



Year ended March 31, 2023

Ushio Report 2023

## USHIO INC.

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## **Cover Story**

## Applying Light to Life

What is light?

Ever since its foundation, Ushio has continued to search for the answer. Because we know that light has the power to change the future.

A future where development is sustainable and safe for our planet.

A high-tech future like we've only seen in movies.

A future where lives we couldn't have saved, can be saved.

With light, the future can go beyond our imagination. So today, we continue to believe and challenge the endless possibilities of light.



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## Position of "Ushio Report" within All of Ushio's Disclosed Materials



\* Materials required for disclosure under regulations such as the Companies Act and the Financial Instruments and Exchange Act

## Editorial Policy

The Ushio Report describes the unique business development model of Ushio that has grown by discovering the functions of light and giving them form. Presented as an engaging story, the report summarizes the information needed for understanding the possibilities of improving the long-term and sustainable corporate value of the Company. We hope that this report will enable all of our many stakeholders to understand the appeal of Ushio.

In this report, all of the information presented refers to the fiscal year ended March 31, 2023, when no other time period is specifically mentioned. In addition, when the name "Ushio" appears in the report, it refers to the entire Ushio Group, whereas the name "Ushio Inc." refers to the non-consolidated company Ushio Inc.

## **Industrial Processes**

## **Comfort and Convenience**

Ushio's technologies are being leveraged in such areas as the manufacturing process of semiconductors and flat panel displays (FPDs). To create products that meet global needs, we will use light to support technological innovation in manufacturing with the aim of realizing more comfortable and convenient lifestyles for people.

## Visual Imaging

## **Excitement and Sharing**

Ushio's light technologies are actively being put to use in various settings in the entertainment industry, including digital cinema, virtual reality, projection mapping at amusement parks, and stage lighting and production. To realize more fulfilling and abundant lifestyles for people, we will continue to leverage these technologies to deliver extraordinary experiences that inspire audiences and communicate to them the feelings of artists and creators.

## Life Sciences

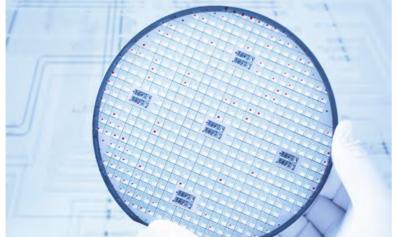
## Safety and Reassurance

Ushio is promoting technological innovation through the utilization and application of light in such fields as environmental hygiene, medical care, agriculture, security, climate change countermeasures, and space exploration. By doing so, we will strive to realize a sustainable society that offers safety and peace of mind.

## **About Ushio**

Since its founding, Ushio has been leveraging light as not only illumination but also as energy in order to create new markets for light. Today, Ushio is drawing on the potential of light to contribute to society in the three business fields of Industrial Processes, Visual Imaging, and Life Sciences.











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## Ushio at a Glance

## Ushio by the Numbers

FY2022 (Consolidated)

¥175.0 billion

¥15.8 billion



Light Source Business 35.3% ¥61.8 billion ¥51.3 billion

Optical Equipment Business 33.0%

2.4% ¥4.0 billion

Other Businesses

29.3%

Imaging Equipment Business

\* Segment before change

## **Three Business Fields**

Ushio's three business segments of Industrial Processes, Visual Imaging, and Life Sciences cover everything from the semiconductor manufacturing process to movie theaters, medicine and environmental health, all over the world. In these three business segments, we will continue to pursue the new potential of light in order to support human well-being and societal growth.

### Industrial Processes

Semiconductors, FPD, precision equipment electronic components, photochemistry, printing, industrial equipment etc.



## Visual Imaging

Projectors, projector light sources, general and commercial lighting, landscape lighting and production, stage and studio lighting, etc.



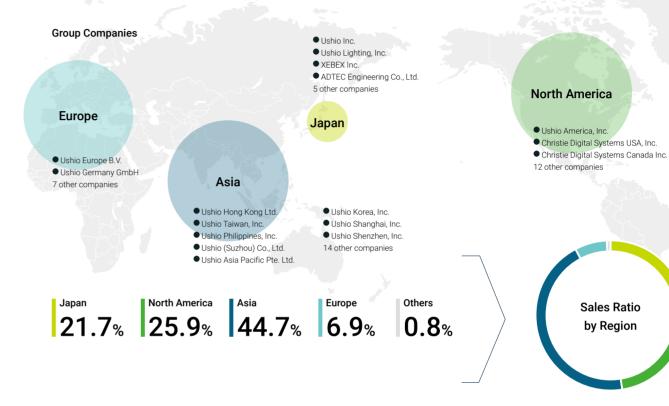
## Life Sciences

Healthcare, natural environment, agriculture, marine and fishery industry, security, energy, space development etc.



## **Global Business Foundation**

In the same manner as light, our business fields transcend national borders and span across the world. Our mission is to provide the necessary type of light source to each country and region at the necessary times. Our global business foundation enables us to fulfill this mission.



## Market Share of Major Products

### **UV Lamps for Semiconductor Lithography**



The exposure process is critical to enhancing the performance of semiconductors and electrical components that are installed in a wide variety of products, from digital devices such as PCs and smartphones, to household appliances and automobiles. Our ultra-highpressure UV lamps play a major role in this exposure process



## **Photo-Alignment Equipment**



Our photo-alignment equipment is used to arrange the liquid crystal molecules within LCD panels. The image quality of LCD panels truly depends on the extent to which the liquid crystal molecules are arranged in an orderly fashion. By arranging these molecules in such a fashion, our photo-alignment equipment helps make LCD displays more energy efficient, enhances their resolution, and reduces their cost



### Lamps for Cinema Projectors



UV Lamps for LCD Lithography

Our UV lamps for LCD lithography are used in the exposure process for various LCD displays. including those of televisions, laptops, and smartphones. Through their large size and power, these lamps help increase the size of anels and enhance their resolution.



We develop and produce lamps used in cinema projectors at movie theaters. On the set of novies, video is shot using lighting that is similar to sunlight. As such, lighting that is as similar to sunlight as possible is needed to project images naturally. Our lamps are sometimes referred to as "artificial suns" in ence to their ability to provide this lighting



## Large Field Steppers for Cutting-Edge IC Package Substrates\*



Equipped with ultra-high-pressure UV lamps, our large field stepper for cutting-edge IC package substrates is a tool used to create circuits such as semiconductor package substrates and printed circuit boards (PCBs). In addition to imps, we develop all the main technologies used in this equipment in-house, including optical components, as well as with regards to naterial handling, power sources, and software.



\* Cutting-edge IC package (stepper market)

## **Digital Cinema Projectors**



Our digital cinema projectors are large-scale projectors for movie theaters equipped with xenon short arc lamps and RGB lasers. We also develop large-scale visual systems and virtual eality systems that primarily make use of these projectors. These systems are used not only at movie theaters but also at amusement parks and for large-scale live events.

## **Excimer Irradiation Units for Cleaning Panels**



are tools that use UV rays to clean LCD panels by removing the organic compounds that become attached to them during the manufac-turing process. These excimer irradiation units oped with excimer lamps, which Ushio was the first company in the world to develop.



### **UV Curing Equipment for Bonding LCD Panels**



Our UV curing equipment for bonding LCD panels enables the batch irradiation of UV ravs used in the curing of large-scale LCD panels. Through the introduction of Ushio's unique new technologies, this equipment provides significant benefits to the LCD manufacturing line, by significantly reducing the time required for the curing process—which previously took several hours—to a period of only several minutes.



## Halogen Lamps for OA Equipment

Lamps for Data Projectors



Our halogen lamps for OA equipment are used to affix toner to paper by utilizing heat to melt pulverized toner. These lamps are used in such devices as printers and copy machines when drawing text or images on paper

We develop and produce lamps installed in data

projectors used at locations such as conferences, live events, and schools. Based on super

high-pressure UV lamps, these compact,

high-intensity, flickerfree lamps achieve high

applications, from business to professional use

reliability and are used in a wide range of



## DI Lithography Equipment for IC Package Substrates\*



Direct imaging (DI) lithography equipment uses laser light to create the wiring patterns required for semiconductor package substrates and printed circuit hoards through direct exposure Leveraging proprietary technology, we have realized a system halance with the quality speed, and stability that DI lithography equip-



IC package substrate marke (DI lithography equipment

## Top Message

Without losing focus, we will steadily cultivate growth in order to become a "light" solutions company.

Profile

## Koji Naito

President and Chief Executive Officer

## A Future in Line With Our Management Philosophy

It may seem like a minor detail, but I make a constant effort to avoid printing out documents. This is because I want to lead by example in terms of reducing both the risk of information leaks and our environmental impact. However, I made an exception for one particular piece of paper, which hangs on my wall in an acrylic frame. That paper bears our Management Philosophy.

In fiscal 2021, the results of our first-ever engagement survey were below the average of other companies in the Japanese manufacturing industry. Taking this on board, in fiscal 2022, I traveled to all of our business sites to engage in direct dialogue. Deepening understanding of our Management Philosophy was a key point of focus. Our Management Philosophy is rooted in the four basic principles created by Jiro Ushio, who passed away on June 13, 2023, a year after he established Ushio Inc. in 1964. While some minor adjustments have been made, their essential form carries on to this day. The first item in our Management Philosophy is "Build both a prosperous Company and prosperous employees." To realize this, it is essential that our employees first understand how the Management Philosophy relates to them. This is because all of our future-oriented management policies are in line with our Management Philosophy.

The third item in our Management Philosophy is "Contribute to society through superior products and innovative research and development." A modern interpretation of this would be that promoting ESG management is inseparable from business growth. If each of us recognizes that the provision of social value subsequently leads to economic value, we can shape the future of Ushio. This is reflected in "Creating Businesses with Greater Social Value," which is one of our Five Management Focuses. The second item under our Management Philosophy is "Deliver products and services that are competitive in the global market." Pursuing this has enabled us to establish our current position as a leading niche company that can stand toe to toe with massive competitors by quickly taking on new challenges in the global market, and it is also consistent with our future strategy of focusing on added value rather than scale. It could be said that the path we should follow to sustainable development was laid down at the time of our founding.

At the same time, repeated dialogue with employees has also clarified the issues we currently face. Rather than "running away" from these issues, I intend to fulfill my responsibility to deepen understanding of our Management Philosophy.

## Becoming a "Light" Solutions Company

During my time in the International Business Division, around my fifth year with the Company, there were repeated instances of products that were shipped to the United States being damaged during transportation. Given the products had passed quality testing, we

reported to our subsidiary Ushio America, Inc. (UAI) that the problem was in transportation. Upon hearing this, the UAI President at the time rebuked me. They said, "Remember, it's the customer that pays your wages, and it's the manufacturer's responsibility to make



products that arrive safely." I realized that I had lacked a customerfirst approach and had been guick to shirk responsibility. That moment was a catalyst for a change in my values regarding work.

While many of our products have extremely high market shares, resting on our laurels in such a position quickly leads to losing customers' trust. On the other hand, if we are diligent in focusing on the customer's point of view and win their trust, not only can we keep businesses stable, we can also get an insight into the social value that our customers are aiming to create in the future, enabling us to connect that to our own long-term value creation. Today, our customers are striving to address a diverse range of social issues in areas such as climate change countermeasures, food initiatives, and healthy life expectancy extension. In order to continue being the

choice of such customers, we must be highly aware of social issues and contribute to the totality of our customers' business processes, in addition to providing high-quality products and high performance. However, such changes cannot be achieved overnight. In order to ensure that our efforts are consistent over the long term, we must set common targets and unite the entire Ushio Group as we move forward together. These unified targets are our Vision 2030, "Become a 'Light' solutions company," and our Mission, "Promote the use of light as illumination and energy to support human wellbeing and societal growth." Using a backcasting approach, we have drawn up a road map leading to 2030, which will guide us as we steadily close the gap between our Vision and where we are today.

## Solidifying the Foundation and Beyond

The 1st Medium-Term Management Plan (fiscal 2020 to 2022) was the first step towards Vision 2030. With "Reattempt to solidify the foundation" as the core theme, it was positioned as a stage for improving our profit structure. We aimed to improve our operating margin, which we set as the most important performance indicator, to 8% or more. We approached this plan with strong conviction to achieve our targets. This is because we believe that we cannot inspire shareholders to get on board by explaining our long-term vision alone, commitment to achieving short- and medium-term targets is also essential.

For nearly 10 years, we made repeated downward revisions whenever the business climate diverged from expectations, and a long-term downward trend in profits followed. One major factor behind this was inefficiencies brought about by the independent Rempo\* management style. Pursing sales growth through individual optimization and carrying out growth investment led to increasing sales. However, our operating margin continued to decline. With this plan, we decided on a basic policy of reducing inefficiencies and establishing a robust profit structure by advancing defensive strategies, proactive strategies and unifying strategies in order to shift from this conventional "additive management" style towards a solidarity-based Rempo management style, or "multiplicative management" that focuses on realizing overall

During the period covered by the plan, we faced various restrictions in our business activities, including travel restrictions as part of measures against COVID-19 and supply restrictions due to difficulty in procuring

parts. Nevertheless, we were able to achieve all required targets in the final fiscal year. The most significant reason for this is that the newlyestablished unifying organization at Head Office appropriately managed responses to changes in the operating environment from the perspective of the entire Group. Needless to say, we could not have achieved this without the hard work of all Ushio Group employees, who refused to use the challenging business environment as an excuse.

As shown by our significant improvement in the operating margin from 4.2% in fiscal 2019 to 9.1% in fiscal 2022, we significantly improved our profit structure and our defensive strategies have borne fruit. Furthermore, with regards to our unifying strategies, we achieved our plan of establishing a foundation for governance and utilization of financial reserves, including through the introduction of corporate finance and enhancements of the management of Group-wide consolidated targets.

However, some issues also remained. In the Imaging Equipment Business, difficulty in procuring parts offset the impact of management efficiency improvements, and the required targets were missed. The fact that promising products and technologies such as EUV and Care222 did not grow as expected was also a point to reflect on. We will remain conscious of these issues as we take our next steps.

\* Rempo means "mountain chain" in Japanese. In contrast to independent Rempo management in which each Group company autonomously pursues optimization of individual performance, solidarity-based Rempo management is based on the idea of uniting all Group companies as one "mountain chain," aiming for a unified vision as an entire group.

## Cultivating Growth for the Future Under the 2<sup>nd</sup> Medium-Term Management Plan

Concerns about an economic slowdown have surfaced as a result of global monetary tightening aimed at curbing inflation. However, we will not lose our focus as we continue to advance measures aimed at achieving our unified targets. We will position the 2<sup>nd</sup> Medium-Term Management Plan (fiscal 2023 to 2025) as a stage of cultivating growth based on the solid foundation we established through the 1st Medium-Term Management Plan. As we build a structure to provide light solutions through active investment, we will cultivate seeds of growth with the aim of reaping the fruits of our labor through the 3rd Medium-Term Management Plan (fiscal 2026 to 2028).

In line with the expansion of investment, we have established EBITDA as our most important performance indicator, aiming to reach ¥30 billion in fiscal 2025. I am also aware of my responsibility to shareholders to resolve the fact that our share price has continued to have a PBR below 1.0 over a long period of time. Accordingly, with the 2<sup>nd</sup> Medium-Term Management Plan, in addition to fully embracing ESG management, we will work to enhance capital efficiency through effective use of funds, such as active investment and share buybacks, with the aim of achieving ROE of at least 8% and PBR exceeding 1.0. > P.46-49 CFO Message We are also pursuing a policy of strengthening our unifying strategy on a global level. In order to ensure that individual strategies tailored to the characteristics of each region are not impeded, we will place importance on input from people in the regions concerned.

With the 2<sup>nd</sup> Medium-Term Management Plan, we established Industrial Processes, Visual Imaging, and Life Sciences as market domains to focus on, and have a policy of promoting transformation toward becoming a "light" solutions company. We also wanted to communicate this strong volition internally and externally, and we implemented structural reform under which the previously productcentric Light Source Business. Optical Equipment Business and Imaging Equipment Business shifted to a market centric approach. One exception is our business relating to solid-state light sources, which it was decided would remain product centric under the Photonics Solutions segment.

Life Sciences and Photonics Solutions reported operating deficits in fiscal 2022. It is true that there were also internal concerns about

dividing our businesses in this way. However, we came to our conclusion based on the belief that it is important to present our current position relative to Vision 2030 with transparency internally and externally, and to work to resolve issues. This can be seen as a manifestation of confidence in these businesses.

Based on these new business domains, our policy is to transition from product-centric marketing to market-centric marketing, enhance our approach to go from simply selling products to both selling products and proposing solutions by adding processes and aftersales services, and expand value generation, which had been limited to customer value, to encompass resolving social issues facing our customers. For example, power semiconductors are a key market within Industrial Processes. In this field, combining the strengths of the former Optical Equipment Business, which has knowledge of customers' business processes, and the former Light Source Business, which has customers in the power semiconductor heartlands of Europe and the United States, we can help alleviate constant supply shortages by improving our customers' productivity.

Furthermore, in Visual Imaging, we can provide one-stop solutions to meet our customers' needs, with our projectors, lighting solutions and maintenance services. Under Life Sciences, the business purpose of Care222 is not simply to sell Care222-related products, but to take on the societal challenge of creating a world without infectious diseases. We believe that putting together solutions that take social issues as a starting point and proving their economic soundness can lead to rapid widespread adoption.

With the changes to our business segments, we were able to integrate our previously disparate strengths into each new business domain. Going forward, we plan to rebuild our strengths corresponding to each step on the road to providing light solutions. In R&D, being able to freely control light source wavelengths and energy enabled us to significantly enhance our "power to control light," and consequently optimize light performance. In terms of solution provision, we will combine optical technology, software, and peripheral technologies to enhance our "power to provide light-based solutions" that resolve our customers' issues. In terms of after-sales support, we plan to strengthen our "power to retain light" in order to provide light solutions in a sustainable, stable manner.

## Market-Centric Business Portfolio Reform

With these changes to our business segments, our policy is to clarify the positioning of our new business domains and promote appropriate

portfolio management. Industrial Processes is a core business and is positioned as a stable foundation for earnings. While the semiconductor



market is currently seeing a trend of deceleration, technological innovations such as DX and AI will continue advancing through to 2030, and demand for electronic devices is expected to increase in the medium to long term. We plan to develop a solutions structure covering areas such as offering optical processes that contribute to reducing the environmental impact of manufacturing while continuing to ensure stable earnings through key products such as large field steppers for cuttingedge IC package substrates, for which we boast a 90%\* market share. In Visual Imaging, which is positioned as a rebuilding business, we plan to move forward in areas such as the creation of a one-stop solutions platform while also rebuilding the business structure by addressing risk factors for deteriorating business performance identified under the 1st Medium-Term Management Plan. We will position Life Sciences as an incubation business from a long-term perspective. The growth of this business is predicated on the fact that humanity has yet to find effective ways to solve social issues in areas such as food initiatives and healthy life expectancy extension without sacrificing our current convenience and comfort. Non-contact, harmless light holds promise in this regard. By making full use of our world-class light technology and global network, we can open up vast possibilities.

Going forward, we intend to select promising businesses from numerous candidates for commercialization, make preparations by securing the required resources, and produce results looking to fiscal 2030. Under Photonics Solutions, we plan to quickly establish competitiveness and reorganize into various businesses in fiscal 2030. Rather than quantity, we aim to establish niche leading positions covering applications with high added value. We intend to leverage our strength in terms of the power to control light over diverse wavelengths to enter new markets into which lamps cannot expand while striving to differentiate ourselves.

Over the next three years, we plan to invest more than ¥40 billion in growth investment, including M&A, as we overhaul our portfolio and rebuild our strengths. Rather than M&A being an objective in itself, we plan to position it as a means to enhance our resources, and we will carefully formulate PMI plans in fields in which we have knowledge, then carry out diligent investment that mitigates risks.

In terms of R&D, we will move forward with the development of next-generation technologies and products, and plan to invest ¥46 billion, an increase of ¥14 billion from the 1st Medium-Term Management Plan. Under the 1st Medium-Term Management Plan, we were able to sprout the seeds of businesses such as battery manufacturing process development, methane gas decomposition and recycling, new pulse spectroscopy technology and Organs on Chip. With the 2nd Medium-Term Management Plan, integration between the Marketing Division, Research and Development Division and Intellectual Property Division within the Business Creation Division will accelerate new business creation.

\* Cutting-edge IC package substrate market (stepper market)

## Fully Embracing ESG Management

There is immeasurable diversity among people. Attempting to group everyone into a uniform "ideal" image means people lose their individuality, and the organization's dynamism is also lost. In order to build both a prosperous company and prosperous employees, each individual must consider the connection between fulfillment in their own lives, the work in front of them, and the resolution of social issues. To that end, it is essential to start by fostering a culture that embraces diversity.

We have established a foundation for ESG management through the 1<sup>st</sup> Medium-Term Management Plan. With the 2<sup>nd</sup> Medium-Term Management Plan, we have set non-financial KPI goals for fiscal 2025 and will fully embrace ESG management that combines business growth with ESG efforts. In our human capital strategy, we will emphasize diversity. In order to continue creating new value on a global basis, we must grow our pool of talent that can understand markets and society from a global perspective, then use that starting

point to search for applicable technologies. We must also bolster our breadth of talent spanning diverse academic backgrounds and our pool of talent possessing both technical knowledge and management literacy. I hope to see us realize true diversity by fostering a culture and developing systems that enable diverse personnel around the world, regardless of gender or nationality, to consider their own futures and demonstrate individuality in a manner that transcends national borders. In this, we plan to focus on training Ushio Group employees rather than external recruitment. Of course, this will take time, which means that engagement is important. We will bolster our efforts aimed at achieving our goal of improving our fiscal 2022 engagement score by 10 points by fiscal 2025. As part of this, we introduced an employee stock compensation system, starting in fiscal 2023. By linking incentives for employees to share prices and medium- to long-term performance, we hope to align the Company's prosperity with fulfillment for our employees.

## Being a Company That Does the Right Thing

"Expand profits, corporate responsibility, and competitiveness through open and free-thinking business operations." This is the final sentence of our Management Philosophy. In line with this philosophy, I want Ushio to be a company that does the right thing, a company that its employees can be proud of. This could also be described as commitment to social justice. For example, strengthening corporate governance is based on the belief that even uncomfortable matters should be disclosed with transparency.

In terms of the corporate governance framework, we have made steady enhancements in areas such as making outside directors the majority of the Board of Directors and increasing the number of female directors. In fiscal 2023, we revised our directors' remuneration to align with our strategy, including by deploying ESG benchmarks as part of the calculation criteria, increasing the stock compensation ratio under the stock compensation system and incorporating key performance indicators for reaching Medium-Term Management Plan goals into the calculation criteria. In addition, we have appointed an outside director to chair the Board of Directors, and have strengthened the supervisory function of discussion topics relating to core management.

Our outside directors provide us with extremely frank input. We also received strong encouragement to improve capital efficiency through effective use of funds. While some feedback can be tough to hear, our outside directors possess more extensive management experience than the internal directors, including myself, and also serve to represent our shareholders. As such, I always pay diligent attention to what they say. If we listen to this type of input from our shareholders and investors, our employees, and society at large, then properly reflect that in our management, we will be able to achieve steady transformation.

I firmly believe that the "light" solutions company that lies beyond our transformation will also be the embodiment of social justice. In order to achieve this, I intend to keep moving forward together with our employees, never losing focus or shirking away from challenges.

President and Chief Executive Officer, Ushio Inc.

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## Our Value Creation Story

Since its founding, Ushio has contributed to societal growth by fully leveraging the power of light.

Going forward into the future, Ushio will create even greater social value and achieve sustainable enhancement of its corporate value as a "light" solutions company.



## Ushio's Culture

At Ushio, we share a common desire as we move toward becoming a "light" solutions company.

Read on to learn about the activities that employees in various divisions are engaged in.

## Message 1 Stable Production of High-quality Products

I work with halogen lamps on the prototype line. I examine whether it is possible to manufacture products as designed by the Engineering Division and identify issues that may arise when shifting to mass production. Our customers expect high quality, and it is important to consider the entire production process, including elements such as whether stable production without fluctuations in quality can be achieved. If something seems even slightly off with a prototype, we consult with designers from the Engineering Division. Some of the points we put forward can seem overly meticulous, but the fact that whatever we come up with will be mass produced overseas is a constant reminder that we cannot afford to compromise on quality. When I learned that the products I am involved with have a worldwide market share of over 60%, it inspired me to take even greater pride in my work. I am taking on the challenge of collaborating with various departments within the Company in order to achieve evolutions that can further improve precision and our manufacturing processes. (Junko Hirayama)

## Message 2 Working to Bring Customers Reliable Products

I am involved in inspection work relating to products used in the Industrial Processes business. Inspection is the final confirmation process before products are shipped, and we are dedicated to carrying out thorough checks to ensure that faulty products cannot make it onto customer shipments. In order to carry out more accurate inspections, it is important to understand the manufacturing process. I try to take the initiative to go and see the actual production lines. Seeing where various products are made gives me awareness that I can make use of in my own work, and I strive to reflect this in areas such as our procedure manuals as we make daily improvements that enable more accurate, more consistent testing.

Factories as a whole are becoming increasingly automated, but there are some processes that only humans can do, and manufacturing is becoming increasingly multi-skill overall. Through lively discussions between team members, I hope we can provide more opportunities for everyone to improve their existing skills and learn new ones. (Emiko Iwakiri)



## Message 3 Resolving Social Issues as a Team

I work on promotion and branding in the Life Sciences market, which includes Care222 technology for disinfection and the UV purification technology Clean172. I am driven to help create a society in which people have safety and peace of mind.

When I joined Ushio Inc., I was initially involved in manufacturing before taking on the challenge of new jobs in the indirect and sales divisions. The approach to work in manufacturing and sales is vastly different, so I look to take inspiration from various areas to produce even better output every day. We exchange information and opinions not only within the sales division, but also with people in other divisions, including the technology & engineering division. Our team works to enhance their sensitivity to constant changes in the environment, including in terms of what customers are looking for and what society needs, as we aim to resolve social issues as a "light" solutions company. I feel that this is one of the great things about Ushio.

I am also involved in a diversity and inclusion project, and hope to help create an environment of mutual respect and understanding in which everyone can feel invigorated at work.



## Profile

## Kyoko Saka

Section 2, Sales Department 2, HLS GBU, Life Science Division, Business Management Headquarters,



## Profile

## Glady Ramirez

Production Support Department, Ushio Philippines, Inc.

## Profile

## Junko Nagayama

Sales Promotion
Division,

## Message 4 Delivering Excitement and Joy Around the World

I spent ten years working in sales promotion relating to xenon short arc lamps for cinema projectors. I am currently assigned to Ushio Philippines, Inc., where I provide support for production transfer in addition to my previous duties. Sales trends in the cinema industry have changed significantly both in scope and speed as a result of COVID-19. Faced with these circumstances, Group companies and factories have collaborated to collect and share customer information related to lamp demand and reflected this in production plans. As a result, we have built a foundation that is even more robust to change than before. Information sharing between Group companies is essential in order to achieve stable global supplies, and I feel the importance of that communication every day. In meetings between Japan and the Philippines, the language barrier makes it difficult to quickly and accurately communicate intentions and ideas when discussing production plans and delivery dates, and I make a conscious effort to increase exchanges outside of these meetings in order to further enhance communication. (Junko Nagayama)

Ushio's value and raison d'etre are epitomized by continuing to produce xenon short arc lamps with stable performance in a timely manner as long as our customers require them. By giving customers the products they need when they need them, in addition to supporting the stable operation of movie theaters, we can help deliver excitement and joy to people who enjoy movies around the world. (Glady Ramirez)



## We contribute to the resolution of issues by looking at society from customers' perspectives.

Profile

(Left)

## Keiko Kato

Analysis Group, Fundamental Technology Department, Research and Development Division, Business Creation Division, Corporate Headquarters | Ishio Inc.



## Takuma Yokoyama

Optical Measurement System Group, New Technology Development, Research and Development Division, Business Creation Division, Corporate Headquarters, Ushio Inc.

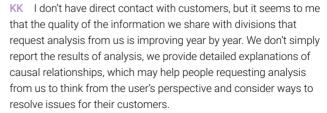
Takuma Yokoyama (TY) After I joined Ushio, I was in charge of developing the initial EUV light sources. My experience after that includes work overseas, and I currently lead a team developing a new type of pulse spectroscopy technology. Ushio offers many opportunities to gain a wide variety of experiences.

Keiko Kato (KK) That's true. For my part, I have experience in areas such as sales administration and working as an assistant in lamp development, and I am now involved in analysis work. I have been able to take maternity and childcare leave while still amassing a wide range of experiences in various departments.

TY It seems to me that going from working as an assistant to working in analysis would be a big change, is that what you found? KK That's right. When I was an assistant, I had never written a

report before and had no experience of setting up meetings myself, then carrying out work based on what was said during those discussions. However, I was eager to take on difficult challenges. Together with the help of those around me, that willingness enabled me to expand the scope of my work.

TY As a team leader, I work in a coordinating role. The team comprises people with various backgrounds, and I look to make the most of each team member's experiences to support them as we build an even better organization. In addition to internal relationships, our relationships with business partners are also important. Given the interests involved, it is necessary to strike a balance between emphasizing what our technology can accomplish and



TY That's right, seeing things from the customer's perspective is critical when considering the reasons for the issues they're facing. Having that attitude across all departments at Ushio is more impor-

KK Mr. Yokoyama, in your work, it seems to me you don't just

actively seek out needs based on resolving social issues, is that correct?

TY That's right. We are constantly looking for ways to apply our basic technologies. In order to envisage and create devices that have never been seen before, it is essential for us to be proactive with customers. Avoiding passivity in that way seems to be similar to your work, Ms. Kato. Would you agree with that?

KK Yes, I would. I also strive to go beyond simply conveying what is happening right in front of my eyes. Rather, I strive to understand the essence of the issue concerned when I talk to people requesting analysis, and to suggest alternative methods when appropriate.

TY When I have an issue and approach someone like you who works in analysis, it's really helpful when they can make suggestions about approaches and elements for consideration that I would never have thought of. Making the most of that advice and viewing technologies and phenomena from multiple perspectives makes it easier to come up with ideas to propose to customers. KK It's important to be able to put forward a wide range of proposals. I see Ushio's mission as using light to solve customers' issues and create social value. Have you ever felt that you have

helped resolve a social issue?

TY I worked on one project under the theme of issues relating to safety and peace of mind for people. We investigated the underlying causes and found that the existing processes did not meet the standards required to prevent issues from occurring in the first place. We are developing equipment that uses the power of light to resolve issues that have arisen in the past through new approaches. This is an example of the success of a problem-based approach, in which we started investigating the causes of various social issues, then looked for ways to use light to address them.

KK I hope that by providing support for analyzing the causes of issues and phenomena, I can contribute the future of society.

TY The desire to have a positive impact on society is great source of motivation at work. In order to create products that have never existed before and set the standard for the wider world, we need to break out of our shell and not be confined to a mold. Ushio offers an environment where we can take on new challenges, and I want to do that with conviction.

KK That's true, we have a culture of supporting people from all walks of life, and we don't discourage them from trying new things. We're able to take on new challenges in various areas.

TY Even if new ideas don't always come to fruition, taking on challenges can be rewarding. Above all, it makes work enjoyable. KK Going forward, I hope we can continue to unite the strengths of Ushio's various divisions and take on the challenge of having a positive impact on society as a "light" solutions company.

Ushio Report 2023

understanding what our customers truly need. make products based on customer requests. You also need to USHIO INC.

## The DNA of Ushio-Guiding Us into the Future

Since its founding, Ushio has believed in the potential of "light." Guided by this belief, Ushio has contributed to the resolution of social issues and to technological innovation across the globe by utilizing light as a means to provide not only illumination but also energy.

## 1964

Ushio Inc. was established in 1964. In the following year, Ushio established four basic principles based on the desire to create an indispensable company for all by drawing on the wisdom of employees in order to grow. After their establishment, these four principles continued to be passed down as the guideposts determining the direction in which the Company should head. With the addition of certain wording to illustrate Ushio's corporate social responsibility, these four basic principles were enshrined in the Ushio Group Management Philosophy, which serves as the foundation for all of Ushio's corporate activities.



Founder Jiro Ushio

## Four Basic Principles at the Time of Our Founding

- Build both a prosperous Company and prosperous employees.
- Deliver products and services that are competitive in the global market.
- Contribute to society through superior products and innovative research and development.
- Show the world the true value of a medium-sized enterprise and, in doing so, secure stable profits.

## Culture and Strengths That Have Guided Us Since Our Founding

## **\( \)** Leading Niche Position in Global Markets

In accordance with our basic policy, we began to build a business foundation in global markets directly after our establishment, upon which we built a global network. With a particular focus on specialized light sources, we fortified our brand power and carved out a unique position as a leading niche company that can compete on equal ground with the world's best-known companies. We also placed our focus on markets in which we could draw on the technological strengths of light based on an awareness of ourselves as a "global medium-sized enterprise" that emphasizes uniqueness over business scale. By doing so, we provided the world with numerous one-of-a-kind products with high added value.

## Decision-Making Criteria That Emphasize Social Necessity More than Profitability

Facing the impact of the rapid decline in overall demand that directly followed the 1973 oil crisis, we were forced to respond in ways such as narrowing the types of products we offered. Meanwhile, we prioritized our responsibility of supply to our customers over Company sales by providing customers with replacement products made by other companies. In this way, we adopted social necessity more so than profitability as the basis of our decision-making. This approach has underpinned the Ushio brand and served as the foundation of our sustainability initiatives. Our Management Focus of "Creating businesses with greater social value" represents the natural extension of this decision-making approach.

## Oconviction to Build Both a Prosperous Company and Prosperous Employees

Soon after our founding, we began to pursue various initiatives to build both a prosperous company and prosperous employees, including formulating long-term plans that adopted polices to raise employee salaries and increase their number of holidays. This management approach of valuing employees remains at the core of the Company to this day and has led to the formulation of two of the Five Management Focuses that pertain to human capital.

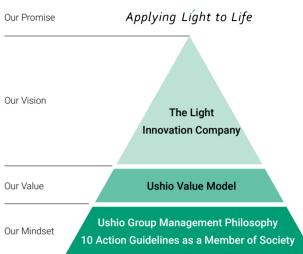
## Present

The corporate activities that we have consistently promoted in accordance with the four basic principles and centered on "light" have helped us form our corporate culture and accumulate various strengths. These corporate activities are also embedded in our current philosophical framework as DNA that we must continue to pass on, while adding the perspective of "what needs to change" in order to realize sustainable corporate value enhancement into the future.

## **Our Promise**

"Applying Light to Life" is our promise to our customers, to our community, and to ourselves. To fulfill this promise, it is essential for each Ushio Group employee to believe in the possibilities of light, dream about the future, and live each day with excitement. We believe that our passion to pursue our dreams is the power that will enable us to create a future that goes beyond our imagination. Through the cycle of the Ushio Value Model, we will deliver innovation and fulfill our promise, working together with partners that share the same dream.

## Philosophical Framework



## **Our Vision**

## The Light Innovation Company

We hope to resolve problems faced by our partners and society through light innovation to fulfill our promise of "Applying Light to Life." As light professionals, we will support human well-being and societal growth by creating new light markets through further expansion of the functionality and application of light, including ultraviolet rays, visible light, infrared rays, and the surrounding wavelength range.

## **Our Value**

### Ushio Value Model

In order to resolve social issues (Sustainability Oriented), Ushio takes fundamental elements of cutting-edge light technology developed through R&D (Technological Leadership) and turns them into reproducible technology, creating value for society and its customers (Business Development), while also offering proposals to society with our partner companies (Collaborative Partnership). These are our values.

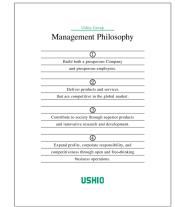
## Our Mindset

## **Ushio Group Management Philosophy**

The Ushio Group Management Philosophy represents the foundation for all of our activities as a company

We established four basic principles in 1965, the year after our founding, based on the desire to create an indispensable company for all by drawing on the wisdom of employees to grow. Our current Management Philosophy centers on these four basic policies and has had certain wording added to it that illustrates Ushio's corporate social responsibility.

# Sustainability Oriented Identify and explore ways to solve social issues with light Business Development Develop into reproducible technology and create value Collaborative Partnership Offer proposals to society in collaboration with our partners



USHIO INC.
Ushio Report 2023

## Using light as illumination and energy

As light professionals, Ushio has utilized light to resolve issues with technological innovation around the world.

Note: Non-consolidated sales are shown for the period between fiscal 1965 and fiscal 1980, with consolidated sales shown from fiscal 1981 onward.

## **Background of Each Era**

- Contributed to the transition from black and white to color
- Office automation trend

- Osaka Expo
- Japan's national space development plan

- Increasing popularization of laptop computers

• 1970

1980

1990

• 2000

• 2010

**2020** 

1960

## Development of First Halogen Lamps

Brightening lamps means that they don't last long. Extending their lifespan makes them dimmer. Halogen lamps, which were considered to be the most advanced incandescent electric lamps at that time, had overcome these contradictory conditions. The inception of this halogen lamp development began by acquiring the license for using iodine lamps, which are the technological base for halogen lamps, from a U.S. corporation. Following this, Ushio commenced development of lamps unrestricted by royalties and was successful in 1966 the second year of the Company's establishment. This was the beginning of Ushio's history as a pioneer of domestically-produced halogen lamps.



### Development of UV Lamps for Use in Semiconductor Lithography

After the oil crisis in 1973, energy conservation became extremely valuable and a trend emerged in a shift from a structure emphasizing sheer scale, to one that emphasizes compactness and flexibility. Japan as a nation promoted the development of semiconductor lithography technology. Amid these changes, Ushio developed deep-UV lamps for semiconductor lithography in the face of increasing needs for lamps that use shorter wavelengths and have a higher output than previous ones in light sources used for exposure of very large scale integrated circuits (LCIs). The technology for increasing output has become the base for increasing the illumination of super-high-pressure UV lamps in the future.

## Development of the World's First Excimer Lamp

In 1993, Ushio developed the world's first excimer lamp. Excimer lamps emit high-energy, shortwavelength vacuum UV (VUV) light through intense plasma discharge, based on newly conceived light emission principles not found in traditional discharge lamps. Ozone cleaning equipment equipped with these excimer lamps was introduced mainly for cleaning liquid crystal display (LCD) panels and today it has taken hold as standard processing equipment in the manufacturing process of LCD panels.



Excimer irradiation units for cleaning panels

## Development of Digital Cinema Projectors

Christie Digital Systems (CDS), a leading manufacturer of film-based cinema projectors, became one of the first companies to market digital cinema projectors before the major technological shift from film to digital cinema. Additionally, by developing, manufacturing, and marketing xenon lamps, which are the light sources for digital cinema projectors, Ushio has become the only manufacturer with the vital light sources and projectors for digital cinema.



## Development of Photo-Alignment Equipment

Smart devices, such as smartphones, are required to be even higher resolution, even slimmer, even more energy saving, and have even faster responses than LCD TVs. Liquid crystals can be displayed by aligning liquid crystal molecules in the same direction. however there were numerous issues with conventional alignment, in terms of not only environmental and cost aspects but also key image quality aspects. These issues have been addressed through Ushio's optical alignment technology. By aligning liquid crystals in a non-contact state with special light. Ushio has prevented a reduction in yield rate due to contaminants or static electricity. At the same time. Ushio has reduced costs, improved contrast. enhanced the response speed of liquid crystal molecules, and significantly reduced electricity consumption as a result of reducing man-hours.



Photo-alignment equipment

Acceleration of Spread of Smart Devices

Ushio's light, such as photo-alignment equipment,

touch panel bonding equipment, and lithography

equipment for package substrates, supports the

production of smart devices, including smartphones.

As a result. Ushio has enhanced the productivity of

smart device production and the performance of

panels, meeting global demand for smart devices

and contributing to the increased resolution and

## Expanding Development and Sales of Projection Lithography Equipment

With recent advancements in IoT technology, 5G, and mobility, the quantity of information processed has increased sharply. As a result, further evolutions in semiconductor technology are essential, an issue that requires next-generation semiconductor package substrates to resolve. In response to increases in the number of layers and size of package substrates, high productivity and high yields are required. Our lithography equipment, which has a 90% market share among steppers for cutting-edge IC package substrates, rises to this challenge. Even with recent surges in demand, we have retained our high market share by developing and introducing next-generation equipment



Large field stepper for cutting-edge IC package substrates

## Future Possibilities > 1 P.54-55

## to Advancement in Al

primarily involved in front-end semiconductor processes, and packaging technology in back-end processes enable high-speed processing and management of large amounts of data relating to servers and electronic devices. This is supported by Ushio's large field steppers for cutting-edge IC package substrates. Through this, we hope to accelerate progress towards an IoT society and advancements in areas such as Al.



## Acceleration of IoT Through 5G and Contribution

Advances in both miniaturization technology, which is



### Promotion of OA Trends

At first, halogen lamps were not used in general lighting and we targeted and rolled out products into professional markets, including plain paper copiers, vehicles, and studio lights. Among these markets, there was progress with the technological innovations in the photocopying machine domain, such as the shift from wet printing (blue-printing photocopiers and blue copies) to dry printing through UV light, and from photosensitive paper to plain paper. Ushio's halogen lamps have contributed to the spread of plain paper copiers as a light source for original exposure and a heat source for fixing toner. While competitors have adopted a standard strategy, Ushio's customizable strategy has produced results and has been adopted by various photocopying machine manufacturers. Accordingly, this became a foothold for promoting the shift to office automation (OA).

## Significant Contribution to the Technological Innovation of Semiconductors

Printing substrates, which previously took several minutes, has been shortened to only a few seconds due to Ushio's deep-UV lamps for semiconductor lithography. This has greatly increased productivity

Shortening the wavelength of light sources and increasing input contributes to increased intensity and innovation of production technology, and has become the cornerstone of today's development in



een-UV lamps for

## Contribution to the Spread of LCD Displays Compared to conventional cleaning methods,

excimer irradiation units for cleaning panels provide higher cleaning capability, higher speed cleaning, lower power consumption, and lower temperature treatment which reduces damage to substrates Through this technology, Ushio has addressed serious LCD panel manufacturing issues. In addition to excimer irradiation units, development of UV lamps for use in LCD color filters that expose large substrates in line with the increase in size of LCD panel substrates and development of curing equipment for bonding large LCD panels has led to enhanced productivity and lower costs for LCD

Ushio has greatly contributed to the spread of LCD displays.

## Contribution to the Spread of Cinema

## Complexes and Expansion of Market Scope

In 1999, Star Wars: Episode I - The Phantom Menace, which was at the forefront of digital cinema, was first released in the U.S. through CDS cinema projectors. The end of 2009 also saw a sudden acceleration to the digitalization of cinema projectors due to the massive hit 3D movie Avatar. Following this, there has been an increase in popularity for cinema complexes and today they have spread around the world as new entertainment bases where customers can enjoy watching not only movies but also sports and concerts in real time.



functionality of panels

Society

on

## **Our Long-Cultivated Strengths**

As light professionals, we will continue to draw on the five major strengths we have cultivated since our founding in order to enhance corporate value in a sustainable manner. By doing so, we will contribute to the growth of the society of the future.

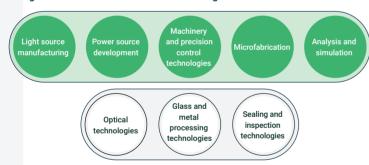
## > Power to Control Light

At the time of Ushio's founding, light was primarily only used as a source of illumination and the Company made it its mission to create new markets by utilizing light not just in this way but also as a source of energy. Based on this mission, we have harnessed the power of light to realize products such as light sources and optical and imaging equipment, and also peripheral services in accordance with the needs of our customers at the time. These products and services enabled us to resolve various issues impeding the progress of technological innovation. By working to leverage our long-cultivated light technologies and also discover new uses for them, we are further pursuing the potential of light and creating new technologies and products.

For more details on these initiatives, please see the following pages:

> 🕮 P.22-23 Value Creation through Implementation of Our Management Philosophy (History) > 🕮 P.26–27 Ushio's Constant Pursuit of the Potential of Light

## Core Technologies That Unlock the New Potential of Light



## > Power to Provide Light-based Solutions

In addition to the light sources themselves, we develop and manufacture equipment that incorporates them. Our ability to internally manufacture light sources, a key component of such equipment, provides us with a major source for differentiation. Also, engaging in the development, manufacture, and sale of equipment brings us closer to end users, which in turn helps us acquire useful information on future trends. As a result, not only are we able to resolve the issues facing our customers, we are also able to provide them with high-value-added solutions.

Furthermore, by focusing our efforts on core technologies related to light as well as on securing and cultivating human capital with experience in a vast array of academic fields, we are enhancing our ability to foresee issues that may affect our customers in the future. Going forward, we will draw on this ability to comprehensively resolve social issues through both the provision of products and peripheral services.

For more details on these initiatives, please see the following pages:

>🕮 P54–55 Ushio's Potential for Creating Businesses with Greater Social Value



## Robust Financial Base

It is imperative that we expand resources, which we may lack at times, if we are going to be able to continue to draw on the power to control light and the power to provide light-based solutions. For example, there are times where we need to leverage external resources, in addition to enhancing internal ones, in order to achieve differentiation not just in terms of hardware but also the settings in which our light sources and equipment are utilized. Our robust financial base provides us with the strength to procure the necessary external resources to do so through such means as M&A, collaboration with business partners, and the promotion of mid-career hires.

Equity ratio 75%

## ( ) Global Customer Contact Points and Foundation for Value Provision

With the aim of becoming a global medium-sized company, we have promoted global business development from a very early stage for a company within the manufacturing industry. Our overseas net sales already account for 70%-80% of total net sales, with overseas employees making up roughly 60% of our total employee base. By establishing this kind of global business foundation, we have been able to swiftly and accurately grasp the needs of customers and markets across the globe and, in turn, develop high-value-added solutions to meet these needs. Our global foundation has also helped us join forces with various business partners and mitigate the risk of supply chain disruptions.



## > Power to Retain Light

Through our unique light technologies, we have helped resolve issues impeding the progress of technological innovation. In addition, we have been providing not only light sources but also equipment and after-sales services on a global basis. This has enabled us to work with a diverse range of customers within the value chain of each market while exploring solutions to various social issues through our customer contacts. We are also reinforcing our after-sales support in order to ensure that the light solutions we provide continue to operate optimally for our customers in a stable, and sustainable manner. This approach enables us to offer highly trusted products in each of our business domains over long periods of time, and this is one of our strengths In this way, supported by our trust-based relationships with our customers, we strive to identify customer issues even more promptly and accurately, thereby developing new technologies and enhancing our awareness of social issues.

## Ushio's Constant Pursuit of the Potential of Light

Seeking the power to control light as light professionals, Ushio develops light sources and their peripheral technologies. In addition, Ushio continues to create new technologies and products by combining these technologies and developing new applications for them.

## Using Lamps as a Source for Energy

After becoming the first company in Japan to successfully develop halogen lamps, Ushio was referred to as the "trailblazer of domestic halogen lamps." At the time, rather than use halogen lamps as general lighting, we aimed to use them as a light source for scanning documents and a heat source for affixing toner within photocopying machines, which were becoming more technologically advanced. This expanded application of halogen lamps marked the first step toward realizing our mission of creating new markets by utilizing light not just as a source of illumination but also of energy, which we adopted at the time of our founding.



## **○ Horizontal Expansion of Technologies**













Innovation

Excimer Light Source Technology



Excimer Light Source for LCD and OLED Glass Cleaning (172nm)



In 1993, we developed the world's first excimer lamp, which enabled the emission of high-energy vacuum UV light by applying the light emission principle to plasma discharge. These lamps realized the non-contact removal of organic substances that became attached to LCD panels and semiconductors during the manufacturing process, which had previously been an extremely difficult task. Compared with conventional wet cleaning using water or chemicals, this non-contact removal via excimer lamp enabled cleaning that was over 10 times faster and more thorough while only requiring one-third of the power consumption.

Putting this excimer lamp to use, we went on to develop excimer lamps with peak wavelengths of 308nm in the UV range. We also internally leveloped excimer filters that removed wavelengths in which erythema redness of the skin) can easily occur. By applying this filter to these TheraBeam UV308® Series of UV Phototherapy Devices (308nm)



(222nm)

Care222, Far UV-C

disinfection technology



Series, UV phototherapy devices that enable effective treatment of autoimmune disorders in the dermatology domain, such as vitiligo and psoriasis. In these ways, we promoted the utilization of light in the Life Sciences domain. After the development of the TheraBeam UV308® Series, we pursued the combination of unique optical filters with excimer lamps that have peak wavelengths of 222nm. By doing so, we were able to develop Care222, a Far UV-C disinfection technology using 222nm excimer lamps combined with an optical filter, which blocks wavelengths above 230nm that can be potentially harmful to human skin and eyes. Through Care222, we aim to create a world without infectious diseases by enabling the use of UV rays, which are highly effective at reducing bacteria, in environments occupied by people.

Wide Color Gamut / High-output Light Sources



Optical Technologies



Light Modulation Technologies



Video Signal Processing
Technologies



**Digital Cinema Projectors** 



Digital cinema projectors require the widest possible color gamut and high-output light sources. As a specialist light manufacturer, Ushio boasts the highest worldwide share in the xenon lamp market and has been an industry leader in the adoption of RGB lasers that can efficiently extract only the required wavelengths. In addition to continuous enhancements to energy saving and light utilization efficiency, we are working to further improve the lifespan of our products. Our RGB laser projectors

also efficiently concentrate light from the light source and use a proprietary drive method starting from the video signal to enable smooth projection with depth. In addition, in order to prevent theft of video signal data through means such as copying, our systems protect the video signal data with encryption that requires a screening permission key to decrypt.

## **⊘** Technological Combinations













Innovation

High-Output UV Light Sources



Optical Technologies



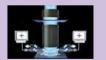
X Mate



Material Handling Technologies



Wafers and Substrate Control Technologies (Alignment Technologies)



Lithography Equipment



The lithography process, which involves the etching of circuit patterns, is an essential part of manufacturing the substrates and electrical components that are found in all kinds of electrical devices today. Our lithography equipment is actively being utilized in this process.

Our lithography equipment makes use of the solar simulator technologies that we first developed shortly after our founding. Specifically, this equipment is realized through the combination of technologies such as "high-output UV light sources," which we develop and manufacture

completely in-house; "optical technologies," which comprise mirrors and lenses that effectively concentrate light emitted from light sources and irradiate it in a highly uniform and parallel manner; "material handling equipment," which responds to irradiated materials (substrates); and "wafer and substrate control technologies," which align the light irradiation position to within an accuracy of several micrometers (roughly one-fiftieth the size of strand of hair).

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## Ushio's Value Creation Process

We aim to be a "light" solutions company that continues to create both social and economic value by resolving social issues through our unique light technologies.

(>) What Is a "Light" Solutions Company?

## Shared Targets

"Promote the use of light as illumination and energy to support human well-being and societal growth" as established in

## Concept

Provide light solutions focused on addressing social issues

### Business Model

Resolving the issues facing customers and society at large by providing comprehensive solutions, including not only hardware but also processes and services

### Understanding of Issues That Serves as the Starting Point for Capital Circulation and Value Creation By continuing a value creation cycle leveraging our five strengths, we will realize sustainable corporate value enhancement. Five Management Focuses INPUT OUTPUT OUTCOME **Financial Capital Customer Value** Social Value Unifying strategies and Develop into management emphasizing Creating reproducible solidarity Businesses with technology and Structural reform inventory **Greater Social** · Concentrated investment in growth create value Value Industry Group financing and infrastructure Semiconductor, FPD. Business Develonment Comfort / Convenience > 🕮 P.52 Identify and explore ways to olve social issue with light Entertainment, Promotion of digital trans-Manufactured Capital Industrial Medical. formation in society to Restructuring of supply chain management systems Five Strengths realize greater levels of **Processes** Environmental · Base consolidation for improving Developing Our production efficiency Health, etc. Diverse Talent for people around the world · Augmentation of production to Get Closer to capacity through utilization of Power to production bases Our Vision **Contribution to Customer** • Promotion of DX Robust Provide **Manufacturing Activities** Financial Base Light-based **Human Capital** > 🕮 P.62 Assistance for producing Solutions Global leader cultivation and high-performance semimindset reforms conductors (technical Cultivation of future Creating management candidates support for manufactur-**Excitement / Sharing** · Promotion of global employee Working ing compatible with IoT, Management education platform Supply of entertainment to Fostering of human capital with Global Customer 5G and 6G technologies) Where It Is Easy help preserve human backcasting capabilities Philosophy to Produce Contact Points Visual · Entrenchment of culture emphasizing dignity and thereby con-Results Power to diversity and inclusion (transition Increase in Added Value nect people around the **Imaging** from uniformity to individuality) Foundation for Control Light > 🕮 P.64 of Customers' Products world and help them share Value Provision Intellectual Capital and Services experiences and Combination of knowledge inspiration for resolving social issues

Power to

Retain Light

Collaborative Partnership

Offer proposals to

society in

collaboration with

our partners

 Provide total solution services that include not only hardware such as imaging equipment but also software

## Support for Customers **Creating New Services**

- Improvement in quality of life
- Contribution to improvements in environmental hygiene
- Reduction of environmental burden

convenience and comfort

"light" solutions company

## Vision

Become a

Vision for 2030

A True "Light"

**Solutions** 

Company

Mission

Promote the use of light as

illumination and energy to

support human well-being

and societal growth

## Innovation through outside-

Social and Relationship

· Introduction of platform aimed at

reintegrating knowledge to address

social issues

Capital

in approach made possible by relationships with customers and society

- · Enhancement of partnerships
- · Reinforcement of brand power

### **Natural Capital**

Environmentally and socially conscious raw material

· Use of renewable energy

Building a Management

Sustainably

Reducina

**Environmental** Impact

> 🕮 P.66

> 🕮 P.70

Life Sciences

## Safety / Reassurance

Contribution to overcoming future social issues to help realize a safer, more reassured, and healthier society

## Five Management Focuses—Important Issues for ESG Management

Ushio promotes ESG management in order to realize its management policy alongside the aim of achieving the shared goal to "support human well-being and societal growth."

In order to realize our Vision to become a "light" solutions company that resolves the issues facing society,

Ushio has been implementing its Five Management Focuses, centered on ESG management, and has been promoting a balanced management approach that address each of these focuses.

## Identification Process of Five Management Focuses



Identifying candidate themes for key issues

We investigated media, publicly-disclosed sustainability information, and expert reports. At the same time, we examined the medium- to longterm direction of our management.



Evaluating and mapping out level of importance (order of priority)

We evaluated the importance level of items pertaining to our businesses and mapped these items out based on business and social relevance.



**Evaluating appropriateness** 

We held meetings with external experts to verify our management direction and identified focus points that matched with the expectations of our external stakeholders



 $\vee$ 

Promoting internal approval procedures

The Corporate Strategy Meeting and Board of Directors held discussions on the Five Management Focuses and relevant KPIs and approved them accordingly.

## Five Management Focuses





Creating Businesses with Greater Social Value







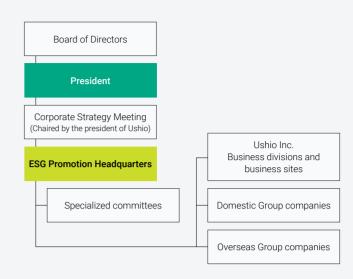
Creating Working Environments Where It Is Easy to Produce Results



We have established the Corporate Strategy Meeting, chaired by representative director and president of Ushio Inc., which comprises directors, executive officers, and other members of management. The Corporate Strategy Meeting determines the details and direction of initiatives toward ESG management. In accordance with said determined direction, the ESG Promotion Headquarters, which fulfills an alignment function between management and the front lines, develops relevant plans and measures in collaboration with each business division, business site, and Group company, and works to promote and instill ESG management within Ushio Group

Promotion Structure for the Five Management Focuses

In addition, we disseminate and share relevant information internally through individual committees, which share the sustainability initiatives of each specialized committee and business site. Major ESG-related issues are also reported to the Board of Directors.



### Column



## Tetsuo Nakano

Director Managing Executive Officer



## **ESG Promotion Headquarters Initiatives**

In a highly uncertain business environment, corporations are now required to transition from a management approach that solely emphasizes profits to one that generates both economic and social value. Ushio has its business, and we aim to be a company that is chosen by institutional investors who have a high level of interest in ESG investment and similar areas.

- 1. Enhanced engagement: In terms of internal engagement, we conducted analysis based on engagement engagement) in order to visualize the characteristics of Ushio as a whole and individual departments, then tion. With regards to external engagement, we have positioned FTSE, an ESG investment index, as our top on our unique perspective on the relationship between FTSE scores and market expectations, and started working to improve our evaluation results.
- 2. Understanding of strategies: In consideration of the results of our engagement survey, President Koji Naito carried out visits to all business sites of Ushio Inc. and Group companies in Japan as an opportunity to engage in dialogue. In fiscal 2023, he is carrying out similar visits to overseas Group companies. This is also being extended to dialogue on a business division and headquarter level throughout Ushio. Furthermore, in addition to holding ESG management briefing sessions and distributing ESG concept videos to all Group
- 3. Future-oriented initiatives: In addition to continuing to work with the Business Creation Division to analyze initiatives and make recommendations from an ESG perspective, we conduct analysis based on megatrends long-term perspective, and will continue to examine and make proposals for areas of future growth.

Under our medium- to long-term ESG plan, fiscal 2023 is the first year of the period for instilling the 2nd Medium-Term Management Plan across the Company (fiscal 2023 to fiscal 2025). In collaboration with all Group companies, we will advance activities leading to the realization of Vision 2030 and enhanced corporate value. In line with this, we have changed the icon of the ESG Promotion Headquarters' slogan "With!" based on our consciousness of building connections on a global scale.



> 🕮 P.66



**Building a Robust Management Base** 

Sustainably Reducing Environmental Impact

> 🕮 P.70

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## List of Five Management Focuses, Key Challenges, and Goals

Ushio has established its Five Management Focuses. These represent important issues for the Company to address on a daily basis in order to improve its value as a corporation by working to resolve social issues over the long term. Using a backcasting method, which involves establishing a future vision and thinking in reverse on how to achieve that vision, we determined KPIs with a focus on 2030 and are steadily promoting initiatives toward their achievement.

	Five Management Focuses	Economic Value Connection	Vision for FY2030	Key Performance Indices for FY2025	Initiatives for FY2023 to FY2025
TY E S G	Creating Businesses with Greater Social Value  We believe our mission is to put the light technologies we have cultivated as a "light innovation company" to use in resolving the issues facing society in the future.	<ul> <li>Expand revenue and earnings by creating new businesses</li> </ul>	<ul> <li>Create businesses that address the social issues of climate change countermeasures, food initiatives, healthy life expectancy extension, and realizing DX</li> </ul>	• R&D structure that constantly generates new value, with some themes on track for commercialization	Enhancement and acceleration of business creation actions, including selection and concentration
	Developing Our Diverse Talent to Get Closer to Our Vision  We establish and provide enhanced human capital development programs in order to support the individual growth of our employees. By doing so, we aim to develop our talent on a Group-wide basis with the goal of getting closer to our Vision.	Bolster talent to create new value that generates profits and accelerates growth strategies	<ul> <li>Practice Group management with diverse personnel who can contribute to the achievement of Vision 2030 and provide systematic training opportunities for further development</li> <li>Realize global mobility and enable borderless employee activity through human capital management</li> </ul>	<ul> <li>Human capital bolstered, with focus on global / technical / managerial literacy capabilities</li> <li>Human capital identified through talent map that meets business needs, with rational management system in place</li> </ul>	Promotion of selective human capital development through the Global Human Capital Committee (GHCC) and Human Capital Development Committee Promotion of personnel exchanges within the Group Expansion of the scope of identification of Group management personnel through the creation of the Global Mobility Section (building a Group-wide network responsible for human capital)
<b>S G</b>	Creating Working Environments Where It Is Easy to Produce Results  To realize our Management Philosophy and achieve Vision 2030, we aim to be a highly engaged organization that embraces contributions from and the development of both the Company and its employees	<ul> <li>Provide attractive workplaces and work practices for diverse personnel to boost engagement and productivity</li> </ul>	<ul> <li>Build a corporate culture of mutual respect that embraces diversity</li> <li>Implement health and productivity management that enables employees to be physically and mentally healthy and enjoy their work</li> <li>Achieve high engagement levels that enable the Company and employees to grow together</li> </ul>	<ul> <li>Proportion of women in managerial positions: 15% and 10% on consolidated and non-consolidated bases, respectively</li> <li>Employee engagement score up 10 percentage points from FY2022</li> </ul>	More active participation by female employees and employees with disabilities     Continuous initiatives for wide-ranging workplace environment improvements     Consideration and provision of attractive working condition (harassment education, compensation system, etc.)
<b>4 8 8 9 1 1 1 1 1 1 1 1 1 1</b>	Sustainably Reducing Environmental Impact  From a long-term perspective, we will pursue efforts to reduce our environmental burden, including within the supply chain.	<ul> <li>Strengthen deployment of green products that reduce environmental impact</li> <li>Maintain and expand corporate value through fulfillment of corporate social responsibilities</li> </ul>	<ul> <li>Establish a resource circulation model and a model for coexistence with nature, based on promoting biodiversity conservation activities</li> <li>Resolve social issues by cutting greenhouse gas (GHG) emissions across the value chain</li> <li>Offer products and services that lower environmental impact</li> </ul>	Reductions of in-house GHG (Scope 1 and 2) emissions: At least 30% from FY2017 level  Reductions of GHG emissions (Scope 3 cat. 11) from company's products: At least 30% from FY2017 levels  Measuring and conveying benefits of products helping shrink customers' environmental footprints	Systematic introduction of renewable energy (Scope 1 and Effective utilization of water resources  Development of products that contribute to reducing environmental impact in society (reducing GHG emissions, reuse/recycling, effective utilization of water resources, reducing use of chemical substances, etc.)  Promotion of efforts to extend the lifespan, improve the efficiency and reduce the power consumption of products
<b>5 E</b> S <b>G</b>	Building a Robust Management Base  We will work to establish a robust management foundation, which will in turn underpin the four other focus points of management.	Establish a stable revenue base     Safeguard corporate value	<ul> <li>Visualize and achieve management, business, and employee goals</li> <li>Manage business portfolio through timely efforts to identify management resources</li> <li>Clarify business risks and deploy Group-wide risk responses</li> <li>Create a corporate culture and framework for respecting human rights across the value chain</li> <li>Reinforce and deepen governance</li> </ul>	<ul> <li>Starting Group-wide activities to respond to social demands and earning recognition from external evaluation organizations and stakeholders through appropriate disclosure of information</li> </ul>	Establishment of KPI management     Construction of a global risk management system     Enhancement of measures to prevent bribery and corruption

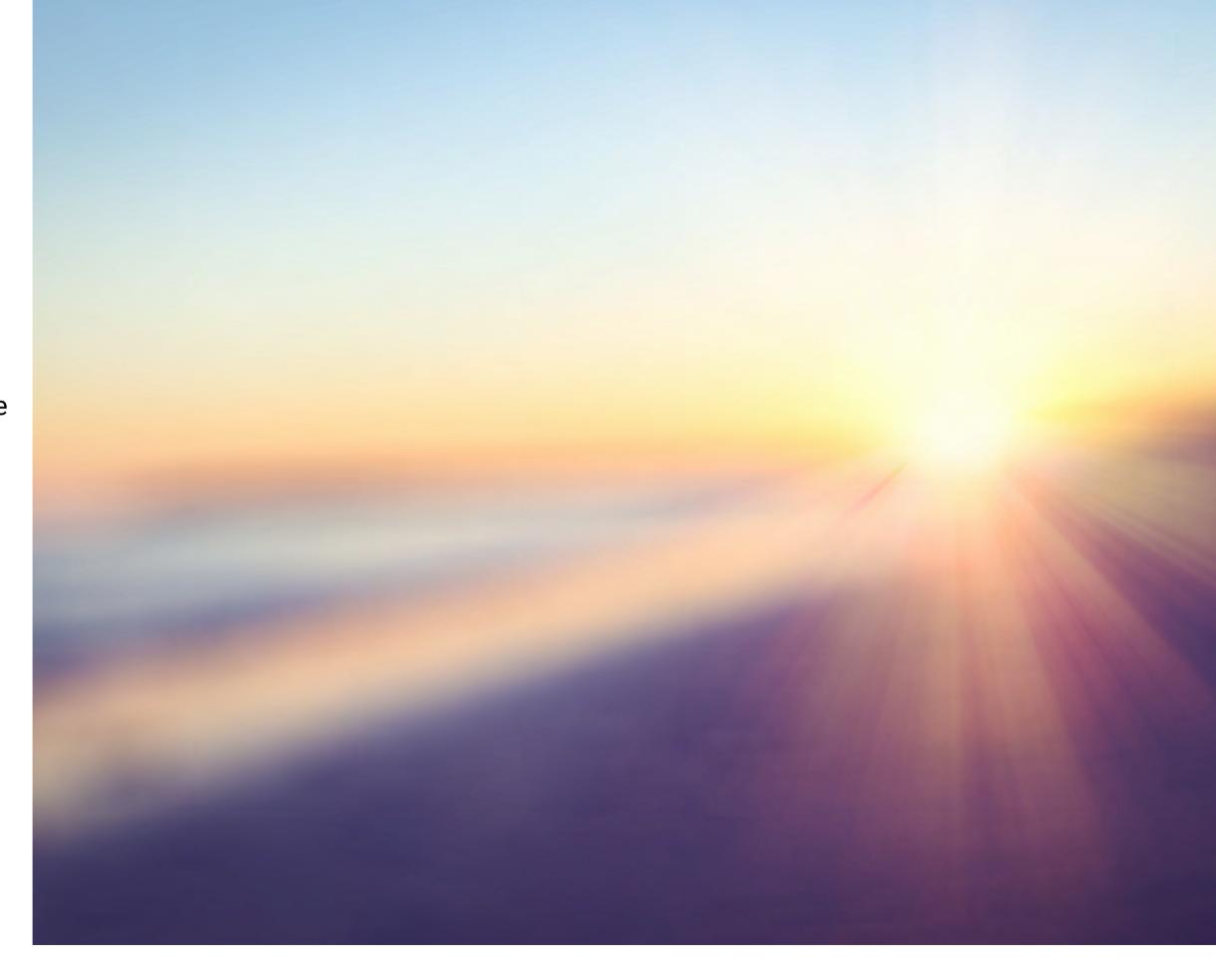
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## Advancing to a New Stage

Our Strategies

After reforming its structure, Ushio has embarked on the next stage of its journey under a new Medium-Term Management Plan.

Focused on realizing Vision 2030, we will cultivate growth on the road to enhancing economic value by expanding social value.



## **Long-Term Vision**

## Vision 2030

We formulated a new Medium-Term Management Plan to serve as a road map toward accomplishing our long-term Vision for 2030. This plan comprises three pillars—management policies, shifts in approach, and changes in mindsets. Also, in order to realize Vision 2030, we have defined priority issues related to ESG management; Five Management Focuses and KPI targets in relation to these objectives.

We are pursuing the concept of ESG management to contribute to society and fulfill our corporate social responsibility as stated in the Ushio Group Management Philosophy.

## Vision 2030

Promote the use of light as illumination and energy to support human well-being and societal growth

Vision

## Become a "light" solutions company

Grow the economic value of Ushio by expanding social value



Industrial Processes

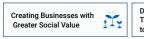


Visual Imaging



## Management Policies





Developing Our Diverse Talent to Get Closer to Our Vision Creating Working
Environments Where It Is
Easy to Produce Results

Sustainably Reducing Environmental Impac

Building a Robust Management Bas

Transition to Solidarity-Based Rempo Management

Overview of Rempo Management
Independence for individual optimization
Solidarity for overall optimization

lidarity for overall optimization

Ushio Inc. Subsidiary Subsidiary B

Independent Rempo Management

Prior to 1st Medium-Term
Previous Rempo Management Plan
Management (Fiscal 2020 to 2022)

## Concurrent independence and solidarity

Independence and Solidarity

 Pursue organizational targets separately based on a common foundation

## Individual optimization: Independence > Solidarity

- Each company deploys individual measures and is not linked
- PDCA (monitoring) implemented for each company separately

### Shifts in Approach

## Past to Present

Amid the rapidly growing and changing operating environment that began in the 1990s, Ushio achieved massive improvements in its profit margins by practicing Rempo management designed to facilitate flexible action by subsidiaries. However, the Company's profit margins took a downturn after the 2008 financial crisis, and our profit margins today are lower than those seen prior to the start of Rempo management. We proceeded to conduct M&A activities in the 2000s while steadily globalizing our operations and entering new markets. However, these efforts failed to halt the decline in profit margins, and M&A activities have yet to catalyze a change in the overall trends affecting the Company.

## Present to Future

We will adopt a strategic perspective in efforts to optimize Groupwide performance. We have thus decided that our new approach toward Rempo management should focus on multiplicative management to strengthen solidarity and spur non-linear evolution.

New Rempo Management 

multiplicative management

Enhance solidarity for non-linear evolution

## Rempo Management to Aim for

(Targets)

## Overall optimization: Independence < Solidarity

- Aim for unified targets for the entire Group
- Overall understanding across businesses
- Unify PDCA (monitoring)

## Changes in Mindsets

## Past to Present

Short-term perspective, forecasting, customer-oriented perspective, inside-out approach, positioning of CSR as a cost



## **Present to Future**

## **Five Mindsets Changes and Concrete Measures**

### Long-term perspective

Identify future risks and opportunities from management perspective

## Backcasting

Formulation of new value-creation narrative based on Sustainable Development Goals (SDGs)

## Social impact projection

Identification of material issues with consideration of outside perspectives and discussions with experts

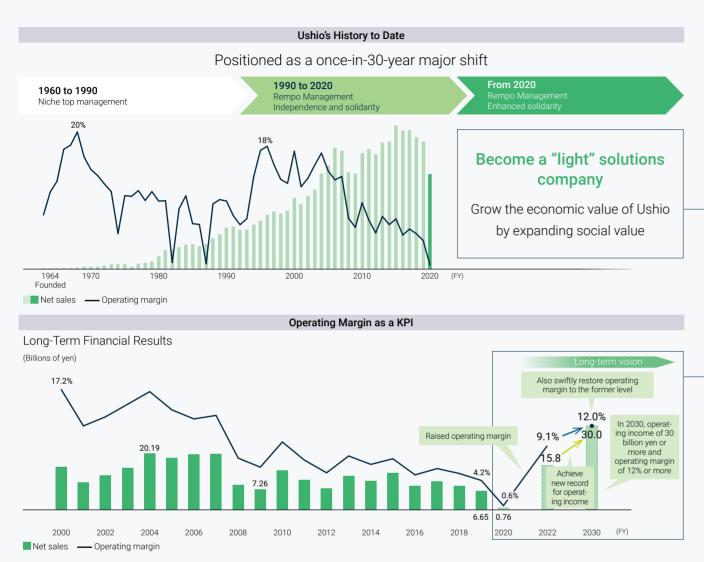
## Outside-in approach

Establishment of strategies and revision of portfolios with eye to 2030

### Positioning of ESG as an opportunity

Establishment of new value creation narrative and ESG plan

## Long-Term Vision



## Short- to Medium-Term Growth Drivers

Expanding Demand for Semiconductors and Other Equipment and Contributing to Technological Advancements

With the advent of the big data era, which has come alongside the progression of innovations such as AI, 5G, and IoT, demand for data center servers and other technologies is rising, and progress is being made with new technological development in the semiconductor package substrate market. Against this backdrop, our large field steppers for cutting-edge IC package substrates and direct imaging lithography equipment, which contribute to this kind of technological development, have seen steady sales growth. In addition, the application of our EUV lithography process, a type of next-generation semiconductor technology, is increasing, and we have been working on businesses that provide EUV light sources for photomask inspection and related maintenance services that make use of this process. Going forward, we will continue to contribute to the advancement of cutting-edge semiconductor technologies. In addition, our UV lamps for lithography, which are used in the manufacturing process of semiconductors and other equipment, have achieved robust sales due to the increase in semiconductor demand.

In imaging-related fields, our business performance has been recovering due to the declining impact of the COVID-19 pandemic. Going forward, we expect to see expanded sales of imaging related equipment due to growing demand for projector replacement at movie theaters and applications at live events, amusement parks, and other commercial facilities.



Large field stepper for cutting-edge IC package substrates



Digital cinema projector

## Working to Realize Vision 2030

With Vision 2030, we aim to be a true "light" solutions company, and strive to achieve our goals through numerical targets and using a backcasting approach to draw a clear path forward. The 1st Medium-Term Management Plan was a period for reforming the structure. We shifted to solidarity-based Rempo management, moved forward with structural reform and established a robust profit structure. We have positioned the 2nd Medium-Term Management Plan as a time to cultivate growth, and we will build a structure to provide light solutions and overhaul our business portfolio by expanding growth businesses, revitalizing rebuilding businesses and cultivating new businesses. We also plan to expand strategic investments with the aim of helping us to achieve these aims. The period covered by the 3rd Medium-Term Management Plan is positioned as a time for us to deliver results based on the measures taken through the first and second plans.



## Medium-Term Growth Drivers

Developing New Applications for Light Alongside the Continuous Growth in Demand for Semiconductors and Other Equipment

We believe that demand for semiconductors and other electronics will continue to grow going forward, and, as such, we will strive to grow semiconductor-related businesses in a sustainable manner. At the same time, in terms of a new growth driver, we aim to expand the thermal processing business. > P.61 This business offers us a new opportunity to leverage our light technologies, with a focus on the heating process within semiconductor manufacturing. In addition, we will

strive to expand the application of products equipped with Care 222, a technology that uses UV light to realize disinfection in environments occupied by people, from their existing application in building infrastructure to application as a medical device. In this manner, we will promote these products as a new growth driver over the medium-to long-term.



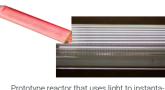
Light source for thermal

## > Long-Term Growth Drivers

Helping Resolve More Future-Oriented Social Issues through **Our Light Technologies** 

In conjunction with growth in electronics-related markets, we aim to build a business profit foundation that is even more stable by establishing not just hardware businesses but also service and maintenance businesses. In addition, we will set our sights on social issues shared throughout the globe, such as climate change countermeasures, food

initiatives, and healthy life expectancy extension, in a bid to establish new businesses that use our light technologies to resolve more future-oriented social issues. We will then work to leverage such businesses as new growth drivers.



neously decompose low-concentration N2O

>**₾** P.54-55

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## Medium-Term Management Plan

Medium-Term Management Plan

1st Medium-Term Management Plan (Fiscal 2020-2022) Results



## Reattempting to Solidify the Foundation for Profit Structure Transformation Over Three Years

2020 was the first year of the 1st Medium-Term Management Plan and came in the midst of COVID-19, which had a major impact on economic activity around the world. Under these circumstances, we incorporated three types of strategies—defensive, proactive, and unifying strategies—into each of our business strategies, and worked to transform our profit structure.

	Defensive strategies	Proactive strategies
Business strategy 1 Light Source Business strategies	Deploy fundamental structural reforms	Develop post-pandemic market
Business strategy 2 Equipment Business strategies	Imaging equipment Maintain and reinforce structural reforms	Optical equipment Cultivate and invest intensively in growth businesses
Business strategies  Creation Business strategies	Identify and launch new businesses	Identify and launch new businesses
Unifying strategy Optimize ov	/erall performance (Allocate funds efficiently to o	ptimize overall performance)

## Results

We succeeded in reaching required targets and completing the solidification of the foundation for profit structure transformation.

	FY2022 results	Comparison with required targets	FY2022 targets (required-ambitious
Net sales	¥175.0 billion	+¥5.0 billion	¥170-190 billion
Operating profit	¥15.8 billion	+¥1.8 billion	¥14-19 billion
Operating margin	9.1%	+1.1 points	More than 8% to more than 10%

## Results by Business Division

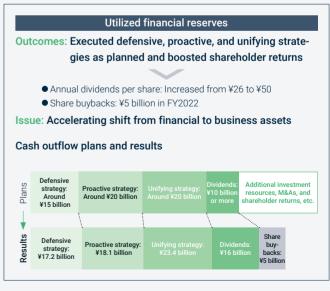
In the results for each business division, Imaging Equipment fell short of required targets as a result of being unable to mitigate unexpected difficulties in procuring parts. In the Light Source and Optical Equipment businesses, although some issues remained to be addressed, we achieved our ambitious targets through the steady implementation of various measures.

Business segments		FY2019 results	FY2022 targets (required - ambitious)	FY2022 results	Results and issues
Light	Sales	¥58.5 billion	¥56-66 billion	¥61.8 billion	Operating margin: Reached ambitious targets Results: Undertook structural reforms (3.7 billion yen vs. planned
Source Business	Operating	10.00/	10.7-12.1%	146.	<ol> <li>3.5 billion yen) to change earnings structure, enhancing the statements of income</li> </ol>
Dusiness	margin	10.3%	10.7-12.1%	14.6%	Issues: Fell short of targets with Care222 in the new environmental hygiene field and solid-state light sources
	Sales	V26 1 billion	¥56-60 billion	vE7 7	Operating margin: Reached ambitious targets
Equipment	Sales	#30.1 DIIIIOI1	#30-00 DIIIIOI1	¥37.7 billion	Results: Steadily captured demand during market expansion period
Business Optical Equipment	Operating margin	-1.5%	8.9-11.7%	12.4%	for promising lithography equipment Demonstrated effectiveness of measures undertaken under previous medium-term management plan to enhanc earnings structure
	margin				Issues: Promising EUV light source business entered demand adjustment phase, performing below par
Equipment	Sales	V60 0 hillion	VE1_60 billion	vE1 2	Operating margin: Failed to reach required targets
Business	Sales	‡UU.O DIIIIOII	¥54-60 billion	¥31.3 billion	Results: Reduced fixed costs by steadily implementing structural reforms (2.8 billion yen vs. planned 2.0 billion yen)
Imaging Equipment	Operating margin	1.4%	5.6-6.7%	-1.3%	Issues: Failed to improve profitability, as inability to constrain parts procure- ment difficulties offset steps to enhance operating efficiency

## 

The objectives of the 1st Medium-Term Plan have been achieved, and we will continue to strengthen overall performance under the new system.





**Next: Cultivate growth** 

## Medium-Term Management Plan

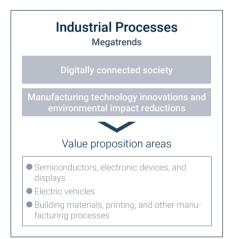
Medium-Term Management Plan

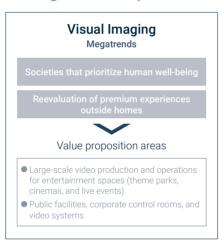
2<sup>nd</sup> Medium-Term Management Plan (FY2023–2025) Basic policy: "Cultivate growth"

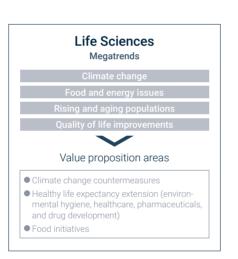




## Value Provision Areas and Megatrends up to 2030

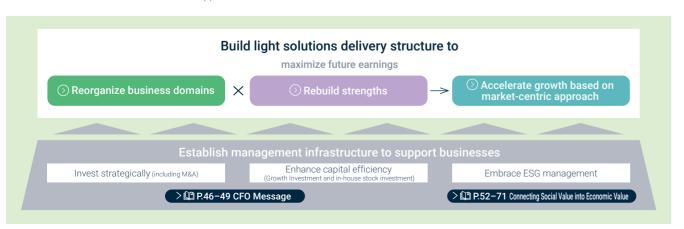


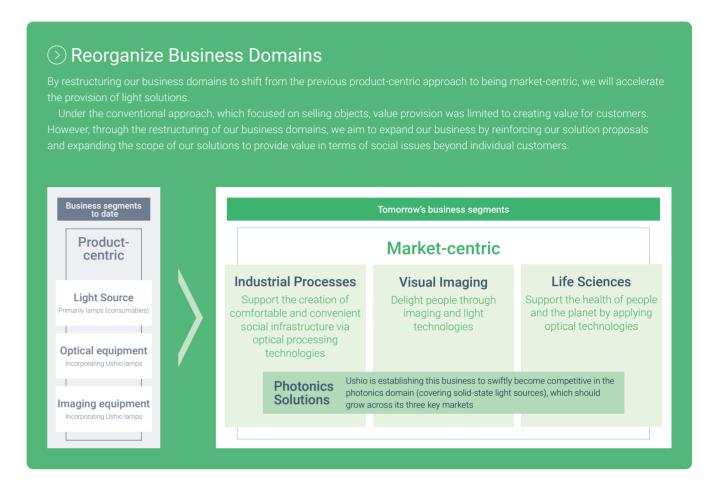


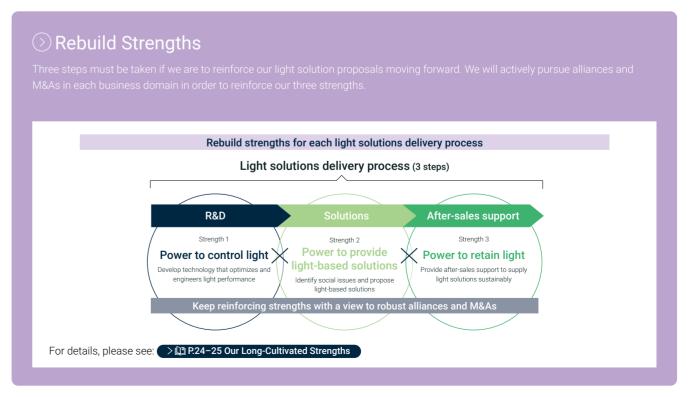


## (>) Basic Policies

Our basic policy is based on three years of cultivating growth with the aim of evolving into a true "light" solutions company. We will reorganize our business domains and rebuild our strengths in order to build a structure to provide light solutions and accelerate the growth of new business domains based on a market-centric approach.



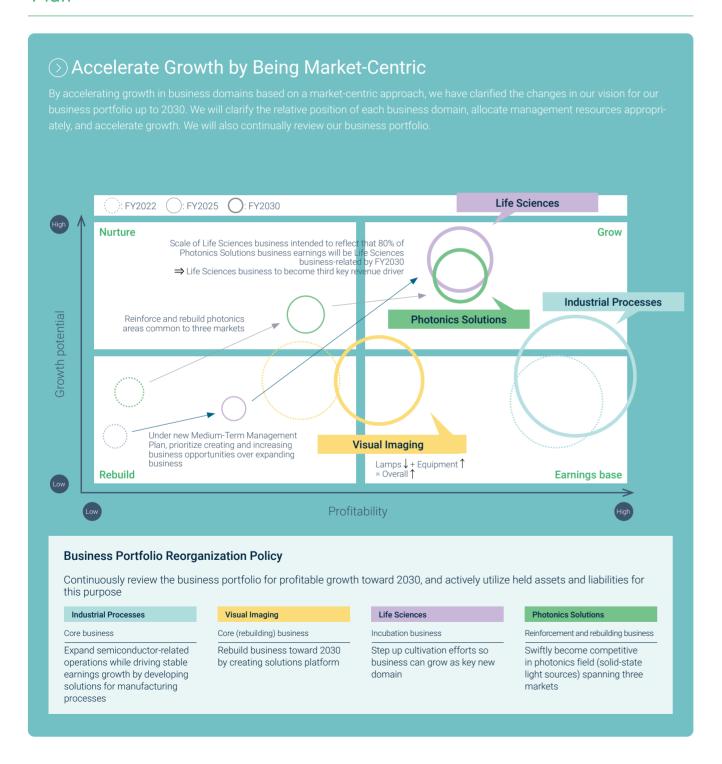




## Medium-Term Management Plan

Medium-Term Management Plan

2<sup>nd</sup> Medium-Term Management Plan (FY2023-2025) Basic policy: "Cultivate growth"



## (S) Business Strategy Snapshot

Following the business domain restructuring, the targets and strategic points for each business domain to aim for by 2025 are as follows.

	Core business	Core (rebuilding) business	Incubation business	
	Industrial Processes	Visual Imaging	Life Sciences	
FY2025 targets	Sales ¥105.0 billion Operating profit* ¥17.5 billion Operating margin* 16.7%	Sales ¥91.5 billion Operating profit* ¥3.0 billion Operating margin* 3.3%	Sales ¥5.5 billion Operating loss* -¥1.0 billion Operating margin* -18.2%	
Key strategic points	Maintain competitive edge in growth-driving semiconductor and electronic device areas     Innovate manufacturing processes, focusing on heating, surface treatment, and modifications, and expand applications to cut environmental impact	<ul> <li>Swiftly establish structures to provide solutions that meet market needs by efficiently integrating core technologies</li> <li>Strengthen supply chain management</li> </ul>	Create new businesses that generate long-term solutions to social issues     Secure core competencies and sales channels to drive inorganic growth	

Reinforcement and rebuilding business	Sales	¥14.5 billion	• Swiftly establish niche top positions
<b>Photonics Solutions</b>	Operating profit* Operating margin*	¥1.0 billion 6.9%	<ul> <li>Quickly reach critical masses in module and device businesses</li> </ul>

<sup>\*</sup> Operating profit and operating margin targets exclude new goodwill amortization.

For details, please see: > 1 P.74-85 Creating New Markets with "Light"

## Numerical Targets

-Making EBITDA key performance indicator in view of expended investments, including through M&As-

	FY2022 results	FY2025 targets	FY2030 targets
Net sales	¥175.0 billion	¥220.0 billion	¥250.0 billion
Operating profit*1	¥15.8 billion	¥21.0 billion	¥30.0 billion
Operating margin*1	9.1%	9.5%	12% or more
EBITDA*2	¥23.6 billion	¥30.0 billion	39.0 billion
EBITDA margin	13.5%	13.6%	¥15.6%
R0E*1	5.7%	8% or more	10% or more
Cash conversion cycle	6.6 months	5.2 months	-
Equity ratio	75.4%	60% or more	_

## **CFO Message**

Aiming to further enhance corporate value through steady capital efficiency enhancement and appropriate expansion of strategic investments

Profile

## Takabumi Asahi

Director Managing Executive Officer Chief Financial Officer General Manager, Corporate Headquarters Ushio Inc



## Reaching Required Targets and Nearing Completion of Our Reattempt to Solidify Our Foundation for Profit Structure Transformation

the Ushio Group has implemented various measures in line with a basic policy of working to achieve its goals by solidifying its foundation for profit structure transformation through its defensive, proactive, and unifying strategies. As a result, we achieved an operating margin, the most important KPI, of 9.1% in fiscal 2022, exceeding the required target of 8%. This is a 4.9-point increase compared to the 4.2% operating margin in fiscal 2019, the year before the 1st Medium-Term Management Plan came into effect, which shows we have been able to steadily increase profitability as we shifted to a more robust structure. Through the structural reform action plans under our defensive strategies, which are specific measures for profit structure transformation, we reduced fixed costs by ¥7 billion, exceeding the original plan by ¥1 billion. The effect of revenue

increases due to the growth of promising products is one of the action plans under our proactive strategies, and while issues remained with regards to some products, we were able to produce results beyond our initial plans though efforts such as expanding sales of large-field steppers for cutting-edge IC package substrates. With regard to our unifying strategies, we have steadily implemented measures aimed at overall optimization, including minimizing the impact of COVID-19 and promoting ESG management. We were also able to implement various strategies and boost shareholder returns by utilizing financial reserves. This shows that we have largely achieved the objectives of the 1st Medium-Term Management Plan, and we will build on these results as we shift to initiatives under the 2nd Medium-Term Management Plan (fiscal 2023 to 2025) with the aim of achieving our Vision 2030









## The 2<sup>nd</sup> Medium-Term Management Plan: A Three-year Plan for Cultivating Growth to Achieve Our Vision 2030

The 2<sup>nd</sup> Medium-Term Management Plan (fiscal 2023 to 2025) was announced in May 2023. Under this plan, we established a basic policy of cultivating growth toward the realization of our Vision 2030. In response to global megatrends, Ushio will accelerate and expand its provision of light solutions in fields of value provision and continue to grow its economic value. To do this, we will reorganize our business domains, rebuild our strengths and accelerate growth based on a market centric approach with the aim of cultivating growth under the 2<sup>nd</sup> Medium-Term Management Plan.

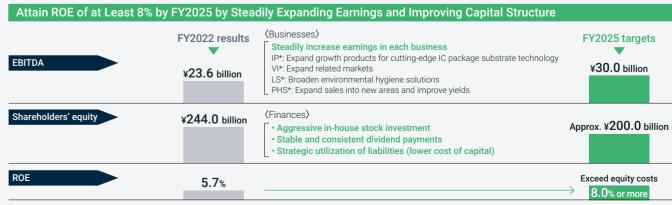
In concrete terms, we will promote strategic investment in growth domains, which are essential for future growth, and invest in human capital to enhance productivity, while working to enhance capital efficiency at the same time. In addition to setting out a specific ROE improvement road map, we are also implementing major capital allocations for in-house stock investment and growth investment. For this reason, we adopted EBITDA, which accounts for M&A and other increases in investment, as our most important KPI under the  $2^{nd}$  Medium-Term Management Plan. For fiscal 2025, the final year of the  $2^{nd}$  Medium-Term Management Plan, we set targets of an EBITDA of  $4^{nd}$  War Management Plan, we set targets of an EBITDA of  $4^{nd}$  Medium-Term Management Plan, we set targets of an EBITDA of  $4^{nd}$  Medium-Term Management Plan, we set targets of an EBITDA of  $4^{nd}$  Medium-Term Management Plan, we set targets of an EBITDA of  $4^{nd}$  Medium-Term Management Plan, we set targets of an EBITDA of  $4^{nd}$  Medium-Term Management Plan, we set targets of an EBITDA of  $4^{nd}$  Medium-Term Management Plan, we set targets of an EBITDA of  $4^{nd}$  Subject of  $4^{nd}$  Medium-Term Management Plan, we set targets of an EBITDA of  $4^{nd}$  Subject of  $4^{nd}$  Medium-Term Management Plan, we set targets of an EBITDA of  $4^{nd}$  Subject of  $4^{nd}$  And  $4^{nd}$  Subject of  $4^{nd}$  Subject of

## Setting Out an ROE Improvement Road Map and Working to Steadily Enhance Capital Efficiency

Under the 2<sup>nd</sup> Medium-Term Management Plan, we will take the results of the 1<sup>st</sup> Medium-Term Management Plan on board as we take on the long-standing challenges of improving ROE and having PBR below 1.0 through steady improvements based on strengthening our two-pronged approach of lifting ROE and fully embracing ESG management. In terms of lifting ROE during the period covered by the 2<sup>nd</sup> Medium-Term Management Plan with the aim of realizing PBR exceeding 1.0, we aim to attain an ROE of at least 8%, exceeding capital costs, by the end of fiscal 2025, the final year of the plan, by steadily expanding earnings and improving the capital structure. We then aim to achieve ROE of at least 10% by fiscal 2030. With regards to earnings growth, we are working to increase EBITDA from ¥23.6 billion in fiscal 2022 to ¥30 billion by fiscal 2025 by reorganizing our business domains and rebuilding our strengths. We have

also adopted a policy of reducing shareholders' equity from ¥244 billion at the end of fiscal 2022 to approximately ¥200 billion by the end of fiscal 2025. This will be implemented through aggressive inhouse stock investment and stable, consistent dividend payments—and a frame of ¥70 billion to ¥90 billion for in-house stock investment and dividends over three years has been set. In tandem with this, we will also work to reduce capital costs through strategic utilization of liabilities.

The cash inflows (the total of operating cash flow, asset sales and interest-bearing debt) obtained during the period covered by the  $2^{nd}$  Medium-Term Management Plan are on a scale in excess of ¥100 billion, and we will be bold in allocating this to growth investment and in-house stock investments in order to steadily enhance capital efficiency.



<sup>\*</sup> IP: Industrial Processes VI: Visual Imaging LS: Life Sciences PHS: Photonics Solutions

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### CFO Message

## Endeavor to Enhance Capital Efficiency through Major Allocations for In-House Stock Investment and Growth Investment

## **Cash Generation** Operating cash flow under medium-term management plan: ¥60 billion over three years Asset sales: ¥15-20 billion Asset sales: ¥15-20 hillion ¥40 billion + α (lower cost of capital) Interest-bearing debt usages

	Capital Allocations
• Strategic investments: ¥40 billion+	Growth investments (including M&A): ¥40 billion + $\alpha$
● Financial ground	Equity ratio: At least 60%
<ul><li>• In-house stock investment +</li></ul>	Stable dividends
dividends: Around ¥70-90 billion over three years	<ul> <li>Undertake in-house stock investment aggressively, factoring in business performance and financial position (resolved to set aside ¥30 billion for share repurchases in the first fiscal year)</li> </ul>

## Target ROE of at least 8% by FY2025

## Cash inflows

Interest-bearing

debt

¥40.0 billion + a

¥15.0-

Operating cash

flow under Medium-Term

Management

Plan

¥60.0 billion

investments 40.0 billion + o

> ¥70.0-90.0 billion

## Cash outflows

## Strategic Investments

Growth Investment

M&A Policy

R&D

- Build core system to underpin consolidated management
- Bolster production capacity by catering to rising demand for large field stepper for cutting-edge IC package substrates

Invest Strategically in Areas with Growth Potential and Invest in Human Capital to Enhance Productivity

- IP\*: Reinforce and expand existing business and restructure industry
- VI\*: Partnerships needed to build one-stop solutions structure
- LS\*: Strengthen and expand existing and creation businesses
- PHS\*: Reinforce and expand business by investing in companies in same industry offering synergies

Investments

- Undertake advanced development in projection and direct imaging lithography
- Invest in development to broaden EUV light source adoption over medium and long terms
- Develop new solid-state light sources for niche markets
- Develop new products from long term perspectives for 2030 target fields in Life Sciences business

¥17.0 billion (Total over three years)

**Growth investments** 

(Including through M&A)

40.0 billion + a

(Total over three years)

¥46.0 billion

(Total over three years)

¥14 hillion increase from previous

Medium-Term Management Plan



- Secure people to rebuild Group-wide sales, development, and service
- Develop talent and deploy new systems to accelerate diversity and
- Review salary levels to attract talented individuals
- \* IP: Industrial Processes VI: Visual Imaging LS: Life Sciences PHS: Photonics Solutions

## **Enhancing Corporate Accounting Sophistication to Ensure the** Realization of Our Vision 2030

Through this 2<sup>nd</sup> Medium-Term Management Plan, we will implement business strategies and advance financial strategies on an unprecedented scale in order to achieve PBR exceeding 1.0 and further enhance corporate value. During the period of the 1st Medium-Term Management Plan, business performance was affected by unexpected events such as COVID-19, component shortages and the soaring price of materials and logistics, and other unexpected changes in the business environment may also occur in the future.

We will aim to minimize the impact of these uncertain risks through enhanced monitoring and governance that enables early detection and implementation of countermeasures while also working to achieve an ROE of 8% or more, which is our target for fiscal 2025, the final year of the 2<sup>nd</sup> Medium-term Management Plan. From a medium- to long-term perspective, we will carry out and

monitor strategic investments to increase the certainty of achieving an operating margin of at least 12% and an ROE of 10% or higher in order to realize our Vision 2030 while also working to optimize our business portfolio.

Moving forward, we will introduce ROIC as an evaluation indicator for this purpose, and will also move forward with the sophistication of our internal corporate accounting.

As CFO, I will promote management strategies and finance and capital strategies in an integrated manner, and engage in active dialogue with our shareholders and other investors, thereby fulfilling the responsibilities of my role.

I would like to ask our stakeholders for their continued support going forward.

## **Expanding Strategic Investments to Achieve Our Ideal Future Portfolio**

In the 2<sup>nd</sup> Medium-Term Management Plan, in addition to establishing our vision for our business portfolio in 2030, we have shifted our business domains along market lines and clarified our positioning and strategy for each new business domain in order to achieve our vision. In the future, we will make strategic investments appropriate to the positioning and issues relevant to each business domain as we move forward toward realizing our vision for each business domain by 2030.

Our plan includes at least ¥40 billion of growth investment, including M&A, during the three years covered by the 2<sup>nd</sup> Medium-Term Management Plan. In addition to bolstering production capacity in semiconductor-related fields, where growth is expected, we will continue to expand investment in line with M&A policies in each business domain. We also plan to invest ¥46 billion in R&D over those three years, an increase of ¥14 billion from the period covered

by the 1st Medium-Term Management Plan. In particular, we will increase investment in next-generation product development, including large-field steppers for cutting-edge IC package substrates and direct imaging lithography equipment, for which market expansion is expected, and expand investment in development to broaden mediumto long-term EUV light source adoption. We are also promoting business creation and new product development for medium- to long-term expansion in the Life Sciences business, which is a new business domain. Furthermore, given that new value creation is necessary for future growth, we must secure talented employees while also attracting new talented individuals, developing globalminded talent and bolstering talent with diverse academic and technical backgrounds, together with management literacy. We have set a frame of ¥17 billion over three years for this investment in human capital.

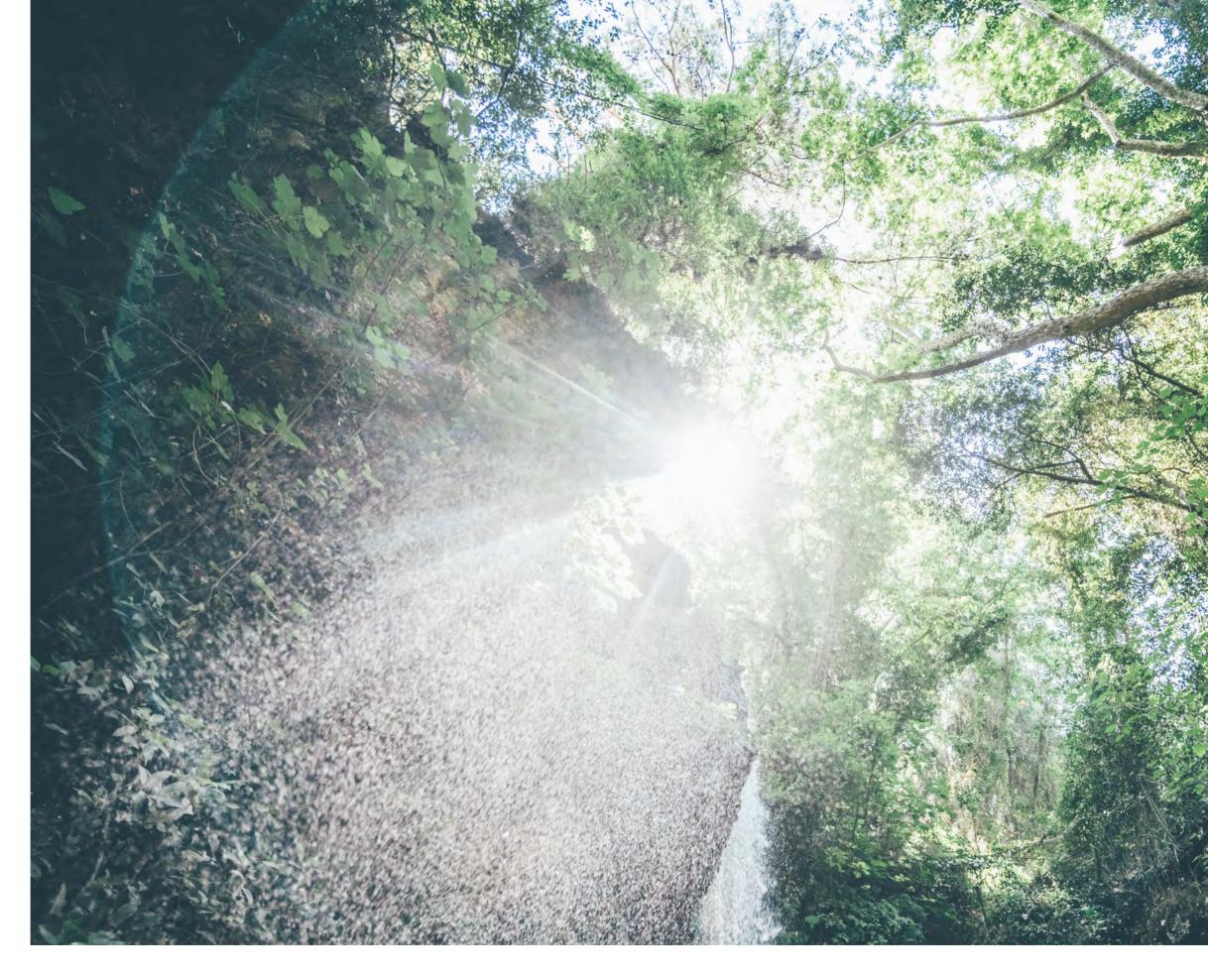
USHIO INC. Ushio Report 2023

## Connecting Social Value to **Economic Value**

Strategic Focus

In order to realize Vision 2030, Ushio will continue to fully embrace ESG management.

Through our Five Management Focuses, we will continue to pursue the creation of both social and economic value.



Section 3 | Connecting Social Value to Economic Value

Environmental Social Gover

## Three-Pronged Structure for New Business Creation

We have established the Business Creation Division, which integrates R&D, marketing, and intellectual property functions, with a view to creating and providing new value. Through this division, we will accelerate new business creation aimed at resolving social issues.

## Process for Creating New Businesses Geared toward Resolving Social Issues

Vision for FY2030



Visualization of technical capabilities, intellectual property, and theme progress
+ Selection and concentration (objective PDCA)
Improvement of success rate of business creation

В	usiness Creation Division	
Marketing Division	Research & Development Division	Intellectual Property Department
Assess social trends and social issues on a global basis  Assess global market trends and needs through Group-wide collaboration  Create future-oriented products and services that can help resolve social issues	Discover and develop technologies that can pave the way for the future  • Fully leverage cutting-edge technologies by promoting partnerships with external researchers  • Engage in future-oriented technological planning and theory verification	Support provision of new value to the market  • Analyze markets from the perspective of IP assets • Support the realization of building high-value-added ecosystems



Core technologies cultivated over the 60 years since our founding

## Ushio's Strengths

Diverse technologies, product lineups, and markets

Industrial Pr	ocesses	Visual Imaging		Life Sciences
	1	Photonics Solution	s	
		Stakeholders		
Customers	Shareholders and other investors	Employees	Suppliers	Local communities and society at large

## Social issues

Climate change / Global environment crises / Worsening food shortages / Changing lifestyles / Labor shortages / Deepening health issues / Advent of a smart society

## Column



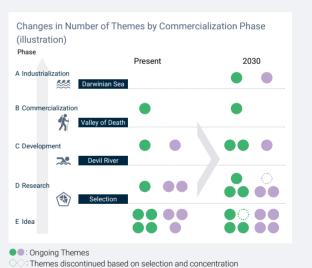
Profile

## Nobuhiro Inosako Senior Executive Officer General Manager, Business Creation Division, Ushio Inc.

## Message from the General Manager of the Business Creation Division Setting a Business Creation Division MTP

The Business Creation Division was established in fiscal 2022, and we have been working towards our mission to "resolve social issues through the creation and provision of new value." In order to realize Ushio Group's Vision 2030, we must add to our current foundational businesses by creating and developing new businesses that can become core businesses to support the next generation. In carrying out this mission, the basic policies of the Business Creation Division remain unchanged from fiscal 2022. However, in fiscal 2023, we have also established the following Massive Transformative Purpose (MTP) as the Business Creation Division's decision-making criteria for concrete implementation of policies. This MTP is, "Through an ongoing organizational approach with a realistic view of the future, we will generate and provide sustainable value by promoting innovation to solve social issues and improve the lives of people." Put simply, in business creation, it is difficult to predict three years into the future, but by taking the plunge and looking further ahead, maybe 30 years into the future, the variables and approach can be simplified and it becomes possible to make general predictions. In this way, having a realistic view of the future and backcasting from there to the present enables us to make decisions regarding our current activities, for example, regarding which choices are reliable and will lead to a realistic future.

2022 ▶ 2023 ▶ Moving beyond time Fiscal 2022 was the first fiscal year for the Business Creation Division, and in parallel with promoting commercialization action in line with various initiative themes, we visualized progress in each area using commercialization phases. In order to make effective use of resources through appropriate selection and concentration, we also focused on establishing a PDCA system based on objective criteria. The fact that it took longer than expected to obtain consensus from the people involved is one point for reflection in this area.



Ushio's past new business creation activities, then improving on weaknesses and further enhancing strengths. We visualize trends regarding our technology and intellectual property along market and time axes and work to grasp the progress of each initiative theme from three major perspectives: marketing, merchandising and sales dynamics. Through this, we are improving our PDCA cycle based on the aforementioned objective criteria, enabling rotation on a monthly basis. These are just some of the actions we are taking to achieve the universal goals of the Business Creation Division, moving "beyond time" to "developing human capital and a system for sustainable, continuous business creation." From the perspective of a race against time, creating new businesses requires flexible and timely responses to

After that, we have been working to improve the reliability of new business creation by analyzing

changes in market conditions, and we are promoting actions such as open innovation in order to proactively incorporate new knowledge and approaches both internally and externally, while also working to improve the speed with which we can provide new value to the market.

with Greater Social Value

**Creating Businesses** 

Vision for FY2030

issues of climate change countermeasures, food initiatives, healthy life expectancy extension, and realizing DX

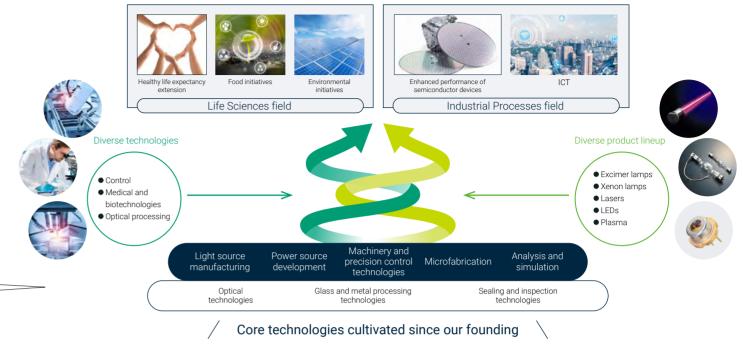
## **Creating Businesses with Greater Social Value**

## Ushio's Potential for Creating Businesses with Greater Social Value

Ushio has created a vast array of products by leveraging the technologies it has cultivated since its founding. This product creation has been strongly supported by our core technologies for controlling light, and our keen ability to perceive social issues. Going forward, we will continue to utilize our core technologies to provide solutions that resolve social issues, thereby supporting human well-being and societal growth.

Through the Business Creation Division, we are drawing on our long-cultivated technologies, together with our various light sources (lamps, LEDs, lasers) and optical design capabilities, to establish a future business pillar through efforts to address issues in the Life Sciences domain, such as food initiatives, environmental issues, and healthy life expectancy extension.

We are also currently focusing on the Industrial Processes domain, specifically fields such as semiconductors and LCDs, which are our major businesses. We will contribute to this domain by leveraging our light source technologies, including LEDs, various kinds of lasers, and excimer lamps, thereby establishing it as a foundation for the manufacturing process of new products aimed at the future.



## Importance of Issues Social Issues Solutions and Products

		• Care222		
	Healthy Life	• Organs on Chip > P.61		
	(C⊕) Expectancy	Photo Dynamic Therapy (PDT)		
	Extension	• Vision care		
seo		New pulse spectroscopy technology		
Sciences		■ Increased production of plant proteins		
Life (	Food Initiatives	Liquid fertilizer analysis system		
	7.77	● Land-based aquaculture system ➤ 📜 P.60		
	Climate Change Countermeasures	● Reduction of Methane conversion  ■ Reduction of Methane conversion		
		GHG emissions  • Perovskite solar cells		
	Countermeasure	Energy storage		
		• AR/VR • LD / LED		
es		● Automated driving / EVs ● Battery manufacturing process ➤ □ P.61		
ssec				
Industrial Processes	Realizing DX	● EUV light sources for EUV photomask inspection		
ıstria		● Enhanced performance of ● Package processing ➤ 1 P.76		
Indu		semiconductor devices  • Thermal processing > 1 P.61		
		● Light sources for lithography		

To date, Ushio has expanded its business domains from Visual Imaging to Industrial Processes through the use of light as energy.
Going forward, we will strive to combine our core technologies—light sources and analytical and optical technologies—with new
ones in an effort to create businesses with greater social value centered on the Life Sciences domain.

Core Technologies						New Technologie		
Owned Technologies								
Light source manufacturing / Power source development	Analysis and simulation	Optical technologies	Equipment technologies	Optical processing technologies	Microfabrication technologies	Medical / Biotech		
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USHIO INC. Ushio Report 2023

## **Research and Development**

## R&D and IP Strategies to Create Businesses with Greater Social Value

We will help address the issues of society by continuing to create and provide new value.



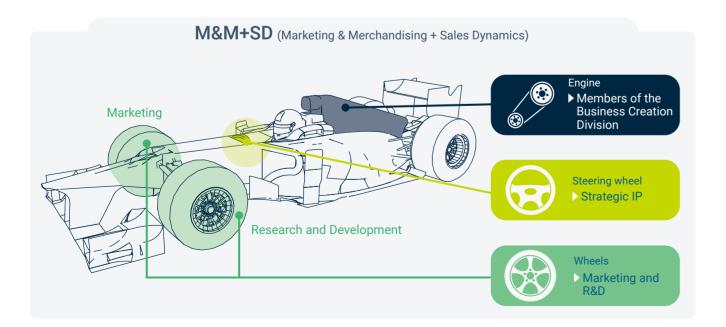
## Research & Development System

The development of new business entails closely linking the marketing capabilities (the ability to identify social issues) and the technological capabilities (the ability to conduct R&D and manufacture products) necessary for creating new value. In order to establish a business based on the provision of this new value, we must focus on developing a sales mechanism based on sales dynamics, and ensure the management of intellectual property (IP).

Marketing and R&D are often compared to the wheels of a car while IP management is considered the steering wheel. Without strategic IP management, providing the market with the type of value expected would be extremely difficult, and the potential for developing new businesses is at its highest when these three essential elements are provided to the market in a timely manner.

The Business Creation Division converges these essential basic functions (marketing, R&D, and strategic IP) and, based on Marketing & Merchandising + Sales Dynamics (M&M + SD) as the action guideline, each member spurs the creation of new businesses by teaming up with Group affiliates and business partners.

Generally speaking, the creation of new businesses is not an endeavor with a high probability of success. However, through the self-help efforts of each team based on M&M+SD, we are working to steadily create even stronger businesses by refining our ability to capture the essence of issues, to uncover new technologies that contribute to resolving issues, and to quantitatively assess and ascertain the target market, with a focus on our core areas.



## Fundamental Technology Department

This department's mission is to expand the possibilities of light by deepening Ushio's technologies and exploring new applications for these technologies in order to create new value. It is building a fundamental technology development system as part of our development processes while working to develop new analysis, simulation and optical process technologies as part of the strong technological foundation that will be needed in the future.

## Analysis as a Fundamental Technology

Analysis and simulation technology is an area of core technology that Ushio has cultivated since its founding. Understanding the principles of science through technologies for analyzing molecules, atoms and surface conditions on a microscopic scale is an essential part of new product development and maintaining high quality standards. By developing proprietary analysis technology tailored to our products, we have elevated its position as a core technology.

In the field of light sources for EUV photomask inspection, we are currently developing analysis equipment to simulate the environment inside these light sources and properly understand the science of what occurs there in order to maintain and enhance our technological superiority in areas such as stable capacity utilization and performance.

Moving forward, we will continue working to develop new analytical technologies that will be needed in the future with the aim of creating and providing new value to resolve social issues while expanding Ushio's core competencies.

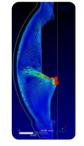


Ushio's analysis devices

## Simulation Technology as a Fundamental Technology

In the process from research and development to commercialization, there are four issues that must be overcome: shortening development periods, reducing costs, improving design quality, and enhancing added value. Simulation technology is one means through which these issues can be addressed. For example, simulating numerous design factors and visualizing phenomena enables the creation of well-founded design ideas. This can also enhance the performance improvements that can be achieved in a short development period.

Ushio has built up a wealth of proprietary technologies by accumulating analysis technologies deployed in response to requests. We convert these proprietary technologies into design tools for provision to business divisions while working to develop new analysis technologies that provide analysis-based proposals to take on new challenges and issues. In addition to existing products such as ultra-high-pressure UV lamps and excimer lamps, we will continue to expand the scope of our analysis to include a wide range of new products, including light sources for EUV photomask inspection.



Simulation of convection inside a lamp

## Optical Process Technology as a Fundamental Technology

We develop elemental technologies based on the keywords of surface modification and thin film modification as processing technologies (optical processes) that can maximize the strengths of light. When setting development themes, resolving social issues relating to climate change countermeasures and the realization of DX is essential, and we emphasize considerations based on science, including photochemistry, in our work. We focus on the environments where light is used and the materials that are irradiated as we work to understand the mechanisms of various phenomena associated with light irradiation and develop new optical processes. In addition, we actively present our results in academic forums, aiming to promote open innovation through discussions with a wide range of researchers from both industry and academia.

Through these efforts, we are going beyond providing light sources and equipment to also propose ways to utilize them, bringing us closer to our goal of being a "light" solutions company.

## Major Activity Themes

- Surface modification technology for next-generation (Beyond 5G/6G) highfrequency circuit boards
- Thin-film modification processes for perovskite solar cells
- Atmospheric pressure plasma reactors and related application processes

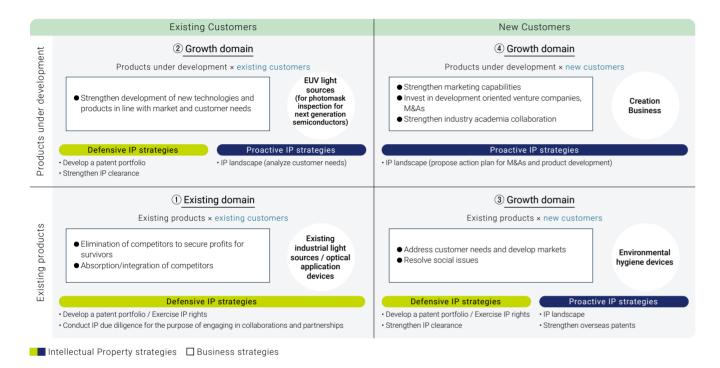
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## R&D and IP Strategies to Create Businesses with Greater Social Value

## Intellectual Property Strategy

At Ushio, we are proceeding with IP strategies that are linked to the business strategies of each of our four regions, as described below, toward realizing Vision 2030.

By making optimal use of both proactive and defensive IP strategies according to the growth stage of each business, we help our customers realize sustainable growth and expand their businesses.



## In-House Courses on Intellectual Property

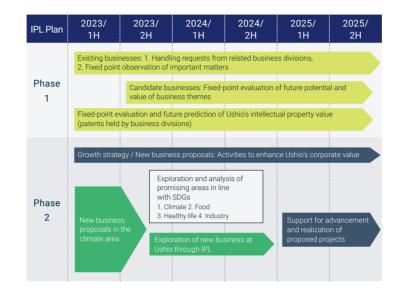
Case studies of items that can be patented

We believe the inspiration behind the strength of our IP rights, which ensure a competitive edge over our rivals, is the method in which we resolve technical issues, which has been shaped through the process of hardships we have endured in pursuit of their resolution. Continuing to improve the intellectual property capabilities of all technical staff is essential in order to transform problem-solving methods created by researchers and development staff into impactful patents. Based on this idea, Ushio has established the following intellectual property training courses, and plans to provide training to approximately 400 technical employees over the three years from fiscal 2021 to 2023.

# Employee Training Sessions Why companies file patents Avoiding risks relating to patents held by other companies Utilization of rights (in order to make successful legal arguments) How to derive technical information from patents Case studies (examples of the Company's successes and failures) Introduction to and use of invention and idea creation methods Summarizing inventions from developed products Tips for presenting arguments to examiners

## **Research and Development**

## IP Landscapes



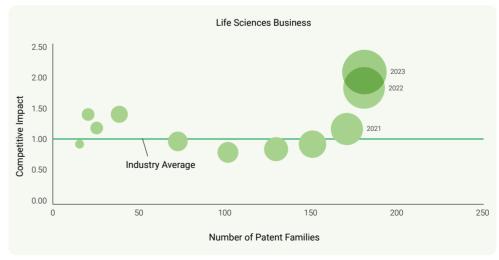
IP landscapes (IPLs) are a useful tool for resolving management issues. Taking patent information with high objective fairness as a starting point before adding other information and supplementary analysis, they provide a bird's-eye view of industries and support strategic recommendations, such as lines of attack, based on a company's position. Ushio has divided its IPL into two phases with different content and purposes. Phase 1 aims to deepen existing businesses, while Phase 2 explores new themes that can generate synergies with the Company's core technologies. To advance our use of IPLs, we have established IPL projects with the IP Department at the center and the participation of in-house technical departments and external experts. In fiscal 2022, two new development themes directly linked to resolving social issues based on awareness of the SDGs were proposed to management, and we are working to explore new themes further in fiscal 2023.

## The Ushio Group's Intellectual Capital

## 01

The number of patents that Ushio holds in the business areas of Industrial Processes, Visual Imaging, Life Sciences and Photonics Solutions is shown in the table on the right. The percentage of core patents is over 10% in all areas, and the patent group is structured to cover foundational, growth, and creation businesses.

Business domain	Core patents / All patents	Core patent ratio		
Industrial Processes	70/447	15.7%		
Visual Imaging	13/67	19.4%		
Life Sciences	44/155	28.4%		
Photonics Solutions	38/200	19.0%		



Based on research conducted by LexisNexis using PatentSight (until March 2023). The size of each circle represents the competitive advantage and overall strength of the patent portfolio.

02

Under the Creation Business, which has been an area of focus for Ushio in recent years, the quality of patents as measured by the Competitive Impact (CI) value in the Life Sciences business, in which environmental hygiene is a central field, has increased rapidly over the past three years and is significantly above the industry average (CI = 1). This indicates that the patent group is well-balanced in terms of both quality and quantity.

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Ushio Report 2023 5

Social **Environmental** 

## **Creating Businesses with Greater Social Value**

## Examples of Business Creation with Greater Social Value

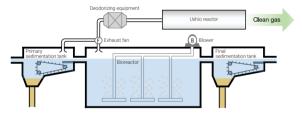
## Climate Change Countermeasures

## Promoting technological development aimed at reducing GHG

In terms of action against climate change, we have established a vision based on creating a world where global net zero carbon emissions and the wellbeing of people are in harmony with each other. We aim to help mitigate climate change through light and electrical discharge technologies. We have selected several climate change countermeasure themes in consideration of carbon and nitrogen circulation with the aim of reducing greenhouse gas (GHG) emissions. Under each of these themes, we are engaged in co-creation with numerous companies and organizations as we work towards their commercialization.

## Promoting technological development to reduce N<sub>2</sub>O levels

In order to reduce levels of nitrous oxide (N2O, which has high global warming potential), Ushio has been working on ways to use its excimer lights to decompose N2O. In addition to progress in terms of performance and academic collaboration, this project was selected as the FY2023 Research Theme for Sewers Application Research by the Ministry of Land, Infrastructure, Transport and Tourism of Japan.



Installation of gas decomposition reactor in sewage treatment (illustration)

## Promoting social application of solar batteries

As part of the social application of cylindrical solar batteries, Ushio is working with and promoting the Tokyo Metropolitan Government's fiscal 2022 University Researcher Business Proposal System. We are also working to contribute to the creation of next-generation



solar batteries through research on technology that utilizes light in manufacturing processes.

Cylindrical solar battery erification testing

## Food Initiatives

## Shift to sustainable food production systems and providing sufficient stable food supplies for human development

With the global population projected to rise to approximately 9.7 billion by 2050, demand for food is expected to increase significantly. Against this backdrop, serious food shortages due to limited water supplies and the impact of agricultural land development and chemical fertilizers on global warming are areas of concern. In the future, the creation of new food production systems that increase productivity while being eco-friendly will be crucial. Ushio has started by aiming to produce soya beans, which have high utility as an alternative source of protein, in plant factories, and we are developing optical technology to improve resource efficiency and crop functionality. We will continue working to create systems capable of

producing large quantities of food all year regardless of the climate in the country concerned.





Plant cultivation using 100% artificial light and liquid fertilizer management

## Contributing to the establishment of sustainable land-based aquaculture systems and global food security

The proportion of people who include fish in their diet is growing worldwide, and there have been continuous efforts to increase global aquaculture production. At the same time, Japan has seen annual fishing catches decrease due to factors such as aging workforces in the fishing industry. Ushio launched its land-based aguaculture project to do what we can to improve this situation. We collaborate with large companies considering land-based aguaculture, working to resolve issues they are facing with the aim of counteracting falling catch rates in Japan. By applying our specialist optical technology, we will continue to contribute to food security

and the widespread adoption of land-based aquaculture in Japan and beyond.



Research on photoresponsivity in fish

## Healthy Life Expectancy Extension

## OoC: Providing a platform to speed up drug development

With intensifying competition in new drug development and the shift to the latest biopharmaceutical products, the challenges faced by pharmaceutical companies in terms of drug development are growing greater year by year. This makes reducing development periods and efficient drug development testing crucial issues. Conditions for OoC\*1 are also growing more favorable due to developments such as the passing of the FDA Modernization Act 2.0\*2 in the United States at the end of 2022, enabling alternative testing methods to be used for new drug registrations by removing the requirement for animal testing.

Against this backdrop, our OoC projects are also moving forward with development aimed at pharmaceutical companies in Europe. the United States and Japan. We have received inquiries from several major pharmaceutical companies, with the potential to lead to significant sales. We are also actively engaged in awareness-raising activities, such as cosponsoring OoC-related events, in which pharmaceutical companies participate, in Japan and overseas, and holding exhibitions of the development results and chip workshop\*3 initiatives.

In Japan, we are participating in a group led by the Tohoku Institute of Technology as part of an AMED\*4 project related to the practical application of OoC and have established our position as an OoC manufacturer. We are working on the social application of OoC through a system of industry-academia-government collaboration that includes pharmaceutical companies. Ushio has also been cited as a domestic OoC manufacturer in a report by Japan's Ministry of Economy, Trade and Industry\*5, one example that shows how our OoC initiatives are gaining recognition, including among major pharmaceutical companies in Japan and overseas.

- \*1 OoC: Organs On Chip
- \*2 U.S. Food and Drug Administration (FDA) Modernization Act 2.0
- \*3 A service offering dialogue-based joint development of original chips for pharmaceutical
- \*4 AMED: Japan Agency for Medical Research and Development
- \*5 Second interim evaluation committee of the Foundational Technology Development Project for the Promotion of Regenerative Medicine and Gene Therapy Industrialization



Collaboration with pharmaceutical companies and academia leading to next-generation drug development

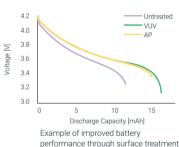
## Focus Areas for Contributing to the Realization of DX

## Battery manufacturing processes: Contributing to improved performance through surface treatment technology

Lithium-ion batteries are manufactured using a combination of different materials. One such material is aluminum positive electrode current collector foils, and the graph below shows the results of applying Ushio's excimer vacuum UV (VUV) and atmospheric plasma (AP) surface treatment technologies to this material. It shows that the discharge capacity after VUV/AP treatment increases compared to an untreated surface.

This is due to the cleaning effects of VUV/AP treatment and can contribute to improving the cruising range of electric vehicles. We

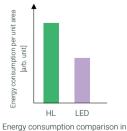
will continue to develop processes for solid-state and other next-generation batteries, and will keep improving manufacturing technologies and performance.



## Semiconductor thermal processing: Contributing to energy saving in semiconductor manufacturing processes

As semiconductor performance advances, more power is required to manufacture them, resulting in high demand for energy saving. In response, we have demonstrated that energy saving in heating processes can be achieved by combining specific materials with LED heating, and presented our results at an international academic conference. The graph below shows a comparison of energy consumption in ferroelectric heating processes, which are expected to have applications in next-generation memory materials. It shows that using LEDs can lead to significant energy savings compared to

conventional halogen lamps (HL). We will continue to pursue the possibilities of photoheating in areas beyond energy saving as we aim to contribute to next-generation semiconductor manufacturing processes.



ferroelectric heating processes

Section 3 | Connecting Social Value to Economic Value

Social

Governance

Gov

## 2

## Developing Our Diverse Talent to Get Closer to Our Vision

Vision for FY2030

- Practice Group management with diverse personnel who can contribute to the achievement of Vision 2030 and provide systematic training opportunities for further development
- Realize global mobility and enable borderless employee activity through human capital management

## Human Capital Strategy and Connection to Corporate Value

In addition to Ushio's major businesses of Industrial Processes, Visual Imaging, Life Sciences and Photonics Solutions, we continue to take on new challenges to resolve social issues through the creation of new businesses. In order to achieve this, it is essential that our employees adopt a global and logical mindset. We will continue to create new value through organic connections between diverse personnel.

Specifically, we are aiming to expand our pool of talent with both the technical background and the mind for business to understand Ushio's strengths and develop solutions based on knowledge from various academic fields. In terms of education and training, in addition to our existing selective human capital development program "Ushio College," we started to offer the self-selected learning program "Ushio Learning Place" in September 2022 as a way to support employees seeking self-driven learning.

From a recruitment perspective, in addition to hiring new graduates, we are also focusing on attracting mid-career hires through means such as direct recruiting. Over the past three years, we have expanded our diverse talent through a hybrid approach, with our intake comprising 67% new graduates and 33% mid-career hires.

## Human Capital Strategy to Realize Vision 2030

### Global Management Literacy The clear thinking to estimate future risks and Understanding of diversity and inclusion, opportunities based on past data and the volition to put it into practice Concrete measure Providing opportunities to acquire knowledge about Promoting global mobility measures to corporate management necessary for promoting enable borderless employee activity strategies, including finance, accounting, and legal affairs Ideal Human Capital for Realizing Vision 2030 Technical Background DX Mindset The clear thinking to The technical background to understand transcend heuristics and Ushio's strengths and develop solutions design business in a data-driven way based on those strengths Concrete measure Concrete measure DX training and bolstering of talent to Enhancing recruitment of enable improved productivity and professionals in diverse academic fields

Vision for 2030

Vision 2030: A 'light' solutions company

## Revised System for Older Workers

With a super-aging society and a shrinking working population, circumstances for older workers in Japan are changing significantly.

Ushio has enhanced conditions for employees aged 60 and over, and in April 2023, we also introduced a system to further support the activities of these employees, based on the twin pillars of "contributing to organizational goals," and "succession, handing down, training, and support (succession and handing down of technology, skills, know-how, etc., and training and support of younger employees based on abundant experience and knowledge.)"

In order to support the diverse working styles and values of these employees and enable them to allocate time to activities such as nursing care and volunteering, we have also introduced a dual-track employment system and a selective system specifically for older employees. This enables employees to choose to work three days a week or take on side jobs under certain conditions.



A career seminar for mid-career employees

## Launch of Human Capital Development Committees

Starting with the 2<sup>nd</sup> Medium-Term Management Plan, Ushio has transitioned from the term "human resources" to "human capital," positioning employees as important assets that enhance the Company's corporate value. Among this work, selective human capital development is a particularly important initiative, and Ushio College, which was introduced during the 1<sup>st</sup> Medium-Term Management Plan, is playing a central role in our systematic approach to developing the talent who will shape Ushio's future.

Under the 2<sup>nd</sup> Medium-Term Management Plan, we established five Human Capital Development Committees within our headquarters and business divisions, based on two priority issues: visualizing the effects of training and connecting to business needs. These committees are chaired by the general managers of each headquarters and business division. The HR Department acts as a business partner to each department's Human Capital Development Committee, promoting the development of selected talent in line with the nature of their work. Human capital development policies in each division are discussed by Human Capital Development Committees and shared at the Global Human Capital Committee (GHCC), which discusses Company-wide human capital strategies, and are connected to human capital initiatives such as the rotation of talent between headquarters.

## **Establishment of Global Mobility Section**

Visualizing human capital within the Group and creating truly rewarding work environments in line with each person's career vision is crucial if we are to take on the challenges posed by social issues around the world.

In order to identify and resolve social issues that differ between regions, it is important for Ushio employees around the world to express their own opinions while ultimately finding ways to move in a unified direction.

In addition, the fact that using the Internet to connect and work with colleagues around the world has become the norm could be considered a positive byproduct of COVID-19. The implementation of working styles whereby an employee can be based in the United States while working as a business leader for the Group and connect with teams in Japan and other countries has begun, and we hope to promote global personnel transfers that do not involve relocation in future.



Members of the Global Mobility Section

To accelerate these activities, we established a new Global Mobility Section within the Human Resources Department of Ushio Inc. in April 2023. Online networking between human resource personnel from Group companies in Japan and overseas has begun, and our talent visualization efforts have commenced.

## 3

## Creating Working Environments Where It Is Easy to Produce Results

Vision for FY2030

- Build a corporate culture of mutual respect that embraces diversity
- Implement health and productivity management that enables employees to be physically and mentally healthy and enjoy their work
- Achieve high engagement levels that enable the Company and employees to grow together

## D&I

Promoting Diversity and Inclusion (D&I) is an important initiative in order to achieve "Creating Working Environments Where It Is Easy to Produce Results," the third of our Five Management Focuses. We have stated that we will aim to create "a global work-place culture in which a diverse range of background and values, in addition to diverse attributes, are acknowledged and respected." As part of our work to achieve this, we are carrying out the D&I Project through the support of volunteer employees, and initiatives are being developed in collaboration with relevant departments. In fiscal 2022, we carried out activities to align with the needs of employees in the field, such as career- and nursing care-related seminars and surveys of employees who work from home and employees with disabilities.

In addition, in the fiscal 2022 Annual Securities Report, we disclosed the proportion of women in managerial positions, the rate of men taking childcare leave, and differences in remuneration between men and women. The proportion of women in managerial positions was 16.7% for the Group and 4.3% for Ushio on a non-consolidated basis. In response, we have set 2025 targets of maintaining a proportion of 15% or more as a Group and 10% on a non-consolidated basis. We are making efforts to raise this ratio at Ushio while maintaining Group-wide levels.





Please see the following URL for more details.

https://www.ushio.co.jp/en/sustainability/society/employee/diversity.html



## Health and Productivity Management

We believe that "human capital" is the most important asset underpinning the sustainable growth of the Company. To that end, we are striving to create safe, secure, and employee-friendly work environments through such means as adjusting work hours, promoting a work—life balance, supporting employees returning from childcare leave, and promoting measures for balancing work with medical treatment.

We were certified as a 2023 Health & Productivity Management Outstanding Organization (Large Enterprise Category) in recognition of such efforts, the second consecutive year in which we have received this distinction.

We have received particularly high praise for our efforts in supporting employees returning from leave and balancing work with medical treatment, adjusting work hours and promoting a work-life balance, and effectiveness and verification in response to issues.

Moving forward, through our strategic map for health and productivity management, we will visualize management issues and the health issues that must be resolved to tackle them, maintain and improve the physical and mental health of all employees, and further develop work environments that allow employees to continue to take on challenges with a sense of fulfillment and feeling of growth. To achieve this, we have set specific numerical indicators for each of the three health goals of "improving lifestyles (physical health)," "improving mental health," and "increasing productivity (work-related health)" and will promote data-driven quantitative goal setting and awareness, raising activities.



Please see the following URL for more details. https://www.ushio.co.jp/en/sustainability/society/employee/health\_and\_ productivity.html



## Introduction of Employee Stock Compensation System

We are taking various measures with the aim of achieving high engagement levels that enable the Company and employees to grow together in line with Vision 2030.

In fiscal 2023, we introduced an employee stock compensation system through an employee stock ownership plan covering Group companies in Japan. Under this system, employees receive shares in the Company as compensation for the positive impact of achieving the required targets of the 1st Medium-Term Management Plan and as a means of supporting collaboration between management and employees under the 2nd Medium-Term Management Plan, which started in fiscal 2023.

In addition to further increasing employees' investment in business performance and enhancing motivation to work with management to improve medium-to long-term corporate value, we will look to encourage uptake of the employee stock ownership plan as a means to help employees build assets.

## **Engagement Survey**

## Survey Implementation and Taking Results on Board

We have carried out engagement surveys since fiscal 2021 as a means to visualize employee engagement. At Ushio, we define engagement as "a state of feeling valued through relationships with the Company and co-workers and feeling motivated to make an active contribution." The engagement score indicates the percentage of employees who answered affirmatively to questions indicating that this is the case for them. This was carried out for Ushio Inc. in fiscal 2021 and was expanded to domestic and overseas Group companies in fiscal 2022. Based on the survey results in the first fiscal year, we have come to understand that "understanding of strategies," "provision of growth opportunities," and "embracing of diversity" are three key themes strongly correlated with employee engagement. Our efforts to enhance understanding of strategies with the aim of further improving engagement have included town hall meetings with the president and the development of e-learning and other tools.

Engagement Scores for Fiscal 2022



Ushio's engagement score for fiscal 2022 was 52%. There is still progress to be made in our efforts to improve engagement, and we will continue our activities as we work to achieve our target of a 10 point increase compared to fiscal 2022 during the period of the 2<sup>nd</sup> Medium-Term Management Plan.

### Initiatives of fiscal 2023

### 1. Enhancement of strategy-related communication

We continue to hold town hall meetings with the president, have expanded their scope beyond Japan to include overseas locations, and now also hold town hall meetings with other top management personnel in addition to executives. Through this, we aim to foster closer communication over a wide range of areas.

### 2. Understanding of and empathizing with strategy and Five Management Focuses

We have created a workbook as a support tool to encourage employees to take ownership of our strategies, and are using this workbook as a basis for workshops within each department. We are developing a system and tools that help employees to consider their own careers and feel the connection between their own work and the Five Management Focuses.

### 3. Connection between our Vision and careers

As part of efforts to promote autonomous career development for employees, we have introduced workshop-based talent support and Self-career Dock System.



An overseas town hall meeting



Building Together Ushio Group 2030 Workbook

Jshio Group 2030 Workbook

Section 3 | Connecting Social Value to Economic Value

Environmental | Governance |

## 4

## Sustainably Reducing Environmental Impact

Vision for FY2030

- Establish a resource circulation model and a model for coexistence with nature, based on promoting biodiversity conservation activities
- Resolve social issues by cutting GHG emissions across the value chain
- Offer products and services that lower anyironmental impact.

## **Environmental Policy**

### Basic Philosophy

We at Ushio recognize symbiosis with the global environment to be one of today's most important challenges for enterprises. We pledge to contribute to the creation of a sustainable society by incorporating measures for environmental protection into every aspect of our business activities.

At Ushio, we have promoted initiatives to reduce our environmental impact based on the aforementioned basic philosophy and periodically review our efforts in consideration of the global situation and business environment. Reducing our environmental impact is one of the important issues covered by our Five Management Focuses. We have established a vision for 2030 and work to achieve it by setting short- and medium-term goals through backcasting.

The impacts of climate change extend across all businesses. In terms of activities at business locations, we are making concerted efforts to mitigate these impacts in consideration of Japanese government policy and global trends. As part of this, we are furthering our efforts to improve productivity and use renewable energy.

In addition, for manufacturers providing products that use energy, including Ushio, the proportion of climate change impact that results from product use tends to be high, which poses a significant risk. However, while various companies are working to combat climate change, we believe that this is an opportunity to become the company that customers choose if we can develop products that reduce the impact on the environment

We have expanded our theme of creating safe, secure, and green solutions to cover all business areas, including products, development, and services. To promote green design and development that contributes to energy saving, we have established energy saving as one of the certification criteria for our proprietary super green products. We will continue to contribute to energy conservation by promoting the sale of these products.

## Selected as a Modal Shift Initiative Excellent Business Operator

Our Gotemba Division was selected by the 2022 Eco-ship Modal Shift Business Execution Committee as an Excellent Business Operator, being recognized by the Eco-ship Mark Certification program for the first time.

The Eco-ship Mark Certification program was launched in fiscal 2008 to promote the switch from land transport to sea transport, which has lower  $CO_2$  emissions and is highly energy efficient. The Eco-ship Modal Shift Business Execution Committee, comprising members from organizations such as the Maritime Bureau of Japan's Ministry of Land, Infrastructure, Transport and Tourism and ferry operators, certifies shipping and logistics companies that use sea transport at or above a certain rate with the Eco-ship Mark as proof of their contribution to environmental efforts.

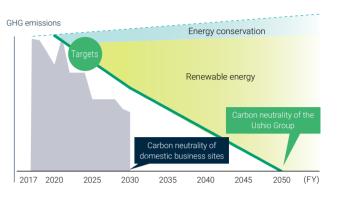
Where transportation had only been carried out with trucks, we succeed in creating an integrated system that also incorporates sea-based transportation. We also reduced the number of shipments by consolidating lots, resulting in lower  $CO_2$  emissions and transportation costs.



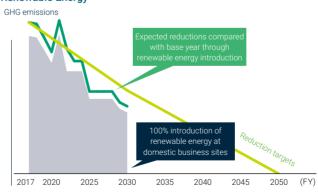
## Efforts to Realize a Carbon-Free Society

Efforts to address climate change are an important aspect of achieving our Five Management Focuses. To that end, we have created a vision to work toward with a view to 2030, and have established targets accordingly. However, revisions to these targets have become necessary due to the constantly changing global environment. We have set targets for reducing CO<sub>2</sub> emissions from our business sites (Scope 1 and Scope 2) that have been certified by the Science Based Targets initiative (SBTi) and have formulated long term plans to realize these reductions. In 2018, we set a target of a 21% reduction in Scope 1 and Scope 2 emissions by 2030, compared with fiscal 2017. This is in accordance with the SBTi guidelines, and subsequently received SBTi certification. In 2020, we revised this target to a 33% reduction by 2030, compared with fiscal 2017. This new target aims to limit the increase in global temperature from the previous 2°C level to well below 2°C. However, giving consideration to the Special Report on Climate Change of 1.5°C, issued by the Intergovernmental Panel on Climate Change (IPCC) in 2018, the discussions held at the 2021 United Nations Climate Change Conference (COP26) in 2021, the revisions to SBTi certification standards, and the Net-Zero Standard of the SBTi, we raised this target to a 45% reduction by 2030, compared with fiscal 2017, with the overall goal of becoming carbon neutral by 2050. With the establishment of this target, we have been steadily implementing initiatives to reduce GHG emissions on Group-wide, aiming to realize a carbon-free society.

### Path to Becoming Carbon Neutral by 2050



## Expected Emissions Reductions through the Introduction of Renewable Energy



## Establishment of Targets for Renewable Energy Introduction

One extremely important initiative in order to become carbon neutral by 2050 is the introduction of renewable energy. To that end, we have established targets for renewable energy introduction and are working to accomplish these targets in tandem with our other environmental initiatives. As one of these targets, we aim to realize the 100% introduction of renewable energy at all domestic business sites by 2030, and we are examining the formulation of similar targets at our overseas business sites.

Specifically, we are continuing to gradually introduce solar power generation through measures such as installation on the roofs of buildings at our Harima and Gotemba divisions. We are moving to replace existing purchased electricity with renewable energy, and our Harima Division has switched its purchased electricity to CO<sub>2</sub>-free electricity.

In addition, we continue to monitor GHG emission reduction targets for the entire Group. In particular, we will promote initiatives with the aim of realizing the 100% introduction of renewable energy at all domestic business sites by 2030.

## **Sustainably Reducing Environmental Impact**

## Information Disclosure in Accordance with the TCFD Recommendations

Ushio declared its support for the aims of the Task Force on Climate-Related Financial Disclosure (TCFD) recommendations in 2021 and recognizes that climate change will impact the Company's sustainable growth. Moving forward, we will continue to use the TCFD recommendations as a basis for analyzing the risks and opportunities that climate change poses to our business and reflect this in management strategies while continuing to disclose relevant financial and management information.



## 

With regard to the climate-related issues examined by the ESG Promotion Headquarters and relevant committees, the Corporate Strategy Meeting, chaired by the president, meets more than four times a year to discuss such issues. It reports the results of these discussions to the Board of Directors at least once a year. In addition, the Board of Directors establishes targets for climate-related issues and monitors the progress the Company is making toward achieving those targets.

### Stratogies

## Selection of Climate Change Scenarios

We have selected the 1.5°C to 2°C scenarios and the 4°C scenario from among the climate change scenarios disclosed by the International Energy Agency (IEA) and other organizations. Based on these scenarios, we analyzed the impact of climate change on our business up through 2050.

## **Analysis Process**

We organized the major climate change-related risks and opportunities that impact our businesses based on external information, and collected data on future forecasts pertaining to each of these risks and opportunities. In accordance with this organization, we estimated the business impacts of transition risk and opportunities associated with the shift toward a carbon-free society, and physical risks stemming from climate change. We then identified important risks and opportunities that could impact our business up through 2050.

Identification of risks and opportunities

Collection of data on future forecasts

Estimation of business impact

Examination of countermeasures

## **Results of Scenario Analysis**

As a result of analyzing the financial impacts of risks and opportunities of high importance, we identified that flooding and other natural disasters would have a significant impact on our production bases, especially under the 4°C scenario. Meanwhile, we confirmed that we could mitigate the impact of climate change-related risks by making appropriate insurance arrangements at the applicable production bases.

Major Climate Change-Related Risks and Opportunities			Time Frame	Financial Impact of Climate Change-Related Risks and Opportunities	
Transition risks and opportunities	Carbon pricing, carbon emission reduction targets, and policies in each country	Carbon tax	Medium- term	Enactment of a carbon tax on GHG emissions would increase operating costs by $\$200$ million under the 1.5°C scenario and by $\$160$ million under the 2°C scenario.*	
	Rise in cost of raw materials	Copper price			
		Zinc price	Long-term	Demand for minerals could tighten following the increased demand for low-carbon technologies (solar power, EV batteries, etc.). As a result, mineral prices and raw materials prices could rise.	
		Molybdenum price			
Physical risks	Water shortages	Profit losses due to drought	Medium- term	Product production could be delayed or suspended due to restrictions on water intake in the wake of water shortages, and profit losses could occur as a result.	
	Intensification of abnormal weather	Property damage and profit losses caused by floods	Short-term	Product production could be delayed or suspended due to damage to our production bases caused by floods. The related property damage costs and profit losses would total ¥6.68 billion under the 4°C scenario. However, ¥6.67 billion of this amount could be covered by insurance.	
		Increased insurance rates	Short-term	Insurance rates and costs could increase due to greater risk of damages at production bases resulting from the intensification of floods and typhoons.	

 $<sup>\</sup>star$  Estimation based on forecasts for carbon pricing by the IEA and the amount of GHG emissions in each country

### Risk Managemer

In terms of risk management, the Company appoints a responsible division as well as a responsible director or executive officer to manage individual risks. Climate-related risks are identified, evaluated, and monitored on a regular basis under a Company-wide risk management structure. Risks deemed to be significant under quarterly Company-wide risk assessments are reported to the Board of Directors.

### ndicators and Targets

## Indicators

We have established the following two indicators and are monitoring our progress on climate change-related initiatives accordingly.

- GHG emissions (Scope 1, 2, and 3)\*1
- Net sales of green products and super green products\*2
- \*1 The Company's GHG emissions are displayed on its corporate website on a consolidated basis and by region and scope. Amounts have been calculated based on the GHG Protocol.
- \*2 We certify products with enhanced environmental performance as "green products."

  Among these products, we certify those that make use of innovative green technologies that sets them apart from existing products as "super green products."

Certified as a "super green product," our HL63520HD high-output red laser diode has received an Encouragement Award from the Laser Society of Japan.





## Targets

In consideration of recent global trends related to climate change, we set targets in 2018 that were approved by the SBTi. Since then, we have made several revisions to these targets, and we currently aim to achieve a 45% reduction in Scope 1 + Scope 2 emissions by fiscal 2030, compared with fiscal 2017, and a 33% reduction in Scope 3 emissions. Additionally, we are examining specific issues we need to tackle in order to reach our target to become carbon neutral by 2050. In order to achieve these targets going forward, we will not only reduce  $\mathrm{CO}_2$  emissions from the activities at our business sites but also pursue the development of green products. By doing so, we will actively reduce Scope 3 emissions during the product use stage.

BASED TARGETS

Section 3 | Connecting Social Value to Economic Value

( Environmental ) ( Social ) Governance

# 5

## Building a Robust Management Base

Vision for FY2030

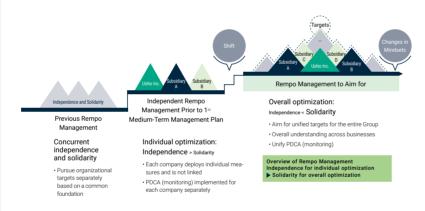
- Visualize and achieve management business, and employee goals
- Manage business portfolio through timely efforts to identify management resources
- Group-wide risk responses
- Create a corporate culture and frame work for respecting human rights across the value chain
- Reinforce and deepen governance

#### Strengthening Solidarity-Based Rempo Management

At Ushio, we aim to build a system that enables us to allocate resources and ascertain cost structures on a consolidated basis and supports optimized Group-wide management decision-making, including the generation of synergies, and business portfolio management. We are also working to establish mechanisms that visualize the contribution of all Group company employees to the achievement of Group-wide targets and enable us to work as one to achieve targets for overall optimization. To achieve these goals, we have introduced and are operating a system that allows for Group-wide consolidated accounting.

In fiscal 2022, this enabled us to improve the accuracy of data from Group companies and enhance our analysis, contributing to the multifaceted understanding of business plans, including product-based and business-based perspectives, when formulating the 2<sup>nd</sup> Medium-Term Management Plan.

In fiscal 2023, we will create a balance sheet management system and enhance our business portfolio management. In these ways, consolidated Group accounting will help Ushio Group become more unified and provide a foundation for improving profitability and management efficiency, thereby leading to the realization of Vision 2030.



#### **Bolstering Group Information Security Governance**

We understand that information assets are extremely valuable business assets that help us maintain and enhance our competitiveness as a company. To build strong trust-based relationships with all of our stakeholders, we aim to utilize and manage information assets in a safe and appropriate manner. Accordingly, we have formulated an integrated Ushio Group Information Security Policy and are working to establish and reinforce information security governance based on a system of Group-wide monitoring and management.

We carried out security assessments of each Group company, which were completed in the fiscal 2022. This enabled us to properly assess and

objectively evaluate the current status of information security governance at each Group company as well as identify issues. Based on the results, we are carefully examining common Group-wide issues and issues faced by individual companies, and are working on organizational, technical, personnel, and physical security measures.



In fiscal 2023, we will carry out training and awareness-raising activities in line with each Group company's security level in order to enhance understanding of the integrated Ushio Group Information Security Policy and will work to improve information security literacy.

We will also take measures to protect against ransomware, including strengthening information security by adopting endpoint detection and response (EDR) tools with high detection rates and monitoring services.

#### Strengthening Compliance

#### **Enhancing Tax Transparency**

As tax-related duties are significantly impacted by the tax regulations of each country, these duties are primarily handled on an individual Group company basis, with Ushio Inc. working to ascertain Group-wide tax costs and establish tax management systems. We position global tax governance as a key issue for enhancing our corporate governance and are working to enhance Group-wide tax transparency.

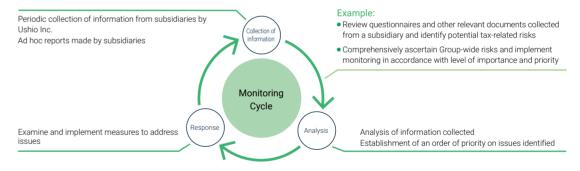
In fiscal 2022, we strengthened the application of our Group-wide tax management regulations. Specifically, we collect and check information on the status of tax returns, trends in tax audits, and responses to tax

system revisions at all Group companies. In addition, transfer pricing documentation for each Group company is now managed at Ushio Inc.

In fiscal 2023, in addition to strengthening cooperation with Group companies and appropriately managing tax risks through the establishment of a management cycle, Ushio Inc. will take the lead in ensuring appropriate compliance with the transfer pricing tax systems in each country, and strive to optimize tax costs through appropriate compliance with the preferential tax systems of each country.

#### Monitoring Cycle of Tax Status Management

► Importance placed on establishing and operating a monitoring cycle that analyzes and responds to collected information to ensure sustainable management of tax status



#### **Preventing Corruption**

We have established enhancement measures to prevent bribery and corruption as a theme under "Building a Robust Management Base," the fifth of our Five Management Focuses. Our Vision 2030 describes "a state in which the entire Ushio Group remains highly aware of issues such as bribery and corruption prevention and ensures fair, just transactions," and this theme is intended to create concrete initiatives to achieve this goal.

As stated in our 10 Action Guidelines as a Member of Society, Ushio conducts business transactions in a fair, impartial manner, and we take thorough measures to prevent bribery and corruption. We also signed the Ten Principles of the UN Global Compact, which includes anti-corruption principles, in 2010 and support the prevention of bribery and corruption in various business activities.

Ushio has formulated a new Ushio Global Anti-corruption Policy, which was announced in February 2023 as a specific code of conduct that complements our 10 Action Guidelines as a Member of Society. Through this, the aim is to further strengthen our anti-corruption efforts, ensure more thorough Group-wide bribery and corruption prevention, and continue fulfilling our social responsibilities.

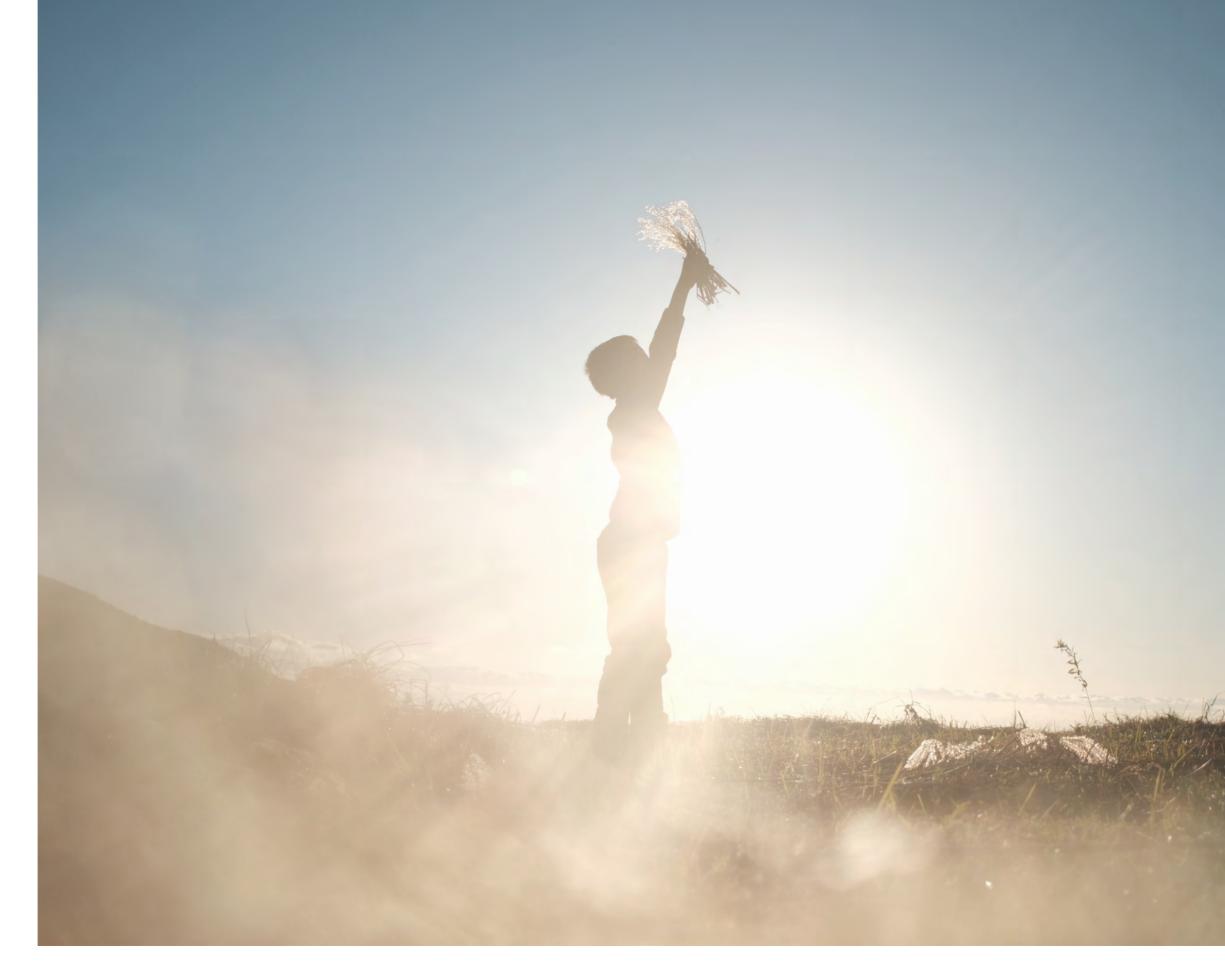
The Anti-corruption Policy is intended for executives, employees, and other business personnel of all Ushio Group companies worldwide, and is provided in English and Chinese in addition to Japanese. We are also working to promote awareness of the policy within the Group through briefing sessions for Ushio Group companies in Japan and overseas.

# Creating New Markets with "Light"

Our Business Strategies

In order to achieve a market-in approach, Ushio has implemented a market-centric reorganization of its business domains.

Through rebuilding centered on the power to control light, the power to provide light-based solutions and the power to retain light, we will put forward solutions based on social value with even greater speed.



#### Segment

## **Industrial Processes**

We have integrated our light source and optical equipment businesses, bringing the power to create, control, and maintain the value of light together in one place. We will create business opportunities and work to steadily increase earnings through growth centered on the semiconductor field and by proposing light-based solutions.

#### **Profile**

#### Kenkichi Abe

General Manager, Industrial Process Division, Ushio Inc.



#### Strengths

- Solution capabilities consisting of three powers: the power to create light, the power to control light, and the power to maintain the value of light
- Possession of various light source types (LED, lamp, laser and EUV) over a wide range of wavelengths, from ultraviolet rays to visible light and infrared rays, and the power to change their shape into point, line and surface light sources
- The power to retain light by leveraging support locations around the world

#### Review of Fiscal 2022

With regards to UV lamps for lithography, although production for LCD panels remained strong due to stay-at-home demand, sales decreased as demand waned in the second half of the fiscal year. At the same time, against the backdrop of increasing demand due to the development of technologies such as IoT and 5G, unit sales of large field steppers for cutting-edge IC package substrates increased, and maintenance services also remained solid as a result. This led to a year on year increase in net sales and earnings from the previous fiscal year.

We also advanced initiatives such as reducing fixed costs through structural reforms, growing promising products and creating a global customer support system, and we were able to create the business environment necessary to cultivate growth, which we will promote in the  $2^{\rm nd}$  Medium-Term Management Plan. Moving forward, we will further enhance these activities and expand them on a global basis.

#### Initiatives Relating to the Five Management Focuses

- Aiming to create new businesses by reaffirming Ushio's core competencies and linking these competencies with initiatives required to resolve social issues
   Being aware of social issues from a global perspective, including perspectives beyond Japan, and seeking active participation from Group companies, and establishing functions to enable collaboration with Group companies at major locations and exploring seeds for new business creation based on social issues and trends in each region
- Globalization, together with securing and developing interdisciplinary human capital and promoting initiatives such as job rotation
  - Establishing systems and environments in which employees both in Japan and at overseas Group companies can actively participate in the formulation of business division and Global Business Unit (GBU) policies
  - Developing and proposing products that contribute to reducing the environmental impact of society, including through the development of energy-efficient light sources, the adoption of solid-state light sources, and high-performance, low-power consumption products with customers in mind
  - Collaborating with the Production Division and working to reduce the environmental impact of production processes and logistics through measures such as improving productivity, using renewable energy and optimizing transportation trucks
  - Contributing to Group profits with a focus on ROIC management by implementing strategies that maximize profitability through efficient utilization of invested capital
  - Striving to establish a strong and stable earning structure that balances the equipment, maintenance, and light source businesses. To this end, the newly integrated Industrial Processes business division will upgrade efforts to improve profitability through structural reforms that have been promoted in the light source and optical equipment

#### Our Vision for 2030

We are advancing various measures in line with our wish to support technological innovation in our customers' manufacturing through light and peripheral technology, thereby contributing to society. To achieve this, in addition to our desire to resolve future social issues faced by our customers, we must reaffirm our core competencies

relating to light and maximize those strengths. By leveraging a cross-organizational structure within the business division and Ushio's expansive global network, we will create an environment that enhances our ability to understand social needs and put forward solutions

#### Support the creation of comfortable and convenient social infrastructure via optical processing technologies

#### Trajectory of light solutions to materialize vision

Focus on providing manufacturing process solutions to customers and offering subsequent services (maintaining value)

R&D (Power to control light)

Solutions (Power to provide light-based solutions)

After-sales support (Power to retain light)

Develop products for advanced Strengthen ability to offer processes solutions for diverse factory issues

bility to offer

Better retain light solutions for customers by extending replacement parts' service lives and enhancing after-sales service

#### Value generated in market

#### Customer value

- At customer factories
- Reduce bottlenecks in advances in semiconductor miniaturization and othe technological innovations
- Help enhance quality, cut costs (such as through energy savings), shrink environmental footprints, and reduce emission of hazardous substances
- Social value
- Through customers
- Help achieve SDGs overall, such as by offering convenience and comfort worldwide and tackling environmental, poverty, and medical issues

#### Strategy Overview

## Growth Centered on the Semiconductor Field and Business Opportunity Creation Born from Proposing Light Solutions

In the period covered by the 2<sup>nd</sup> Medium-term Management Plan, our efforts to grow our business will be centered on the semiconductor market, which is expected see medium- to long-term growth. We will also aim to create business opportunities by proposing light solutions for manufacturing processes, including those not related to semiconductors.

While the semiconductor market is undergoing a temporary slowdown, it is expected to see expanded growth in the medium to long term due to factors such as IoT and DX. Miniaturization and performance improvement of semiconductors are essential in this regard, and the trend of cutting-edge IC package technology to support this progress is expected to continue.

## Financial Targets (Billions of yen)



- \*1 FY2022 values for each segment are reference values prepared by the Company for comparison purposes
- \*2 Operating income margin for FY2025 is calculated excluding amortization of new goodwill

#### Action Plan 1

Secure earnings with growth products for semiconductor IC package market

- Boosting production capacity to cater to expanding demand
- Maintaining and improving competitive edge (high market share)

#### Action Plan 2

Bolster efforts to expand opportunities for EUV light sources for photo mask inspection over medium and long terms

- Address total costs of ownership\* reduction
- Measure: Expand recruitment opportunities by extending competitive edge
- \* Indicator obtained by dividing the sum of equipment installation costs and running costs by those obtained by operating the equipment.

#### Action Plan 3

Establish new business foundations by offering optical processes for manufacturing

 Strengthen light solutions structure to offer processes

#### Action Plan 4

Ensure consistent earnings by steadily capturing demand for lamps

- Keep investing to enhance lamp performance to maintain competitiveness in existing markets
- Capture demand by strengthening sales capabilities and customer service

#### Lithography: Large Field Steppers for Cutting-Edge IC Package Substrates

#### Achieving World-class Resolution and High Overlay Accuracy

In line with the evolution of semiconductors, IC package substrates are undergoing miniaturization and multi-layering. Ushio's large field steppers for cutting-edge IC package substrates are contributing to the evolution of package technology by improving resolution and overlay accuracy and by achieving high productivity through large-field lithography. In-house, we develop not only light sources but also main technologies, such as stages, material handling, power supplies and software compatible with optical components and organic substrates.



#### 1 Business Overview

As the amount of data processed increases due to advancements in AI and IoT, evolutions in semiconductor technology are mainly being driven by the needs of data centers. Chiplets and other packaging technologies are garnering particular attention, and the evolution of package substrates is becoming indispensable. In spite of the impact of current semiconductor inventory adjustments, this market is expected to grow significantly over the medium to long term. Technological innovation is also progressing rapidly, and various packaging formats are under consideration.

#### 2 Future Initiatives and Outlook

In fiscal 2023, we have responded to the evolution of package substrates by launching a new model of lithography equipment with significantly improved performance, the UX-58112SC. It is designed with a view to future mass production of cutting-edge package substrates. We have received numerous customer inquiries, and some of these customers have already decided to work with us. We will also deepen our collaboration

> with Adtec Engineering, our Group company that handles direct imaging equipment, and will put forward equipment compatible with various package formats that takes advantage of their respective characteristics.



Profile Yuri Habuto

Manager, Sales Section, Sales Department, UV Lithography GBU, Industrial Process Division, Ushio Inc.

## Surface Treatment & Curing (STC)

#### Deepening and Exploration Relating to Optical Processes (Light-based Surface Treatment, Heating, Curing and Bonding)

UV curing technology was developed as a printing technology for materials such as metals and plastics, on which ink is difficult to dry. Its uses have expanded to paint drying and protective coatings, and it is now utilized for a wide range of applications, such as bonding FPDs and miniature precision parts. This curing and bonding technology is an optical technology that is indispensable for the further evolution of electronic products. Our customers are facing issues relating to surface treatment, curing, and bonding processes, and we are working to develop applications in various fields in order to resolve these issues through our light sources.

#### Main Products





UV-LED

Snot LIV irradiation unit

## Contributing to Semiconductor Miniaturization Through Cutting-Edge Technology

EUV lithography technology is seeing growing deployment in cutting-edge semiconductor manufacturing processes. EUV light sources, which have extremely short wavelengths, are being used to replace conventional semiconductor processes and are contributing to semiconductor miniaturization. Ushio has a long history of research and development relating to high-brightness EUV light sources, and we started their full-fledged introduction into mass production processes in 2019. We launched TinPhoenix as a brand of EUV light sources for high-precision mask inspection and for research and development, covering development, manufacturing, sales, and after-sales service.



#### 1 Business Overview

Ushio's EUV light sources have made a contribution as light sources used in photomask inspection for EUV lithography technology, which is essential for cutting-edge semiconductor production. As cutting-edge semiconductor miniaturization progresses, the need for photomask inspection using EUV light sources is expected to increase further. In addition, Ushio's EUV light sources are expected to see deployment in even more areas as semiconductor manufacturing processes using EUV lithography gain widespread traction.

#### 2 Future Initiatives and Outlook

FUV

Our EUV light sources for EUV mask inspection in mass production will continue to make a contribution to lowering the TCO by maintaining high operating rates, thereby becoming highly trusted within the market. Furthermore, in order to expand deployment opportunities by improving our competitive advantage, we will continue developing and enhancing EUV light sources to support more

advanced, higher-resolution inspections while also exploring various applications for them. Through these activities, we will continue to be a light source manufacturer that contributes to the entire EUV lithography ecosystem.

Profile

#### Yoshihiko Sato

General Manager. EUV Global Business Unit, Industrial Process Division Ushio Inc.

### 1 Business Overview

The FPD and semiconductor market was on a downward trend in 2023 due to the end of telework-related demand, global inflation, and growing geopolitical risks. Device manufacturers are adjusting their inventories, and investment in production equipment is relatively modest. However, starting in 2024, this period of inventory adjustment is expected to end, and production equipment investment is expected to recover due to the full-fledged adoption of OLED in IT products and rapid

> growth in demand for semiconductors in areas such as electric vehicles and generative Al.



#### Profile

## Yuma Yamaguchi

General Manager, Sales Department 1, Photon Process Global Business Unit, Industrial Process Division, Ushio Inc.

#### 2 Future Initiatives and Outlook

We will continue to learn about and meet customer needs in the FPD, semiconductor, and printing markets, while exploring new processes and applications in the cutting-edge semiconductor, automobile and battery markets. In particular, regarding research and exploration, where we have disseminated information from Japan to the world up to now, we will build a system that enables us to grasp and resolve needs and issues in each region. We will continue working to help our customers boost productivity and to reduce environmental impact through our products.

#### Segment

## Visual Imaging

The Visual Imaging Division's mission is to "delight people." To achieve this, we aim to be a group of professionals in which each team member can propose solutions to create premium spaces based on customers' perspectives.

#### **Profile**

#### Takenori Watanabe

General Manager. Visual Imaging Division, Ushio Inc.



#### Strengths

- Power of brands with extremely strong market presence: Christie Digital Systems (CDS) for video, Ushio Lighting for lighting, Ushio Inc. for projector light sources, and XEBEX for theater solution providers
- Possession of digital-compatible devices and peripherals: Demonstrating the ability to control and resolve issues through light using proprietary core technologies
- Possession of a customer-oriented mindset in sales and support activities: Achieving a high global market share

#### Review of Fiscal 2022

The visual imaging market has generally recovered following the upturn of economic activity in various countries. Accordingly, orders for visual imaging products have improved significantly due to factors such as movie theaters reopening and events restarting. However, movie theaters have faced difficult financial conditions due to the long pandemic, and movie theater-related capital expenditure was carried over to 2023 or later in many cases. There were also serious shortages of some parts, including rare parts and semiconductors and various costs rose over the course of the fiscal

year. Under the circumstances, positive factors relating to projector replacement lamps and entertainment imaging equipment were better than anticipated, and sales and operating income exceeded expectations. At the same time, while movie theater imaging equipment saw significant year on year growth, results were still lower than expected due to the significant impact of negative factors. As the market opens up further and business opportunities expand in fiscal 2023, we will work to seize the possibilities that this situation presents.

#### Initiatives Based on the Five Management Focuses

- Continuing to provide premium spaces that delight people through our hard (imaging/lighting equipment) and soft (system peripherals) products, experiencebased production design, and services to support stable operation
- Being recognized as a one-stop solution provider for video and lighting production by customers
- Developing human capital that can play an active role on a global basis and that can develop new business models through DX

• Promoting mutual understanding and increasing psychological safety by holding "town hall" and 1-on-1 meetings

- Creating an environment that facilitates the creation of new ideas by promoting diversity and inclusion
- Reducing the Company's direct and indirect GHG emissions by promoting use of renewable energy
- Working to reduce environmental impact by developing and launching green products and through recycling and reuse of products
- Building a stable foundation for business operations by enhancing supply chain management
  - Building a robust management base through management that enhances solidarity with Group companies

#### Our Vision for 2030

The Visual Imaging Business aims to establish a position as the leading company in niche markets by building video and lighting platforms based on proprietary core technologies and services. In order to contribute to our customers' success, we will transform into an organization in which teams collaborate and connect vertically

and horizontally based on free, open-minded thinking. We will also ensure a certain level of profitability (based on an operating margin target of 8 to 12%), while continuing to invest in the future of society and markets. Above all, we will do our utmost to ensure that each and every team member finds their work rewarding.

#### Delight people through imaging and lighting technologies

#### Trajectory of light solutions to materialize vision

#### Provide solutions to create premium space experiences delivering a greater sense of presence

R&D (Power to Solutions (Power to provide After-sales support light-based solutions)

Drive core technology advances and keep developing technological customers seek

control light)

Provide one-stop solutions to deliver premium experiences that

(Power to retain light) Reinforce support structure to

#### Value generated in market

- Customer value Cut costs by streamlining operations (including by making cinemas completely
- Materialize stable and sustainable operational structure
- Increase added-value services for customers through advanced video

Social value

Financial Targets

Help maintain a positive social environment by delighting and fulfilling people through video and light

#### Strategy Overview

#### Overcoming a Decline in Lamp Earnings to Rebuild Our Business Structure with a View to 2030 and Create a Stable Base for Business Operations

In the Visual Imaging business, while lamp revenues are on the decline, demand for DCP replacement continues. There is also growing need for advanced video production in the post-pandemic period. Looking to 2030, over the period covered by the 2<sup>nd</sup> Medium-Term Management Plan, we will aim to build a structure to provide one-stop solutions as a stable earnings base, address risk factors for deteriorating business performance, emphasize balance sheets in continuing to evolve the business, and reform our business structure.

We intend to further enhance the value we provide by continuing to add value to customer-facing services while utilizing the know-how we have built up relating to advanced video production and making the most of partnerships.

#### (Billions of ven) 125.0 100.0 CAGR 75.0 50.0 25.0

Net sales (left) — Operating margin (right)

the Company for comparison purposes

\*2 Operating income margin for FY2025 is calculated excluding amortization of new goodwill

\*1 FY2022 values for each segment are reference values prepared by

#### Action Plan 1

#### Build structure to provide one-stop solutions and solidify high value-added proposals

- Revise product lineup and sales structure
- Provide solutions (strengthening maintenance) services through content management and IoT network)
- Strengthen display products
- Strengthen service and support system by connecting through network
- Deploy solutions by utilizing next-generation transmission technologies

#### Action Plan 2

#### Address risk factors for deteriorating business performance

- Restructure supply chain management in response to parts shortages
- Soaring xenon gas prices: Collect used lamps and promote multi-company purchasing
- Decrease in demand for lamps due to the shift to solid-state light sources: Increase market share by strengthening sales and service, and improve efficiency by consolidating production

#### Action Plan 3

Emphasize balance sheets in continuing to evolve business

- Reduce product cost and loss cost
- Optimize inventory by refining PSI planning

USHIO INC. Ushio Report 2023

#### Cinema Business

#### Providing Surprising and Exciting Experiences through Total Solutions

Methods for delivering cinematic content are diversifying, but the need for the richness of presenting compelling stories and video expression has firm roots. In recent years, movie theaters have been developing into spaces to enjoy other forms of entertainment aside from films, such as e-sports and live performances. Ushio supports such movie theaters around the world through solutions including the provision of high-brightness and high-resolution digital cinema projectors, the xenon lamps and lasers inside these projectors, and managed services that support the operation of movie theaters and provide surprising and exciting experiences.

#### 1 Business Overview

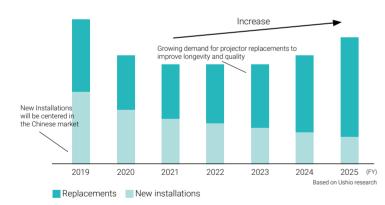
As box office revenues bounce back around the world, we expect our business performance to recover in turn. 2023 was predicted to be a year of recovery for the global entertainment business, and this is borne out by the fact that box office performance is anticipated to reach at least 85% of pre-COVID-19 levels. Accordingly, in addition to the provision of low-cost solutions, the latest products designed to enhance the in-theater viewing experience continue to be in high demand. In a highlycompetitive environment, movie theaters must make additional investment to improve the quality of the experience in order to capture the attention of audiences and get customers to spend time and money at their establishments. CDS will provide suitable solutions to entertainment organizations looking to transition to next-generation presentation technology using solid-state light sources.

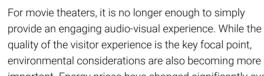


CP4435-RGB RGB laser projector for cinemas



#### Outlook for Cinema Projector Demand (units)





2 Future Initiatives and Outlook

quality of the visitor experience is the key focal point, environmental considerations are also becoming more important. Energy prices have changed significantly over a relatively short period of time. In line with this, we are continuing to focus on finding the most efficient ways to convert energy into light, provide illumination and create captivating viewer experiences. Furthermore, through the introduction of additional technologies such as data analysis and system management, we will continue to provide effective tools for low-cost operations that are also considerate towards the environment.

**Profile** Brian Claypool Executive Vice President, Cinema, Christie Digital Systems

## **General Imaging Business**

#### Sharing Excitement and Experiences through Imaging Solutions

Ushio fascinates people with light in various gathering spaces, including amusement parks, commercial facilities, meeting rooms, classrooms, and public facilities. We provide social value by sharing excitement and experiences with others. Demand for projection mapping in large spaces has been increasing and solutions from Ushio are being utilized in numerous places in order to produce dynamic visual experiences and excitement.

#### 1 Business Overview

In the entertainment market, which is our target market, we are continuing to see a strong recovery in business performance, including the expansion of our market share and winning several new large-scale projects. In the flat panel business, shipments are recovering and there are signs of a return to pre-COVID-19 levels. Our recovering performance in the entertainment market can be attributed to the high competitiveness of the Griffin and M Series pure RGB laser projectors, which have a small footprint and are energy efficient. In addition to the advancement of this technology, CDS's products are contributing to the Ushio Group's earnings through their superior color and image performance. Furthermore, the expansion of the MicroTiles LED platform has led to continued growth in LED profits. With the addition of the new 0.75 pixel pitch, MicroTiles products have gained a worldwide customer base.



RGB laser projector Griffyn 4K35-RGR

#### 2 Future Initiatives and Outlook

We will continue to work closely with key customers and strive to understand their future direction as part of our efforts to develop innovative products in line with customers' needs moving forward. This also provides the Engineering Division with opportunities to explore new solutions,

enhancing competitiveness while also fostering the development of intellectual property.

We have already established a widely-recognized position as a leader in pure RGB laser projection and are also actively developing specialized software and image processing solutions. Our research and



Profile Michael Bosworth

Executive Vice President, Enterprise, Christie Digital Systems

development team are currently exploring technologies to bring to market while sharing common technology blocks across platforms. Through this strategic approach, we will work to increase earnings while keeping development costs down.

#### Solution Case Studies

IVEX Studio is part of U-PLANET, a mixed-use cultural complex in Gwangmyeong, South Korea. Through an integrated solution featuring CDS's laser projectors, the facility provides visually appealing interactive experiences for customers.





LEGOLAND® Windsor Resort

The Flight of the Sky Lion attraction in London's LEGOLAND® Windsor Resort utilizes a D4K40-RGB from CDS, and CDS is also playing a central role in technical areas such as putting forward new solutions.

#### Segment

## Life Sciences

By using our optical technologies to resolve social issues related to healthy life expectancy, which in turn helps people live fulfilling lives, we contribute to the realization of lifestyles that enable people to live free lives with safety and reassurance and improve their quality of life (QOL).

Profile

#### Kazuhisa Kamiyama

General Manager, Life Science Division, Ushio Inc.



#### Strengths

- Core light-related technological capabilities enabling contribution relating to three key areas: climate change countermeasures, food initiatives, and healthy life expectancy extension
- Disinfection technology and UV purification technology enabling the provision of living environments that offer safety and reassurance in the environmental hygiene field
- Ability to develop solutions to pursue "healthy life expectancy extension" in the healthcare field

#### Review of Fiscal 2022

The risk of a global spread of COVID-19, which had existed until 2022, has gradually subsided, and economic activity is progressing to a state of "living with COVID-19," particularly in developed countries. People's lives are now showing signs of returning to the calm of the pre-COVID-19 period. At the same time, the environmental hygiene field is continuing to see a pressing need for safety and reassurance. To meet this need, we have made progress towards eliminating the worries of end users regarding the use of UV light by continuing to gather evidence of safety and achieving safety standards.

Furthermore, we believe that there is a global market for Care222, which has the ability and potential to resolve various social issues in addition to its disinfection application. We have created a system for sharing resources and information regarding issues to be resolved both in Japan and across the Group, and to promote Group-wide development of secondary and tertiary applications, which is one of the major themes of the 2<sup>nd</sup> Medium-Term Management Plan.

#### Initiatives Based on the Five Management Focuses

- Approaching the launch of new businesses with speed, passion, and willingness to take on challenges
  - Identifying missing parts required to achieve the quantitative and qualitative targets of Vision 2030 and strengthening measures to address these deficiencies
- Achieving speedy management by transferring authority to worksites, and aiming to develop human capital such that employees have a high degree of independence and decision-making ability
  - Striving to create open workplaces while promoting diversity and innovation
  - Avoiding starting discussions with negatives and approaching matters with a perspective focused on how things can be done
- Clearly demonstrating the quantitative effects of environmental hygiene solutions in areas such as ROI to customers in addition to collecting evidence of their efficacy in terms of environmental hygiene
- Clarifying issues and working based on a medium- to long-term perspective looking to 2030 and beyond, and avoiding thinking overly focused on the short term

#### Our Vision for 2030

Moving forward, we will work to use our optical technology to resolve social issues such as climate change, food shortages and the extension of healthy life expectancies while also striving to eliminate causes of disease and maintain and promote good health by providing consistently better living environments. We aim to

contribute to the realization of a society in which people can live happy, fulfilling lives every day by supporting the health of people and the Earth, by ensuring people have safety and reassurance in their living environment at work, at home, and in their communities, and by helping to improve their quality of life.



#### Strategy Overview

Understanding Social Issues from End Users' Perspectives and Cultivating Development to Reach a Scale Comparable to Industrial Processes and Visual Imaging Businesses

As a development business, Life Sciences is a domain in which we view growth from a long-term perspective.

During the 2<sup>nd</sup> Medium-Term Management Plan, our activities will extend beyond Japan to reach a global scale, and we will strive to raise awareness and obtain evidence of safety as we look to make leaps forward under the 3<sup>rd</sup> Medium-Term Management Plan and beyond. Beyond the environmental hygiene business, in addition to development of secondary and tertiary applications, investment in technology, production and development, and expansion of sales channels, we will also utilize means such as partnerships and M&A with other companies and institutions to resolve resources deficiencies as we advance our activities.



- \*1 FY2022 values for each segment are reference values prepared by the Company for comparison purposes.
- \*2 Operating income margin for FY2025 is calculated excluding amortization of new goodwill.

## Action Plan 1

#### Grow and expand current business domains

- Infectious disease control: Secure business primarily in medical and elder care and mobility as a service markets
   Step up marketing overseas and acquire evidence for value proposition
- Indoor environment improvements: Leverage light to create deodorization and toxic substance removal technology and secure projects for use in products
- Expand lineup and distribution of UV therapy (immunocontrol) equipment







#### Action Plan 2

Realize sustainable business creation through an autonomous approach cycle and the creation of a monitoring environment

#### Approach

- Identify social trends and social issues globally
- 2 Explore and develop tomorrow's technologies
- 3 Develop reproduceable technologies that become assets
- 4 Collaborate with partners to drive business

#### Monitoring and selection process

Integrate and update trees, market trends, and proprietary technology map Monitor changes in focus markets over time and manage project milestones

For details, please see:

> 🕮 P.60 Examples of Business Creation with Greater Social Value

#### Segment

## **Photonics Solutions**

We provide cutting-edge photonics solutions and make full use of strategic partnerships, including those outside the Company, to promote the development of our three businesses—Industrial Processes, Visual Imaging, and Light Solutions—as we aim to resolve social issues and realize a better future.

#### Profile

#### William F. Mackenzie

General Manager, Photonics Solutions Global Business Unit, Ushio, Inc.



#### Strengths

- Position as a leading supplier of red lasers and fiber-coupled modules, and one of the few manufacturers in the world capable of handling everything from LD/LED devices to module/system development and production, together with development of vertically-integrated businesses to capitalize on this distinction
- Possession of locations and bases worldwide to put forward solutions in Japan, the US, Europa, and Asia
- Possession of connections with industry-leading companies in various business domains

#### Review of Fiscal 2022

Companies had overprocured parts in response to the effects of COVID-19 and geopolitical risks, which led to a reaction in the form of sluggish demand. There were also difficulties in procuring semiconductor parts and other materials. As a result of these factors. sales and business profits in the LD/LED devices business both fell short of targets. Despite these circumstances, the laser solutions business, into which lasers and module systems are integrated, reached its targets as a result of factors such as new orders for scientific equipment.

In the LD/LED device business, we are shifting development resources from our current fields of focus (projectors, show lasers, etc.) to next-generation fields that are expected to grow (AR/VR, in-vehicle technologies, LDI\*, etc.), and we are making preparations for mass production.

In the laser solutions business, we are working with leading customers to resolve issues, put forward designs and provide value tailored to customer needs. We expect to launch mass production within the next few years.

\* Laser Direct Imaging: Fiber-equipped light sources with multiple semiconductor laser elements

#### Initiatives Based on the Five Management Focuses

 Continuing to create innovative products, services, and solutions to resolve issues for customers and society Building an organization and systems that can grasp social changes and technological trends, then propose light-based solutions Building an organization in which diverse personnel can play an active role and building teams in which young people can develop and experienced employees can make an active contribution • Contributing to reducing the energy consumption and CO2 emissions of customers' products • Constructing a portfolio of core businesses and strategic businesses, and achieving supply chain management and co-creation both within the group and with external partners

#### Our Vision for 2030

By leveraging our experience in vertically-integrated businesses from device manufacturing to modules to solutions, we will work to create innovative photonics technology that improves people's lives by resolving complex issues while also providing value to business stakeholders (employees, customers, suppliers, shareholders and society).

We will aim to be a leader in the development, manufacturing and commercialization of innovative photonics solutions, and to be a catalyst for positive change in the world through our dedication to excellence, innovation and social responsibility.

## Contribute to improving people's lives and provide value to our stakeholders

#### Trajectory of light solutions to materialize vision

To be a driving force for positive change in the world through the realization of innovative technologies that enrich people's lives

Solutions (Power to provide R&D (Power to control light) light-based solutions)

Develop devices and modules that enable the creation of new markets and products by taking advantage of our vertically

(Power to retain light) Propose solutions to issues faced Long-term stable supply by the market and customers' products

After-sales support

#### Value generated in market

- Customer value Contribute to technological innovation
- Development and provision of products with unprecedented specifications/characteristics
- Visualization of previously unseen issues
   Reduce the environmental impact of customers' products

- Contribute to OOL improvement (AR/MR, in-vehicle, machine vision)
- Contribute to medical issues (remote medicine, endoscope, microscope)
   Contribute to climate change countermeasures and environmental issues (PV
- inspection light sources, recycling sorting)
- Improve convenience (devices and modules for semiconductor production and inspection)

  Food safety and security (food sorting)

#### Strategy Overview

#### Co-creating Value with Customers and Swiftly Establishing Niche Top Positions

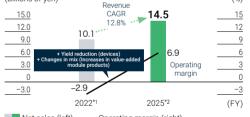
The solid-state light source market has already exceeded ¥10 trillion in size and is expected to continue growing at an annual rate of 7 to 11% over the medium to long term against the technological backdrop of expanding optical applications and improving energy efficiency. Under the 2<sup>nd</sup> Medium-Term Management Plan, in addition to developing new device products and providing modules and subsystems with high added value that meet the quality required by customers, we will also make active use of inorganic investments as we aim to swiftly establish niche top positions through co-creation with customers, starting from the development stage.







#### Financial Targets (Billions of yen)



Net sales (left) — Operating margin (right)

- \*1 FY2022 values for each segment are reference values prepared by the Company for comparison purposes.
- \*2 Operating income margin for FY2025 is calculated excluding amortization of new goodwill.

#### Action Plan 1

#### Growth and expansion of devices business

- Focus on niche and growth applications in upstream areas of IP\*/VI\*/LS\*
- Discover lighthouse customers for each application and promote product development through co-creation
- Contribute to earnings through improved product yields
- IP: Reduction of cost of LDs for semiconductor manufacturing equipment and enhancing semiconductor inspection device production capacity
- VI: Gaining adoption of AR/MR and in-vehicle embedded applications
- LS: Expansion of the number of sensing application projects acquired

#### Action Plan 2

#### Growth and expansion of laser solutions business

- Expand target applications
- Carry out exploration and deepening in relation to potential customers
- Promote platform product development in harmony with target
- Maximize the effect of synergies through Group-wide collaboration
- Enhance solutions business awareness (online media and trade shows)
- IP: Development of new fields, including particle monitoring
- VI: Development of new non-projector fields, such as AR/MR and in-vehicle products
- LS: Expansion of projects acquired in the medical field, including gene sequence determination and microscope illumination

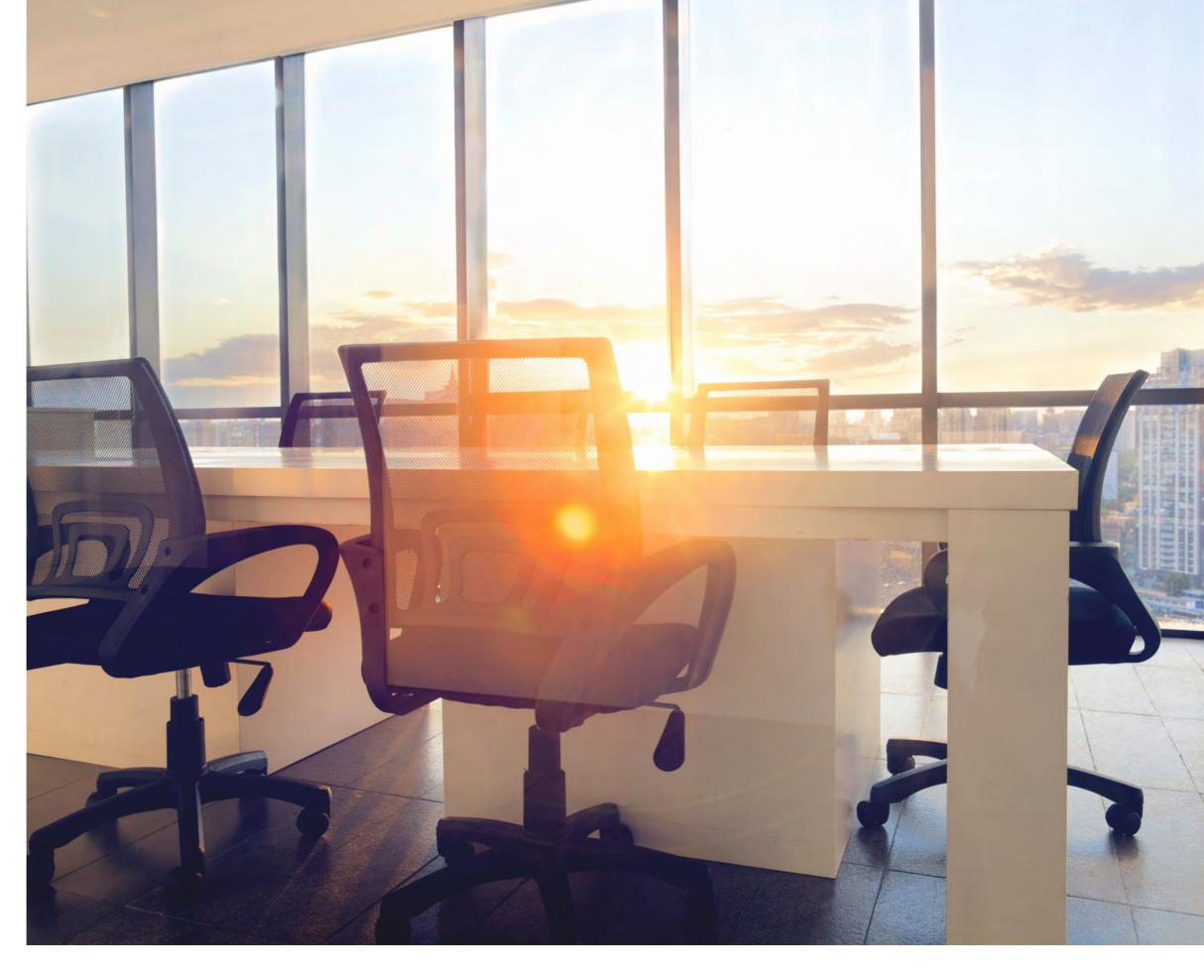
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<sup>\*</sup> IP: Industrial Processes VI: Visual Imaging II S: Life Sciences

# **Enhancing Our** Management Base

Our Corporate Governance System

On our path to becoming a "light" solutions company, we lay an even stronger foundation, supporting astute resource allocation and agile decision-making.





## **Messages from Outside Directors**





#### Profile

Masatoshi Matsuzaki
Outside Director

## Taking Office as Chair of the Board of Directors

At one of our executive sessions, which are meetings comprising only outside directors, the opinion that I, as an outside director, should be Chair of the Board of Directors in order to strengthen Ushio's corporate governance was expressed. With the blessing of the internal directors, I was elected to this position after the Board of Directors meeting following the Annual General Meeting of Shareholders in June this year (2023).

Since I joined Ushio Inc. as an outside director in June last year (2022), I have taken in elements such as how board meetings are convened, how agendas are set, how proceedings are managed, and how minutes are created. On several occasions, I felt that governance was not in a desirable state and that outside directors were not able to perform their functions adequately, despite being large in number. This may be a result of the fact that the style from when the

founder led the Board of Directors had continued to be followed by the internal directors and the secretariat of the Board of Directors as a matter of course.

Starting with the premise that approval cannot be given without a reasonable explanation, I have taken actions such as requesting opportunities for deliberation during the formulation of execution plans when approving important matters like the Medium-Term Management Plan. In order to establish the transparent, fair, timely and decisive decision-making process in consideration of the perspectives of shareholders and other stakeholders set out in Japan's Corporate Governance Code and achieve the Code's objective of sustainable corporate growth and increased corporate value over the medium- to long-term through the perspectives of diverse outside directors, I also came to the conclusion that it would be better for Ushio to have an outside director serve as Chair of the Board of

Directors. Other outside directors recommended me because I had experience of chairing the Board of Directors as an outside director at other companies, and I accepted the position.

As Chair of the Board of Directors, I will start by establishing transparent, fair, timely and decisive decision-making processes. To that end, I will demand the provision of information and rational explanations necessary for decision-making. This is necessary for decision-making that is not only transparent and fair, but also timely and decisive, because it is impossible to act quickly and definitively if information and explanations, including those with regards to risks, are insufficient. We must also share our framework for decision-making.

Next, I will select agenda items that I believe merit discussion based on my standpoint as an outside director, focusing on improving Ushio's corporate value in the medium to long term, and use that as a basis for effective deliberation by sharing issues to be addressed. Having an outside director serve as Chair of the Board of Directors is highly significant in terms of being able to include a supervisory perspective in setting the agenda and leading proceedings in a way that enables effective discussions to be held. I would like us to keep in mind that corporate value is purely economic value, that is, the present value of the cash flow that a company will generate in the future.

For example, in 2<sup>nd</sup> Medium-Term Management Plan, which Ushio announced in May this year, we stated our intention to work even harder on ESG (non-financial factors) issues, and I would like us to examine how we can tie them to improving economic value and whether we are working with the story we have set in mind while examining both risks and opportunities for growth.

In terms of focusing on improving Ushio's medium- to long-term corporate value, we recognize the extreme importance of following through on the Medium-Term Management Plan. With regards to capital policy, when the current Medium-Term Management Plan was created, the other outside directors and I pointed out that Ushio had not made strategic and effective use of capital. We asked that time be allocated for deliberation, and offered some guidelines as we discussed and formulated such a policy. In terms of business strategy, on the other hand, the Board of Directors did not have enough time to discuss which businesses should receive strategic and priority investment, how we should grow those businesses, and the extent to which we should or can grow them. As a result, three

business segments were launched in parallel, which was regrettable. It has been agreed with the internal directors that we will continue to deliberate business strategies, and handle them as important agenda items for the Board of Directors in this fiscal year. Ushio can compete globally only in specific businesses within Industrial Processes (lamps, equipment, and related solutions), and I hope to see us reexamine and deliberate this distinction and how we can grow these distinctive businesses, then show that externally.

I have been an outside director for several Japanese companies, and I believe that in order for the Board of Directors to function effectively, it is important to align our understanding of oversight, which is the role of outside directors, how it differs from monitoring and the significance of being subject to oversight from the perspective of internal management.

#### Messages from Outside Directors



Message from Chairperson of the Nomination and Remuneration Advisory Committee

#### Profile

## Sakie Tachibana Fukushima

Activities of the Nomination and Remuneration Advisory Committee
Ushio's Nomination and Remuneration Advisory Committee comprises a total
of six members, five outside directors and one inside director. In the fiscal
2022, the committee met a total of 9 times, with a 100% attendance rating by
all members.

Major matters considered by the committee in the most recent fiscal year are described below.

# Recommendations Regarding Remuneration Scheme for Directors and Executive Officers and Linked KPIs During the $2^{\rm nd}$ Medium-Term Management Plan

As Ushio works toward the realization of Vision 2030, in line with the start of the 2<sup>nd</sup> Medium-Term Management Plan (fiscal 2023 to 2025, hereinafter, "the current Medium-Term Management Plan") in April 2023, which is based on the pillars of building a structure to provide light solutions, overhauling the business portfolio and expanding strategic investments, the Nomination and Remuneration Advisory Committee has worked to change the evaluation and remuneration system to improve linkage with this plan, further increase the motivation of directors and executive officers to contribute to improving corporate value, and encourage the steady implementation of the current Medium-Term Management Plan. We have been proactively working in this area as our most important theme.

As a result of these activities, the following recommendations regarding improvements to the evaluation/remuneration system were made to the Board of Directors and were approved.

- Financial targets for short-term performance-linked financial remuneration and medium- and long-term performance-linked stock remuneration were linked to key KPIs from the current Medium-Term Management Plan, and ROE (calculated excluding new goodwill amortization) and consolidated EBITDA were adopted.
- ESG benchmarks were introduced as common KPIs linked to medium- and long-term performance-linked stock remuneration for all directors and executive officers.
- 3. In order to further increase motivation for directors and executive officers to enhance corporate value and promote the steady implementation of the current Medium-Term Management Plan, the remuneration composition ratio was reviewed and the proportion of medium- and long-term performance-linked stock remuneration was increased.
- In order to promote the steady implementation of the Medium-Term
   Management Plan, with regards to medium- and long-term
   performance-linked stock remuneration, the base number of stock points
   set for different director and executive officer positions was weighted
   toward the final year of the Medium-Term Management Plan period.
- 5. The adoption of malus and clawback provisions for medium- and long-term performance-linked stock remuneration has continued.

Recommendations Regarding the Governance System in the Next Fiscal Year Examination of Board of Directors composition: With regard to the selection of director candidates for fiscal 2023, we held examinations on the number of directors (both outside and inside) appropriate for enhancing the effectiveness of the Board of Directors. At the same time, we determined the number of new candidates for outside and inside directors based on the number and skills of directors scheduled to retire in accordance with Ushio's criteria for tenure and other standards.

In the case of selection of outside directors, we established a process for tapping candidates for appointment as outside director after making a list of candidates and narrowing them down not only to ensure compliance with the Company's standards of appointment and independence but also to gain optimal skill matrix coverage in terms of corporate strategy. Based on this process, we selected Mr. Tetsuo Nakano and Mr. Naoaki Mashita as new candidates for director and made a recommendation for their appointment to the Board of Directors. They were subsequently appointed in June 2023.

Tetsuo Nakano	After having worked in the sales division of our Light Source Business for many years and directed the management of China Group Companies, Mr. Tetsuo Nakano assumed the position of General Manager of the Light Source Business in April 2019. Since April 2022, he has been serving in the position of General Manager responsible for the promotion of ESG management. With such extensive experience and knowledge, we judged that he could be expected to perform an appropriate role in overall management toward further improving corporate value.
Naoaki Mashita	As the founder and manager of an information and telecommunications and DX business company, Mr. Naoaki Mashita has been engaged in global corporate management with offices in Asia and North America, and possesses global values along with a wealth of experience and in-depth knowledge in the field of IT. With such strengths, we determined that he would be able to provide useful supervision and advice to the Company.

Appointment of outside director as chair: In order to enhance the supervisory functions of the Board of Directors, we recommended to the Board that outside director Masatoshi Matsuzaki, who has extensive experience chairing boards of directors, be appointed as Chair of the Board of Directors.

## Executive Officer Monitoring and Recommendations Regarding Management Structure for Next Fiscal Year

In addition to examining the internal executive structure and the Company's management succession plans, the Nomination and Remuneration Advisory Committee has also monitored and made recommendations regarding the appointment and training of next-generation management candidates as part of the Company's medium- to long-term succession plans.

#### Activities of the Nomination and Remuneration Advisory Committee

	All executive officers, including the CEO     Candidates for the next generation of Ushio's management (executive officers) based on the recommendations of the CEO
	Interviews held by all of the outside directors
Recommendation content	As outside directors, we collected opinions on ways to cultivate individual candidates in the future such as through the assignment of difficult tasks, and made recommendations to the CEO accordingly.

The current CEO has respected and reflected the opinions and instruction of the Nomination and Remuneration Advisory Committee in terms of appointments and training. Furthermore, we will oversee the PDCA cycle for medium- to long-term succession, including 360-degree evaluation. By doing so, we will make recommendations that can be utilized for the further discovery and development of talent for the next generation and the generation after.

## Redefinition of Selection Process for Candidates for Directors Who are Audit & Supervisory Committee Members

Ushio uses an Audit & Supervisory Committee system. As such, the selection of candidates for directors who are Audit & Supervisory Committee members is determined by the Audit & Supervisory Committee. However, as some aspects of the relationship and information sharing with the Nomination and Remuneration Advisory Committee were unclear, we held discussions with the Audit & Supervisory Committee to clarify the process of selecting candidates for directors who are Audit & Supervisory Committee members as part of internal regulations.

#### Messages from New Directors



Profile

Tetsuo Nakano

Director and Managing Executive

Officer

I joined Ushio Inc. in 1988 and am now in my 35th year with the Company. When I joined Ushio Inc., I was involved in light source sales first, then, I was assigned to Ushio Shanghai, Inc. in 2007, and we established sales bases and customer service locations across China over the 12 years that followed. Starting with the establishment of the ASIA Strategy Executive Committee (ASETT) in 2016, we have promoted consolidated management with seamless cross-border connections with group companies in charge of manufacturing and sales in China, South Korea, Taiwan, and Southeast Asia. We aimed to achieve consolidated management with an awareness of reinforcing governance alongside this business expansion.

I have been responsible for operations as General Manager of the ESG Promotion Headquarters since 2022. In terms of promoting ESG management in a manner as befitting of "Ushio" as possible, one particularly important aspect is that, based on my past experience, it is easy for an expanding business to be preoccupied with immediate action and neglect governance. However, strong governance means effective governance, and establishing a thorough management system will enable us to take control and ensure continued sound management. I believe that reinforcing governance will lead to three outcomes:

- 1. Improvement of the Company's social value (external trust, brand power as an outstanding company, etc.)
- Creating employee-friendly work environments (organizing the internal management system enables highly-transparent workflows, making it easier to eliminate unreasonableness, waste, and disparities within the Company)
- Expansion of long-term profitability (leading to more efficient business operations results in expanding long-term profitability and also enables exploration of measures to further enhance corporate competitiveness by reinvesting profits)

Reinforcing governance in this way will lead to improvements in organizational competitiveness and resilience. Finally, I am sure many people have heard this before, but faced with the uncertain future of the VUCA era, I believe that Ushio must take a frank and bold approach. By working to reinforce Ushio Group's governance system in my role as director as mentioned above, I hope to contribute to the Group's development.



Profile

Naoaki Mashita

Outside Director

I founded a software startup called V-cube, Inc. in 1998, when I was still in college, and have now been running the Company for 25 years. I have experience of overseas expansion, domestic and overseas M&A, stock listing (listed on Mothers in 2013, listed on the First Section of the Tokyo Stock Exchange in 2015), the starting of numerous new businesses, open innovation with large companies, and establishing multiple start-ups as a serial entrepreneur. Over the past few years, as a Vice Chairman of the Japan Association of Corporate Executives, I have been actively working on startup promotion, regulatory reform, and cooperation with ASEAN from the standpoint of the business world.

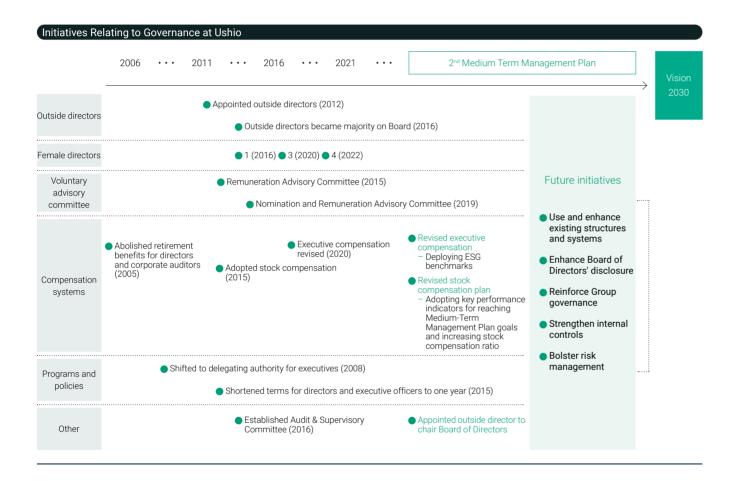
Founded by Jiro Ushio, a greatly respected founder as well as chairman of the Japan Association of Corporate Executives, Ushio Inc. has seen significant global growth as an innovative leader in optical technology. However, I recognize that the time has come for us to make major changes in order to achieve sustainable growth. While I have been appointed as an outside director, I still have relatively little experience in this role, and the startups I have been involved differ from Ushio in terms of scale and the industries they work in.

Nevertheless, I hope to make a contribution as an outside director through my experience of working in new areas, facing constant change, digitalization and global expansion. Taking advantage of the fact that I am a similar age to Ushio's mid-career employees, I will strive to contribute to Ushio's long-term sustainable growth through dialogue with the people responsible for shaping the Company's future.

#### Corporate Governance

Ushio recognizes that realizing its Management Philosophy, as well as promoting the sustainable growth of Ushio and increasing corporate value over the medium-to long-term, will bring satisfaction to all stakeholders.

To achieve this goal, Ushio strives to ensure the transparency and efficiency of corporate management and to reinforce corporate governance in order to realize speedy and resolute decision-making.



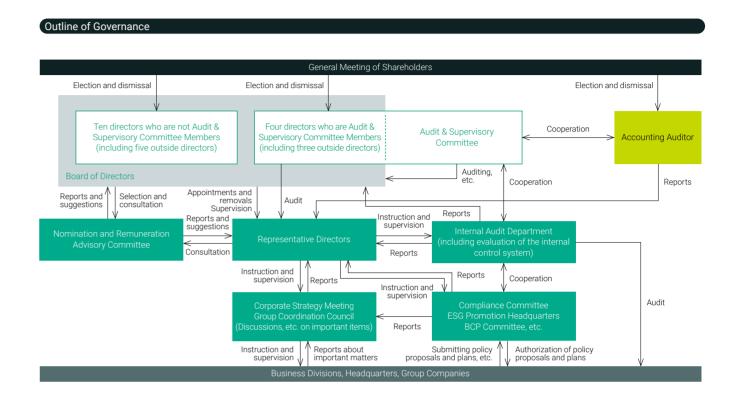
#### Corporate Governance System (As of June 29, 2023)

Ushio uses an Audit & Supervisory Committee system, which fosters prompt decision-making by delegating decisions for certain important business matters from the Board of Directors to the executive directors. It has also strengthened the supervisory function of the Board of Directors by ensuring that the majority of its members are outside directors. The system has also been reinforcing audit and supervisory functions by having established an Audit & Supervisory Committee with the authority to assess the legality and validity of board members in performing their duties.

In addition to establishing a system for more accurate and prompt business execution through the executive officer system, Ushio has established a Corporate Strategy Meeting and Group

Coordination Council to discuss and report on important matters.

Furthermore, there is a Nomination and Remuneration Advisory
Committee for the purpose of ensuring the fairness and appropriateness of the nomination and remuneration of directors. The
Nomination and Remuneration Advisory Committee is chaired by
and comprises a majority of outside directors. The committee is
chaired by Sakie Tachibana Fukushima (independent outside director) and its responsibilities as advisors to the Board of Directors and
the representative directors consist of advice and recommendations
concerning the structure and level of remuneration for directors,
evaluations of the contributions of individual directors to business
performance, and the nomination of director candidates.



#### Activities of the Board of Directors

Ushio's Board of Directors met 11 times in fiscal 2022. The main items for examination by the Board of Directors included the status and appropriateness of the implementation of the Medium-Term Management Plan up to March 2023 and related measures, strategies and issues relevant to each business and the implementation of related measures, the formulation of the Medium-Term Management Plan commencing in April 2023, the formulation of financial capital strategies, the operational status of risk management and internal control systems, the promotion of

personnel-related measures such as talent development and recruitment, the promotional status of ESG management, dialogue with institutional investors, and examination of the propriety of cross shareholdings. In addition, meetings attended only by outside directors, known as executive sessions, are held on a regular basis to ensure a forum for information exchange and to establish common understanding based on independent, objective perspectives. A total of 6 executive sessions were held in fiscal 2022.

#### Evaluation of the Effectiveness of the Board of Directors

Ushio conducts questionnaires and interviews regarding individual directors concerning the composition of the Board of Directors, the status of operations, matters discussed, and more, and analyzes and evaluates the effectiveness of the Board of Directors once per year. As a result of the analysis and evaluations conducted in fiscal 2022, the Company judges that the effectiveness of the Board of Directors has been generally secured.

Meanwhile, the Board of Directors has identified and shared the need for measures relating to setting agendas in advance in order to promote effective deliberation given the limited time and opportunities for meetings and the need to further enhance the content of materials as issues that need to continue being addressed going forward. The Company will continuously engage in improving these processes.

#### Corporate Governance

#### Audit & Supervisory Committee

The Audit & Supervisory Committee comprises four directors who are Audit & Supervisory Committee members, and has been established to oversee the directors' performance of duties. Ushio has also appointed a full-time Audit & Supervisory Committee member to enhance the efficacy of audits by collecting information from directors (excluding those who are also Audit & Supervisory Committee members) and employees, and coordinating smoothly with the internal audit department and Accounting Auditor.

The full-time member Nobuyuki Kobayashi has experience working in the finance departments of the Company, and therefore possesses a high level of expertise regarding finance and accounting. The outside member Akemi Sunaga is a certified public accountant and certified public tax accountant and also possesses a high level of expertise pertaining to finance and accounting. The outside member Chiaki Ariizumi has years of experience working at a public financial institution and therefore possesses a high level of expertise regarding finance and accounting.

The Audit & Supervisory Committee meets once a month, in principle, to supervise the management of the Company and

conduct audits on the appropriateness of business execution by the directors. In fiscal 2022, the committee met 13 times.

Specific items for examination by the Audit & Supervisory Committee include formulation of annual audit plans, which include key audit matters and the division of roles between each member of the Audit & Supervisory Committee; the status of directors' performance of duties through regular interviews with the representative directors; the status and appropriateness of the implementation of the Medium-Term Management Plan and related measures; the status and appropriateness of accounting audits and internal control audits in accordance with audit plans by the Accounting Auditor; the establishment and operational status of Group internal control systems; the monitoring of the management status of Group companies; the status of the Company's compliance and risk management and audit activities of full-time Audit & Supervisory Board members; and other key audit matters (KAM). The audit and supervision of these various factors are carried out from the perspectives of legality and validity.

# Policy on Determining Officer Remuneration Amounts and Remuneration Calculation Method from Fiscal 2023

As Ushio works toward the realization of Vision 2030, in line with the start of the 2<sup>nd</sup> Medium-Term Management Plan based on the pillars of building a structure to provide light solutions, overhauling the business portfolio and expanding strategic investments, it was decided to move to an evaluation and remuneration system that is more closely linked to this Medium-Term Management Plan, starting in April 2023. From the next consolidated fiscal year onwards, the content of the policy on determining matters such as individual remuneration for directors (excluding directors who are Audit & Supervisory Committee members; the same shall apply hereinafter) and executive officers who have entered into an delegation agreement with the Company (hereinafter, directors and applicable executive officers are referred to collectively as "Directors, etc.") shall be revised as follows. Ushio's Board of Directors made resolution on this policy at a meeting held on May 11, 2023. When making this resolution, the Board of Directors consulted with and received reports in advance from the Nomination and Remuneration Advisory Committee.

Also, remuneration for directors who are Audit & Supervisory Committee members has been determined through discussions among such members.

#### 1. Basic Policy on Remuneration

- The remuneration should increase motivation to realize Vision 2030 and the targets of the Medium-Term Management Plan that commenced in fiscal 2023.
- Remuneration should lead to continuous improvement of business performance and corporate value over the medium- to long-term.

- Remuneration should be closely linked with the Company's performance / Company values, and also be highly transparent and objective.
- Remuneration should be at a level that enables recruitment and retention of diverse and talented personnel, considering the level of companies listed on TSE Prime and companies of the same size in the same industry.
- Remuneration should be determined through a transparent process to ensure the trust and support of the stakeholders.

#### Policies on the Composition and Composition Ratio of Remuneration

Remuneration for Directors, etc. consists of fixed monetary remuneration, short-term performance-linked monetary remuneration, and medium- to long-term performance-linked stock remuneration.

The remuneration level and the ratio of remuneration of the Directors, etc. are determined based on the basic policy, objective comparison with officers' remuneration data of external research organizations before, and subsequent deliberation by the Nomination and Remuneration Advisory Committee. The percentage of fixed monetary remuneration, the short-term performance-linked monetary remuneration, and medium- to long-term performance-linked stock remuneration, which are configured according to the positions for Directors excluding Outside Directors, are set approximately at the levels shown in the following table when standard targets are achieved.

Position	Percentage of Fixed Monetary Remuneration	Percentage of Short-term Performance- linked Monetary Remuneration	Percentage of Medium- to Long- Term Performance- linked Stock Remuneration
Representative Director	50%	25%	25%
Directors	55%	25%	20%

## 3. Policies on Short-Term Performance-Linked Monetary Remuneration

The short-term performance-linked monetary remuneration will be determined, based on the Basic Policy, according to the position and the degree of achievement of performance targets (consolidated performance evaluation and performance evaluation of the division in charge) of the fiscal year in order to further increase the motivation of Directors, etc. to contribute to the enhancement of corporate value and to drive the steady implementation of the current Medium-Term Management Plan. Evaluation indicators are linked to the important indicators of the Medium-Term Management Plan. The indicators, ratios, and target values are set as shown in the table below.

This type of remuneration is paid in a lump sum after the end of the fiscal year in an amount determined by multiplying the base amount set for each position by a coefficient set according to the degree of achievement of each evaluation indicator. Short-term performance-linked monetary remuneration varies from 0 to 200%.

	Director Portion	Exe	ecutive Officer Portion
Indicators	ROE*	Consolidated EBITDA	Achievement ratio of the target of each department in charge
Ratios	100%	50%	50%
Target Values	performance t	consolidated arget values of cal year	Linked to the performance target values of the fiscal year of each department in charge

 $<sup>\</sup>hbox{$^\star$ The target value of ROE will be calculated excluding new amortization of goodwill.}$ 

## Policies on medium- to long-term Performance-Linked Stock Remuneration

Medium- to long-term performance-linked stock remuneration will be determined, based on the basic policy, according to the position, degree of achievement of the performance targets and ESG targets in the relevant fiscal year, with the aim of further enhancing the motivation of Directors, etc. (excluding non-residents of Japan) to contribute to the improvement of corporate value and driving the steady implementation of the current Medium-Term Management Plan. Evaluation indicators are linked to the important indicators of the Medium-Term Management Plan. The indicators, ratios, and target values are set as shown in the following table.

The stock points\*1 for medium- to long-term performance-linked stock remuneration granted to Directors, etc. (excluding non-residents of Japan) at a fixed time each year are calculated by multiplying the base stock points\*2 set for each position by a coefficient set

according to the degree of achievement of each evaluation indicator, which varies from 0 to 200%. When a director resigns, the Company will deliver to him/her the number of Company shares determined by multiplying the cumulative number of stock points granted to him/her during his/her term of office by one share per stock point.

	Director Portion	Executive Officer Portion					
Indicators	ROE *³	Consolidated EBITDA	Engagement score *4	ESG rating score *5			
Ratios	100%	70%	18%	12%			
Target Values	performance t	consolidated arget values of cal year	Linked to the	ESG targets			

- \*1 In order to drive the steady implementation of the Medium-Term Management Plan, the base number of stock points set for different positions is weighted toward the final fiscal year of the Medium-Term Management Plan. Therefore, the maximum of the total number of share points per year that Directors, etc. (excluding non-residents of Japan) can receive is 165,000 share points in the last fiscal year of the evaluation.
  127.500 share points in other fiscal years subject to the evaluation.
- \*2 The base stock points for medium- to long-term performance-linked stock remuneration are calculated by dividing the amount of medium- to long-term performance-linked remuneration for each position set in advance by the average closing price of the Company's shares between January 4, 2023, and March 31, 2023.
- \*3 The target value of ROE will be calculated excluding new amortization of goodwill.
- \*4 The Company defines engagement as a "state of feeling that relationships with the Company or colleagues at the workplace are valuable and feeling motivated to make an active contribution" and uses as an engagement score the percentage of employees who have given an affirmative answer to a question indicating such state.
- \*5 FTSE Russell ESG Ratings are used as the indicator.

#### 5. Policies on the Timing and Conditions for Granting Remuneration

Fixed monetary remuneration is paid as a fixed monthly amount. Short-term performance-linked monetary remuneration is paid in a lump sum after the end of the fiscal year. As for medium- to long-term performance-linked stock remuneration, Company shares corresponding to the accumulated stock points granted individually are delivered, and the cash equivalent of the conversion value of said shares is paid if Directors, etc., fulfill the beneficiary requirements, in principle after retiring their positions, in accordance with the Rules on Share Delivery for Directors, etc. prescribed by resolution of the Board of Directors.

#### Matters Related to Delegating Authority for Decision-Making on Remuneration

To ensure fairness and appropriateness, the concrete amount of remuneration paid to individual Directors shall be determined by the Nomination and Remuneration Advisory Committee, which comprises the committee chair and committee members where no less than half of its members are Outside Directors, on the grounds of delegation by the Board of Directors, according to the system and level of remuneration for Directors, etc., as well as deliberations on an evaluation of the degree of contribution to the performance of each Director, etc.

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#### Corporate Governance

#### Total Remuneration for Director Categories, Total Amount by Type of Remuneration, and Number of Eligible Directors in fiscal 2022

		Total Amount by			
Director Category	Total Amount of Remuneration (millions of yen)	Fixed Compensation (monetary compensation)	Performance-linked Compensation (monetary compensation)	Performance-linked Compensation (stock)	Number of Eligible Directors
Directors (excluding directors who are Audit & Supervisory Committee members or outside directors)	248	123	86	37	4
Directors who are Audit & Supervisory Committee members (excluding outside directors)	24	24	_	_	1
Outside directors	67	67	_	_	8

- (Note 1) Performance-linked compensation (stock) is the amount recorded as expenses in the fiscal 2022 according to Japanese GAAP.
- (Note 2) The remuneration for directors (excluding directors who are outside directors or Audit & Supervisory Committee members) comprises fixed monetary compensation, performance-linked monetary compensation, and performance-linked stock compensation. The remuneration for outside directors and directors who are Audit & Supervisory Committee members is solely fixed monetary compensation.
- (Note 3) At the Annual General Meeting of Shareholders held on June 29, 2016, shareholders approved a resolution to limit the remunerations (excluding performance-linked stock compensation) for directors (excluding directors who are Audit & Supervisory Committee members) to ¥540 million per year (of which the portion for outside directors is up to ¥84 million). In addition, the Articles of Incorporation limit the number of directors (excluding directors who are Audit & Supervisory Committee members) to 12.
- (Note 4) At the Annual General Meeting of Shareholders held on June 29, 2016, shareholders approved a resolution to limit the remunerations for directors who are Audit & Supervisory Committee members to ¥84 million per year. In addition, the Articles of Incorporation limit the number of directors who are Audit & Supervisory Committee members to 5.
- (Note 5) The stock compensation system for directors (excluding directors who are Audit & Supervisory Committee members and outside directors) and executive officers who have entered into an engagement agreement with the Company (excluding non-residents of Japan) was established by resolutions passed at the Annual General Meeting of Shareholders held on June 26, 2015 and the Annual General Meeting of Shareholders held on June 29, 2016. Furthermore, as stated in the Policy on Determining Officer Remuneration Amounts and Remuneration Calculation Method from Fiscal 2023 established by a resolution at the Annual General Meeting of Shareholders held on June 29, 2023, the system shall be partially revised from fiscal 2023 onwards.
- (Note 6) The specific amount of monetary compensation paid to individual directors (excluding directors who are Audit & Supervisory Committee members) in fiscal 2022 was determined by the Nomination and Remuneration Advisory Committee, which is chaired by and comprises a majority of outside directors, based on the authority delegated to them by the Board of Directors, with the purpose of ensuring the fairness and validity of this decision.
- (Note 7) Remuneration for directors who are Audit & Supervisory Committee members for fiscal 2022 was determined through discussions among such members.

#### **Cross-Shareholdings**

Ushio maintains cross-shareholdings with important business partners aiming to enhance the medium- to long-term corporate value of Ushio Group through maintaining and strengthening the relationships with such business partners. The cross-shareholdings are regularly examined by the Board of Directors through comprehensively judging the medium- to long-term economic rationality of each shareholding with regard to the dividends and transaction amounts, and whether it contributes to enhancing medium- to long-term corporate value in view of business strategies etc. of Ushio Group. Any cross-shareholdings whose significance has waned will be sold after considering the status, etc. of the business partner with whom Ushio maintains cross-shareholdings. Voting rights of

cross-shareholdings will be exercised after closely examining all bills from the viewpoint of enhancing the medium- to long-term corporate value of Ushio Group and the business partner with whom the Company maintains the cross-shareholding and properly judging our opinion regarding each bill. We will oppose a bill if it would significantly damage value for shareholders or if serious concerns about corporate governance such as social misconduct surface. If a shareholder of the cross-shareholdings states the intention to sell shares of Ushio, we will never attempt to impede the transaction by, for example, suggesting they reduce the transaction amount, and will properly respond to such sales.

#### Risk Management

Up to now, Ushio Group has carried out risk management in an integrated manner by assigning departments responsible for each type of risk and a person in charge of responding to each type of risk, then implementing cooperation between the relevant departments at each Group company. However, in light of the increasingly uncertain business environment, we moved forward with a review of this system from fiscal 2022. In order to rebuild and strengthen our

Group-wide risk management system, we have established risk management policies and a Risk Management Committee, and are proceeding to carry out Group-wide risk assessments, identify risks and re-screen important risks. Through a PDCA cycle of risk management, we aim to enhance trust among all stakeholders, achieve the Ushio Group's management targets, and realize sustainable growth.

#### Basic Approach to Risk Management

Ushio Group aims to achieve its management goals and realize sustainable growth by accurately identifying, evaluating and responding to risks that may impede the implementation of its Management Philosophy and the enhancement of its corporate value. We also strive to fulfill our social responsibilities as a company, ensure that we continue to earn the trust of our stakeholders, and reinforce and enhance our governance systems.

#### Basic Principles

- ① We will establish and implement a comprehensive, all-encompassing risk management system in order to manage risks related to the business activities of the entire Ushio Group.
- ② We shall identify, analyze, evaluate and review risks, and shall engage in information sharing and appropriate risk management activities in order to reduce risks and prevent the materialization of risks.
- ③ We shall respond with promptness and precision in the event that an incident does occur, and shall implement recovery measures to minimize losses, then make improvements to prevent recurrences.
- ④ We shall strive to build both a prosperous Company and prosperous employees and work to protect our assets.
- (5) We shall strive to achieve sound and stable management while supporting happiness for people and the development of society.

#### Risk Management System

Ushio has established a Risk Management Committee chaired by the Company president and comprising members nominated by executive directors and the Company president. Risk management pertains to the entirety of Ushio Group and is the responsibility of the company President, who is the Chair of the Risk Management Committee. Risk assessments are carried out throughout the Group, and reports are submitted to the Risk Management Committee. In addition to monitoring these activities, the committee conducts identification, evaluation, formulation of response plans, and monitoring with regards to significant risks across the entire Group. These measures are reported to the Board of Directors, which confirms the effectiveness of risk management based on the content of these reports. In principle, the Risk Management Committee meets at least three times each year and holds emergency meetings as necessary. This series of processes carried out by the Risk Management Committee takes place independently from the Audit & Supervisory Committee.



#### Response to Risk

Please refer to the Annual Securities Report for fiscal 2022 (only in Japanese) for information regarding our responses to risk.



Please see the following URL for more details (available only in Japanese).https://www.ushio.co.jp/documents/ir/library/valuable\_s/2022/valuable\_s\_pdf\_202303.pdf



#### Directors

#### Directors (as of June 29, 2023)









Kazuhisa Kamiyama	Takabumi Asahi		Tetsuo Nakano
Director and Managing Executive Officer	Director and Managing Executive Officer		Director and Managing Executive Office
Sep. 1995 Joined Ushio Inc. Apr. 2016 Executive Officer Apr. 2018 General Manager, Corporate Headquarters	Apr. 2017 Joined Ushio Inc. Jul. 2017 Deputy General Manager, Corporate Headquarters Oct. 2017 Deputy General Manager, Corporate Headquarters	Apr.	1988 Joined Ushio Inc. 2016 Group Executive Officer Chairman, Ushio Shanghai, Inc.

Jul.	2018	Group Executive Officer			and General Manager, Corporate Planning
		Chief Financial Officer,			Department, Corporate Strategy Division,
		CHRISTIE DIGITAL SYSTEMS INC.			Corporate Headquarters
Apr.	2019	Group Senior Executive Officer	Apr.	2018	Executive Officer
		President, CHRISTIE DIGITAL SYSTEMS INC.			Deputy General Manager, Corporate Headquarter
		Chairman and Chief Executive Officer,			and General Manager, Corporate Strategy Division
		CHRISTIE DIGITAL SYSTEMS USA, INC.			Corporate Headquarters and General Manager,
		Chairman and Chief Executive Officer,			Corporate Planning Department, Corporate
		CHRISTIE DIGITAL SYSTEMS CANADA INC.			Strategy Division, Corporate Headquarters
Jun.	2019	Director and Group Senior Executive Officer	Jul.	2018	General Manager, Corporate Strategy Division and
Apr.	2022	Director and Managing Executive Officer			General Manager, Corporate Planning

(incumbent) Deputy General Manager, Business Management Apr. 2019 Senior Executive Officer Headquarters and General Manager, Light Source Business Division, Business Management Headquarters Apr. 2023 Deputy General Manager, Business Management

Headquarters and General Manager, Life Science Division, Business Management Headquarters (incumbent)

Oct. 2017 Deputy General Manager, Corporate Headquarters and General Manager, Corporate Planning

General Manager, Corporate Planning Department, Corporate Strategy Division General Manager, Corporate Headquarters and General Manager, Corporate Strategy Division, Corporate Headquarters and General Manager,

Corporate Planning Department, Corporate Strategy Division, Corporate Headquarters Jul. 2019 General Manager, Corporate Headquarters Jun. 2021 Director and Senior Executive Officer Apr. 2022 Director, Managing Executive Officer and Chief

Financial Officer (incumbent) Apr. 2023 General Manager, Corporate Headquarters and General Manager, Group Corporate Strategy Division, Corporate Headquarters (incumbent)

Chairman, Ushio Shanghai, Inc. Apr. 2017 Group Senior Executive Officer

Apr. 2018 Group Managing Executive Officer

Apr. 2019 Managing Executive Officer Deputy General Manager, Business Management Headquarters and General Manager, Light Source

Headquarters Apr. 2022 General Manager, ESG Promotion Headquarters (incumbent)

Business Division, Business Management

nd Jun. 2023 Director and Managing Executive Officer (incumbent)

4 years 2 years 100% (11/11) 100% (11/11) 

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#### Directors (as of June 29, 2023)





		Market Market	-0		
Nam	e and Position	Yasufumi Kanemaru Outside Director	Sakie Tachibana Fukushima  Outside Director		
Brief	profile	<ul> <li>Apr. 1979 Joined TKC Corporation</li> <li>Apr. 1982 Joined Logic Systems International, Inc.</li> <li>Sep. 1985 Director, NTT PC Communications Incorporated</li> <li>Nov. 1989 Established Future System Consulting Corp. (currently Future Corporation) and served as President and Chief Executive Officer</li> <li>Mar. 2006 Chairman, President and Chief Executive Officer, Future System Consulting Corp.</li> <li>Jan. 2007 Chairman and Chief Executive Officer, Future Architect, Inc. (currently Future Corporation)</li> <li>Mar. 2011 Chairman, President and Chief Executive Officer, Future Architect, Inc.</li> <li>Jul. 2015 Chairman, Future Architect, Inc.</li> <li>Apr. 2016 Chairman, President and Group Chief Executive Officer, Future Corporation (incumbent)         <ul> <li>Chairman and Representative Director, Future Architect, Inc.</li> </ul> </li> <li>Mar. 2022 Chairman, Future Architect, Inc. (incumbent)</li> </ul>	Jun. 1980 Joined Braxton International Sep. 1987 Joined Bain & Company, Inc. Aug. 1991 Joined Korn/Ferry International Sep. 2000 Regional Managing Director, Korn/Ferry International-Japan Jul. 2001 President and Representative Director, Korn/Ferry International-Japan May 2009 Chairman & Representative Director, Korn/Ferry International-Japan Jul. 2010 President & Representative Director, G&S Global Advisors Inc. (incumbent) Jun. 2016 Outside Director (incumbent) Jun. 2020 Outside Director, Kyushu Electric Power Company, Incorporated (incumbent) Jun. 2022 Outside Director, Aozora Bank, Ltd. (incumbent)		
Term	of office	8 years	7 years		
Indep	pendent Outside Director	•	•		
Atter	ndance at Board of Directors' meetings	100% (11/11)	100% (11/11)		
	ndance at the Audit & Supervisory Committee				
	ndance at the Nomination and Remuneration sory Committee	• (9/9)	• (9/9)		
Skill Matrix	Corporate Management Global Business Finance / Accounting / M&A Manufacturing / Technical / R&D / New Business IT / DX Sales / Marketing Legal / Risk Management Human Capital Strategy				
	Sustainability / ESG				



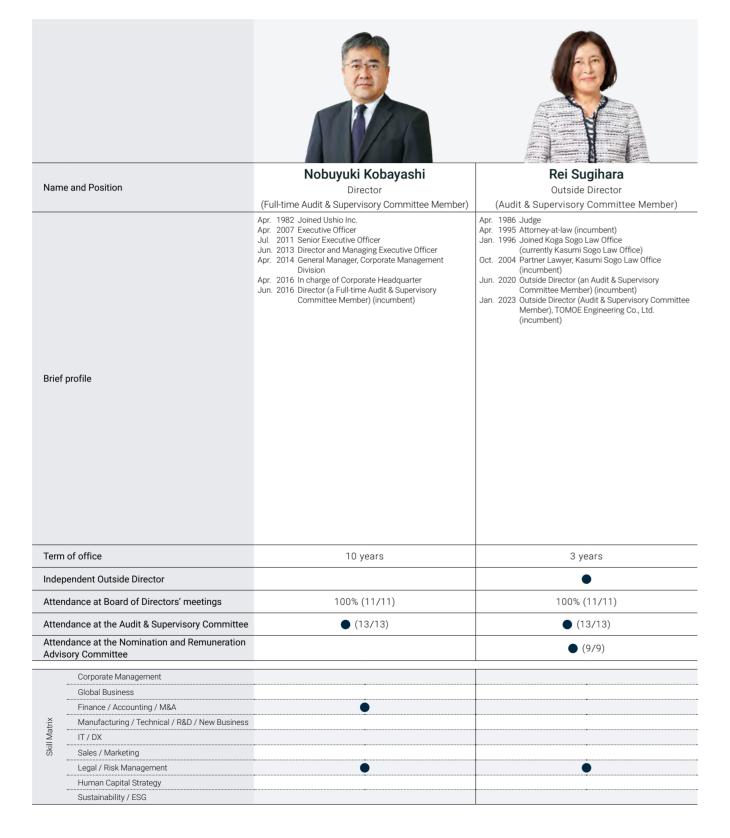




SAME SAME		
Toyonari Sasaki	Masatoshi Matsuzaki	Naoaki Mashita
Outside Director	Outside Director	Outside Director
Apr. 1976 Joined the Ministry of Finance Jul. 2003 Deputy Director, General of the Budget Bureau Jul. 2007 First Deputy Commissioner, National Tax Agency Jul. 2008 Director, General of the Financial Bureau Jan. 2010 Assistant Chief Cabinet Secretary, Cabinet Secretariat Apr. 2013 Chief Domestic Coordinator, Governmental Headquarters for the Trans-Pacific Strategic Economic Partnership Agreement (TPP), Cabinet Secretariat Apr. 2016 Vice Chairman, the Life Insurance Association of Japan (incumbent) Jun. 2019 Outside Director (incumbent)	<ul> <li>Apr. 1976 Joined Konishiroku Photo Industry, Inc. (currently Konica Minolta, Inc.)</li> <li>Oct. 2003 Director, Konica Minolta Business Technologies Inc.</li> <li>Apr. 2005 Executive Officer, Konica Minolta Holdings, Inc. (currently Konica Minolta, Inc.) President and Chief Executive Officer, Konica Minolta Technology Center, Inc.</li> <li>Apr. 2006 Senior Executive Officer, Konica Minolta Holdings, Inc.</li> <li>Jun. 2006 Director and Senior Executive Officer, Konica Minolta Holdings, Inc.</li> <li>Apr. 2009 Director, President, Chief Executive Officer and Representative Executive Officer, Konica Minolta Holdings, Inc.</li> <li>Apr. 2014 Director and Chair of the Board of Directors, Konica Minolta, Inc.</li> <li>Jun. 2019 Outside Director and Chair of the Board of Directors, LIXIL Group Corporation (currently LIXIL Corporation) (incumbent)</li> <li>Aug. 2021 Outside Director and Chair of the Board of Directors, SmartHR, Inc.</li> <li>Apr. 2022 Outside Director and Chair of the Board of Directors, SmartHR, Inc. (incumbent)</li> <li>Jun. 2022 Outside Director and Chair of the Board of Directors, SmartHR, Inc. (incumbent)</li> <li>Jun. 2023 Outside Director and Chair of the Board Member, Lion Corporation (incumbent)</li> <li>Jun. 2023 Outside Director and Chair of the Board of Directors (incumbent)</li> <li>Jun. 2023 Outside Director and Chair of the Board of Directors (incumbent)</li> <li>Honorary Advisor, Konica Minolta, Inc. (incumbent)</li> </ul>	Oct. 1998 Established V-cube Internet (currently V-cube, Inc.) and served as President and CEO Jan. 2004 President and CEO, V-cube Broad Communications, Inc. (currently V-cube, Inc.) Oct. 2015 Director, V-cube Robotics Japan, Inc. (currently SENSYN ROBOTICS, Inc.) Director, Wizlearn Technologies Pte. Ltd. (incumbent) Nov. 2018 President and CEO, SENSYN ROBOTICS, Inc. Aug. 2019 Chairman and Representative Director, SENSYN ROBOTICS, Inc. Jun. 2021 Director, SENSYN ROBOTICS, Inc. (incumbent) Director, Xyvid, Inc. (Incumbent) Mar. 2022 Representative Director, Chairman &Group CEO, V-cube, Inc. (incumbent) Sep. 2022 Outside Director, MICIN, Inc. (incumbent) Jun. 2023 Outside Director, Sumitomo Mitsui Trust Bank, Limited (incumbent)
4 years	1 year	-
•	•	•
100% (11/11)	100% (8/8)	_
<b>●</b> (8/8)	● (8/8)	
	•	
		•

#### Directors

#### Directors (as of June 29, 2023)







(Audit & Supervisory Committee Member)

Oct. 1989 Joined Auditing Department of Aoyama Audit Corporation (currently PricewaterhouseCoopers Aarata LLC)

Feb. 1991 Joined Auditing Department of Chuo Audit Corporation

Aug. 1993 Certified Public Accountant (incumbent) Oct. 1994 Certified Public Tax Accountant (incumbent)

Nov. 1994 Established Sunaga CPA Firm and served as

Representative Director (incumbent) Nov. 1996 Established Marunouchi Business Consulting Ltd.

and served as Representative Director (incumbent)

Jan. 2012 Established Marunouchi Business Consulting Tax Co. and served as Senior Partner (incumbent)

Jun. 2017 Established Marunouchi Audit Corporation and served as Senior Partner (incumbent)

Jun. 2020 Outside Director (an Audit & Supervisory Committee Member) (incumbent) Outside Director (an Audit & Supervisory Committee Member), YOMEISHU SEIZO CO.,LTD. (incumbent)

Jun. 2021 Outside Audit & Supervisory Board Member, Prima Meat Packers, Ltd. (incumbent)

Jun. 2022 Outside Director, KYB Corporation (incumbent) Mar. 2023 Outside Audit & Supervisory Board Member. Lion Corporation (incumbent)

3 years

100% (11/11)

(13/13)



## Chiaki Ariizumi

(Audit & Supervisory Committee Member)

Apr. 1987 Joined the Bank of Japan May 1998 Deputy Manager, International Department (Head of Europe and the Americas Group), Bank of Japan

Jul. 2002 Manager, Nagoya Branch, the Bank of Japan Jul. 2005 Director, Information Service Department, the Bank of Janan

Jul. 2009 Director, Secretariat of the Policy Board (Head of Economic Organization Negotiations Group), Bank of Janan

Jun. 2019 Director, Information Service Department, the Bank of Japan

Jan. 2020 Personnel and Corporate Affairs Department, the Bank of Japan

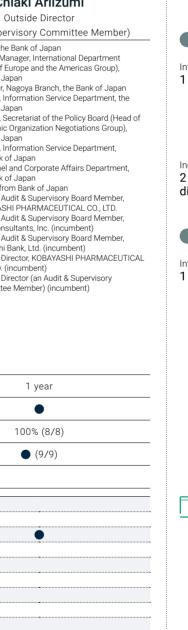
Mar. 2020 Retired from Bank of Japan Outside Audit & Supervisory Board Member, KOBAYASHI PHARMACEUTICAL CO., LTD. Outside Audit & Supervisory Board Member, IDEA Consultants, Inc. (incumbent)

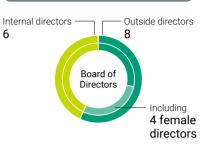
Jun. 2021 Outside Audit & Supervisory Board Member, Kiraboshi Bank, Ltd. (incumbent)

Mar. 2022 Outside Director, KOBAYASHI PHARMACEUTICAL CO., LTD. (incumbent)

1 year

Jun. 2022 Outside Director (an Audit & Supervisory Committee Member) (incumbent)





Board of Directors







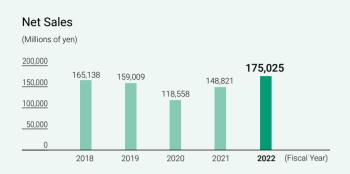
Please refer to the following website for a list of executive officers.

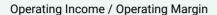
https://www.ushio.co.jp/en/ company/officer.html



#### Financial and Non-Financial Highlights

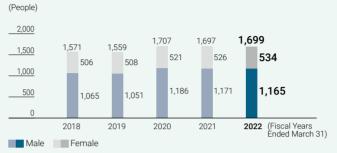
#### Financial Highlights





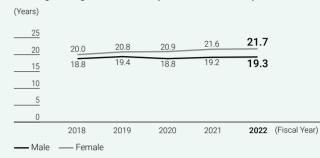


### Number of Employees (non-consolidated)

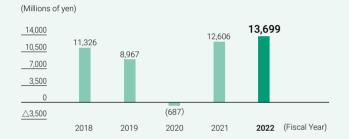


#### Average Length of Service (non-consolidated)

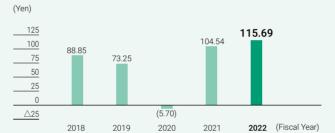
Non-Financial Highlights



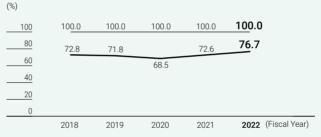
#### Profit Attributable to Owners of Parent



#### Net Income per Share

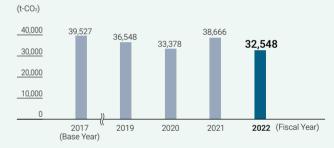


#### Ratio of Employees Returning to Work after Taking Maternity and Childcare Leaves (non consolidated) / Percentage of Paid Vacation Days Used (non-consolidated)



Ratio of employees returning to work after taking maternity and childcare leaves
 Percentage of paid vacation days used

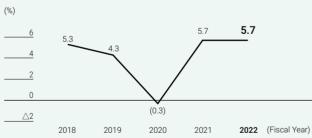
#### CO<sub>2</sub> Emissions (consolidated\*)



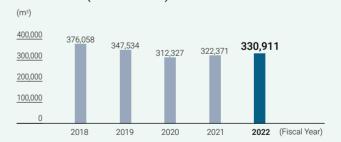
#### Total Assets / Equity Ratio







## Water Intake (consolidated\*)



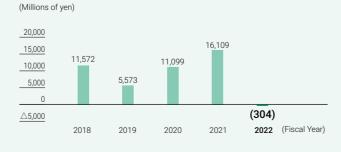
#### Total Waste Output (consolidated\*)



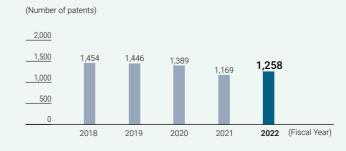
#### Dividends Per Share / Dividend Payout Ratio



#### Free Cash Flow



#### Number of Patents Held (non-consolidated)



#### Number of Directors



 $<sup>{\</sup>star}\,\mathsf{CO}_2\,\mathsf{emissions}, \mathsf{water}\,\mathsf{intake}\,\mathsf{and}\,\mathsf{total}\,\mathsf{waste}\,\mathsf{output}\,\mathsf{correspond}\,\mathsf{to}\,\mathsf{consolidated}\,\mathsf{environmental}\,\mathsf{management}\,\mathsf{range}\,\mathsf{established}\,\mathsf{by}\,\mathsf{the}\,\mathsf{Company}\,\mathsf{consolidated}\,\mathsf{consolidated}\,\mathsf{denvironmental}\,\mathsf{management}\,\mathsf{range}\,\mathsf{established}\,\mathsf{by}\,\mathsf{the}\,\mathsf{Company}\,\mathsf{consolidated}\,\mathsf{consoli$ 

#### Financial Data

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Earnings Data											
Net sales (millions of yen)	143,461	157,800	159,365	179,121	172,840	173,497	165,138	159,009	118,558	148,821	175,025
Cost of sales (millions of yen)	95,196	101,809	98,030	110,717	112,383	111,350	106,611	105,580	78,719	94,792	111,809
Gross profit (millions of yen)	48,264	55,991	61,335	68,403	60,456	62,146	58,526	53,428	39,839	54,029	63,215
Selling, general and administrative expenses (millions of yen)	40,682	43,881	50,977	55,273	51,854	51,995	50,008	46,769	39,074	40,960	47,353
Operating income (millions of yen)	7,582	12,110	10,357	13,130	8,602	10,151	8,517	6,659	764	13,068	15,861
Ordinary income (millions of yen)	10,539	15,904	13,708	14,633	11,001	12,050	11,439	8,738	3,407	15,195	20,144
Profit attributable to owners of parent (millions of yen)	7,155	10,770	11,279	11,105	7,042	11,001	11,326	8,967	M687	12,606	13,699
Operating margin (%)	5.3	7.7	6.5	7.3	5.0	5.9	5.2	4.2	0.6	8.8	9.1
Ordinary margin (%)	7.3	10.1	8.6	8.2	6.4	6.9	6.9	5.5	2.9	10.2	11.5
Net margin (%)	5.0	6.8	7.1	6.2	4.1	6.3	6.9	5.6	№0.6	8.5	7.8
Dividends / Per Share Data											
Net income per share (yen)	54.57	82.19	86.40	85.83	55.06	86.11	88.85	73.25	№5.70	104.54	115.69
Net assets per share (yen)	1,324	1,441	1,654	1,622	1,664	1,683	1,691	1,664	1,750	1,949	2,074
Total dividends (millions of yen)	2,884	3,388	3,139	3,353	3,329	3,329	6,316	3,141	3,141	6,041	5,895
Dividends per share (yen)	22.0	26.0	24.0	26.0	26.0	26.0	50.0	26.0	26.0	50.0	50.0
Payout ratio (%)	40.3	31.6	27.8	30.3	47.2	30.2	56.3	35.5	_	47.8	43.2
Ratio of dividends to net asset (%)	1.7	1.9	1.5	1.6	1.6	1.6	3.0	1.5	1.5	2.7	2.5
Balance Sheet Data											
Total assets (millions of yen)	228,657	255,338	294,542	294,525	308,430	305,303	306,628	274,904	290,275	321,096	323,622
Current assets (millions of yen)	140,646	153,004	178,774	170,173	180,334	184,940	200,119	170,835	176,359	201,708	198,519
Property, plant and equipment, net (millions of yen)	36,776	39,126	40,014	42,310	44,809	41,578	43,050	44,242	44,822	46,162	50,480
Investments and other assets (millions of yen)	48,371	59,048	68,655	71,256	74,062	72,473	58,815	56,079	65,682	70,234	71,588
Current liabilities (millions of yen)	37,950	39,957	44,886	49,463	54,592	54,174	69,572	47,729	48,007	72,393	62,410
Interest-bearing debt (millions of yen)	9,427	8,258	14,063	14,512	27,771	26,823	28,938	22,255	24,634	18,587	5,331
Net assets (millions of yen)	176,784	191,246	218,723	211,296	213,289	215,306	213,254	200,705	211,180	235,202	244,105
Shareholders' equity (millions of yen)	162,609	169,482	178,891	183,057	185,658	193,332	199,408	194,218	190,676	200,129	202,922
Total assets turnover ratio (times)	0.63	0.65	0.57	0.61	0.57	0.57	0.54	0.55	0.42	0.49	0.54
Current ratio (%)	370.6	382.9	398.3	344.0	330.3	341.4	287.6	357.9	367.4	278.6	318.1
Equity ratio (%)	75.9	73.5	73.3	70.9	68.9	70.4	69.5	73.0	72.7	73.2	75.4
ROE (%)	4.3	6.0	5.6	5.2	3.3	5.1	5.3	4.3	№0.3	5.7	5.7
ROA (%)	3.2	4.4	4.0	3.8	2.3	3.6	3.7	3.0	1.2	5.0	6.2
Interest coverage ratio (times)	68.5	48.7	51.0	48.1	41.9	26.5	15.1	1.8	33.2	64.9	4.1
D/E ratio (%)	0.06	0.05	0.08	0.08	0.15	0.14	0.15	0.11	0.13	9.30	2.63
Fixed assets to long-term capital ratio (%)	49.9	52.9	55.2	57.4	56.6	52.5	47.7	47.2	51.4	55.9	56.9
Cash Flow Data											
Cash flows from operating activities (millions of yen)	14,443	10,622	9,876	12,031	12,624	15,567	8,853	1,179	14,517	21,628	871
Depreciation and amortization (millions of yen)	6,741	5,021	5,919	6,495	6,587	6,790	6,775	7,182	6,988	6,939	7,615
Cash flows from investing activities (millions of yen)	(8,649)	(4,476)	(3,710)	(10,367)	(15,254)	4,322	2,719	4,394	(3,418)	(5,519)	(1,175)
Cash flows from financing activities (millions of yen)	(7,092)	(6,670)	1,210	(7,849)	6,864	(3,613)	(3,916)	(20,363)	(784)	(10,625)	(26,811)
Free cash flow (millions of yen)	5,794	6,146	6,166	1,664	(2,630)	19,889	11,572	5,573	11,099	16,109	(304)
Net increase (decrease) in cash and cash equivalents (millions of yen)	1,676	2,080	11,646	(9,176)	3,161	15,061	8,586	(15,576)	11,890	11,200	(24,103)
Cash and cash equivalents at end of year (millions of yen)	43,261	45,342	56,989	47,813	50,974	66,035	74,622	59,046	70,418	81,619	57,516
Cash flow to interest-bearing debt ratio (years)	0.7	0.8	1.4	1.2	2.2	1.7	3.3	18.9	1.7	0.9	6.1
Depreciation to sales ratio (%)	4.7	3.2	3.7	3.6	3.8	3.9	4.1	4.5	5.9	4.7	4.4

#### Non-Financial Data

ESG	Item		Scope —	FY2018	FY2019	FY2020	FY2021	FY2022
		Japan		476,883	507,142	516,995	561,324	562,673
	Energy (GJ)	Asia (excludi	ng Janan)	164,649	152,798	94,207	162,282	151,871
		North Americ		105,401	105,556	85,092	80,694	84,005
		Europe	Ja	35,031	42,338	43,227	46,607	38,311
		Others		33,031	42,330	45,227	40,007	2,871
-				226,099	228.977	222,829	208,807	228,083
	Water Intake (m³)	Japan Asia (ayaludi	na lonon)		-,	,		
_		Asia (excluding Japan)		118,373	93,598	66,148	92,850	86,296
		North America		26,999	19,995	17,536	14,673	14,542
		Europe		4,587	4,964	5,815	6,041	1,990
	Total waste output (t)	Japan		776	754	712	749	725
		Asia (excluding Japan)		195	164	44	215	215
E		North America		333	304	84	20	45
		Europe		87	31	41	62	45
			Japan	2,579	2,588	2,529	3,001	2,812
		SCOPE1	Asia (excluding Japan)	435	334	202	246	250
			North America	638	568	450	493	528
			Europe	341	402	398	444	322
	GHG (CO <sub>2</sub> )		Japan	20,199	19,679	19,860	21,199	14,515
	emissions (t-CO <sub>2</sub> )		Asia (excluding Japan)	9,170	8,557	5,988	10,476	10,862
		SCOPE2	North America	2,607	2,641	2,047	1,308	1,348
			Europe	1,330	1,779	1,902	1,500	1,733
			Others	_		_	_	177
		SCOPE3	Consolidated	7,819,701	6,107,661	4,152,450	5,514,770	7,337,378
	Number of employees	Japan		2,480	2,466	2,446	2,387	2,396
		Asia (excluding Japan)		1,383	1,388	1,251	1,637	1,449
		North and South America		1,607	1,500	1,107	1,077	1,288
		Europe		233	236	249	241	218
		Others		_	_	_	_	6
Ī	Three-year retention rate for new graduate recruits (%)	Non-	Male	83	86	100	100	82
		consolidated	Female	100	100	100	100	100
Ī		Non-	Male	18.8	19.4	18.8	19.2	19.3
	Average length of service (years)	consolidated	Female	20.0	20.8	20.9	21.6	21.7
	Statutory monthly overtime	Non-		10.6	9.4	10.4	14.5	11.63
-	hours (hours/employee)	consolidated						
	Percentage of paid vacation days used (%)	Non- consolidated		72.8	71.8	68.5	72.6	76.7
	Number of people who took maternity leave	Non- consolidated		21	21	18	21	14
	Number of people who took	Non-	Male	10	8	8	8	9
	childcare leave	consolidated	Female	21	21	18	20	10
	Number of people who took	Non-						
	nursing care leave	consolidated		0	0	0	1	0
	Ratio of employees returning to work after taking maternity and childcare leave (%)	Non- consolidated		100	100	100	100	100
	Frequency of work-related accidents (%) (Number of work-related injuries or deaths ÷ Total number of work hours x 1 million)	Non- consolidated		0.61	0.61	0	0	0.27
	Severity of work-related accidents (%) (Number of lost work days ÷ Total number of work hours x 1,000)	Non- consolidated		0.02	0.02	0	0	0.02
	Number of patents held	Non- consolidated		1,454	1,446	1,389	1,169	1,258
(Notas								

#### (Notes)

- (Notes)

  1. Greenhouse gases (GHGs) other than CO<sub>2</sub> are not emitted.
- The scope of aggregation for energy consumed, water intake, total waste output, Scope 1, and Scope 2 is on a consolidated basis.
- 3. For Scope 3, the scope of Category 11 has been expanded from major products to all products. Values for previous fiscal years have been recalculated accordingly.
- 4. The emission factor of purchased electricity has been used. Where the purchased electricity emission factor is not known, the Emission Factors by Electric Utility Operator published by the Japanese Ministry of the Environment for each fiscal year are used for cases in Japan. For overseas cases, the CO<sub>2</sub> Emissions from Fuel Combustion 2013 published by the International Energy Agency (IEA) are used for fiscal years 2018 to 2020 and Emissions Factors 2021 published by the IEA are used for fiscal years from 2021 onward.
- 5. The three-year retention rate for new graduate recruits represents the number of employees who reach their third year with the Company in April of the relevant fiscal year. (Example: Data in the column for fiscal 2022 is based on the number of employees as of April 2023 who had joined the Company in 2020.)

#### **External Evaluation**

Ushio has been selected for inclusion in five ESG indices that are used by the Government Pension Investment Fund of Japan, the world's largest pension fund. These indices are the MSCI Japan Empowering Women Index (WIN), the FTSE Blossom Japan Index, the FTSE Blossom Japan Sector Relative Index, the S&P/JPX Carbon Efficient Index and the Morningstar Japan ex-REIT Gender Diversity Tilt Index.

The contribution of ESG investments to increasing risk-adjusted returns is believed to increase as the holding period of investments become longer. Ushio's inclusion in these indices demonstrates the widespread recognition of its commitment to the environmental, social, and governance activities. Ushio will continue to actively promote these initiatives to enhance corporate value while contributing to the realization of a sustainable society.

#### External Evaluation of ESG Management





FTSE4Good FTSE Blossom



FTSE Blossom Japan Sector Relative Index

Ushio has been selected for 20 consecutive years for inclusion in the FTSE-Russell's FTSE4Good Index Series of socially responsible companies worldwide. Furthermore, Ushio has been selected for the FTSE Blossom Japan Index and FTSE Blossom Japan Sector Relative Index of Japanese companies with outstanding ESG programs.

Note: FTSE Russell (a registered trademark of FTSE International Limited and Frank Russell Company) has certified that Ushio meets the requirements of the FTSE Blossom Japan Index based on a third-party assessment. Produced by the global index firm FTSE Russell, this index is designed to measure the performance of Japanese companies with outstanding ESG programs. The index is used as a benchmark for the establishment and evaluation of investment funds and other financial products focused on sustainable investment.

2023 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

The MSCI Japan Empowering Women Index (WIN) consists of companies in this top 700 index that have excellent gender diversity within their respective industries in accordance with a gender diversity score newly developed by MSCI.

Note: THE INCLUSION OF USHIO INC.IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE

A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF USHIO INC. BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEX SARE THE EXCLUSIVE PROPERTY OF MSCI.

MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.



Morningstar Japan ex-REIT Gender Diversity Tilt Index is an ESG index created by Morningstar that evaluates companies' efforts regarding gender diversity. Under this system, Ushio has been ranked as Group 1, the highest of the five groups under the system. Please see the link below for details and the applicable disclaimer.



https://www.ushio.co.jp/jp/news/1005/2023-2023/501084.html (available only in Japanese)

(available only in Japanese)



The S&P/JPX Carbon Efficient Index is designed to measure the performance of companies in TOPIX, an index calculated and provided by the Tokyo Stock Exchange. Ushio is included in this global environmental stock index that evaluates carbon emissions in relation to each company's sales.



Ushio has been selected for inclusion in the SNAM Sustainability Index, which was created by Sompo Japan Nipponkoa Asset Management Co., Ltd. The SNAM Sustainability Index is used for SNAM Sustainable Investments, an asset management product for pension funds and institutional investors that targets about 300 companies with superior ESG performance. Ushio has been included in this index for 12 consecutive years beginning in 2012.

## Consistency with International Initiatives



Please refer to the website below for more information on consistency with international initiatives. https://www.ushio.co.jp/en/sustainability/initiative.html

#### Stock Information (As of March 31, 2023)

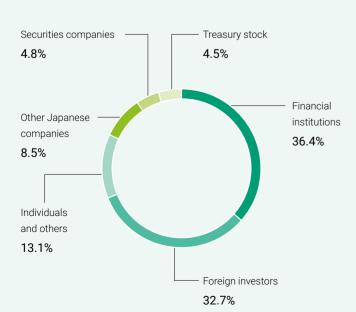
Total number of shares issued	123,500,000
Number of shareholders	19,082

#### Top Ten Shareholders

Name	Number of shares (1,000 shares)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	18,509	15.69
Custody Bank of Japan, Ltd. (Trust Account)	5,980	5.07
Resona Bank, Limited	5,886	4.99
BBH (LUX) FOR FIDELITY FUNDS-GLOBAL TECHNOLOGY POO	4,525	3.83
Aioi Nissay Dowa Insurance Co., Ltd.	4,274	3.62
MUFG Bank, Ltd.	3,398	2.88
Jiro Ushio	2,665	2.26
Asahi Mutual Life Insurance Co.	2,450	2.07
THE USHIO FOUNDATION	2,400	2.03
HSBC BANK PLC A/C M A ND G (ACS)	2,078	1.76

(¥)

#### Composition of Shareholders



#### Stock Price and Trading Volume



(Thousands of shares)

#### Corporate Data

Established	March 1964	
Capital	¥19,556,326,316	
Listed	Tokyo Stock Exchange Prime Market	
Fiscal year	From April 1 to March 31	
Ordinary general shareholders' meeting	June	
Shareholder registry administrator	Sumitomo Mitsui Trust Bank, Limited	

#### Divisions and Major Group Companies

Divisions and ivia	or oroup comp	Junes		
		Head Office	Chiyoda, Tokyo	
		Harima Division	Himeji, Hyogo Prefecture	
Danish as manager		Gotemba Division	Gotemba, Shizuoka Prefecture	
Parent company		Yokohama Division	Yokohama, Kanagawa Prefecture	
		Osaka Branch	Osaka, Osaka Prefecture	
		Kyoto Division	Kyoto, Kyoto Prefecture	
		Ushio Lighting, Inc.		
Japanese subsidiaries		XEBEX Inc.		
Subsidiaries		ADTEC Engineering Co., Ltd. 5 other companies		
		Ushio America, Inc.		
	North America	Christie Digital Systems USA, Inc.		
	America	Christie Digital Systems Canada Inc. 12 other companies		
		Ushio Europe B.V.		
	Europe	Ushio Germany GmbH 7 other companies		
_		Ushio Hong Kong Ltd.		
Overseas subsidiaries		Ushio Taiwan, Inc.		
subsidiaries		Ushio Philippines, Inc.		
	Asia	Ushio (Suzhou) Co., Ltd.		
	Asia	Ushio Asia Pacific Pte. Ltd.		
		Ushio Korea, Inc.		
		Ushio Shanghai, Inc.		
		Ushio Shenzhen, Inc. 14 other companies		

The plans, strategies, and other statements related to the outlook for future results in this Ushio Report reflect the assumptions and beliefs of management based on currently available information. However, it should be noted that there is a possibility for actual results to differ significantly owing to such factors as changing social and economic conditions.

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<sup>1.</sup> In addition to the above, the Company owns 5,593 thousand shares of treasury stock. 230 thousand shares of Company's shares held in the trust introduced with respect to its stock remuneration plan for directors are not included in 5,593 thousand shares of treasury stock.

<sup>2.</sup> Shareholding ratio is calculated after deducting 5,593 thousand shares of treasury stock. (As of March 31, 2023)

3. Each of the investment banks listed in the upper portion of the major shareholders table manages securities held primarily by Japanese institutional investors and is also the nominee of these investors. Trust accounts denote accounts that receive trusts such as pension trusts, investment trusts, and designated monies in the trust from the institutional investors concerned.