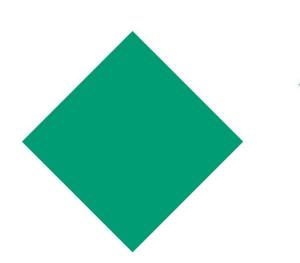


## Ushio Group 2nd Medium-Term Management Plan

May 11, 2023

## **Ushio Inc.**

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## PART 1 Vision 2030

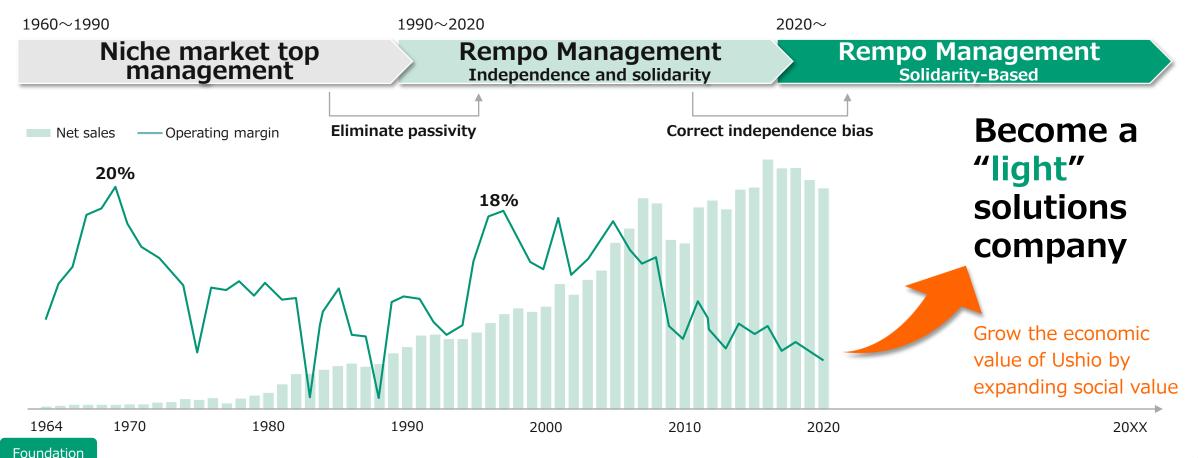
## **PART 2** Review of Previous Medium-Term Management Plan

## **PART 3** Outline of New Medium-Term Management Plan

**PART 4** Business Strategies

Vision 2030

### Succeed in an era of sporadic innovation by adopting a management approach that prioritizes total optimization and bolsters solidarity



### Vision 2030

## Mission

### 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

Comfort & Convenience	Excitement & Sharing	Safety & Reassurance
Support the creation of comfortable and convenient social infrastructure via optical processing technologies	Delight people through imaging and lighting technologies	Support the health of people and the planet by applying optical technologies
Industrial	Visual	Life
Processes	Imaging	Sciences

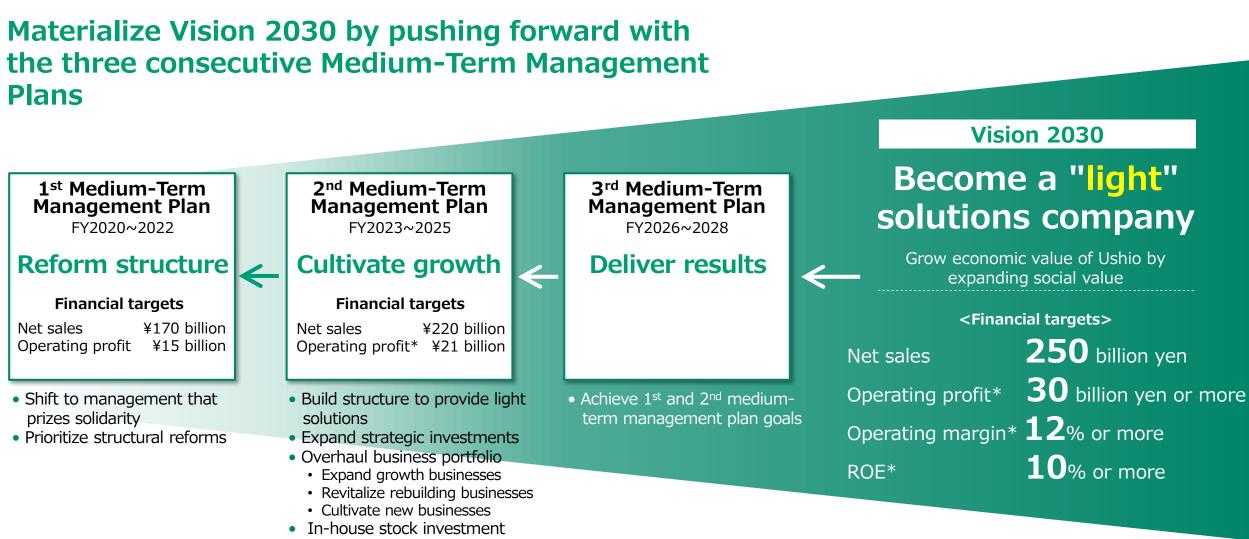
Vision backdrop and deployment process

### 2019

- Clarified Vision for 2030 (10 years hence)
- Concluded that it would be vital to shift from product-centric to market-centric (under three domains shown on left) approach to evolve into a "light" solutions company and clarified value propositions for each market domain

### 2023

- Progress to next stage after completing initiatives under 1<sup>st</sup> Medium-Term Management Plan (FY2020~2022), which prioritized profit structure reforms
- Under 2<sup>nd</sup> Medium-Term Management Plan (FY2023~2025), shift to market-centric operations and fully pursue Vision



• Strategic use of assets and liabilities

\*Operating income, operating margin and ROE targets exclude new goodwill amortization.

PART 2

# Review of Previous Medium-Term Management Plan

1<sup>st</sup> Medium-Term Management Plan was three-year initiative to reinforce fundamentals to transform earnings structure and achieve sustainable growth

		Defensive strategies	Offensive strategies	
etroto et (	ht Source siness strategies	Deploy comprehensive structural reforms	Develop post-pandemic ma	rket
Sudlegy	<b>uipment business</b> tegies	Imaging equipment Maintain and reinforce structural reforms	Optical equipment Cultivate and invest intensive growth businesses	ely in
strategy	<b>eation business</b>	Identify and launch new businesses	Identify and launch new busir	nesses
Unifying strategy			l performance ptimize overall performance	
		(Allocate funds efficiently to	ptimize overall performance	

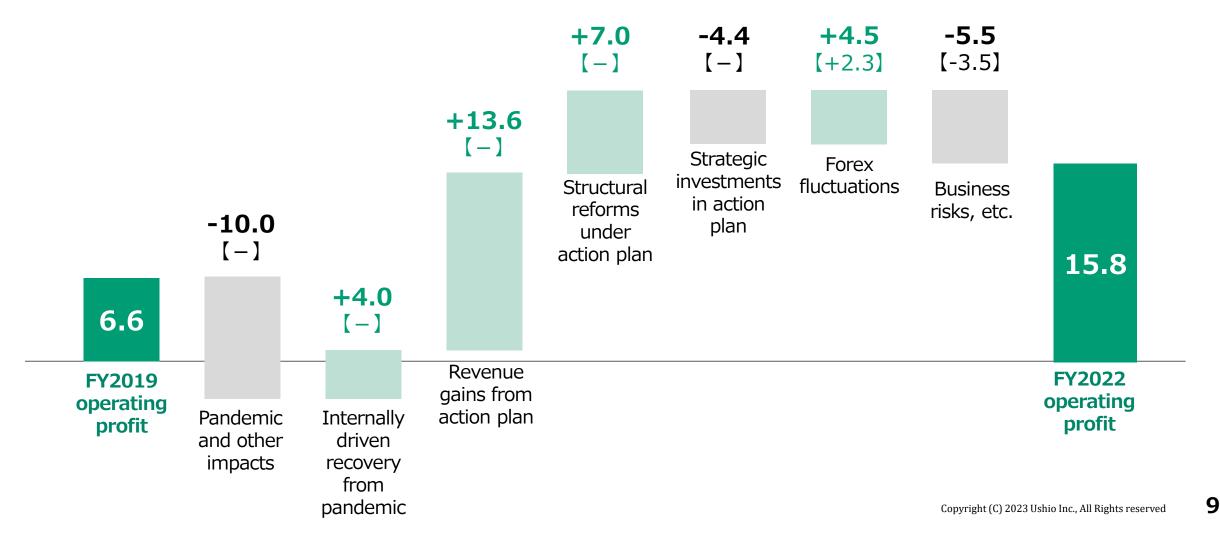
## Reached all mandatory targets and largely transformed earnings structure and solidified foundations

	FY2022 results	Comparison with required targets	FY2022 targets (required - ambitious)
Net sales	175.0 billion yen	5.0 billion yen	170~190 billion yen
Operating profit	15.8 billion yen	1.8 billion yen	14~19 billion yen
Operating margin	9.1%	+1.1 point	More than 8% to more than 10%
Net sales (Billions of yen)	Operating profit (Billions of ye	en) Operating margin(%)	
<b>175.0</b> 159 148.8 <b>17</b>	15.8	8.8	9.1 Cumulative fixed cost cuts 7.0
	equired 13.0	14 (Required target) 4.2 0.6	S.0     6.0       (Required target)     1.4
FY2019 FY2020 FY2021 FY2022	FY2019 FY2020 FY2021 FY2022	FY2019 FY2020 FY2021 FY	Y2022 FY2019 FY2020 FY2021 FY2022



### Operating profit changes (Billions of yen)

Note: Figures in parentheses are differences from the latest assumptions



## USHIO

## Reached Light Source and Optical Equipment targets by changing earnings structure but missed Imaging Equipment targets, which is an ongoing issue

(Billions of yen)

Business so	egments	FY2019 results	FY2022 targets (mandatory to stretch)	FY2022 results	Results and issues	
Light	Sales	58.5	56~66	61.8	Operating margin: Reached ambitious targets Results: Undertook structural reforms (3.7 billion yen vs. planned 3.5 billion yen) to change earnings structure, enhancing the statements of	
Source Business	Operating margin	10.3%	10.7~12.1%	<b>14.6</b> %	income Issues: Fell short of targets with Care222 in the new environmental hygiene field and solid-state light sources	
Equipment business <b>Optical</b>	Sales	36.1	56~60	57.7	Operating margin: Reached ambitious targets Results: Steadily captured demand during market expansion period for promising lithography equipment field, demonstrating effectiveness of	
Equipment Business	Operating margin	-1.5%	8.9~11.7%	12.4%	measures undertaken under previous medium-term management plan to enhance earnings structure Issues: Promising EUV light sources business entered demand adjustment phase, performing below par	
Equipment business Imaging	Sales	60.8	54~60	51.3	Operating margin: Failed to reach required targets Results: Reduced fixed costs by steadily implementing structural reforms	
Equipment Business	Operating margin	1.4%	5.6~6.7%	-1.3%	(2.8 billion yen vs. planned 2.0 billion yen) Issues: Failed to improve profitability, as inability to constrain parts procurement difficulties offset steps to enhance operating efficiency	

### Previous Medium-Term Management Plan Results Summary: (4) Results of Unifying Strategy Initiatives



# Achieved objectives of 1<sup>st</sup> Medium-Term Management Plan and continued to bolster overall performance under new structure

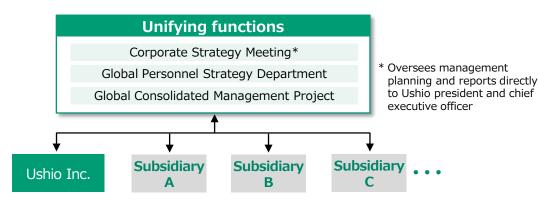
### /Reformed governance

**Outcome:** Steadily implemented overall optimization measures

- Completed structural reforms and strategic investments
- Preemptively managed prolonged pandemic impact
- Undertook ESG management
- Enhanced oversight of global management targets
- Undertook global talent development measures

Issue: Bolstering risk management

### Post-reform governance



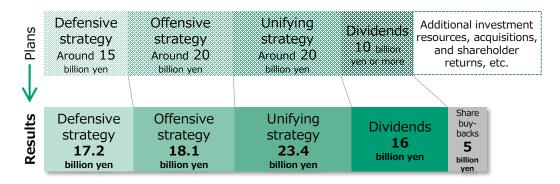
/Utilized financial reserves

Outcomes: Executed defensive, offensive, and unifying strategies as planned and boosted shareholder returns

- Annual dividends per share: 26 yen  $\rightarrow$  50 yen
- Share buybacks: 5 billion yen in FY2022

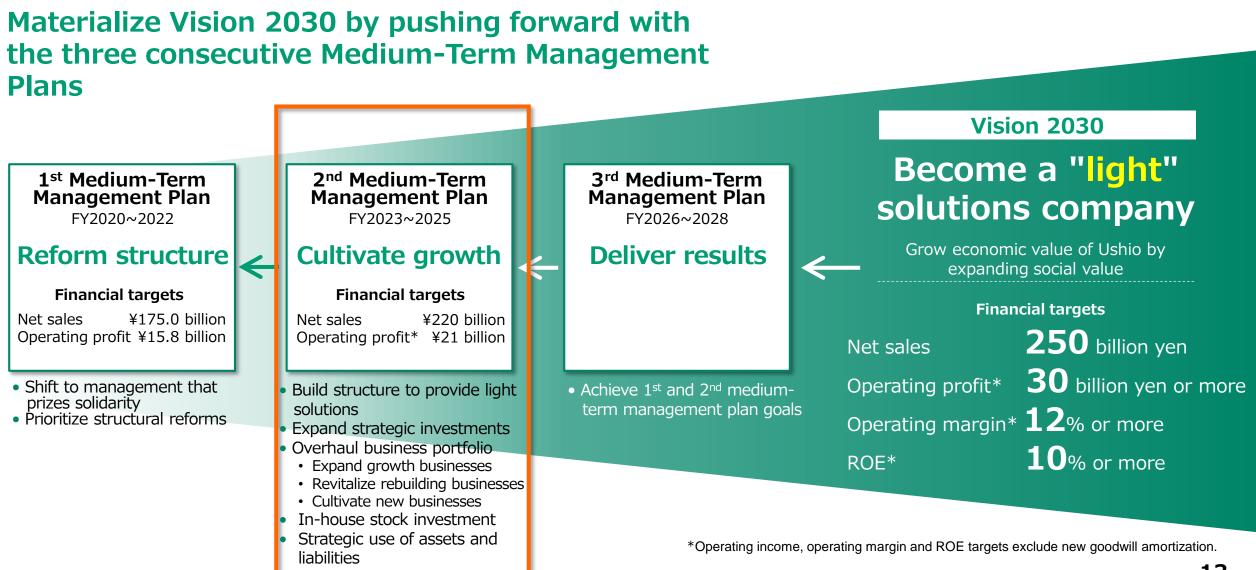
**Issue:** Accelerating shift from financial to business assets

### Cash outflow plans and results



PART 3

# Outline of New Medium-Term Management Plan





## Industrial Processes

#### Megatrends

Digitally connected society

Manufacturing technology innovations and environmental impact reductions

### Value proposition areas

- Semiconductors, electronic devices, and displays
- Electric vehicles
- Building materials, printing, and other manufacturing processes

## Visual Imaging

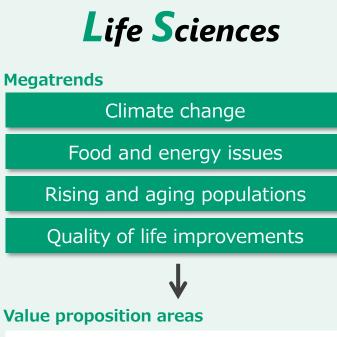
#### Megatrends

Societies that prioritize human well-being

Reevaluation of premium experiences outside homes

### Value proposition areas

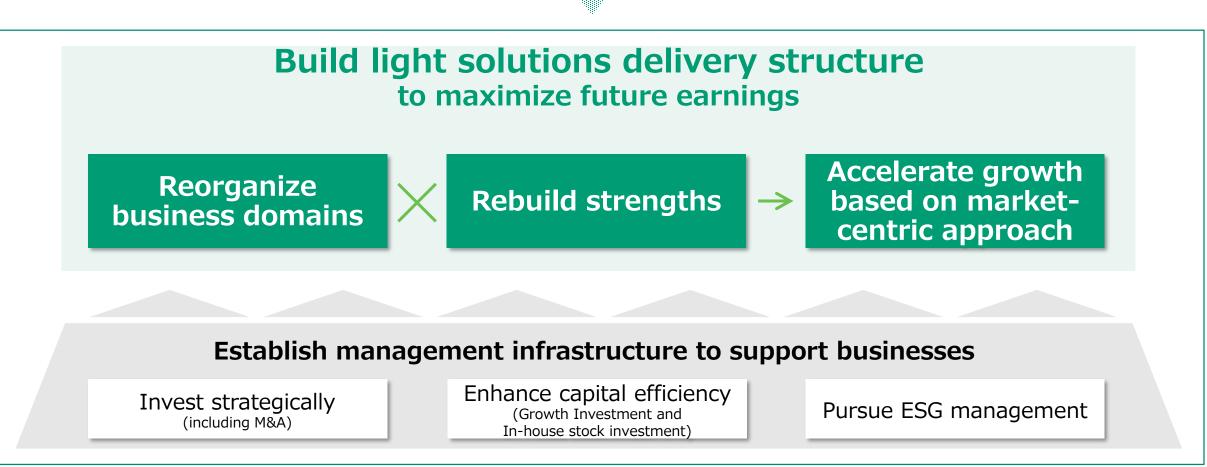
- Large-scale video production and operations for entertainment spaces (theme parks, cinemas, and live events)
- Public facilities, corporate control rooms, and video systems



- Climate change measures
- Extend healthy life expectancies (from environmental hygiene, healthcare, pharmaceuticals, and drug development)
- Address food shortages



Cultivate growth over three years to become truly a "light" solutions company



## Rebuild business model while expanding existing businesses to boost net sales and operating profit

Making EBITDA key performance indicator in view of expended investments, including through acquisitions

Billions of yen)		Plan targets	Vision2030	
	FY2022 results	FY2025 targets	FY2030 targets	FY2025 Key goals
Net sales	175.0	220	250	Target ROE of at leas
Operating profit <sup>*1</sup>	15.8	21	30	and aim at realizin PBR exceeding 1
Operating margin <sup>*1</sup>	9.1%	9.5%	12% or more	
EBITDA*2	23.6	30	39	
EBITDA margin	13.5%	13.6%	15.6%	
ROE <sup>*1</sup>	5.7%	8% or more	10% or more	<ul> <li>Earnings growth: Reach EBITDA t</li> <li>Capital efficiency: Reach ROE targ</li> </ul>
Cash conversion cycle	6.6 months	5.2 months	-	
Equity ratio	75.4%	60% or more	-	

\*1 Operating profit, operating margin, and ROE targets exclude new goodwill amortization. \*2 EBITDA = operating profit + depreciation and amortization and amortization of goodwill

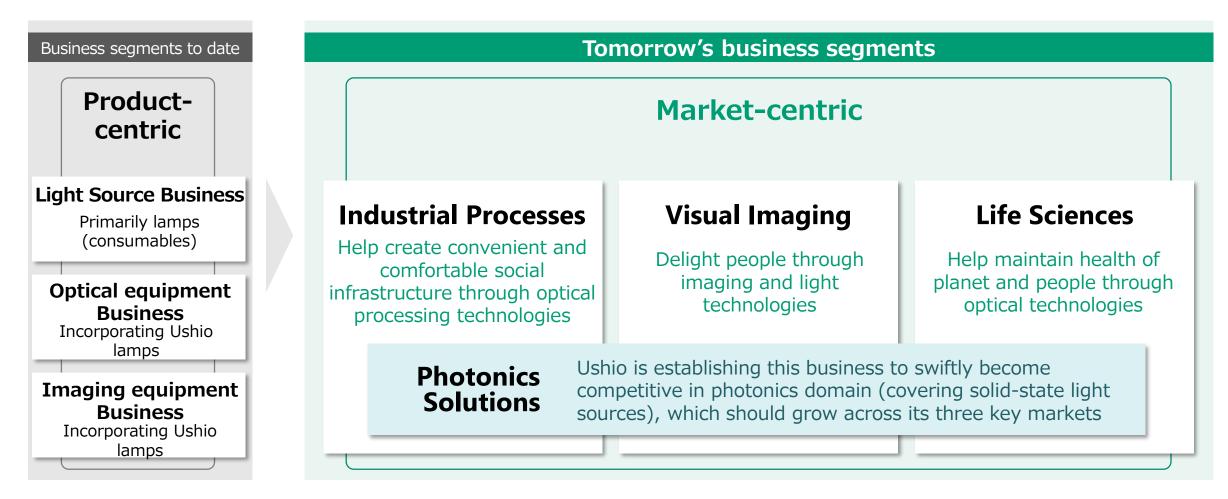
### IS

ast 8% zing 1.0

target in FY2025

rget in FY2025

## Accelerate provision of light solutions by making business domains market-centric

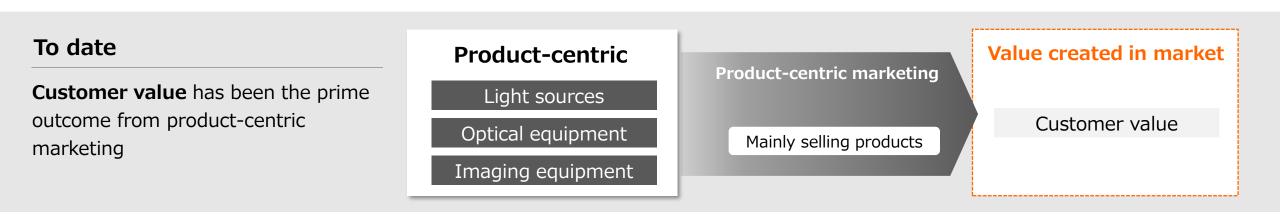


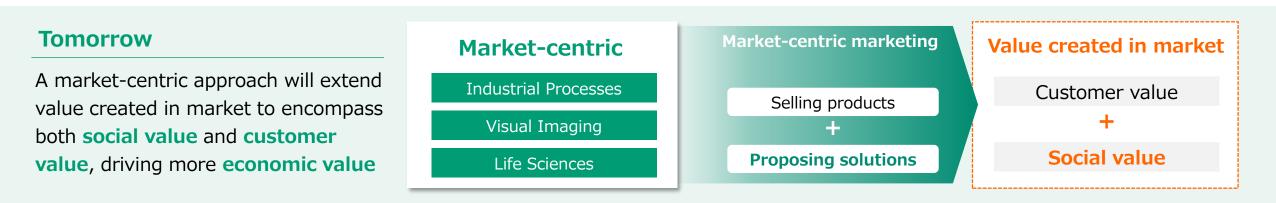
## **Reference:** Reporting Segment Changes



Old business segments	Su	bsegments		New business segments	Major Products		
Segments	Halogen	• OA			Light Source: UV lamps, OA lamps, Optical equipment		
	lamps	Lamps			lamps		
		Others		Industrial Processes	Optical equipment:		
_		• UV lamps			UV equipment, Curing equipment, EUV light		
Light Source Business		Cinema			source for photomask inspection, After- sales maintenance service		
Business	Discharge lamps	Data projector					
		Optical equipment			Light Source: Cinema lamps, Data projector lamps		
		Others			Optical equipment:		
	Solid state light sources			Visual Imaging	Digital cinema projector, General imaging projector, Imaging-related equipment, After-sales maintenance service		
Optical	• UV equipment						
Equipment	<ul><li>Curing equipment</li><li>Others</li></ul>						
Business			Others				Light Source: "Care222"-incorporated
Imaging	Cinema	Cinema		Cinema		Life Sciences	products Optical equipment: Ultraviolet treatment
equipment	General im	General imaging			equipment		
Business	• Lighting ed	• Lighting equipment, etc.		Photonics Solutions	Light Source: Solid-state light sources		
Others		for industrial use and		Photonics Solutions	Light Source: Solid-state light sources		
others			Others	Others			

## Sell products while reinforcing solutions proposals with a view to social value

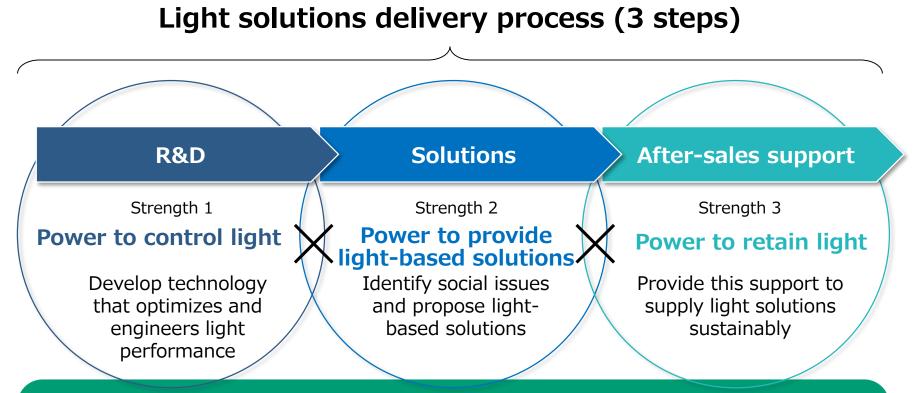






## Rebuild strengths for each light solutions delivery process

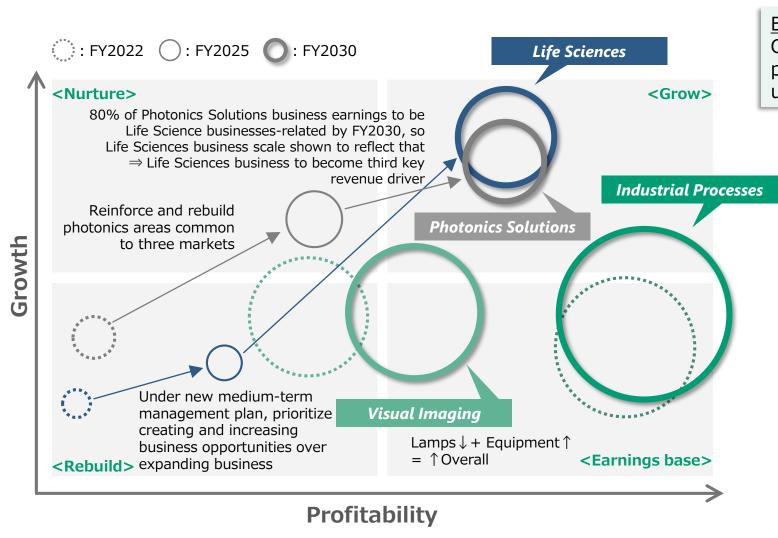
Essential to structure for providing these solutions



Creating new markets for light

Keep reinforcing strengths with view to robust alliances and M&A

## **Reorganize and make business portfolio market-centric and pursue strategies**



**Business Portfolio Reorganization Policy** Continuously review the business portfolio for profitable growth toward 2030, and actively utilize held assets and liabilities for this purpose **Industrial Processes** Core business Expand semiconductor-related operations while driving stable earnings growth by developing manufacturing solutions Core (rebuilding) **Visual Imaging** business Rebuild business toward 2030 by creating solutions platform **Life Sciences** Incubation business Step up cultivation efforts so business can grow as key new domain Reinforcement and **Photonics Solutions** rebuilding business Swiftly become competitive in photonics field (solid-state light sources) spanning three markets.

Build Management Infrastructure to Support Businesses (1):

**Deploy Investment Strategies** 



## Invest strategically in areas with growth potential and invest in human capital to enhance productivity

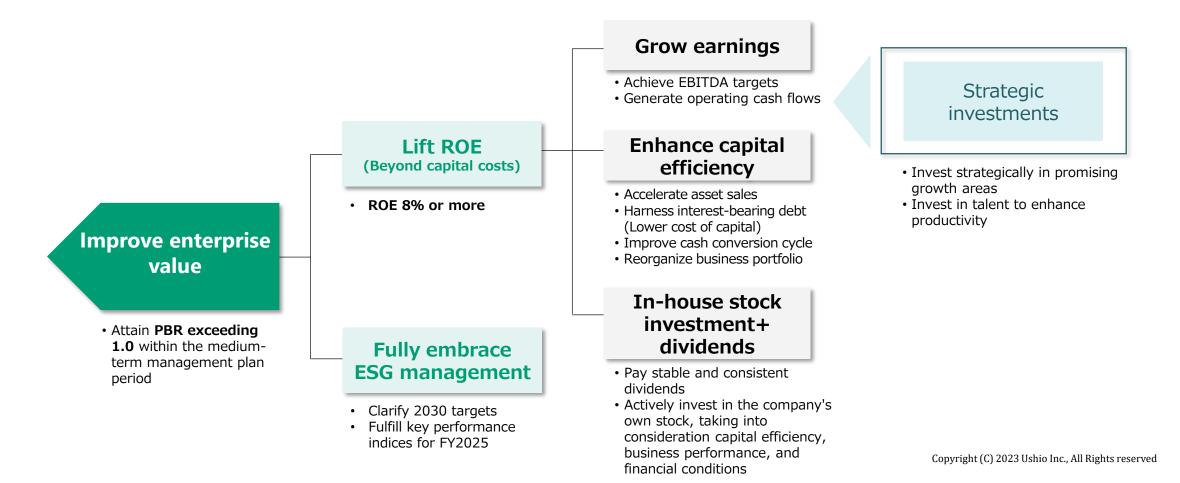
### Strategic investments

Growth investment M&A policy	<ul> <li>Build enterprise system to underpin consolidated management</li> <li>Bolster production capacity to cater to rising demand for cutting-edge IC package substrate projection lithography systems</li> <li>IP: Reinforce and expand existing business and restructure industry</li> <li>VI: Partnerships needed to build one-stop solutions structure</li> <li>LS: Strengthen and expand existing and creation businesses</li> <li>PHS: Reinforce and expand business by investing in companies in same industry offering synergies</li> </ul>	Growth investments (Including through M&A) 40 billion yen+ (Total over three years)
R&D investments	<ul> <li>Undertake advanced development in projection and direct imaging lithography</li> <li>Invest in development to broaden EUV adoption over medium and long terms</li> <li>Develop new solid-state light sources for niche markets</li> <li>Develop new products from long-term perspectives in driving to 2030 targets for Life Sciences business</li> </ul>	<b>46 billion yen</b> (Total over three years) 14 billion yen increase from previous medium-term management plan
Human capital investments	<ul> <li>Secure people to rebuild groupwide sales, development, and service systems</li> <li>Develop talent and deploy new systems to accelerate diversity and inclusion</li> <li>Review salary levels to attract talented individuals</li> </ul>	<b>17 billion yen</b> (Total over three years)

23

# Improve enterprise value by lifting ROE and undertaking full-fledged ESG management (to boost PBR to more than 1x)

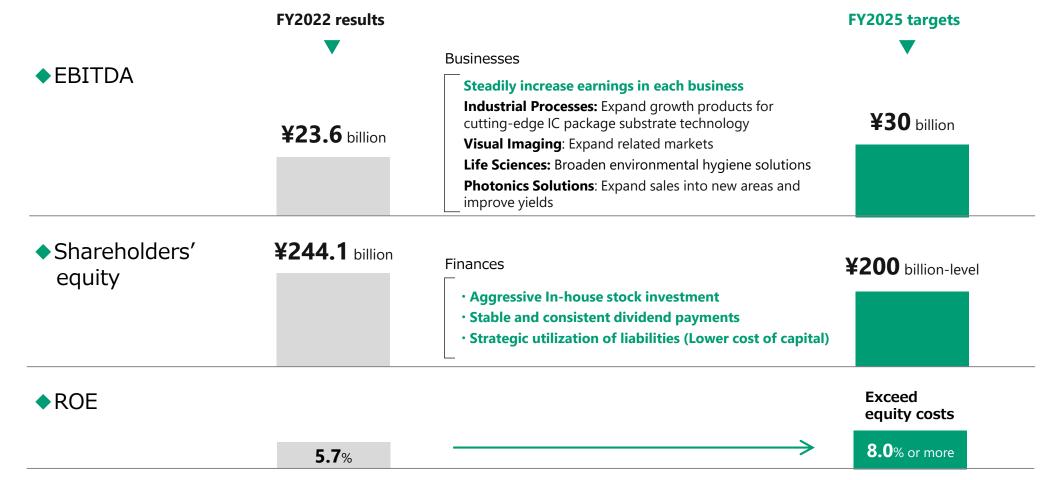
Financial policies framework to improve enterprise value



Build Management Infrastructure to Support Businesses (2): Enhance Capital Efficiency (2/4): ROE Improvement Roadmap

## USHIO

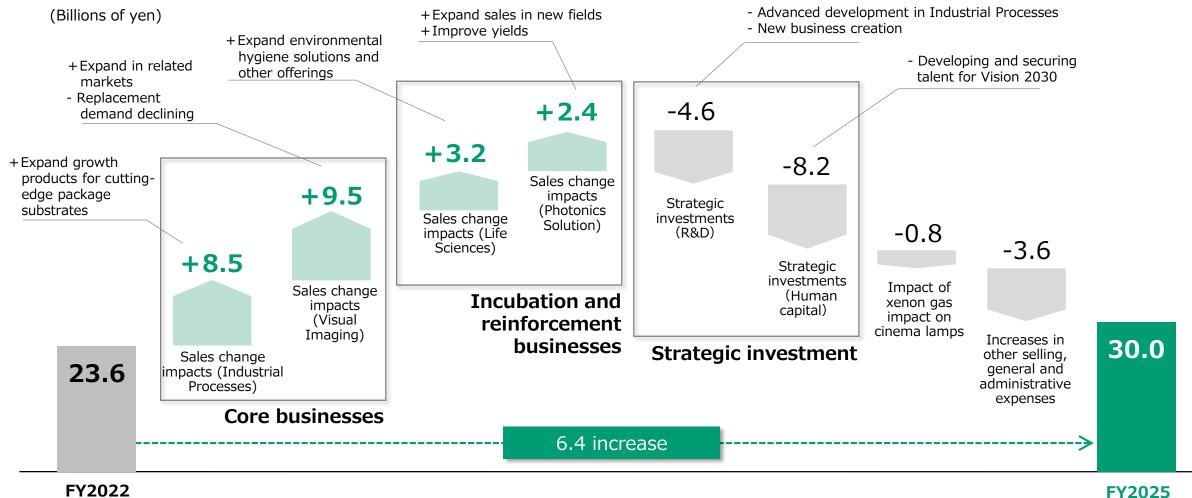
# Attain ROE of at least 8% by FY2025 by steadily expanding earnings and improving capital structure



Build Management Infrastructure to Support Businesses (2): Enhance Capital Efficiency (3/4): Scenario for Assumed EBITDA Changes

## USHIO

## Assumed EBITDA changes



FY2022 EBITDA result

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**EBITDA** target

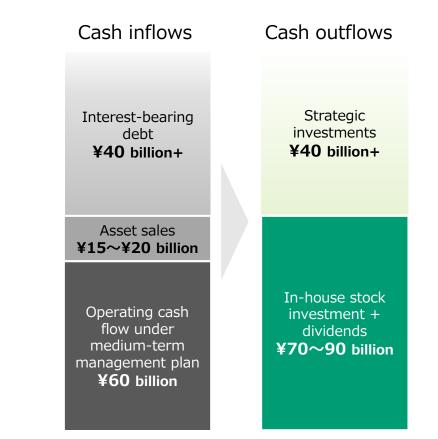
## Endeavor to enhance capital efficiency through in-house stock investment and major growth investment allocations

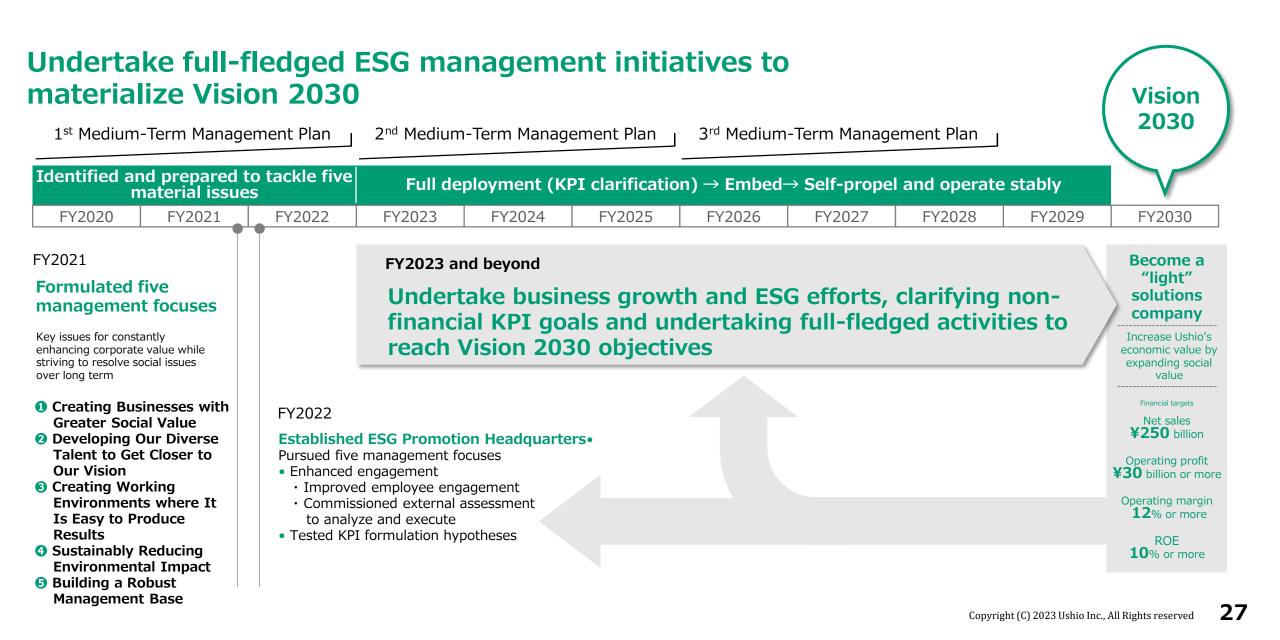
### **Cash generation**

- Operating cash flow under medium-term management plan: ¥60 billion over three years
- Asset sales: ¥15~¥20 billion
- Interest-bearing debt usages: ¥40 billion+ a (Lower cost of capital)

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

### Target ROE of at least 8% by FY2025





## Five Management Focuses (Materiality) and Vision 2030

Managen	nent focuses	Vision 2030	Key performance indices for FY2025	Economic value connection
	Creating Businesses with Greater Social Value	<ul> <li>Create businesses that address social issues of climate change, food supply, extending healthy life expectancies, and digitizing business processes</li> </ul>	<ul> <li>R&amp;D structure that constantly generates new value, with some themes on track for commercialization</li> </ul>	Expand revenues and earnings by creating new businesses
	Developing Our Diverse Talent to Get Closer to Our Vision ⇒ See page 29	<ul> <li>Undertake Group management and provide systematic training with diverse personnel</li> <li>Ensure global employee mobility</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>	Bolster talent to create new value that generates profits and accelerates growth strategies
	Creating Working Environments where It Is Easy to Produce Results ⇒ See page 29	<ul> <li>Build corporate culture that embraces diversity</li> <li>Enable employees to be physically and mentally healthy and enjoy their work</li> <li>Ensure high engagement levels so company and employees 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>	Provide attractive workplaces and work practices for diverse people to boost engagement and productivity
	Sustainably Reducing Environmental Impact	<ul> <li>Resolve social issues by undertaking biodiversity initiatives and cutting greenhouse gas emissions across value chain</li> <li>Offer products and services that lower environmental impact</li> </ul>	<ul> <li>Reductions of in-house greenhouse gas (Scope 1 and 2) emissions: At least 30% from FY2017 level</li> <li>Reductions of greenhouse gas emissions (Scope 3 cat. 11) from company's products: At least 30% from FY2017 levels</li> <li>Measure and convey benefits of products helping shrink customers' environmental footprints</li> </ul>	Business creation through environmentally friendly products Maintain and expand corporate value by fulfillment corporate social responsibilities
	Building a Robust Management Base ⇒ See page 30	<ul> <li>Formulate and reach management, business, and employee goals</li> <li>Manage business portfolio through timely efforts to identify management resources</li> <li>Clarify business risks and groupwide risk responses</li> <li>Create corporate culture and framework for respecting human rights across value chain</li> <li>Reinforce and deepen governance</li> </ul>	<ul> <li>Beginning groupwide to respond to social demands and earning some recognition for disclosure from external evaluation organizations and stakeholders</li> </ul>	Establish stable revenue base and safeguard corporate value

### Build Management Infrastructure to Support Businesses (3): ESG Management 3/4: Human Capital Strategy



## Human capital strategy directions to materialize Vision 2023: Global / New Value Creation / Diversity / Engagement

### Vision 2030

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

- Undertake Group management and provide systematic training with diverse personnel
- Ensure global employee mobility



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

- Build corporate culture that embraces diversity
- Enable employees to be physically and mentally healthy and enjoy their work
- Ensure high engagement levels so company and employees grow together

### Key measures (continuation from previous medium-term management plan)

### **Bolstering talent pivotal to materializing Vision 2030**

- Bolster talent across diverse academic backgrounds and develop employees to have technical background and management literacy
- Develop leaders for key Group positions
- Cultivate people with digital skills to enhance productivity and creativity

### **Examples of measures**

- Deployed rational recruiting and training strategies under business needs-based human capital map
- Exchanged personnel among Group companies by evolving groupwide personnel system
- Secured people with engineering backgrounds to gain diverse experiences and become central to new value creation and growth strategies

## Become highly engaged group that delivers high value-added results

- Accelerate diversity and inclusion
- Provide attractive workplaces and work practices
- Undertake data-driven health management, based on strategic map

- Overhauled program for older workers system to improve job satisfaction and rolled out experimental three-day work week and side job setup
- Launched employee stock compensation system and fostered awareness of need to increase corporate value by linking compensation to share price and performance over medium through long terms
- Set specific numerical indicators for each of the three health goals ("work, mental, and physical health")

# Solidify corporate governance to materialize 2030 Vision and accelerate ESG management

	2006 •• 2011 •• 2016 •• 2021~ 2 <sup>nd</sup> Medium-Term Ma	nagement Plan
Uutside directors	Appointed outside directors     Outside directors became majority     on Board (2016)	
Female directors	• 1 (2016)        • 3 (2020) • 4 (2022)	Future initiatives
Voluntary advisory committee	<ul> <li>Remuneration Advisory Committee (2015)</li> <li>Nomination and Remuneration Advisory Committee (2019)</li> </ul>	• Use and enhance
Compensation systems	<ul> <li>Abolished retirement benefits for directors and corporate auditors (2005)</li> <li>Adopted stock compensation (2015)</li> <li>Executive compensation revised (2020)</li> <li>Planning to revise executive compensation – Deploying ESG benchmarks</li> <li>Planning to revise stock compensation plan – Adopting key performance indicators for reaching medium- term management plan goals and increasing stock compensation ratio</li> </ul>	<ul> <li>existing structures and systems</li> <li>Enhance Board of Directors disclosure</li> <li>Reinforce Group governance</li> </ul>
Programs and policies	<ul> <li>Shifted to delegating authority for executives (2008)</li> <li>One-year terms for directors and executive officers (2015)</li> </ul>	<ul> <li>Strengthen internal controls</li> <li>Bolster risk</li> </ul>
Other	Audit & Supervisory     Committee (2016)     Board of Directors	management

## PART 4 Business Strategies

## **Progress with growth strategies in business domains reorganized along three market lines**

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

Reinforcement and<br/>rebuilding businessSales¥14.5 billionOperating profit\*¥1.0 billionPhotonics SolutionsOperating margin\*6.9%

Swiftly establish niche top positions

• Quickly reach critical masses in module and device businesses

\*Operating profit and operating margin targets exclude new goodwill amortization.

		2 <sup>nd</sup> Mediu Managem	um-Term nent Plan	Vision	2030
FY2022 res	ults (Ref <sup>*1</sup> )	FY2025	targets	FY2030 targets	
Sales	Operating profit (loss)	Sales	Operating profit (loss) <sup>*2</sup>	Sales	Operating profit*
88.1	<b>17.2</b> (19.5%)	105.0	<b>17.5</b> (16.7%)	126.0 or more	<b>23.0</b> (18%~20%)
67.7	<b>3.0</b> (4.4%)	91.5	<b>3.0</b> (3.3%)	85.0 or more	<b>7.0</b> (8%~12%)
4.6	(4.9) (-106.0%)	5.5	<b>(1.0)</b> (-18.2%)	19.0 or more	<b>2.0</b> (11%~15%)
10.1	<b>(0.2)</b> (-2.9%)	14.5	<b>1.0</b> (6.9%)	20.0 or more	<b>2.5</b> (13%~15%)
175.0	15.8 (9.1%)	220.0	<b>21.0</b> (9.5%)	Net sales: 250.0 or more Operating margin: 12% or more	
	Sales         88.1         67.7         4.6         10.1	Sales         profit (loss)           88.1         17.2 (19.5%)           67.7         3.0 (4.4%)           4.6         (4.9) (-106.0%)           10.1         (0.2) (-2.9%)           175.0         15.8	Sales         Operating profit (loss)         Sales           88.1         17.2 (19.5%)         105.0 (19.5%)           67.7         3.0 (19.5%)         91.5 (10.5%)           4.6         (4.4%)         5.5 (10.5%)           10.1         (0.2) (-106.0%)         14.5 (14.5%)           175.0         15.8         220.0	Sales         Operating profit (loss)         Sales         Operating profit (loss)*2           88.1         17.2 (19.5%)         105.0         17.5 (16.7%)           67.7         3.0 (4.4%)         91.5         3.0 (3.3%)           4.6         (4.9) (-106.0%)         5.5         (1.0) (-18.2%)           10.1         (0.2) (-2.9%)         14.5         1.0 (6.9%)           175.0         15.8         220.0         21.0	Sales         Operating profit (loss)         Sales         Operating profit (loss)*2         Sales           88.1         17.2 (19.5%)         105.0         17.5 (16.7%)         126.0 or more           67.7         3.0 (19.5%)         91.5         3.0 (16.7%)         0 or more           4.6         (4.4%)         5.5         (1.0) (1.0) or more         19.0 or more           10.1         (0.2) (-106.0%) (-106.0%)         14.5         1.00 (6.9%) or more         20.0 or more           175.0         15.8         220.0         21.0         Net sales: 25 Operating marging

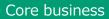
\*The percentages in () in the Operating profit column indicate the operating income ratio.

Note:

\*1 FY2022 values for each segment are reference values prepared by the Company for comparison purposes.

\*2 These operating profit and operating margin targets exclude new goodwill amortization.

\*3 Total amount includes Others.





# Help create **Convenient and comfortable** social infrastructure through optical processing technologies

Value proposition of Industrial Process business

Manufacturing processes

- Semiconductors, electronic devices, and displays
- Electric vehicles
- Building materials and printing, etc.

Light solutions trajectory to materialize vision

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



### Value generated in market

#### Customer value

### At customer factories

- Reduce bottlenecks in semiconductor and other technological innovations
- Help enhance quality, cut costs (such as through energy savings), shrink environmental footprints, and reduce hazardous substances

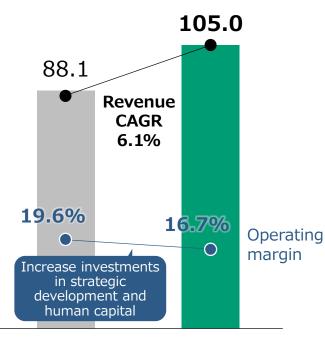
#### Social value

### **Through customers**

Help achieve SDGs overall, such as by offering convenience and comfort worldwide and tackling environmental, poverty, and medical issues

## Business policy: Generate business opportunities by driving growth on semiconductor field and offering light solutions

## Financial targets (Billions of yen)



### Operating climate assumptions

### Semiconductor market to regain growth after slowdown

- $\rightarrow$  Advances in cutting-edge IC package substrate technology (for larger, higher-density devices)
- $\rightarrow$  Rapid technological innovations and intensifying competition

### Accelerating manufacturing process reviews in line with environmental impact reduction needs

### Action plans (Vision 2030 preparations)

- Secure earnings with growth offerings for IC package market
   \*Large field lithography equipment and direct imaging lithography systems for cutting-edge IC package substrates
- **2** Step up efforts to expand opportunities over medium and long terms for EUV mask inspection light sources
- **3** Establish new business foundations by offering optical processes for manufacturing
- 4 Secure stable earnings by steadily capturing lamp demand

FY2022

FY2025

Note:

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



## Action plan 1

## Secure earnings with growth products for IC package market



#### / Operating climate assumptions

- Growth of cutting-edge IC package substrate technology through advances in Internet of Things, artificial intelligence, and 5G communication technologies
   Market Sh
  - $\rightarrow\,$  Ongoing market growth and demand for performance gains in miniaturization technology
  - ✓ Rapid technological innovations and intensifying competition

#### / Issues and measures

## $\checkmark$ Boosting production capacity to cater to expanding demand

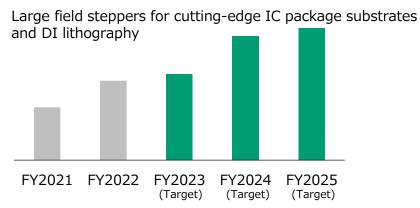
- $\rightarrow$  Large field steppers for cutting-edge IC package substrates: Double production capacity toward FY2025
- ightarrow Direct imaging (DI) lithography: Level out production after boosting capacity

#### ✓ Maintaining and improving competitive edge (high market share)

- $\rightarrow$  Push forward with development for miniaturization and other next-generation processes, enhancing productivity, resolution, and positioning precision
- $\rightarrow$  Streamline operations by optimizing resource allocations for lithography business overall and enhance ability to offer customer proposals



#### Envisaged sales (Billions of yen)





# Action plan 2

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

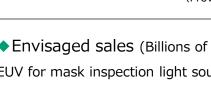
## **Operating climate assumptions**

- Continue to expand EUV lithography processes over medium through long terms
- Progress in 3 to 2 nm node commercialization
- Changes in light source market environment for EUV mask inspection and APMI\*
  - $\rightarrow$  Intensifying competitive environment owing to growing cost cutting needs





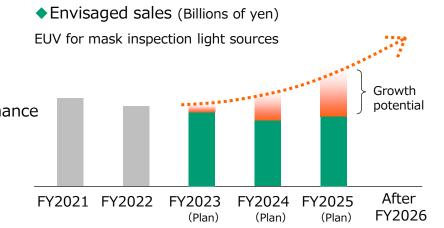
Key product



EUV mask inspection

light source

(Provided by TNO)



Issue and measure

- ✓ Issue: Address total costs of ownership Measure: Expand recruitment opportunities by extending competitive edge
  - $\rightarrow$  Keep investing in development

Maintain and enhance such technological edges as stable uptimes and high performance

- Step up efforts to reduce total costs of ownership
- (such as by extending replacement part lives)
- $\rightarrow$  Initiatives to attract new customers



# Action plan 3

Establishing new business foundations by offering optical processes for manufacturing

#### Operating climate assumptions

- Rising need to innovate production processes, including to shrink environmental footprint
- / Issues and measures

#### ✓ Strengthen light solutions structure to offer processes

- $\rightarrow$  Bolster proposal capabilities across broad fields (including by securing human capital)
- $\rightarrow$  Satisfy customers and stabilize earnings by reinforcing after-sales services





Key products

Heating, surface modification, and adhesion from light contributing to innovation in various manufacturing processes

Target areas: Electric vehicles (batteries, etc.), building materials, printing, and semiconductors

Key product



# Action plan 4 Generate stable earnings by steadily capturing demand in lamp domain

#### / Operating climate assumptions

- Semiconductors: Although growth should slow temporarily, market should thereafter expand gradually
- ✓ Flat panel displays: Demand unchanged owing to growth stagnation
- New demand to expand in line with device diversification
- / Issues and measures
  - Keep investing to enhance lamp performance to maintain competitiveness in existing markets
  - Capture demand by strengthening sales capabilities and customer service





# **Delight people** through imaging and lighting technologies

Value proposition of Visual Imaging business

- Large-scale video production and operations for entertainment spaces (theme parks, cinemas, and live events
- Public facilities, corporate control rooms, and video systems

#### Light solutions trajectory to materialize vision

# Provide solutions to create premium space experiences delivering greater presence



## Value generated in market

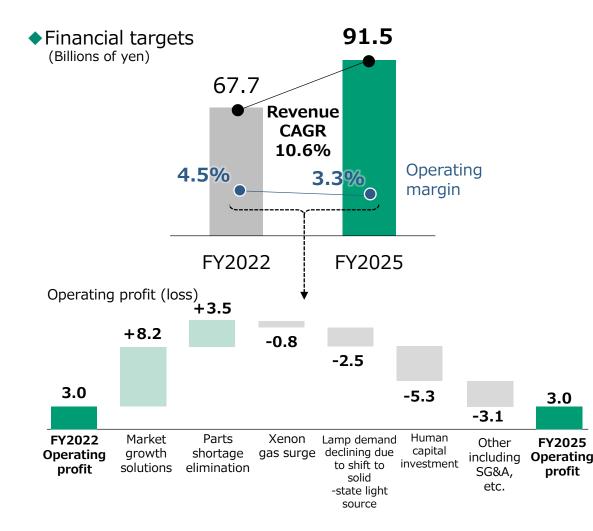
#### Customer value

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

#### Social value

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

# **Business policy:** Despite declining lamp earnings, rebuild structure business in drive toward 2030 and build stable operational infrastructure



/ Business climate assumptions	<b>/ Business</b>	climate	assumptions
--------------------------------	-------------------	---------	-------------

- Advanced video production demand expanding
- Digital cinema projector demand remaining robust
- Progress with solid-state light sources for projectors
- ✓ Surging energy prices
- Action plans (Vision 2030 preparations)

# Transform business structure toward 2030 by progressing with solutions

- **1** Build structure to provide one-stop solutions and solidify high value-added proposals
- 2 Address risk factors for deteriorating business performance (supply chain management, xenon gas price hikes, and falling declining lamp demand)
- 3 Emphasize balance sheets in continuing to evolve business

#### Note:

FY2022 values for each segment are reference values prepared by the Company for comparison purposes.

Operating income margin for FY25 is calculated excluding amortization of new goodwill.

# Aim to build one-stop solutions platform

Provide optimal solutions by combining four core technologies and knowhow

Build platforms by combining in-house products based on proprietary core technologies and partnerships

Ongoing product development Investments to reinforce product lineup

Core technologies and knowhow 1

Video and lighting equipment

# Services supporting stable operations

Core technologies and knowhow 3

Expand services matching regional and market needs

Employ audio-visual over IP technology\* Expand range of IoT devices

Core technologies and knowhow 2 System peripherals and software

Experiential and production design

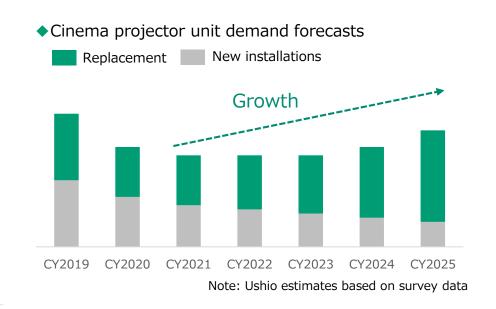
Core technologies and knowhow 4

Build partnerships

 Technology for video and voice transmission technology over IP

#### / Cinema market trends

- While movie-viewing formats are diversifying, demand keeps growing for the joy and sense of sharing that is unique to cinemas
  - $\rightarrow$  Replacement demand for digital cinema projectors expanding amid longer service lives and better quality
    - Replacements of more than half of existing units by 2030
  - $\rightarrow$  Notwithstanding slowing pace of new installations, moderate installations to continue
  - $\rightarrow$  Increasing ratio of premium screens offering highly immersive video, sound, and seating setups



## Priority issues in capturing cinema market demand

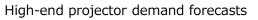
Revise product lineup and sales structure to capture digital cinema projector replacement demand Provide solutions to streamline cinema operations

(Improve maintenance services by managing contents management and leveraging IoT network)



#### General visual imaging market trends

- $\rightarrow$  More applications requiring complex, large-scale staging
  - Including public live events and theme parks
  - Multiple projectors plus peripheral equipment and software
- $\rightarrow$  Capex demand always occurs in short time spans
- $\rightarrow$  New technology adoption and other value-added markets

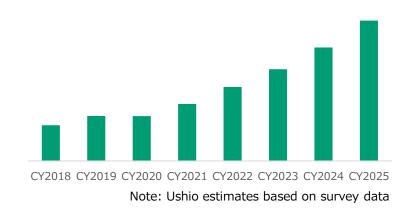


- High-end projector market growth
- CY2019 CY2020 CY2021 CY2022 CY2023 CY2024 CY2025

Note: Ushio estimates based on survey data

LED Video Wall demand forecasts

LED display market growth



## Key factors in penetrating general imaging market

Also reinforce lineup of LED Video Wall and other display products Leverage network to reinforce service and support system

## Deploy solutions employing Audio-Visual over IP technology\*

\* Technology for video and voice transmission technology over IP

	Issues	Overview	Initiatives
Action Plan 2	Video Equipment <ul> <li>Review supply chain <ul> <li>management in view of parts</li> <li>shortages</li> </ul> </li> </ul>	<ul> <li>Parts and materials shortages hampered results under previous medium-term management plan. Strengthening supply chain is an issue.</li> </ul>	<ul> <li>Minimize component procurement risks through design efforts</li> </ul>
	<ul> <li>Lamps</li> <li>Temporarily deteriorating profitability owing to rising xenon gas prices (for cinema lamps lamps)</li> <li>Declining demand for lamps because of shift to solid-state light sources (lamps for data projectors and cinema lamps)</li> </ul>	<ul> <li>Purchase costs surging from supply-demand imbalance (from FY2023 through FY2024, thereafter improving gradually)</li> <li>Lamp demand gradually shrinking by 2030</li> </ul>	<ul> <li>Voluntary recalls and multiple purchases of xenon gas</li> <li>Boost market share by strengthening sales and service, enhancing efficiency by consolidating production</li> </ul>
Action Plan 3	Emphasize balance sheets in continuing to evolve business	Inventories rising despite balance sheet-oriented measures, reflecting prolonged parts and materials shortage	<ul> <li>Reduce product and loss costs</li> <li>Refine PSI (production/sales/inventory) plans</li> </ul>

# Support the health of people and the planet by applying optical technologies

Value proposition of Life Sciences business • Climate change measures

- Extend healthy life expectancies (from environmental hygiene, healthcare, pharmaceuticals, and drug development)
- Food initiatives

Light solutions trajectory to materialize vision

## Focus on greater social issues and build unique structure to resolve them with proprietary light technology



## Value generated in market

#### **Customer value**

Contribute to sustainability management of customer companies

#### Social value

- Help combat climate change
- Help extend healthy life expectancies, contributing to:
  - Consistently better living environments
  - Disease eradication and good health
  - Enhanced drug discovery processes and pharmaceuticals
- Contribute to food security

#### Identify social issues and cultivate areas that can grow over long term **Business policy:** like Visual Imaging and Industrial Process businesses

#### 2030 targets

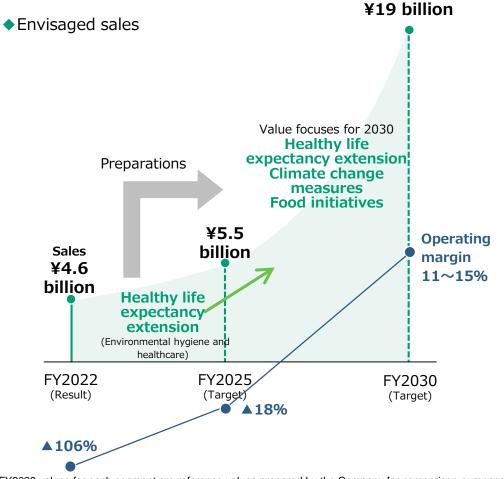
#### Focus on three areas in which light technology can help resolve social issues: Climate change measures, food initiatives, and Healthy life expectancy extension

Rationale: Issue scales + Market growth + Relevant Ushio technologies

Social issues	Core light technologies	New light technologies
Climate change measures	<ul> <li>Light source manufacturing and power supply development</li> <li>Analysis and simulation</li> <li>Light technology</li> </ul>	<ul> <li>Light process technologies</li> </ul>
Food initiatives		Medical care and biotechnology
Healthy life expectancy extension		<ul> <li>Equipment technology</li> <li>Optical process technology</li> <li>Microfabrication technology</li> <li>Medical care biotechnology</li> </ul>

#### Preparations under current medium-term management plan

- Choose promising businesses to accelerate creation of new businesses for tomorrow
- ✓ Secure human capital and other resources needed to offer light optical solutions
- Strengthen partnerships, including M&A



Note: FY2022 values for each segment are reference values prepared by the Company for comparison purposes. Operating income margin for FY25 is calculated excluding amortization of new goodwill. 46

providing areas

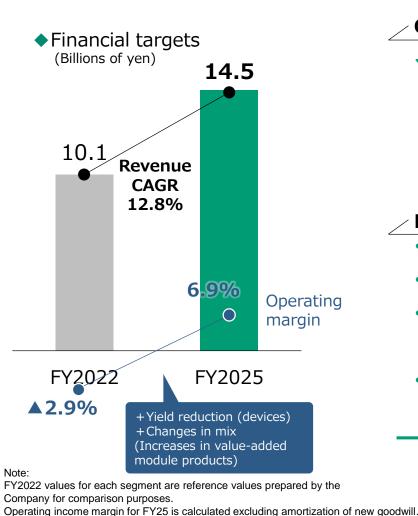
## Paths for expanding businesses in value-providing areas\* in 2030

\* Climate change measures, Food initiatives, and Extending healthy life expectancies

Grow and expand current business domains	<ul> <li>1 Environmental hygiene solutions</li> <li>Environmental assumptions</li> <li>Infectious disease control: Ongoing risks of infectious diseases and growing threats of drug-resistance bacteria</li> <li>Indoor environment improvements: Progress with legal reforms and formulating roadmap to improve indoor (including for work) environments</li> <li>Challenges and measures:</li> <li>Infectious disease control: Secure business primarily in medical and elder care and Mobility as a Service markets</li> <li>→ Step up marketing overseas and acquire evidence for value proposition</li> <li>Indoor environment improvements: Leverage light to create deodorization and toxic substance removal technology and secure projects for use in products</li> </ul>	Key productImage: Second stateImage: Second stateIma
Healthy life expectancy extension	<ul> <li>2 Healthcare</li> <li>Environmental assumptions: Phototherapy's promise for skin diseases and growing awareness of anti-aging and beauty routines</li> <li>Challenges and measures: Expand lineup and distribution of UV therapy (immuno-control) equipment</li> </ul>	Key product
+		
Create new businesses in through value-	Outcomes from organized approaches in Business Creation Divis	<b>Sion</b> (see slide 49-50 for details)

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# Swiftly establish niche top positions by creating value with customers



#### Operating climate assumptions

#### ✓ Solid state light source market already worth more than ¥10 trillion

 $\rightarrow$  Revenues should keep growing 7% to more than 11% annually over medium through long terms on such factors as light applications and energy efficiency enhancements

#### Needs in priority markets

- IP: Growing need for digital data processing in semiconductor manufacturing and sensor-based production automation
- VI: Growing use of personal use (augmented and virtual reality and in-vehicle) devices
- LS: More sophisticated telemedicine and medical diagnostics\* and progress with personalized medical equipment

#### > Business strategies

- Choose niche and growth applications upstream in Industrial Processes, Visual Imaging, and Life Sciences businesses
- Establish niche-leading positions
- $\rightarrow$  Collaborate from development stage with customers with advanced applications
- Leverage strengths in light manipulation
  - $\rightarrow$  Provide high value-added modules and subsystems that meet customers' light quality requirements and specialize in cultivating devices for specialized applications
- Extensively leverage investments in inorganic growth

for semiconductor- cinemas and augmented medicine, and other medical examinations*	nd augmented medicine, and other medical examinations* <sup>2</sup> • Secure more therapeutic device OEM business by	Cut light source costs for semiconductor- related production equipment     Embed more laser cinemas and augmented and virtual reality	$\rightarrow$
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\*Multispectral imaging captures images across multiple wavelength bands

Core products

Laser module

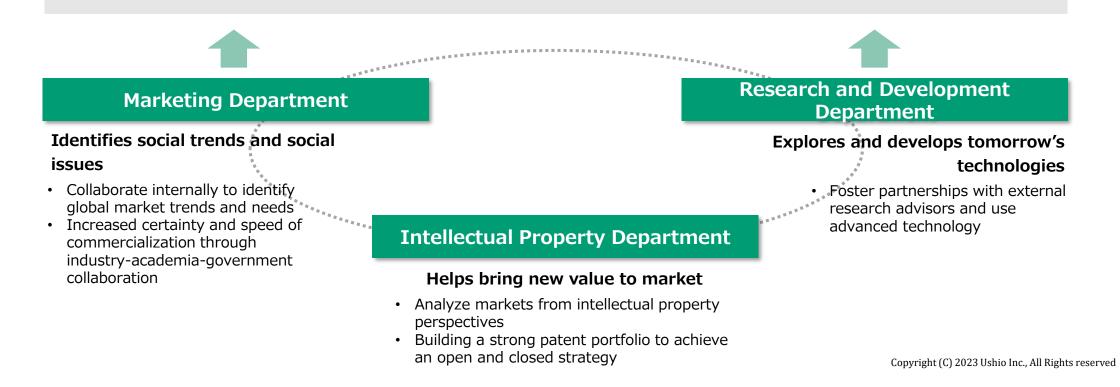
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# Goal Innovate technologies, products, and services that help create value sustainably by systematically and realistically taking long-term perspectives on social issues

<Business Creation Division Structure and Roles>

• To realize the creation and provision of new value, accelerate the creation of new businesses aimed at solving social issues by integrating R&D, marketing, and intellectual property functions



# Through an autonomous approach cycle and monitoring environment, sustainable business creation is realized

<Business selection approach and prospective projects>

Approach			
(1) Identifying social trends and social issues	(2) Exploring and developing tomorrow's technologies	(3) Develop reproduceable technologies that become assets	(4) Collaborate with partners to drive business

# Monitoring and screening process

# Monitor issue trees, market trends, and proprietary technology map fusion, updates, and focus area transitions

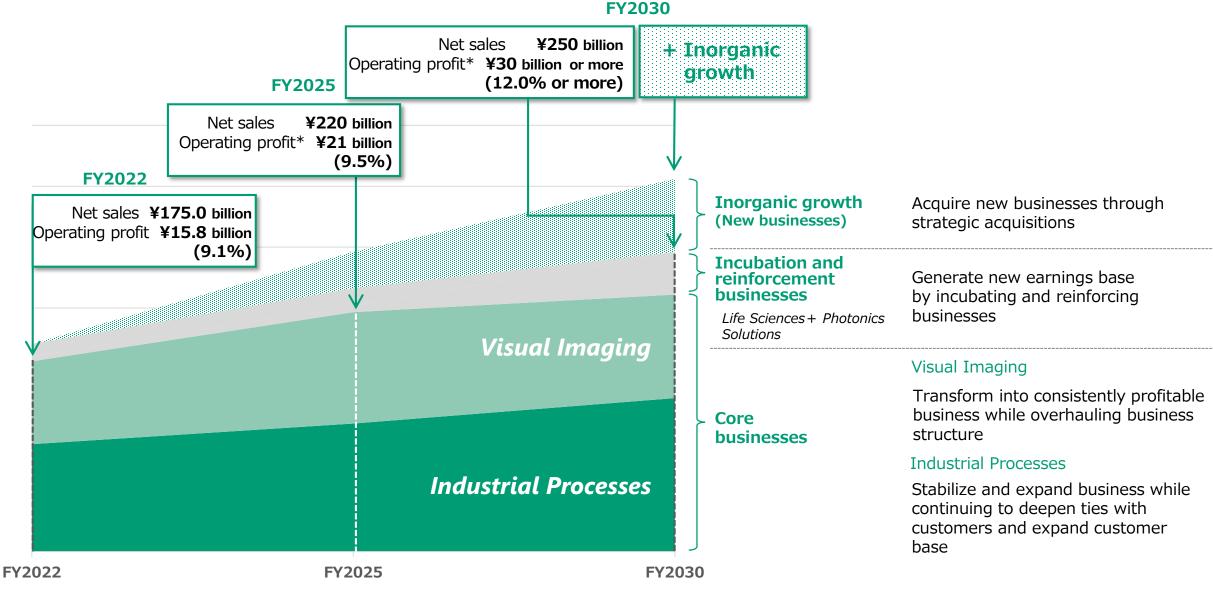
Promising candidates\*

**Industrial Process: Battery manufacturing process development, etc. Life sciences**: Climate change measures (methane gas decomposition and recycling); Extending healthy life expectancies (component testing and Organs on Chip)

\*Subject to change

## **Business Strategy Summary:** Envisaged Business Expansion over Medium and Long Terms





\*Operating profit and operating margin targets exclude new goodwill amortization.



Old business segments	Subsegments		
	_	• OA	
	Halogen lamps	• Lamps	
		Others	
		• UV lamps	
Light Source Business		Cinema	
	Discharge lamps	<ul> <li>Data projector</li> </ul>	
		Optical equipment	
		• Others	
	• Solid state	light sources	
Optical	<ul><li> UV equipment</li><li> Curing equipment</li><li> Others</li></ul>		
Equipment			
Business			
Imaging	Cinema		
equipment	General imaging		
Business	Lighting equipment, etc.		
Others	Machinery for industrial use and others		

New business segments	Ref: Relevance to former business segments			
Reporting segments	Subsegments	Reporting segments		
Industrial Processes	<ul> <li>Halogen lamps: OA, other</li> <li>Discharge lamps: UV lamps, Optical equipment lamps</li> </ul>	(Light Source)		
	<ul> <li>UV equipment</li> <li>Curing equipment</li> <li>Other (EUV, etc.)</li> </ul>	(Optical Equipment)		
	<ul> <li>Machinery for industrial use and other businesses</li> </ul>	(Others)		
Visual Imaging	<ul> <li>Halogen lamps: Illumination</li> <li>Discharge lamps: Cinema lamps, Data projector lamps</li> </ul>	(Light Source)		
	<ul> <li>Cinema</li> <li>General imaging</li> <li>Illumination equipment, etc.</li> </ul>	(Imaging Equipment)		
Life Sciences	<ul> <li>Discharge lamps: Optical equipment</li> </ul>	(Light Source)		
	• Other (Medical, etc.)	(Optical Equipment)		
• Solid-state light sources		(Light Source)		
Others	● Others	(Optical Equipment)		



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