail-safe functions when sensors malfunction or break down, to ensure that systems keep functioning</li> <li>• Proposing preventative maintenance measures for maintaining functionality</li> </ul>
Original sensing algorithm	<ul style="list-style-type: none"> <li>• Original algorithm for cutting off the noise that cannot be suppressed by hardware, as well as detecting, scrutinizing and analyzing only the events meant to be detected</li> <li>• Various automatic correction functions to maintain field performance</li> </ul>

It is extremely important to pursue the question “what is essentially required?” to accumulate such technologies and know-how.

For example, OPTEX Co., Ltd. has established its development philosophy, “Optex Katachi,” which has been handed down through many years. This philosophy focuses on manufacturing our products by using ideas from the standpoint of customers. We also carry out various product evaluation tests to achieve high reliability and performance that meet customer requirements.

In the outdoor environment where our sensors are used, many unexpected factors such as rain, wind, temperature changes, lightning, and small animals will affect the performance of our sensors daily. Therefore, in order to create a highly reliable sensor, our sensors need to pass tests that ensure that such factors do not affect their performance. Moreover, it is essential to manufacture products that comply with the laws and public standards that vary among the countries in which they are sold. Thus, it is crucial to carry out numerous product evaluation tests.



While these measures are very straightforward, they are not easy to apply.

That is because in the niche field, delving deep into one topic for an extended period leads to the creation of a strong invisible entry barrier.

● **Initiatives regarding major Key Issues (Materiality)**

**Q. For the first time, your group has selected 15 key issues (materiality). (Refer to 3. Issues, Materiality, and Measures)**

**Of these, I would like to ask you about your thoughts on the key issues (materiality) that are particularly important for your company's sustainable growth.**

**The first is “human capital.” Please tell us about supporting employee work satisfaction, education and training systems, the corporate culture that respects diversity, etc.**

As the American psychologist Abraham Maslow argues in his “Maslow's hierarchy of needs”, the highest need for humans is “the need for self-fulfillment.” I believe that what motivates people to move is having something they want to do, being able to achieve it, being praised and appreciated for it.

For that reason, we wanted to be the world's best company to achieve self-fulfillment since our group's founding. That is why we see our company as the stage for our employees.

Each employee plays the leading role, and it is up to them how to perform and dance on that stage. So, we certainly want them to make their dreams come true on the stage, which is our company.

Of course, the reward is also an essential factor in work satisfaction, but it is not the only one.

Therefore, the management interviews employees to get to know what kind of dreams they have and what they want to do, and strives to support them to realize them.



Let's talk about the evaluation criteria of our group.

The most valued person in our group is the person who took up a challenge and succeeded. In the second place comes the person who took on a challenge but failed, and in the third place comes the person who supported others in their endeavors. As for the least valued employee, it is the one who does not take on any challenges.

This criteria that does not focus only on results but also on the process is a part of the OPTEX GROUP's management philosophy that we have cherished since our founding. As for my own experience, I don't really remember that much of my successes. On the contrary, my failures are what helped me grow.

The group also attaches great importance to its “respect for diversity.”

Based on the notion that “having a variety of choices is the evidence of an affluent society,” we believe that it is the role of the OPTEX GROUP to contribute to social diversity through product development. That is why we include our rival companies as part of the “parties involved” in our “Optex-style Sampo Yoshi” Philosophy as a manifestation of our focus on diversity.

Of course, we respect the diversity of each and every employee as well. Also, we want all our employees to demonstrate their individuality and always continue to take on challenges.

We have established various systems to support the employees' “self-fulfillment” and “taking on challenges,” and we will further enhance our competitiveness by creating a corporate culture where employees can maximize their abilities.

**Q. Next, tell us about research and product development, which is the source of your company's competitive advantage and about the future challenges in this area.**

As I mentioned earlier, our group tries to solve the customer's problems one by one in a straightforward manner by thoroughly understanding how the customer will use the product and the environment it will be used in. Through this process, we create new ideas, and as a result, we can offer services with high added value that our rival companies cannot match. This is a significant strength of the OPTEX GROUP.

We visit the actual sites to test the sensing property of the sensors in various environments and circumstances and conduct evaluation tests by creating similar environments. Using this steady approach to conduct accurate performance evaluation is our group's competitive power.

We will also continue to further strengthen our competitive power in the future by delving deep into one topic for an extended period.

Meanwhile, although we have been providing various products, we have not created any new products like our outdoor security sensor that has been highly recognized worldwide and has achieved a high market share. In other words, we do recognize that improving our new product launching rate is a challenge that our group is facing.

This is because the range of products expands as the size of the company grows, and the company has to work on both the development of entirely new products and maintenance and improvement of existing products and in some cases, the company focuses on the latter more. That is why I think we need to take on more challenges.

Therefore, we switched to a holding company structure in 2017 to overcome this situation and for each operating company to delve deeper into their own specialized fields.

It has been four years since each company started working on product development with a focus on individual optimization rather than overall optimization and depth rather than breadth, and it has become very clear what each operating company should do. So, I think we will have more new products in the future.

Under these circumstances, we believe it is necessary to further demonstrate and strengthen our leadership as a holding company.

**Q. What are your thoughts on initiatives for environmental issues, GHG (greenhouse gas) reduction, and securing safe water?**

As for GHG (greenhouse gas) reduction, our group mainly develops and sells small sensors and software, so our environmental load is considered to be low in comparison with that of a typical manufacturer.

Moreover, our products help lower environmental load, as they operate machines and systems upon necessity since they use sensors to detect humans and objects. Also, using sensors contributes to the efficiency and quality improvement of factory lines.

Nowadays, we are aware that many customers are using our products for both its economic efficiency and environmental performance, and that is why we will continue to reduce greenhouse gas emissions further in the future by using our products.

Also, our group has been working for a long time on water quality measuring equipment with sensors. One of the equipment we developed is "WATER it." It is a simple water quality measuring device and system which has dramatically reduced the labor, time, and cost required for water quality measurement. Thus, in the future, we aspire to continue to contribute to overcoming the global challenge of "securing safe water" by supplying products.

By the way, we are currently in the process of constructing an implementation system for a database on CO<sub>2</sub> reduction for the entire group, and we are preparing to make its disclosure as early as possible.

**Q: What are your thoughts and measures regarding corporate governance?**

One of the points our group has placed great importance on since its founding is "the freedom to discuss anything."

Our desire to be a company with a culture of openness where we always discuss whether our decisions are truly right or not without hiding anything remains unchanged.

Our group, which has an open and flat culture and respects diversity, is increasing the number of its subsidiaries in Japan and overseas and expanding its business scale. Amid these circumstances, in 2016, we transitioned from being a company with auditors to a company with an audit and supervisory committee to improve management transparency, maintain a management system that involves fair and

prompt decision-making, and strengthen management monitoring.

At present, there are four independent external directors accounting for more than one-third of the 11 directors and auditors, and at the Ordinary General Meeting of Shareholders held in March 2020, we appointed a female outside director for the first time.

We will continue to build a corporate governance system that further emphasizes diversity.

### ● Mid-term management plan

#### **Q. Could you please tell us about the key points of the new mid-term management plan.**

Recently, our group has announced a three-year mid-term management plan, beginning in 2020.

Due to the impact of the new coronavirus, it may be necessary to re-examine our numerical targets. However, the principle that is the pillar of the plan remains unchanged. The major focus of the plan is “endeavoring to reform the business model” in each business field.

In the SS business, we will promote the shift from the conventional “sale of goods” that revolves around selling sensors, to a “solution-providing business (= sales of services and experiences)” that solves customer issues.

In our FA Business, we will seek growth by reinforcing our high value-added products.

In particular, our focus will be on image sensors, which are seeing increased sales for the food industry, and displacement sensors, which are expected to see growing demand in the electronic parts industry driven by the wave of 5G.

In our MVL Business, we aim to transform ourselves into a “comprehensive solutions vendor.”

We will elevate our proposal capabilities by utilizing labs we have opened across Japan and strengthen our cooperation with various industries, including cameras, lenses, AI, and robotics, among others. By doing so, we will evolve the business into one that can provide comprehensive support to resolving the customers' problems, including responding to the automation of visual inspections, for which there is growing demand.

\* For details on the new mid-term management plan, refer to “4. New Mid-term Management Plan”

### ● ROE

#### **Q. What are your thoughts on your company's ROE?**

We place great importance on meeting the expectations of our shareholders and investors, and that is why one of our management indicators is having ROE of 10% or higher.

We will continue to invest while concentrating on new businesses by further growing the core businesses promoted by each operating company and effectively utilizing management resources from the standpoint of total optimization.

At the same time, we continuously aim to achieve our business indicators by constantly improving the efficiency of our indirect operations and our ingenuity and giving top priority to profit while focusing on enhancing productivity.

ROE is also one of the requirements for determining the directors' remuneration.

### ● Other risks and challenges

#### **Q. Could you share with us the current impact of the spread of the new coronavirus? (As of April 30, 2020)**

Immediately after the outbreak of the new coronavirus, employees at our factories in China were unable to go to work, but now the production capacity of our factories has recovered to around 90%.

This situation made us recognize our need to strengthen the supply chain, which is why we are promoting the decentralization of our manufacturing factories. In 2021, we aspire to increase the production ratio to 40% in Japan (partner factories: OFROM Co., Ltd. and SUNOCT Co., Ltd. ), to 40% in China (our factory: OPTEX DONGGUAN), and 20% in Vietnam (subcontractor: RHYTHM PRECISION VIETNAM CO., LTD.), and we will also promote diversification of parts suppliers as well.

In order to contribute to the growth of the business of the OPTEX GROUP, we established OPTEX MFG CO., LTD., in 2018 to strengthen manufacturing capabilities by separating and consolidating the production functions of OPTEX Co., Ltd. and OPTEX FA CO., LTD. Moreover, since we have transitioned to a system that allows us to construct and promote production and procurement strategies centrally, we believe that these measures will proceed smoothly. In the future, we plan to demonstrate further the advantages of shifting to a holding company structure by separating and consolidating the production functions of CCS Inc.

Also, in terms of sales, as we have buyers spread over 80 countries around the world, and we have a wide variety of products in all industries, we know that the risk is diversified in comparison to our supply chain.

**Q. Looking at the size of the market in each region of the world, I feel that the composition of sales in the Americas is insufficient. What are your efforts regarding the U.S. market?**

OPTEX GROUP has strong sales overseas in Europe for security, automatic doors, and industrial sensors.

The low sales composition in the Americas does not mean that we have failed to enter the market. The main reason behind the low sales composition was that since we have been focusing on developing our business in Europe, we did not have the time to put our full efforts into it.

However, at the moment, sales to North, Central, and South Americas are low, making out 13% of our Group's sales. Thus, we recognize that it is an important challenge for our group to improve this ratio promptly.

Our success in Europe indicates that our products will also succeed in the United States, so the biggest challenge for us is how to expand our sales network in the vast U.S. and how to strengthen our sales force.

Although the situation varies from one business to another, there are some cases in which sales agents cannot take the business seriously, so it is still necessary to establish a direct sales system.

A certain amount of human resources investment will be necessary, such as establishing local subsidiaries and hiring human resources who are familiar with the industry. So, from here on, we will sincerely work on this issue.

In the field of security-related, we have started an image verification business in collaboration with a local venture company.

In the field of automatic door-related, we will accelerate the OEM supply of automatic door sensors to major local automatic door manufacturers.

In the field of factory automation, we established OPTEX FA INC. in 2018, and we are in the process of switching to a direct sales system to accelerate sales.

In the MVL field, as CCS already has a base, we would like to take on the challenge of strengthening collaboration between operating companies and expanding synergies.

Besides, we will take the lead in proactively considering local M&A.

**• Message to Stakeholders**

**Q. Thank you for discussing various points with me during this interview. Finally, could you please give a message to the stakeholders?**

Since its founding in 1979, our group has been striving to expand its business based on its basic principles of “demonstrating the venture spirit,” “Optex-style Sampo Yoshi,” and “promoting Futuru Business.” I believe that this approach to ESG management is what the companies should undertake to build a genuinely sustainable society.

Based on these basic principles, the products and services created in each of our businesses provide the world and customers with “safety, security, comfort, and efficiency.” This is the role that our group plays and its social significance.

It is expected that the business environment will continue to be severe for the time being due to the impact of the new coronavirus. However, OPTEX GROUP will continue to proactively take on challenges to meet the expectations of all of its stakeholders, aiming for sustainable growth and providing value to society.

On the other hand, we think that the concrete measures regarding ESG and data disclosure are not sufficiently comprehensive, and we will tackle this critical issue with a focus on the improvement of the internal system.

Finally, we would like to thank all our stakeholders for their continuous and warm support.

### 3. Issues, Materiality, and Measures

The OPTEX GROUP currently recognizes the following issues and materiality. For materiality selection, they interviewed external personnel, too.

Issues	Materiality
<b>Environment</b>	Reduction of greenhouse gas emissions
	Securing of safe water
	Use of renewable energy
<b>Social capital</b>	Securing of quality and safety of products
	Safe data management
	Utilization of geographical capital and cooperation with local communities
<b>Human capital</b>	Improvement in employees' satisfaction with their jobs
	Educational and training systems
	Corporate culture that respects diversity
<b>Business models &amp; innovation</b>	Reform of business models
	Appropriate supply chain management
	Procurement of materials and parts
<b>Competitiveness and governance</b>	Research and product development systems for enhancing competitiveness
	Expansion of the corporate governance system
	Risk control

\*Produced with reference to SASB Materiality Map, etc.

#### 【3-1 Materiality for the “environmental” issues】

##### (1) Reduction of greenhouse gas emissions

Since the company develops and sells mainly compact sensors and software, it produces less environmental burdens, including the emissions of greenhouse gases, than general manufacturers.

However, they are deeply aware of corporate roles for coping with environmental issues, and make efforts to reduce greenhouse gas emissions in production processes, and also contribute to the reduction of environmental burdens with their products, including sensors, which “detect people and objects so that machinery and systems operate only when necessary” and “streamline production processes for factory lines and improve quality.”

OPTEX Co., Ltd., which is a subsidiary that operates the core business of the OPTEX GROUP, has continued “environmental assessment” in all of new product plans, in order to reduce CO<sub>2</sub> emissions actively “during use.”

In addition, the activities for reducing CO<sub>2</sub> emissions through the use of their products started in fiscal 2019.

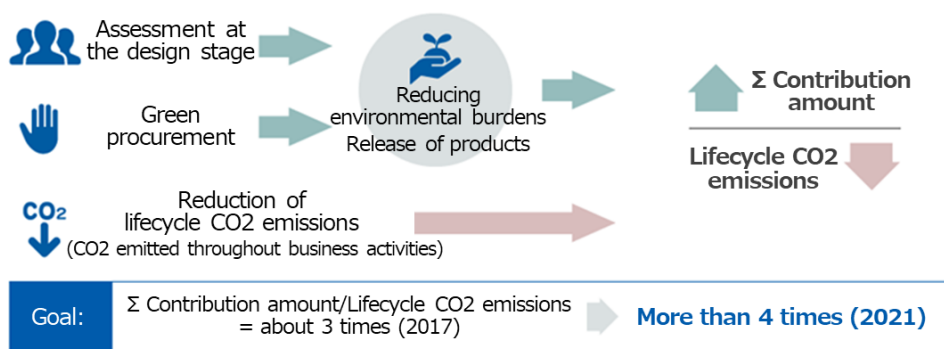
In 2021, the company set the goal of making “the sum of contributions to the reduction of clients’ CO<sub>2</sub> emissions” over four times “the total amount of CO<sub>2</sub> emitted through the company’s business activities.”

Furthermore, OPTEX FA CO., LTD. and CCS Inc. concentrate on the sale of environmentally friendly industrial sensors and environmentally friendly LED lighting equipment.

As for the preparation of the data for reducing CO<sub>2</sub> emissions in the entire corporate group, currently, they are developing execution



systems and plan to disclose them as soon as possible.



(Taken from the website of the company)

### (2) Securing of safe water

One of Sustainable Development Goals (SDGs) is “to supply safe water and toilets to around the world”, and number 6 is assigned for this goal. This indicates that securing safe water is a global issue.

“WATER it,” which is a simplified water quality gauging equipment and system developed by the company, can measure the contents of substances in sampled water on the spot, when the sampled water is made react with an exclusive reagent (test kit) and it is set at a portable measurement device (multimeter).

Measurement data are transferred to a smartphone via Bluetooth, and uploaded automatically from an exclusive smartphone app to the cloud.

This system considerably reduces labor, time, and costs for water quality measurement, allowing administrators to swiftly browse and manage measurement results.

The company aims to supply this system to Asian countries, where “securing of safe water” is an important issue. For now, entrusted by Japan International Cooperation Agency (JICA), the company is proceeding with demonstration experiments for surveying the watershed environment in Vietnam. After one-year demonstration experiments, the company plans to utilize the system throughout Vietnam on a full-scale basis.



(Taken from the website of the company)

### (3) Use of renewable energy

Currently, the rooftop of the headquarters’ west building of OPTEX Co., Ltd. is covered with solar panels.

In 2019, they generate about 22,000 kwh, covering 3.3% of the total power consumption of the western building: about 646,000 kwh. From now on, the company plans to use renewable energy at production sites.

Renewable energy is used also for developing products.

After the Great East Japan Earthquake, the company developed solar-powered sensitive lighting devices. When a sensor does not detect any person, the light remains off, and when a sensor detects a person, the light is turned on. Also, solar panels (solar cells) convert solar

energy into electricity and recharge batteries during daytime, and turn the light on with the energy stored in the batteries at night. Since they do not require commercial power sources, wiring is unnecessary, and lighting can be secured even at places where it is difficult to supply electricity and during a power outage. During times of disaster, they can support anti-disaster measures, healthcare and medical-aid activities at hospitals, etc.

### 【3-2 Materiality for the “social capital” issues】

#### (1) Securing of quality and safety of products

In order to secure reliability, which provides all products with absolute value, the company satisfied the international standards at the highest level. Accordingly, their products are so safe that they can be used without worry for a long period of time. In addition, for commercialization, not only advanced functions, but also installation environments, purposes of use, cost balances, etc. are considered, so as to actualize performance that can satisfy customer needs.

(Major activities)

Anti-noise technology	Hardware design that minimizes various noises. Commercialization only for products that have passed numerous independently-determined environmental assessments.
Optical design	With optical simulation, sensors have a full coverage of high-density detection area. For downsizing, the company possesses the packaging technology.
Compliant to public standards	Conformance and compliance with all types of global standards, also conformance and compliance with standards and guidelines stipulated in each industry. (CE marking, EN standard [TUV certified], ANSI, JIS, etc.)
Eco-friendly design	The company has made all components harmless, while specifying 15 substances for limited use and 10 substances for voluntary management. While following the RoHS Directive, the company adopted lead-free solder alloy and designs that minimize the effects of CO <sub>2</sub> at the time of use.
Security and safety control	The company adopted self-diagnosis and fail-safe features to keep systems functioning even when sensors malfunction or break down, and proposed preventive measures for maintaining functions.

#### (2) Safe data management

In order to thoroughly manage a wide range of important confidential information on business administration, the company specified requirements for management policies, basic measures, and procedures for actualizing an information security environment in the regulations for information security management, and educates employees thoroughly.

#### (3) Utilization of geographical capital and cooperation with local communities

##### —Contributive activities utilizing the Lake Biwa

Utilizing the geographical condition that OPTEX Co., Ltd., which is the subsidiary that operates the core business, is located in the vicinity of the Lake Biwa in Shiga Prefecture, the company makes efforts to communicate with local communities through activities for supporting local sports and cultural development, including sponsoring all kinds of events related to the Lake Biwa, and engages in various social contribution activities.

The central activity is “Lake Biwa Active Learning Program,” which has been held on a full-scale basis since 2002, based on the office building of OPTEX Co., Ltd. and the facilities of O’PAL OPTEX Co., Ltd., which are located Biwa Lakefront.

Its purpose is to provide children with opportunities to learn things based on experiences by the Lake Biwa and support their activities. It includes the experience-based learning of sports (canoeing, dragon boat racing, raft making, etc.) and the experience-based learning of the water environment (research of living organisms on the lakeside, making a wind instrument by using Yoshigami, which is the name of paper made from a reed, research of the lakeside environment, research of non-native fish, observation of planktons, etc.). Especially, the company supports school subjects (science, social studies, physical education, etc.), school trips, field trips, etc. to bring inspiring experiences to children by supporting their activities. This activity is fee-charging, but there are participants not only from Shiga Prefecture, but also from other prefectures mainly in the Kinki region, and the number of participants is increasing year by year.

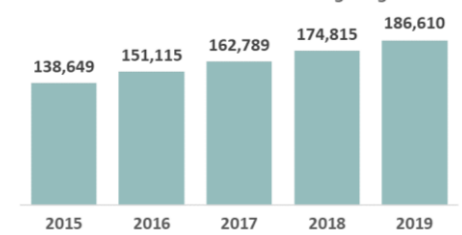
Experience-based learning of canoeing



Experience-based learning of living organism surveys



Variation in the cumulative number of participants in the Lake Biwa Active Learning Program



(Taken from the website of the company)

In addition, the company sponsors the canoeing team of O'PAL OPTEX, the boat race in Nagasaki, and the dragon boat race.

— Giving cooperative lectures in college

The executives of the company offer cooperative lectures at a college in Kyoto.

In 2018, they give 15 lectures about the cases of business administration of OPTEX under the theme “organizations and management” in College of Business Administration, Ritsumeikan University. About 400 students attended the class every time.

Currently, they give lectures also at Ryukoku University.

The enhancement of popularity among students and college staff that could become stakeholders, is expected to lead to the improvement in corporate value and recruitment.

**【3-3 Materiality for the “human capital” issues】**

**(1) Improvement in employees’ mindset and satisfaction with their jobs**

Since business start-up, the company has embraced the hope of “being a company that can achieve self-actualization the most in the world.”

The company can be likened to a “stage” for employees, and employees determine how they perform and dance there.

It is hoped that each employee, who plays a leading role, makes their stage changeful and impressive by taking advantage of the company as a stage, and the company concentrates on the development of an environment for realizing it.



Diagram that classifies human desires into 5 stages. Proposed by Maslow, an American psychologist.

(Taken from the reference material of the company)

**(2) Educational and training systems**

One of the management principles of the OPTEX GROUP, which have been emphasized since inauguration, is the respect for “challenges.”

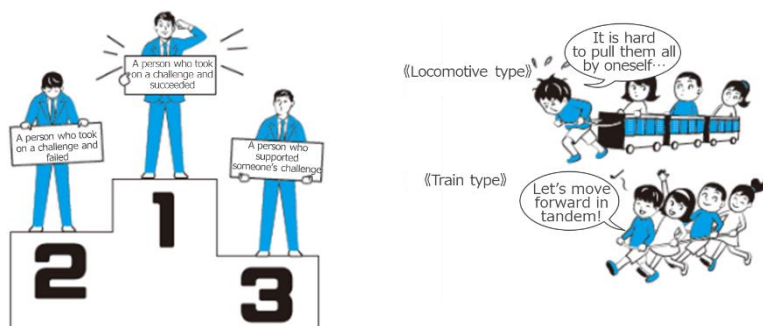
The most esteemed are “those who took on challenges and succeed,” the second most esteemed are “those who took on challenges and failed,” and the third most esteemed are “those who supported challenges,” while “those who do not take on challenges” receive the lowest evaluation.

The company aims to become a company where the diversity of employees is respected, and each employee can take action voluntarily. This is reflected in the “rule of casual communication by using San,” in which employees do not use a job title but refer to the president as “Oguni-san” rather than “President Oguni,” and “train-like management,” in which all of staff members join hands to proceed.

While the working environment is open, equitable, and comfort, there exists rigor as “just following orders is not tolerated.”

Employees are required to exert their abilities voluntarily and keep “the stance of taking on challenges.”

Even if they fail after taking on a challenge, they will be esteemed the second most as mentioned above, and they are required to overcome a sense of failure and continue their challenges.



(Taken from the reference material of the company)

With the aim of becoming “a company where employees can self-actualize the most in the world,” the company has various systems so that respective employees can exert their autonomy and creativity and work while being proud of their jobs and feeling their jobs worthwhile.

Educational and training systems	Training for new employees, young employees, and mid-career employees. Basic training for managers. Training for newly appointed management staff.
OPTEX Business School (OBS)	Candidate management staff are selected from each group company, and they learn Drucker’s theory of management throughout the year.
Dream design sheet	All employees envision ideal selves and dreams once a year, share them with their superiors and companies, and aim to actualize their ideal career paths.
Goal management system	Based on the corporate policies and directions, the goals for each employee are set. Employees review the goals with their superiors regularly, and aim to attain the goals.
In-company recruitment system	Each section looks for employees who possess necessary skills for positions that is a shortage of manpower, and interviews applicants. Then, personnel reshuffles are determined.
In-company free agent (FA) system	Employees can apply for a job or a section inside the company that they would like to do. Sections interview applicants, and personnel reshuffles are determined.
Invention rewards	The company evaluates each inventor’s contribution to business, and pays rewards to them according to their contribution levels.



Director and senior corporate adviser Kobayashi give a lecture at OPTEX Business School

### (3) Corporate culture that respects diversity

The value cherished in the OPTEX GROUP is “the understanding of diversity.”

While considering that “the existence of various options proves an affluent society,” they believe that the mission of the OPTEX GROUP is to develop unprecedented new products and differentiated products, to contribute to the diversity in society.

The Optex-style Sampo Yoshi includes even competitors. This is based on the recognition that “just imitating competitors’ products and waging a price-cutting war would make it difficult to create something new and exhaust both the company and its competitors.”

The understanding of and respect for diversity are utilized for not only product development, but also global business operation and post-merger integration (PMI), and competitiveness is enhanced through the development of a corporate culture in which all employees can exert their abilities to the maximum degree.

## 【3-4 Materiality for the “Business models & innovation” issue】

### (1) Reform of business models

The primary objective in the 3-year mid-term management plan, whose initial year is fiscal 2020, is “the reform of business models” in each business field.

In the SS business, the company aims to shift from the conventional “sale” of mainly sensors to the “solution-providing business (= sales of services and experiences)” that solve customer issues. In the FA business, the company aims to grow by strengthening products with high added value, and in the MVL business, it aims to transform into a “comprehensive solutions vendor.”

Especially, in the SS business, the company aims to develop a subscription model based on the alliance with U.S. venture firms, and will start cultivating the huge North American market on a full-scale basis.

### (2) Appropriate supply chain management

The supply chain of the OPTEX GROUP covers the entire world.

In order to swiftly deliver high-quality products to customers in over 80 countries, the company conducts a series of logistics activities in an integrated manner for procuring reliable materials stably, manufacturing products as planned, and delivering them swiftly.

Also, as the ratio of overseas sales exceeds 50%, the company built warehousing hubs in 4 major regions: Europe, Hong Kong, Japan, and North America, and established a unique supply chain that has flexibility and extensibility, in order to supply products to customers around the world swiftly and smoothly.

The company improved reliability by shortening lead time and reducing distribution costs, and offers high added value to customers in global business fields.

### (3) Procurement of materials and parts

The manufacturing function of the OPTEX GROUP is mostly maintained by OPTEX MFG CO., LTD., which was founded for the purpose of separating and integrating the manufacturing functions of OPTEX Co., Ltd. and OPTEX FA CO., LTD. to enhance the production capacity and then contribute to the growth of the business of the OPTEX GROUP.



OPTEX MFG considers that in order to attain the goals regarding QCD (quality, cost, and delivery) of products as soon as possible, it is necessary to work on them from the development/design stage. The mother factory is located inside Japan at a production site, where products are planned and developed and the most appropriate production site is determined while considering conditions of products such as the functions, characteristics, production amounts, logistics costs, and integrated manufacturing is carried out.

The mother factory promotes researches of mass-production technologies, systemization of management technologies, and visualization of production sites. Also, the mother factory plays a role to “establish and grow” global production sites.

In addition, the company has a production site in China, to manufacture products while considering costs, and also started manufacturing in Vietnam, while considering country risks.



(Taken from the website of the company)

For procurement of parts, the company engages in purchase activities under the following policies based on the group ethos “Sampo Yoshi (to be beneficial for buyers, sellers, and society)” in order to realize sustainable procurement.

Promotion of green procurement	The company procures parts in compliance with laws and regulations regarding chemicals inside and outside Japan.
Fostering of trusting relationships	The company fosters trusting relationships with business partners, including suppliers, to actualize co-prosperity (win-win results).
Promotion of global procurement	The company aims to actualize optimal procurement at the global level while considering QCD, and strives to optimize the supply chain for supplying parts, including local procurement, and reduce total costs.

Optical components and sensor parts, which determine basic properties, are mostly customized, so the cooperation with suppliers in the technical aspect is indispensable.

The company fostered “win-win” relationships through efforts for improving product performance and quality, such as holding meetings for discussing technical trends, etc. and technical exchange sessions involving engineers.



(Taken from the website of the company)

Throughout the lifecycles of products and services, the company is striving to reduce environmental burdens in cooperation with

suppliers and manufacturing outsourcees.

In order to achieve the quality of developed products as designed and maintain quality in a stable manner, the company developed a factory environment and systems for educating and training personnel to nurture technical skills and bolster morale, and safe, efficient production systems.

In addition, they apply the production technology to the EMS business, and comprehensively support clients' production processes, including development, design, procurement, and mass production.

### 【3-5 Materiality for the “competitiveness and governance” issue】

#### (1) Research and product development systems for enhancing competitiveness

##### ① Manufacturing from customers' viewpoints (human-centered design)

###### —Philosophy for development “Optex Katachi”

OPTEX Co., Ltd., which is one of major operating companies, explicitly expresses their ambitions and mindsets for manufacturing with common words as “Optex Katachi,” in order to create reliable products consistently.

“Optex Katachi,” which is composed of “standing in users' shoes,” “care at the 0.1 mm level,” “making no waste,” “thoughtful arrangement,” and “to change without changing” as five slogans, means the company's philosophy for manufacturing that has been inherited since the past, including the grasping of actual business sites and problems that have not been discovered by customers, fine-tuned quality, sophisticated forms, ingenuity that impresses customers, and the pursuit of the never-changing technological capability as a sensor manufacturer while responding to the changes in needs and markets. The company aims to make it shared by all employees in the sections of development, planning, marketing, production, quality control, and management, etc.

###### —Manufacturing with human-centered design

In order to create unique products that will be cherished for a long period of time, OPTEX Co., Ltd. engages in manufacturing from the viewpoints of various customers related to products (human-centered design).

The concrete processes for commercialization are as follows:

1: (Survey) to grasp the state of use and have sympathy	The staff of the development and marketing sections visit the sites together where their products are used around the world, to check what kinds of people use them, the situation of use, and how they are used, and receive candid comments from customers. Through this process, they understand the situations of customers and actual sites accurately, and seek what could satisfy real needs.
2: (Analysis) to clarify the problems with customers and their needs	By understanding and visualizing how customers feel and behave at the phases of recognition, selection, and use of products of the company, they find problems and share information. In addition, they clarify and summarize the value provided to customers and demanded quality, to reflect them in product development.
3: (Design) Embodiment of solutions by producing prototypes	By producing prototypes to embody designs repeatedly, they view them objectively, think over them more deeply, and follow the cycle of hypothesis setting and testing, to produce better products.
4: (Evaluation) Evaluation of designs that meet requirements	Inside the company, subjects (acting as customers) are chosen, and they conduct evaluation to check the usability, understandability, and conformity of products, by seeing how they are operated and listening to the comments of the subjects when the company sets the products. The staff in the development and marketing sections carry out the evaluation, analyze the results of the evaluation quantitatively and qualitatively, and give feedback to the production development section.

## ② Product evaluation test for actualizing “reliability” and “performance”

The OPTEX GROUP conducts a variety of product evaluation tests, in order to achieve “reliability,” which gives absolute value to all products, and “performance,” which satisfies customer needs.

The outdoor environment, where the sensors of the company are used, is always exposed to unexpected phenomena, including rain, wind, air temperature fluctuations, thunder, and small animals.

In order to create a highly reliable sensor, it is indispensable to overcome such phenomena one by one. According to purposes of use, the company conducts over 150 evaluation tests.

Since the company sells its products broadly around the world, the company adopted global standards that comply with laws, regulations, and public standards in each country, and aims to develop products that can be used by customers around the world without worry.

To check whether the sensing property can be exerted in various environments and scenes, they visit the site where products are used, to conduct experiments, and reproduce the same environment and carry out evaluation tests. Such down-to-earth activities enable accurate performance evaluation, which is a strength of the OPTEX GROUP.

(Major evaluation tests)

Heavy snow test	There are a variety of snowfalls, including ordinary snows, snowstorms, and snow drifting, which is a storm of snow blown up from the ground by the wind. The company conducts experiments under the harsh outdoor natural environment, where products are actually set.
Mist test	So that sensors will detect a person without fail even in mist with poor visibility, the company conducts field tests in a mountainous area and reproduces an extraordinary man-made environment for evaluation.
Long rain test	Natural environment tests are conducted for all outdoor sensors as the required items under various conditions. These tests are conducted under bad conditions, such as the long rain surpassing a record-high rainfall amount per day and the water drops adhering to the sensor lens.
Human detection test	So that sensors will detect a person without fail regardless of how he/she moves or his/her characteristics, the company conducts tests under various conditions, such as a person crawling or spinning and different height, hairstyle, or gait speed.
Durability test	So that sensors will be used without worry for a long period of period, the company conducts tests for limitations, durability, impact resistance, etc. For example, the company carries out a test of turning switches on and off repeatedly and a severe “impact test,” in which destructive loads are applied relentlessly.
Ball test	Sensors are evaluated not only in the natural environment, but also by using objects. For example, the company conducts a performance test so that an automatic door will not open even if a ball rolls in front of the door.

## (2) Corporate governance

They recognize that their primary mission is to keep improving corporate value while winning the trust of shareholders, investors, customers, and society. To do so, they set the enhancement of corporate governance as one of the most important objectives for business administration, and aim to improve the transparency of business administration, maintain a management system for fair, swift decision making, and strengthen the overseeing of business administration.

For the purposes of fortifying the auditing and supervising functions and further enhancing corporate governance, they transformed the company from a company with auditors into a company with an audit and supervisory committee in 2016.

At present, they appoint four independent external directors (a person who has the experience of serving as an engineer of a leading electronics manufacturer in Japan, a person who has the experience of serving as an executive of a leading electronics manufacturer in Japan, two certified public accountants, and 1 lawyer), who account for over one-third of the 11 directors and auditors. Based on decision making through active discussions at meetings of the board of directors, they improve the quality of strategies and aim to improve corporate value further.

(Excerpt from the corporate governance report: updated on March 27, 2020)

**Principle 1-4. The strategically held shares**

The company will acquire and hold shares after the board of directors' deliberations and decision-making being processed only when it is judged that the holding of shares would contribute to strengthening of transaction relations and the improvement in corporate value in the business strategy of our corporate group. Every year, the board of directors discusses the meanings of the holding of the shares, and if it is judged that the reasonable value of the shareholding is insufficient, the company will strive to reduce the shares by selling them while considering market trends, etc.

Listed cross-shareholdings owned by the company: 1 brand, 48 million yen (posted on the balance sheet)

Regarding the exercise of voting rights for the shares, we will individually examine whether it will contribute to sustainable growth of the enterprise and enhance corporate value over the medium to long term as well as whether shareholder value is not significantly impaired. Based on the examination, we will decide approval or rejection of it in a comprehensive manner.

**Supplementary Principle 4-11-1. Balance, diversity, and scale of the Board of Directors as a whole**

Our board of directors is composed of 8 directors (7 males and 1 female; the upper limit of the number of directors is 9) who can effectively use their expertise in corporate management, business administration, technological development, manufacturing, marketing, sale, overseas business, and accounting and 3 directors (3 males; the upper limit is 4) belonging to the audit committee, who possess advanced knowledge and insight as they have plentiful experience of audit and a qualification as a lawyer, a certified public accountant, or a licensed tax accountant. At present, considering the scales of our company and corporate group, etc., we think that the balance of the composition is appropriate for implementing our mid/long-term managerial strategies.

As for the balance of diversity and expertise, we will continue discussions for optimization.

**Supplementary Principle 4-11-3. Analysis and evaluation of the effectiveness of the Board of Directors**

Our company conducts a questionnaire survey targeted at all directors once a year, has constructive discussions based on the results and conducts analysis and evaluation, for the purpose of improving the effectiveness of the board of directors.

As a result of the questionnaire survey targeted at 11 directors (response rate: 100%) in February 2020, we concluded that the board of directors functions effectively as a whole, considering the roles and duties of the directors. It was found that the appropriateness of allocation of time to deliberation items and the roles of the board of directors for determining the visions for managerial strategies have been improved, as they were pointed out last year. Meanwhile, we share the recognition that functionality can be improved further by enriching the environment for exchange of opinions among outside directors and increasing the time for discussing mid/long-term strategies as a holding company, diffusing policies among operating companies for managerial strategies, and improving the consistency in target fields.

From now on, we will strive to improve these items and continuously secure and enhance the effectiveness of the whole board of directors.

### (3) Risk control

The company established "OPTEX GROUP Committee for Promoting Compliance," in order to promote the executives and employees of OPTEX GROUP and its consolidated subsidiaries to engage in business activities with the law-abiding spirit and to act in accordance with the rule.

The President was appointed as chairperson of the Compliance Promotion Committee, an executive director was appointed as secretary general, and committee members were recruited from the staff of operating companies. They share and discuss important items, make efforts to improve the understanding and awareness of activities for compliance, and established a system for diffusing them among subsidiaries in an effective way.

Concretely, they produce and update the risk map for each company, write reports, such as whistle-blowing ones and the violation of the agreement stipulated in Article 36 of the Labor Standards Act, hold study sessions for preventing various harassments, and distribute explanatory documents. In addition, they enacted "OPTEX GROUP Code of Conduct," and diffused it among staff thoroughly, so that all executives and employees of the OPTEX GROUP would maintain or deepen their awareness of compliance.

Furthermore, they established a whistle-blowing system for the purpose of collecting risk information as soon as possible, added a provision that whistle-blowers will not receive any detrimental treatment to the "Compliance Regulations," and shared it thoroughly among group companies.



## 4. New medium-term management plan

The company launched a 3-year medium-term management plan, whose initial year is this term.

Under the group philosophy “We aim to become a corporate group full of Venture Spirit! Let’s do something new!” the company will work on the “endeavor to reform business models” in each business and aim to attain the following managerial goals.

### (1) Themes and Numerical Goals

#### Medium-term consolidated managerial goals

To achieve an operating profit margin of 15% in fiscal 2022
To reform the revenue structure and improve productivity per person
To keep increasing consolidated sales by 10% and achieve consolidated sales of 50 billion yen in fiscal 2022

### (2) Activities in each business segment

#### ① Endeavor of the SS business: Shift from “sale of materials” to “sale of things”

The company has mainly offered products with good performance, quality, and specs, but under the recognition that customers and users are demanding “solution services,” the resolution of challenges, with products rather than products themselves, the company set two growth strategies.

### 【Growth strategy 1: “Visual verification solutions” for the spread of prevention of crimes in outdoors】

#### (1) Scale, current situation, and problems of the market of alarm monitoring

The number of contracts for alarm monitoring with outdoor sensors is over 90 million around the world. It is 40 million in North America and 20 million in EMEA (including 3 million in the U.K.). North America and the U.K. account for nearly half of them.

However, alarm monitoring has been adopted in many places outside Japan, 95% of security alarms are reportedly false. In most cases, users fail to operate the device, but in some cases that is malfunction of outdoor sensors.

In the current alarm monitoring system, alarm signals from sensors and videos from surveillance cameras are transmitted to a monitoring company without linkage, as shown in the figure below.

Accordingly, the monitoring company calls a user or the police without verifying the videos of the scene after receiving alarm signals. It leads to false alarms.

In the U.S., the police receive calls from monitoring companies. If the police move due to a false alarm, the user has to pay a fine. Like this, there are various problems with actual operation.

#### False alarms from existing systems hamper the spread of outdoor security sensors.



(Taken from the reference material of the company)



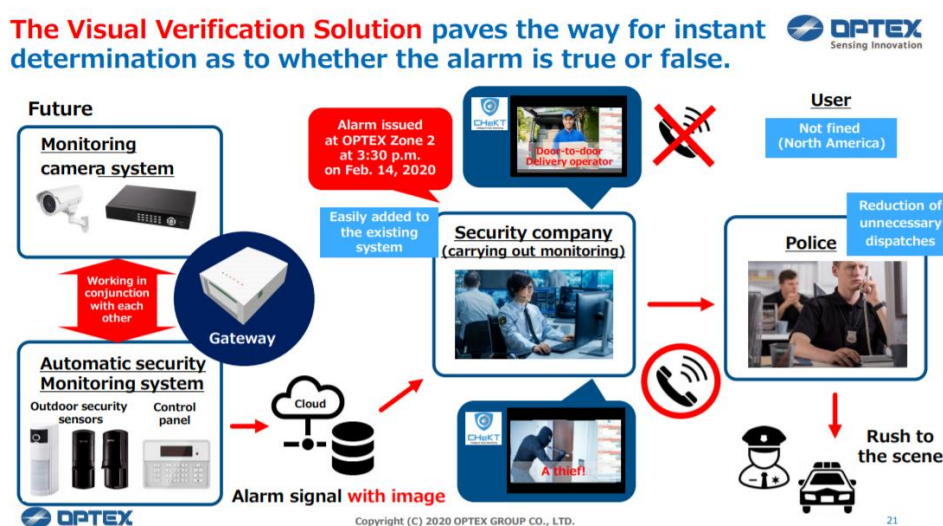
## (2) Outline of the image check system

OPTEX GROUP Co., Ltd., which is highly evaluated and trusted for its outdoor sensors around the world, decided to develop a new alarm monitoring system, while considering that solving the false alarm problem would lead to the distribution of outdoor alarm monitoring and the expansion of the market.

### ① System

In the new system, a gateway is installed for linking an alarm monitoring system and a monitoring camera system.

By adding a gateway and operation software to the existing system, a monitoring company can always receive camera videos linked to alarm signals, so it is possible to reduce false alarms significantly.



(Taken from the reference material of the company)

This system was embodied by utilizing a gateway that incorporates the Visual verification solutions of CHEKT (in the U.S.), with which the company formed a strategic alliance.

CHEKT is a venture firm established in 2014, and its CEO is the owner and CEO of a security company, so he is versed in the security industry.

Therefore, it is possible to offer solutions suited for on-site needs, which were developed based on the experience at the security company. In addition, there are a lot of advantages. Advanced IT skills are not required, a system that can be connected to the network camera with standard specs has been established, and charge-free, easy-to-use operation software is provided.

### ② Business model

OPTEX GROUP Co., Ltd. has the exclusive right to sell this system in North America and the U.K., and not only sells products, including the gateway, but also carries out the subscription-type charging business providing the system.

This system can be installed at low cost and rarely causes false alarms, so it is considered beneficial to all stakeholders, including users, monitoring companies, and the police. The company aims to diffuse a win-win business model.

### ③ Targets and numerical goals

In North America and EMEA regions, the company offers the system to high-end clients, including commercial facilities, offices, and luxury housing, etc.

The company aims to earn cumulative sales of around 2.5 billion yen in 2023.

**【Growth strategy 2: The change of detection targets from “people” to “things”: “Car detectors” and “Occupancy/vacancy solutions”】**

With the aim of actualizing a convenient, safe car society, the company offers two products and solutions.

**(1) “Car detectors”**

The company developed and released “car detectors” that do not need to be buried in the ground for coin-operated parking areas. Since they do not need to be buried, it is possible to halve the installation period and reduce labor and costs for maintenance. Based on the tie-up with a parking area equipment manufacturer, the company sells them to parking area operation firms.

**(2) “Occupancy/vacancy management solution”**

The company offers “occupancy/vacancy management solutions” for checking the vacancy information of parking areas. With wireless car detectors, the occupancy status of parking areas and vacant spaces are grasped, and occupancy/vacancy information is managed in the cloud. Drivers can grasp the situation remotely, so convenience would improve considerably.

**Creating an Automobile Society with Convenience and Safety** **OPTEX**  
Sensing Innovation



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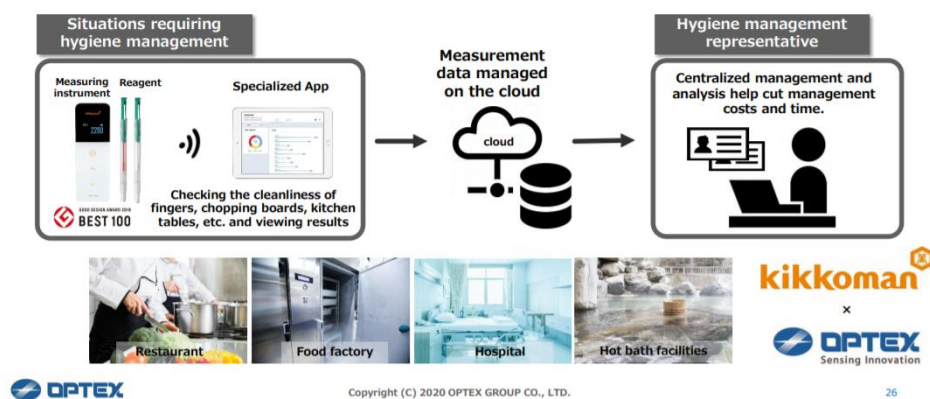
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(Taken from the reference material of the company)

In 2022, the company aims to achieve sales of around 1 billion yen.

**【Growth strategy 3: The change of detection targets from “people” to “things”: “Hygiene control solution”】**

While entrusting Kikkoman Biochemifa Company as an OEM, the company offers hygiene state monitoring solutions. With sensors, the cleaning states of fingers, chopping boards, cooking tables, etc. are gauged, and results are checked. Potential risks in various places, including food product manufacturing sites, are visualized. Measurement results can be checked immediately, so hygiene administrators can conduct unified management and analysis, reduce management costs, and shorten management hours. It will contribute to hygiene control in various places.



(Taken from the reference material of the company)

② Endeavor in the FA business: “Strengthening of highly functional products” and “Compatibility with Industry 4.0”

The company concentrates on image and displacement sensors, which are the strengths of the company.

As for image sensors, the company will proceed with the cultivation of overseas markets, which has not been started.

As for displacement sensors, the company will upgrade them and release a new product with the industry’s highest level in the current term. The company aims to meet the demand related to 5G and robots.

“Strengthening of highly functional products”

(Taken from the reference material of the company)

“Compatibility with Industry 4.0”

Through the unified management of sensors, the company will release “IO-Link Sensor” and “IO-Link Gateway,” which are compatible with Industry 4.0.

With IO-Link, which is a communications technology for exchanging various data interactively between sensors and a superior control system, it is possible to grasp the status of each device remotely, estimate durability, and recover devices as soon as possible at the time of breakdown.

The company promotes distribution in cooperation with SICK, which is the No.1 sensor manufacturer in Germany.



**IO-Link**

A communication technology for interactive communication between the sensor and the high-order control system for the exchange of different data

- Shortest recovery
- Predictive maintenance
- Remote monitoring

IO-Link sensors of SICK

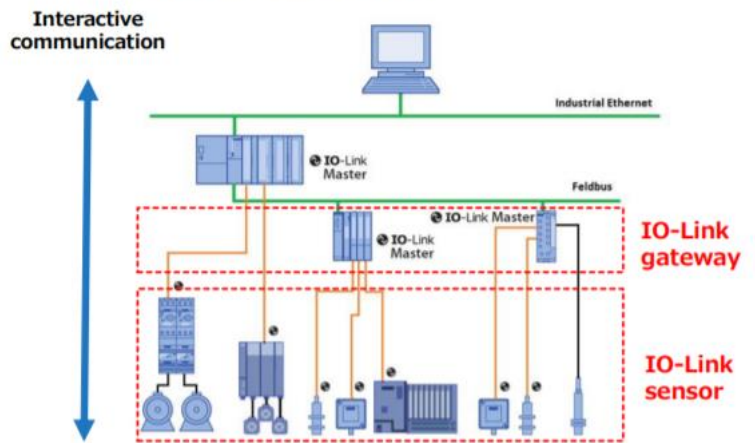


IO-Link sensors from Germany-based SICK



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**System configuration**



Make general-purpose sensors into high value-added ones

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(Taken from the reference material of the company)

③ Endeavor of the MVL business: From “a manufacturer of lamps for imaging tests” to “a comprehensive solution vendor”

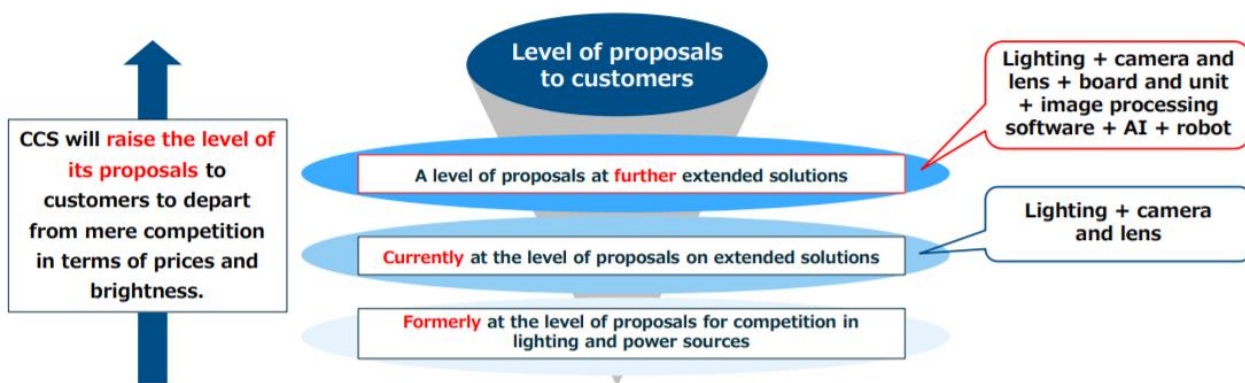
In the current medium-term management plan, this business is positioned as a driver.

CCS Inc., which deals with this business, offers lamps, power sources, and solutions with cameras and lenses, and aims to develop extended solutions combining boards, image processing software, AI, and robots, and go ahead with stages of giving proposals, under the basic concept that users demand “Visible!” and “Possible!” rather than power sources for lighting.

They consider speed is important in order not to fall into price competitions.

**Basic idea behind CCS’s sales strategy**

Users want **capabilities to see and do things**, not lighting power sources.



\* MV stands for Machine Vision. Visual inspection using lighting and camera 31

(Taken from the reference material of the company)

In addition, the company aims to cultivate the visual inspection market, whose scale is said to be 250 billion yen, by utilizing AI and robots.

## 5. Financial and non-financial data

### (1) Financial data

#### ◎BS/PL

	FY 12/2015	FY 12/2016	FY 12/2017	FY 12/2018	FY 12/2019
Sales	27,793	31,027	37,504	40,113	37,517
Operating profit	3,161	3,015	4,885	4,989	2,856
Ordinary profit	3,222	3,086	5,036	5,038	2,876
Net profit	2,051	1,809	3,386	3,775	2,197
EPS [yen]	123.96	109.33	97.63	104.85	60.02
ROE [%]	8.7	7.4	12.6	12.3	6.8
ROA [%]	10.6	9.0	12.7	11.9	6.6
Total assets	30,861	37,681	41,569	43,291	43,967
Net assets	25,603	28,654	32,006	32,345	32,372
Capital-to-asset ratio [%]	78.0	65.0	70.1	74.5	73.2

\*Unit: million yen

#### ◎CF

	FY 12/2015	FY 12/2016	FY 12/2017	FY 12/2018	FY 12/2019
Operating CF	2,355	3,487	4,404	1,955	3,621
Investing CF	-1,547	-2,341	-328	-1,588	-992
Free CF	808	1,146	4,076	367	2,629
Financing CF	-438	-565	-2,067	-762	-1,721
Cash and cash equivalents	9,901	10,000	12,293	11,563	12,396

\*Unit: million yen

### (2) Non-financial data

#### ① Environment-related data

##### ◎Variation in sales volume of environmentally friendly products (OPTEx FA CO., LTD.)

	2014	2015	2016	2017	2018	2019
Environmentally friendly industrial sensors	100	101	146	233	272	228
Environmentally friendly LED lighting equipment	100	131	172	209	268	211

\*Sales volume in 2014 = 100

##### ◎Reduction of CO<sub>2</sub> emissions with LED lighting (CCS Inc.)

	2014	2015	2016	2017	2018	2019
Reduction of CO <sub>2</sub> emissions	5,103	5,122	6,238	7,337	7,431	6,933

\*Unit: t-CO<sub>2</sub>

#### ② Social capital-related data

##### ◎No. of registrations for patents/designs

Region	Patent	Design
Japan	107	32
The U.S.	49	17
Europe	82	19
Asia	13	44



Other	4	12
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\*2019, OPTEX Co., Ltd.

### ③ Employee-related data

#### ◎Employee composition of group companies in Japan (as of April 1, 2020)

	Total No. of employees	Male	Ratio	Female	Ratio
【Total】	955	724	76%	231	24%
Full-time employees	853	684	80%	169	20%
Fixed-term employees (reemployment after the retirement age)	30	23	77%	7	23%
Limited-term employees (excluding part-timers)	72	17	24%	55	76%

\*Unit: people

#### ◎Those who took a childcare leave

Fiscal year	Total number	Male	Female
2019	17	0	17
2018	10	0	10

\*Unit: people

#### ◎No. of employees who resumed work after prenatal, postnatal and childcare leave

No. of employees who resumed work after a childcare leave in the past 3 years (cumulative)	Return-to-work rate
14	100%

\*\*Unit: people. Results in the past 3 years (2017 to 2019)

#### ◎Employees working for shorter hours for childcare

Fiscal year	Total number	Male	Female
2019	12	0	12
2018	9	0	9

\*Unit: people

#### ◎No. of employees reemployed after the retirement age

Period	No. of employees who retired during the period (cumulative)	No. of employees reemployed during the period (cumulative)	Reemployment ratio
2017 to 2019	23	22	96%
2016 to 2018	20	17	85%

\*Unit: people

#### ◎State of retention of new graduates employed

	New graduates who joined the company in Apr. 2014	Remaining employees in Apr. 2017	New graduates who joined the company in Apr. 2015	Remaining employees in Apr. 2018	New graduates who joined the company in Apr. 2016	Remaining employees in Apr. 2019
No. of employees	14	13	15	13	15	12
Retention rate		93%		87%		80%

Retention rate (3-year average)	87%
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\*Unit: people

\* Companies considered for employee-related data: OPTEX GROUP Co., Ltd., OPTEX Co., Ltd., OPTEX FA CO., LTD., CCS Inc., OPTEX MFG CO., LTD., Three Ace Co., Ltd., O'PAL OPTEX Co., Ltd., GIKEN TRASTEM CO., LTD., and ZENIC INC.

## <For reference>

For publishing ESG Bridge Report, the company enlisted significant cooperation from Mr. Ryohei Yanagi (PhD. in economics from Kyoto University, Executive Vice President and CFO of Eisai Co., Ltd., and a visiting professor of Graduate School of Accountancy, Waseda University).

This section mentions the purpose of publishing ESG Bridge Report and outlines the “ROESG model” proposed by Mr. Yanagi, while citing a passage from his literature “CFO Policy.”

### (1) Regarding ESG Bridge Report

While ESG investment became mainstream, investors demand that Japanese companies disclose ESG information proactively. Accordingly, an increasing number of companies produce integrated reports.

However, the production of integrated reports requires the understanding and involvement of executives, some human resources and some budgets. Accordingly, many companies still cannot produce integrated reports.

Also, for producing integrated reports, it is necessary to take many steps, including the summarization of various data, the identification of materiality, and the setting of indicators and goals. It seems that many companies are not prepared enough, so they are reluctant.

However, Mr. Yanagi mentioned, in “CFO Policy,” that “if Japanese enterprises shed light on their potential ESG value, their PBR will probably be at least the same level (around 2x) as that of companies in the UK” and “by actualizing ROESG, it is possible to double the value of Japanese companies, probably improving investment, employment, and pensions and maximizing national wealth, which have a high probability.” Investment Bridge Co., Ltd. considers that the provision of ESG information of Japanese companies is meaningful for the entire Japan and should be promoted actively.

Under these circumstances, for companies who deeply recognize the necessity to disclose ESG information although they still cannot produce integrated reports, our company cooperatively produces “ESG Bridge Report” based on currently available data and resources, to provide investors with ESG information as needed by investors as much as possible.

Japan Exchange Group actively encourages Japanese companies to disclose ESG information, and published “Practical Handbook for ESG Disclosure.” Page 6 of this handbook mentions “We do not mean that you cannot disclose information unless all of the elements mentioned here are covered. We expect that this handbook will provide you with some clues when you start with what you can do while considering your situation for disclosing ESG information to communicate with investors and proceed with more initiatives.” We believe that “ESG Bridge Report” is a tool for “starting with what you can do for disclosing ESG information.”

Mr. Yanagi mentioned that in order to achieve full-scale ROESG, it is necessary to conduct empirical research indicating positive correlation between ESG and corporate value and disclose concrete cases in which companies’ contribution to society helps increase long-term economic value. Accordingly, the actual hurdle is high, but we would like to explicitly describe how ESG initiatives of each company lead to the improvement in corporate value.

Based on the feedback from many investors who have read our reports, we would like to improve the quality of our reports. We would appreciate your candid opinions.

Kaoru Hosaka  
 Managing Director and Chairman  
 Investment Bridge Co., Ltd.

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**(2) Regarding “ROESG Model”**

**(Increasing value of non-financial capital, rapid increase of ESG investment, and production of a conceptual framework for connecting ESG and corporate value)**

Recently, many empirical studies have verified the increase of importance of non-financial information in corporate value evaluation, and it can be inferred that invisible value (intangible assets) and non-financial capital value account for about 80% of corporate value. In addition, it can be considered, from the results of many empirical studies on the relation between non-financial information and corporate value, that ESG may be positively correlated with corporate value.

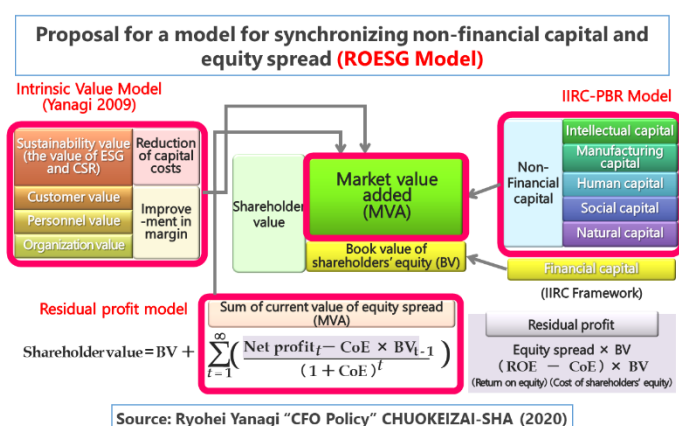
On the other hand, as ESG investment is becoming mainstream globally, Japanese enterprises, whose PBR is less than one or stagnant in many cases although they have latent ESG value, need to transform non-financial capital into future financial capital with the “ROESG model” for raising PBR, or produce and disclose a conceptual framework for connecting ESG and corporate value.

**(Overview of the “ROESG Model”)**

Out of shareholder value, the book value of shareholders’ equity, which corresponds to “the part where PBR = 1,” is composed of current financial capital and financial value.

On the other hand, out of shareholder value, market value added, which corresponds to “the part where PBR exceeds 1,” is composed of non-financial capital (which can be said to be future financial capital), and the sum of current value of cash flow of equity spread (= ROE – Cost of shareholders’ equity) in the residual profit model.

Therefore, Mr. Yanagi proposed “the synchronization model of non-financial capital and equity spread” = “ROESG Model” as a conceptual framework for synchronizing ESG and corporate value, as a result of non-financial strategy.



In the “ROESG Model,” non-financial capital has a mutually complementary relation with equity spread, which is the sum of current value of residual profit through “market value added.” Namely, the value creation with equity spread is consistent in the long term because of the delay, via the creation of value of non-financial capital, including ESG, and market value added.

Therefore, ESG management can be synchronized with long-term investors, who demand capital efficiency, via marked value added, and cooperation is possible.

According to Mr. Yanagi’s survey on investors for supporting the model, many investors around the world demand that “the relation between ESG and ROE values is explained” and answered that “100% or a significant proportion of the value of ESG is taken into account in PBR.” It can be considered that the “ROESG model” is supported directly or indirectly by most of long-term investors.

(For details about his “ROESG Model,” refer to “CFO Policy” authored by Ryohei Yanagi, CHUOKEIZAI-SHA (2020).)

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