



**maxell**  
Within, the Future

Integrated Report 2023  
Maxell, Ltd.

# Maxell Group's Basic Management Policy



## Mission

The "Mission" Maxell must carry out

**"Contribute to a sustainable society by innovating unique, original technologies"**

## Vision

The "Future" Maxell wants to realize

**"Create Maximum Excellence for employees, customers and society by leveraging unique Analog Core Technologies"**

## Value

The "Value" and "Strengths" Maxell commits to provide

**Maxell commits to maximizing corporate value for all stakeholders through three key sources of value**

<b>Technological Value</b>	Create new value through the sincere pursuit of originality and technological excellence
<b>Customer Value</b>	Respond to customer needs with safe and secure products created by Monozukuri (Manufacturing) above and beyond customer expectations
<b>Social Value</b>	Take on the many challenges of a changing world to create a prosperous and sustainable society

## Spirit

The "Spirit" Maxell must cherish

- Corporate Creed -

**"Harmony and cooperation, working with heart and soul, and contributing to society"**

## Slogan

The "Shared Slogan" of Maxell group

- Brand Slogan -

**"Within, the Future"**

- The future is within -



## Analog Core Technologies

The core of Maxell, the element without which we cannot be who we are, is our Analog Core Technologies. Human senses, such as seeing, hearing and touching traverse the border between digital and analog, and lie beyond it. We believe the analog world has the ability to stimulate these senses and express them without limit.

Analog Core Technologies connect the analog to the digital, and play an indispensable role in realizing Monozukuri (Manufacturing) in complex and delicate fields that cannot be achieved by digital technology alone.

Please refer to page 6.

# Table of Contents and Editorial Policy

The Company positions its Integrated Report as an important tool for communicating with its stakeholders. In it, we present an overview of Maxell's Value Creation, and report on our mechanisms for Value Creation, growth strategies, and the current state of our activities.

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<div> <b>How This Report is Structured</b> <ul style="list-style-type: none"> <li>● Reading over the "Value Creation Process" (p.7-8) section of the Introduction and the "Materialities / Action Plans / KPIs" (p.11-12) section of Chapter 1 will give you an understanding of the mechanisms and main points of Maxell's Value Creation.</li> <li>● The "Message from the President" (p.13-16) looks back over the medium-term management plan, while the "Message from the Financial Director" (p.17-19) introduces management analysis of short-term performance.</li> <li>● Information on the status of progress with KPIs can be found in the "Materialities / Action Plans / KPIs" (p.11-12) section.</li> <li>● Management evaluations and challenges are discussed in the "Outside Director Roundtable Discussion section" (p.60-62).</li> </ul> </div> <div> <b>Data Section</b> P. 63           <ul style="list-style-type: none"> <li>64 Consolidated Financial Information</li> <li>68 Maxell Group Network</li> <li>69 Corporate Data / Stock Information / External Recognition</li> </ul> </div>			

## Editorial Policy

The purpose of this Report is to communicate the features of Maxell Group, which conducts business on the basis of co-existing with society, to all stakeholders, including shareholders and investors. It contains information on business, performance, and sustainability-related activities and their outcomes in the form of an Integrated Report. Detailed financial and sustainability information not included in this Report is disclosed on our website.

## Period Covered by this Report

This Report focuses on fiscal 2022 (April 2022 to March 2023), but also includes some fiscal 2023 events.

## Reference Guidelines

Value Reporting Foundation (VRF) "The International (IR) Framework" GRI "GRI Sustainability Reporting Standard"\*

Ministry of the Environment "Environmental Reporting Guidelines (2018 Version)"

Ministry of the Environment "Guidelines for Environmental Reporting (3rd Edition) (May 2014)"

Environmental Consideration Law

"ISO 26000:2010"

\*International sustainability reporting guidelines compiled by the Global Reporting Initiative

## "Guidance for Collaborative Value Creation"

The "Guidance for Collaborative Value Creation," which was prepared by the Ministry of Economy, Trade and Industry, was used as a reference in this Report.



Published  
September 2023

## History of Innovation

### Origin of the Company Name

# Maximum Capacity Dry Cell

The Company name originates from the brand name "Maxell" (Maximum Capacity Dry Cell = a dry cell with the highest performance) created for the dry batteries that constituted its business at the time of its foundation.



### Foundation

## 1961

The dry battery and magnetic tape divisions were spun off from Nitto Electric Industrial Co., Ltd. (currently Nitto Denko Corporation), and established as Maxell Electric Industrial Co., Ltd.

Please refer to the following website for the Company's history and development.

<https://www2.maxell.co.jp/corporate/history.html>

## 1963 First in Japan

Commenced production of alkaline dry batteries

## 1966 First in Japan

Commercialized audio cassette tapes

## 1976 First in Japan

Commercialized floppy disks

## 1978

Commercialized VHS video cassette tapes

## 1981

Commercialized coin-type lithium manganese dioxide batteries

## 1983 First in Japan

Commenced production of lithium thionyl chloride batteries for memory backup

## 1984

Commercialized 12-inch, write-once-read-many optical disc cartridges, IC cards and memory cards

## 1987

Commercialized the world's smallest-diameter silver oxide battery

## 1989

Commercialized data cartridges for computer use. Entered the professional video tape market for broadcasting stations

## 1995 First in the world

Commercialized optical modulation overwrite magneto-optical (MO) discs

## 1996

Commenced production of lithium-ion batteries

## 1998 First in the world

Commercialized rewritable DVD-RAM discs

## 2004

Commercialized heat-resistant coin-type lithium manganese dioxide batteries

## 2005

Commenced shipments of in-car camera lens units

## 2008

Developed heat-resistant separators that improve the safety of lithium-ion batteries

## 2017

Developed "RIC-FOAM"<sup>\*1</sup>, a proprietary injection foam molding technique

<sup>\*1</sup> Resilient & Innovative Cellular Foam

## 2018

Developed Air Patch Battery for medical/healthcare patches

## 2019

Commenced shipping samples of coin-type all-solid-state batteries using sulfide-based solid electrolytes

Commercialized head up displays (AR-HUD<sup>\*2</sup>)

## 2021 First in the world

Developed ceramic-packaged sulfide-based all-solid-state batteries that are surface-mountable on boards

## 2022

Commercialized aerial image display "Advanced Floating Image Display (AFID)"

## 2023 First in the world

Commenced shipments of mass-produced small-size sulfide-based all-solid-state batteries

<sup>\*2</sup> Augmented Reality Head Up Display

## History of Innovation

### 1960s-1980s

Led the way in developing and launching a succession of consumer products during Japan's period of high economic growth, and established development, production, and sales systems in Japan and overseas.



In 1966, Maxell succeeded in commercializing the first audio cassette tape in Japan. In 1976, we commercialized the first floppy disk in Japan, and in 1987, we commercialized the world's smallest-diameter silver oxide battery. We led the world in creating new value in these ways. In addition to the "Mixing & Dispersion" technology that we cultivated through the development of dry batteries, our founding product, we further refined the magnetic powder-coating technology and technology for forming housings that we cultivated with our cassette tapes, and they are now being used in a variety of products as our "Fine Coating" technology and "High Precision Molding & Forming" technology.

Furthermore, we completed construction of a plant and a technology research laboratory in Kyoto. Overseas, we established sales bases in the United States, Germany, and the United Kingdom, and production bases in the United States, the United Kingdom, and Malaysia, to build a system for global expansion.



Audio cassette tapes



Floppy disks

### 1990s-2010s

While supporting the digital society with highly-functional recording media, the mainstay of the business was shifted from consumer products to industrial components.



The market for cassette tapes, video tapes, and floppy disks, which had its heyday in the 1980s, shrank on the one hand, while PCs, mobile phones, smartphones and other products rapidly gained popularity on the other. Against this backdrop, we shifted the mainstay of our business from consumer products to industrial components, while supporting the transformation from the analog era to the digital era.

By applying the technologies that we cultivated in magnetic tapes, we entered the market for data cartridges for computers and professional video tapes, and in 1996, we also started producing lithium-ion batteries. Furthermore, in 2004, we commercialized heat-resistant coin-type lithium manganese dioxide batteries for tire pressure monitoring systems (TPMS) modules, and in 2005, we commenced shipments of in-car camera lens units, which served as the foothold for our automotive channel-oriented business subsequently.



Professional video tapes



Lithium-ion batteries

### 2020s

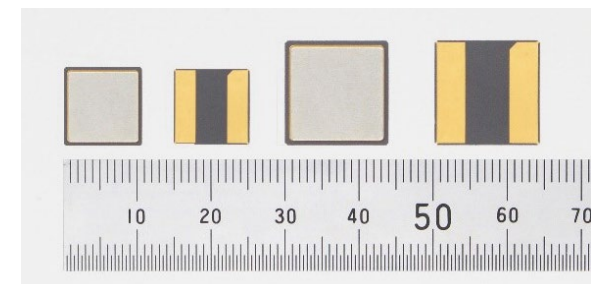
Further enhancing value creation through our unique analog core technologies, and contributing to a sustainable society



In the 2020s, we are supplying products for the 5G/IoT, healthcare and mobility areas that capitalize on the analog technologies that the Company has cultivated, including tape for semiconductor manufacturing processes, highly-reliable coin-type lithium batteries for medical applications, and LED headlamp lenses. Alongside this, in light of the growing global awareness for a sustainable society, we are also focusing on developing and commercializing all-solid-state batteries, which are being counted on as permanent power sources, and aerial image displays that answer demand for contactless solutions. In June 2023, we commenced mass shipments of all-solid-state batteries for FA\*1 equipment, and in the future we will offer them for the infrastructure, in-vehicle (back-up power source), and medical fields as well, as we continue to respond to the world's needs with state-of-the-art technologies.

By drawing together synergies with Maxell Frontier, Maxell Izumi, Maxell Kureha and Ube Maxell Kyoto, which have newly joined the Group since 2013, and by leveraging our unique analog core technologies going forward, we will continue to create new value that contributes to a sustainable society.

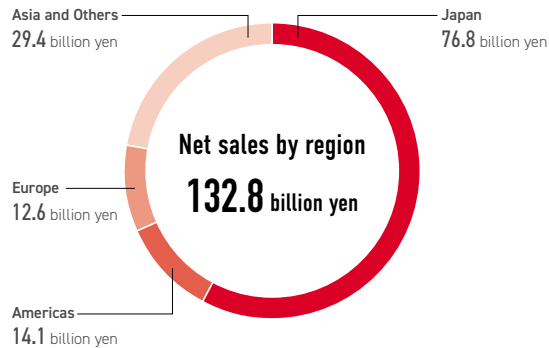
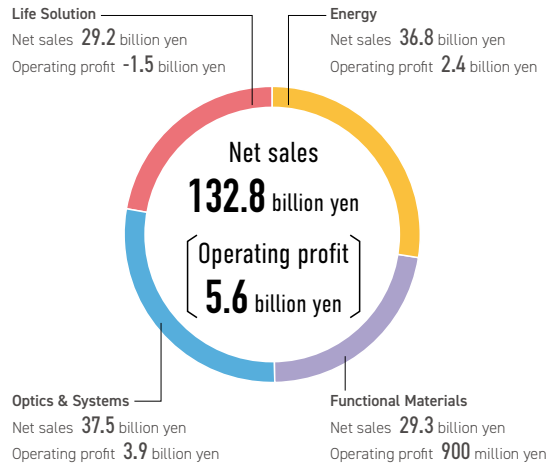
\*1 Factory Automation



Ceramic-packaged all-solid-state batteries

## At a Glance

### Composition of Sales (FY2022)



Total Group					
Number of Major Subsidiaries (as of March 31, 2023)	19 (affiliated companies: 2)	1	3	4	2
Number of Employees (as of March 31, 2023)	4,111	785	803	1,333	945
Capital investment (FY2022)	3,825 million yen	1,556 million yen	359 million yen	1,485 million yen	425 million yen

- The number of subsidiaries shown in each segment only covers manufacturing companies (the Total Group number also includes non-manufacturing companies)

- The Total Group's number of employees includes 245 employees of administrative divisions, etc., that cannot be categorized into specific segments

### Energy



#### Major Products

Lithium-ion batteries for consumer use, electrodes for lithium-ion batteries, coin-type lithium-ion rechargeable batteries, lithium primary batteries, silver oxide batteries, chargers and battery packs, electrode application products, solar power generation

#### Growth Businesses

Heat-resistant coin-type lithium batteries

Cylindrical-type lithium batteries

Highly-reliable coin-type lithium batteries

Coin-type lithium rechargeable batteries

### Functional Materials



#### Major Products

Adhesive tapes, functional materials, coated separators, industrial rubber products

#### Growth Businesses

Tape for construction and construction materials

Tape for semiconductor manufacturing processes

Tape for industrial processes

### Optics & Systems



#### Major Products

Optical components, electroforming and precision components, semiconductor-related embedded systems, molding dies and plastic moldings, RFID\* systems, IC cards, projectors, video equipment

\* Radio Frequency Identification

#### Growth Businesses

LED headlamp lenses

In-car camera lens units

Semiconductor-related embedded systems

### Life Solution



#### Major Products

Health & beauty care equipment, small electric equipment, audio equipment, optical discs, charging equipment, accessories, dry batteries, hydraulic tools

#### Growth Businesses

Health & beauty care equipment

Hydraulic tools

# Sources of Value Creation



## What are Analog Core Technologies?

Indispensable technologies that connect the analog to the digital, and realize Monozukuri (manufacturing) in complex and delicate areas that cannot be achieved by digital technologies alone — Realize delicate and high-quality Monozukuri (manufacturing) that supports the advancement of digital society



### Mixing & Dispersion (Mixing)

Technology for **mixing** more uniformly, in any size, hardness, or viscosity  
Realizes new combination of materials



### Fine Coating (Coating)

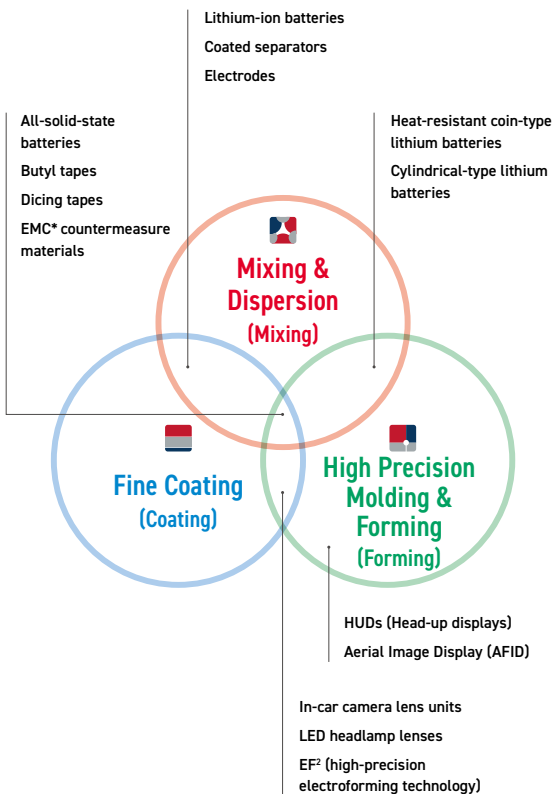
Technology for **coating** at more uniform thicknesses, from a few millimeters to nanometers  
Improves the stability of product performance



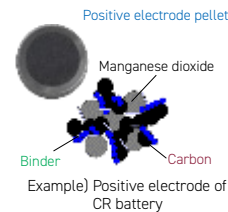
### High Precision Molding & Forming (Forming)

Technology for **forming** that was cultivated through the manufacture of disks and lenses  
Realizes mass-production of components with greater precision

## Examples of Products Covered by Analog Core Technologies



### Mixing & Dispersion (Mixing)



#### Elemental Technologies

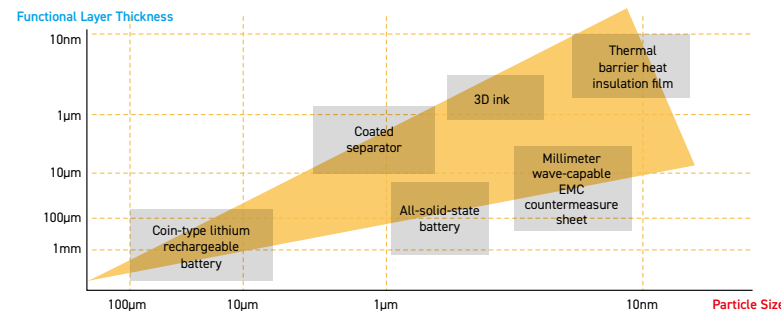
- Modify surface quality of powders (dry processing, liquid phase processing)
- Kneading/Dispersion (bead mill/media-less dispersion)
- Making coating materials (precise dilution, defoaming treatment, fluidity control)

#### Monozukuri (Manufacturing) Strengths

**Monozukuri that mixes and processes with a high degree of precision and speed suitable for the materials**

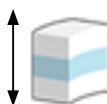
#### Product Strengths

**Realizes high-capacity, high- and low-temperature resistant, long life batteries**



### Fine Coating (Coating)

Thickness 100μm



Example) Dicing tape (for wafers)

#### Elemental Technologies

- Coating (die interior and slit shape design, fluid simulation)
- Coated film drying (air flow control, temperature dispersion control, drying simulation)
- Precise solution supply (piping, pump design, filter technology, defoaming, viscosity adjustment)
- Base material conveyance (roll shape design, tension control, high-speed running)

#### Monozukuri (Manufacturing) Strengths

**Monozukuri that creates a thin layer of dissolved and mixed adhesive, to a thickness of several dozen microns**

#### Product Strengths

**Realizes tapes with thin layers that simultaneously offer a high degree of adhesive strength and superior releasability**



### High-Precision Molding & Forming (Forming)

#### Elemental Technologies

- Forming (high-precision technology resulting from unique expertise and flow analysis)
- High-performing technology resulting from 40 or more years of accumulated expertise
- Processing (lens piece polishing technology, high-cycle technology)

#### Monozukuri (Manufacturing) Strengths

**Integrated Monozukuri, from design through to die molding**

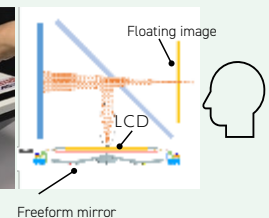
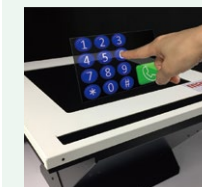
#### Product Strengths

**Realizes high-precision lenses with shape-correcting technology tailored to a variety of designs**

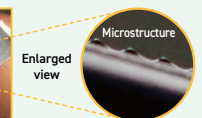


Example) Molding die for LED headlamp lenses with 8 cavities

## Illustration of Aerial Image Display (AFID) in use



### Freeform mirror



# Value Creation Process



## VISION

The "Future" Maxell wants to realize

Create **Maximum Excellence** for employees, customers, and society  
by leveraging unique **Analog Core Technologies**

## INPUT

Capital to be invested and enhanced

Flows back from **OUTCOME**

Materialities

03 Creating Human Resources and Organizations that Generate Value / 07 Strengthening Group Governance

### Financial Capital

**FY2022**  
Net Sales.....132.8 billion yen  
Operating Profit.....5.6 billion yen  
Operating Profit Ratio .....4.2%  
ROIC.....3.5%



**FY2023 Targets**  
Net Sales.....133.0 billion yen  
Operating Profit.....7.5 billion yen  
Operating Profit Ratio .....5.6%  
ROIC.....4.8%

### Manufacturing Capital

**FY2022**  
Capital Investment .....3.8 billion yen  
Depreciation Cost .....4.7 billion yen



Moving to mass production of growth area products  
Example) All-solid-state batteries  
Investment in production facility  
Approximately 2 billion yen

### Intellectual Capital

**FY2022**  
Research & Development Costs  
.....6.4 billion yen



**FY2026 Target**  
Number of Patents related to Next-Generation Development Technologies: 1.5 times compared to the number in FY2021

### Human Capital

**FY2022**  
Consolidated Number of Employees  
.....4,111  
Ratio of Overseas Employees .....41%



**FY2026 Targets**  
Employee Awareness Survey  
Improve overall satisfaction ratio: 90% or higher  
Formulate human resource portfolio

### Social Capital

**FY2022**  
Number of Bases .....48  
Number of Countries in which  
Maxell Operates Businesses .....15



Build sincere and close relationships with customers and partner companies in various industry and business categories, and create product value, services, and new markets

### Natural Capital

**FY2022**  
CO<sub>2</sub> Emissions (Scope 1 and 2)  
Global .....86.7Kt-CO<sub>2</sub>  
Domestic .....49.3 Kt-CO<sub>2</sub>  
Total Waste Emissions.....5,238t



**FY2030 Targets**  
Domestic CO<sub>2</sub> emissions: 50% reduction (compared to FY2013)  
Renewable energy ratio (= Volume of renewable energy used/total electricity): 15%

## BUSINESS PROCESS

Creating high added value through Analog Core Technologies

Materialities

01 Creating Innovation through Unique, Original Technologies

### Customer Demands for Solving Social Issues

3 Focus Areas

Healthcare



5G/IoT



Mobility



Small-size power sources

High-precision control systems

Highly reliable optical components

Long life power sources

High-quality adhesives

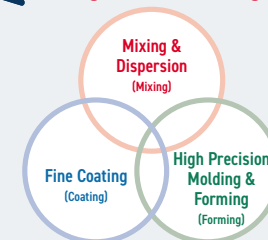
Safe driving support systems

CUSTOMER IN

Provide optimal products and services by aligning technologies at a high level in response to the complex and delicate demands of each customer

OPTIMIZATION

### Analog Core Technologies



Differentiated technologies that maximize Maxell's product and service value in co-creation with partners

## OUTPUT Products / Technologies / Business outcomes

**Materialities** 04 Maximization of Customer Value / 05 Creation of Economic Value through Environmental Activities / 06 Strengthening Business Portfolio Management

### Energy

Developing batteries that are safe, and have high capacities and long lives



### Functional Materials

Evolving converting products, such as adhesive tapes



### Optics & Systems

Developing automotive optical components that support the evolution of mobility



### Life Solution

Contributing to the provision of safe electrical infrastructure



**New Businesses** New development, including all-solid-state batteries

## OUTCOME Generate value and create new markets, centering on the 3 focus areas

**Materialities** 02 Solving Social Issues through Growth Businesses

### Target Products and Technologies in 3 Focus Areas

#### Healthcare



**Contributions in the advanced medical care and healthcare fields**

For example...

- Contributing to the evolution of advanced medical care devices with highly reliable coin-type lithium batteries
- Improving living environments in developing countries with high-function tape for construction and construction materials that enhance airtightness, along with contributing to improving the global environment by enhancing the energy efficiency of homes

#### 5G/IoT



**Contributing to an advanced information society**

For example...

- Making monitoring and data memory possible in hitherto impossible high-temperature environments as a result of developing all-solid-state batteries
- Realizing permanent power sources by improving the charge and discharge cycle, and through harvesting technologies

#### Mobility



**Contributing to a safe and secure society through high-reliability sensing**

For example...

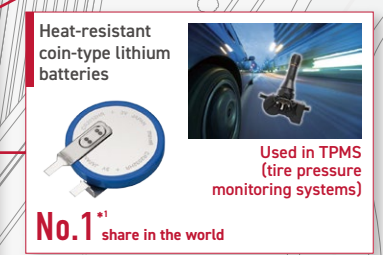
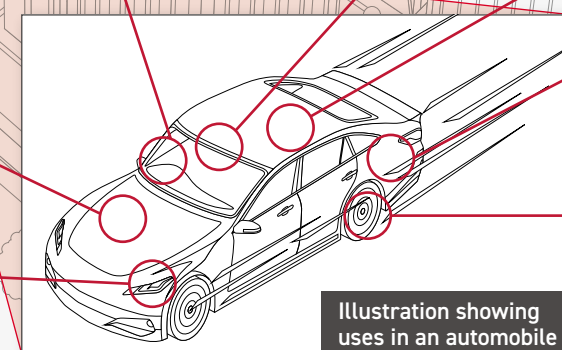
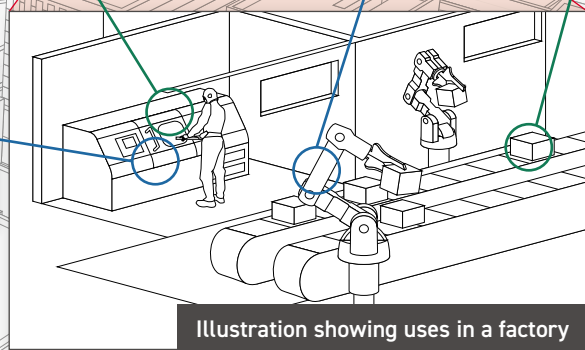
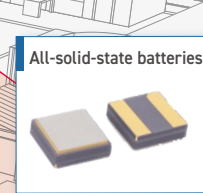
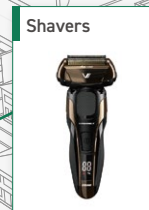
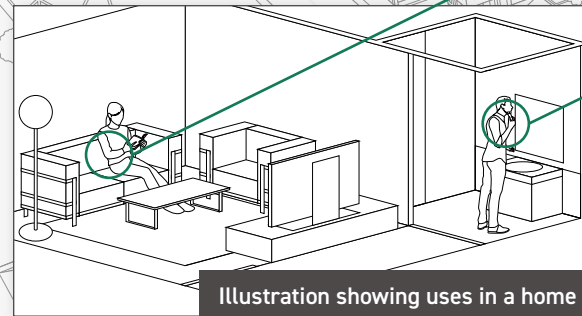
- Contributing to the wider adoption of next-generation headlamps (ADB\*) through the evolution of LED headlamp lenses. Realizing a safe and secure society by preventing traffic accidents at night

\*Adaptive Driving Beam

Flows back to INPUT

# Key Maxell products that provide value to society

Providing value that benefits lives through a variety of products, centering on the areas of **Healthcare**, **5G/IoT** and **Mobility**



## 1

# The Path to Realizing Our Vision

Applying “priority issues of management” (materialities) to action plans, and entering the implementation phase

Following a three-year period of consideration, Maxell Group is beginning to engage in action plans for priority issues of management, in order to realize its Vision. In Chapter 1, we report on that strategy and path.

7 Priority Issues (Materialities) and Action Plans

<https://www2.maxell.co.jp/csr/materiality.html>

2023~

## Implementation of Materialities

Materialities are priority issues for realizing Maxell's MVVSS, and are also embedded in the next medium-term management plan after MEX23.

## Vision The “Future” Maxell Wants to Realize

Create **Maximum Excellence** for employees, customers and society by leveraging unique Analog Core Technologies

2022

Formulation of KPIs

PHASE 3

2021

Identification of Materialities

PHASE 2

PHASE 1



In an effort to keep everyone within the Company informed, we have released a video (in Japanese, English and Chinese) explaining Maxell's 7 materialities and action plans. Additionally, some action plans and KPIs are being revised in light of internal and external changes in the business environment. Once revised, they will be promptly posted on our website.

Maxell's seven materialities and action plans

<https://youtu.be/nbPgocz0qB8>

# Materialities / Action Plans / KPIs

Progress Legend ◇: Target achieved and KPI updated ◎100% or more: Numerical values or items achieved

○90-99%: Generally in line with plans with regard to medium- to long-term targets △89% or lower: Unachieved / Challenges exist toward targeted fiscal year of achievement

Materiality	Action Plan	Target (products/technologies)	KPI	Period	Progress	Reference
01 Creating innovation through unique, original technologies	Evolution of unique, original technologies that generate new value	Strengthen development of new products and technologies in growth areas, by utilizing unique, original technologies = "Analog Core Technologies" (integration of companywide technologies, optimization of development resources, preparation of next-generation development technologies)	Number of patents related to next-generation development technologies: 1.5 times in five years	Medium	◎	p.39
	Strengthen marketing for efficient R&D	Promote adoption of priority products in growth areas by utilizing "Analog Core Technologies," and accelerate the realization of synergy effects • Strengthen global marketing in four regions (Japan, Asia, Americas and Europe) • Strengthen cross-sales	Sales proportion of highly profitable A and B businesses: Over 50% (FY2023)	Short	△	p.18
	Strengthen partnerships to create new businesses	Obtain co-creation partners for key products in growth fields utilizing "Analog Core Technologies"	Sales proportion of new businesses: Over 15% (FY2030)	Long	△	p.35
02 Solving social issues through growth businesses	Contribution to the advanced information society through 5G/IoT-related businesses	Extend battery life and expand uses of cylindrical-type lithium batteries • Semiconductor-related embedded systems • Tape for semiconductor manufacturing processes, tape for industrial processes				
	Contribution to advanced medical and health areas through healthcare-related businesses	Widespread use of products and technologies for improving housing waterproofing and airtightness in high- and low-temperature environments around the world Strengthen new healthcare products • High reliability coin type lithium batteries	Overall sales growth ratio of 13 growth businesses in three focus areas: 10% (FY2023 vs FY2021)	Short	◎	p.14
	Contribute to a safe and secure society brought by highly-reliable sensing through mobility-related businesses	• Heat-resistant coin-type lithium batteries • LED headlamp lenses Develop in-car camera next-generation hybrid lens units				
03 Creating human resources and organizations that generate value	Strengthen management that leverages human resources (build a human resources strategy, promote the right person in the right place and talent management)	Build a framework for talent management that strives to maximize the performance of individuals and organizations as a whole	Talent management system: Introduced FY2022	Short	◇	p.41
		Maintain and continue appropriate communication between managers and staffs in order to maximize the abilities and skills of human resources	Career interview implementation ratio: 100%	Short	△	p.41
	Establishment of a system for human resource development and evaluation that creates proactive human assets capable of creating something out of nothing	Establishment of a recruitment system that clarifies the human resources we seek, and an allocation system that allows proactive human resources to play active roles	Formulate human resources portfolio	Medium	◎	p.41
		Setting challenging targets, and improvement of management ability to evaluate challenges appropriately	Education for personnel evaluators: 2 times/year	Short	◎	p.41
	Promoting diversity and inclusion (utilize diverse human resources and accept different values)	Improve employee satisfaction by fostering a workplace culture in which each and every diverse human resource can play an active role	Improve overall satisfaction in employee awareness survey: 90% or higher (FY2026)	Medium	○	p.42
		Maintenance and continuation of recruitment and promotion without being swayed by attributes such as gender or nationality	Recruitment ratio of new female graduates: 50% or higher for administrative jobs, 25% or higher for engineering jobs	Medium	◎	p.42
	Improve productivity and promote the transmission of skills through the standardization of business processes	Continuously improve productivity by enhancing the job satisfaction of each and every employee (continue holding employee awareness survey)	Improve job satisfaction ratio in employee awareness survey: 90% or higher (FY2026)	Medium	○	p.43
		Implementation of re-skilling education to improve productivity and promote skill transfer	Implementation of basic digital literacy education program: Implement for all employees	Short	◇	p.43

## Materialities / Action Plans / KPIs

Progress Legend ◇: Target achieved and KPI updated ◎100% or more: Numerical values or items achieved

○90-99%: Generally in line with plans with regard to medium- to long-term targets △89% or lower: Unachieved / Challenges exist toward targeted fiscal year of achievement

Materiality	Action Plan	Target (products/technologies)	KPI	Period	Progress	Reference
<b>04</b> <b>Maximization of customer value</b>	Transformation to manufacturing that solves the social issues ahead of customer issues	Assume that the social issues that lie ahead of customer issues = issues that remain unresolved, and envision them as "unknown manufacturing" from Maxell's standpoint Promoting manufacturing by incorporating new policies while leveraging conventional manufacturing knowhow	Sales proportion of highly profitable A and B businesses: Over 50% (FY2023)	Short	△	p.18
	Establishment of a system that prioritizes quality and product safety based on integrity	Building a foundation for quality assurance activities that incorporate new measures within the context of high awareness	Promote SQM (Super Quality Management for Maxell Group) and zero* new recall cases	Short	◎	<a href="#">↗</a>
	Enhancing the value of the Maxell brand's core products and services	Aiming to enhance the value of products and services that "maximize customer value" by incorporating new measures while making use of conventional manufacturing	Continuous improvement of format unification with regard to customer feedback	Ongoing	◎	p.38
<b>05</b> <b>Creation of economic value through environmental activities</b>	Strengthen environmental technologies and environmentally conscious products	Target: Maxell products and services Activity: Establish framework of new evaluation standards and evaluation formatting by FY2023: 1. Reduction 2. Long-term usability 3. Reuse and recycling 4. Ease of decomposition and treatment 5. Environmental conservation 6. Energy-saving 7. Contribution to the SDGs etc.	Define standards to show the degree of contribution to social and environmental issues, and visualize the progress of sustainability. Incorporate specific measures in the next medium-term management plan	Short	◎	p.46
	Conserving resources and energy, and promoting the introduction of renewable energy	Target: CO <sub>2</sub> emissions (Scope 1 & 2 for domestic business sites) Activity: 1. Promote energy-conservation activities at business sites 2. Promote renewable energy (in-house consumption)	Domestic CO <sub>2</sub> emissions: Reduce by 50% by FY2030 (compared to FY2013)	Long	◎	p.47, p.51
		Target: Waste plastic (domestic business sites) Activity: Determine targets and initiatives by FY2023 1. Recycling if chemical materials 2. Reducing waste by improving productivity	Renewable energy ratio (= Volume of renewable energy used/total electricity): 10% in FY2030	Long	◇	
<b>06</b> <b>Strengthening business portfolio management</b>	Continuously improve the business portfolio through the two axes of market growth and business earnings (ABC-XYZ control)	Target: All businesses Activity: Monitor ABC-XYZ operation by rotating PDCA cycle every quarter, formulate measures for upgrading the classification of each business, follow-up actions, determine new classifications for the next fiscal year, etc.	Sales proportion of highly profitable A and B businesses: Over 50% (FY2023)	Short	△	p.18
	Implementing portfolio strategies that anticipate market changes	Target: New businesses Activity: 1. Identifying new businesses based on "Analog Core Technologies" 2. Monthly monitoring	Sales proportion of new businesses: Over 15% (FY2030)	Long	△	p.35
	Promoting efficiency at global production bases	Target: All businesses Activity: 1. Senior management and the Corporate Strategy Division play a core role in determining the direction for improving production efficiency 2. Pursue optimal manufacturing sites in Maxell Group from the perspective of opportunities and risks	Hold discussions on current issues and future possibilities from the perspective of production area optimization as well as portfolio optimization, and incorporate concrete measures in the next medium- to long-term management plan	Long	—	—
<b>07</b> <b>Strengthening group governance</b>	Build effective governance in group management (deepen management)	Target: Management Activity: 1. Share the objectives and measures across the Group (participation of general managers) 2. Risk reduction activities: Promote activities through information security management and the Risk Management Committee 3. Strengthen diversity and work-life management	Further strengthen group governance by enhancing activities across the company, and by strengthening the operation of an appropriate management system, etc.	Medium	◎	p.52
	Implementing governance to maximize group synergies (technology, information, marketing)	Target: Technology, information, marketing Activity: 1. Sharing of strategies (regular meetings at each domestic group company) 2. Maximize synergies through Maxell Innovation (MI) activities (companywide initiatives to create innovation) (1) New development themes (2) Creation of integrated technologies and products through new production technologies (3) Joint application of intellectual property through cross-divisional IP activities	Create attractive value for the future by sharing information on markets and customers on a group-wide basis and by integrating technologies within the group. Integrate group-wide IT basis for basic business operation (FY2027)	Medium	◎	p.52

\*Revised "zero PS accidents" to "zero new recall cases" (clarification of definition)

## Message from the President

# Driving business reform and organizational reinforcement, aiming for steady growth through a combination of existing business and new product development

## Review of Second Year Under MEX23 Medium-Term Management Plan

Sales decreased in fiscal 2022, the second year covered by the medium-term management plan **Maximum Excellence 2023** ("MEX23"), despite increased sales of products for the automotive and semiconductor markets. The decrease was due to the downsizing of the projector business, in addition to decreased sales of rechargeable batteries and BtoC products. MEX23 was formulated during the COVID-19 pandemic, and ambitious targets were set in response to certain favorable circumstances in place at that time. Namely, growing sales of consumer lithium-ion batteries for game devices, and strong sales of ozone anti-bacterial deodorizers. Subsequent changes in the business environment meant that sales fell short of targets.

Furthermore, operating profit decreased due to soaring raw materials costs and the recording of a one-time cost associated with domestic BtoC sales business reform. This reform included reforms of the projector business conducted through fiscal 2021, which significantly reduced fixed costs. In February 2023, with the aim of pursuing further fundamental reform, we signed a sole distributor agreement with DENKYOSHA CO., LTD., and transferred our domestic BtoC product planning, development, and sales functions to DENKYOSHA. Maxell will in future be

focusing on achieving growth primarily through the BtoB business.

We expect that sales and profits for fiscal 2023, the final year covered by MEX23, will exceed results for fiscal 2022. This increase will be achieved by expanding our growth businesses to cover the reduction in revenue from the domestic BtoC sales business, reflecting soaring raw materials cost increases in our product pricing and the positive impacts of business reforms. Despite this, however, we expect operating profit for fiscal 2023 to fall significantly below our initial MEX23 target. We will continue to focus on initiatives such as bringing forward the launch of all-solid-state battery mass production, with an eye to the period covered by our next medium-term management plan.

	FY2022 Results	FY2023	
		MEX23 initial target	Forecasts
Net sales (billion yen)	132.8	125.0	133.0
Operating profit (billion yen)	5.6	12.5	7.5
Operating profit ratio (%)	4.2	10.0	5.6
ROIC (%)	3.5	Over 7.0	4.8
ROE (%)	6.3	10.0	6.2
USD to JPY exchange rate (¥)	135	105	130

## Keiji Nakamura




President and  
Representative Director



## Message from the President

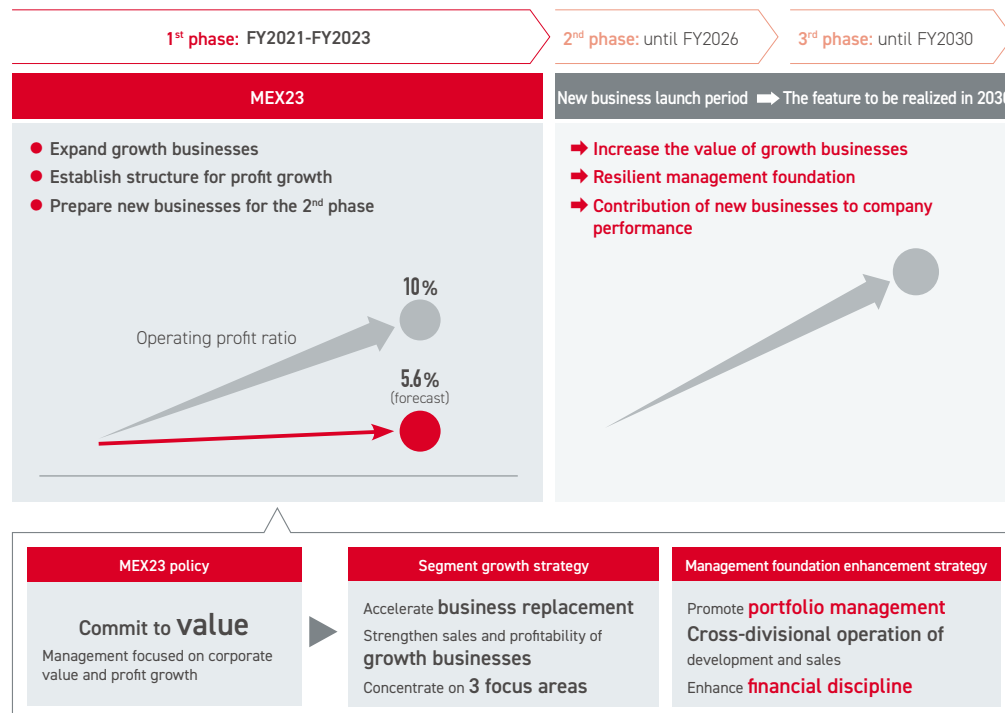
Towards the creation of **Maximum Excellence**

### Maximizing profits through efficient allocation of management resources and business replacement

FY2021	FY2022	FY2023									
<b>Downsizing of projector business</b> <ul style="list-style-type: none"> <li>Termination of new projector product development and termination of sales in Europe and the Americas</li> <li>Transfer of domestic projector sales rights to IRIS OHYAMA Inc.</li> </ul>	<b>Domestic BtoC Business Alliance</b> <ul style="list-style-type: none"> <li>Transferred domestic consumer product planning, development, and sales functions to DENKYOSHA CO., LTD.</li> </ul> <table border="1"> <tr> <th>Brands/Products</th><th>maxell</th><th>IZUMI</th></tr> <tr> <td>Product planning and development</td><td>DENKYOSHA</td><td>Maxell Izumi</td></tr> <tr> <td>Sales</td><td>DENKYOSHA</td><td>DENKYOSHA</td></tr> </table>	Brands/Products	maxell	IZUMI	Product planning and development	DENKYOSHA	Maxell Izumi	Sales	DENKYOSHA	DENKYOSHA	<b>Brought mass production of all-solid-state batteries forward</b> <ul style="list-style-type: none"> <li>June 2023: Commenced shipment of mass-produced batteries</li> <li>Progressing towards net sales of 30 billion yen in FY2030</li> </ul> <div>  Coin type            Ceramic-packaged type            Bipolar type         </div>
Brands/Products	maxell	IZUMI									
Product planning and development	DENKYOSHA	Maxell Izumi									
Sales	DENKYOSHA	DENKYOSHA									

Continuing with portfolio management through comprehensive business and product monitoring

Road map



### Progress with initiatives in our three focus areas

We are concentrating business resources on the 3 focus areas of Healthcare, 5G/IoT, and Mobility. Although we have encountered difficulties with some of our initiatives in these areas, overall progress is in line with our envisioned scenario.

In the area of Healthcare, we are concentrating on medical devices such as hearing aids and blood glucose monitors, and working to expand sales by offering high-performance batteries for use in medical and measurement equipment. We are also developing all-solid-state batteries, which are entirely different from traditional batteries and provide entirely different levels of performance, and are looking to leverage this to open up markets for types of equipment that up till now haven't been powered by batteries.

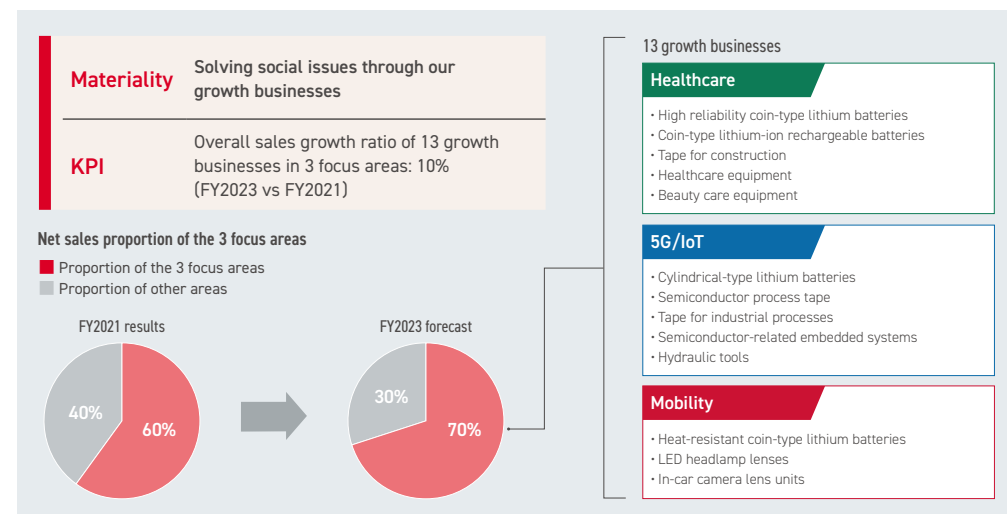
In the 5G/IoT area, demand for semiconductors has been trending downward since the second half of 2022, and our products

have also been impacted by this. Our underlying competitiveness in this area is strong, however, and we expect to achieve steady growth in the longer term.

In the Mobility area, sales are growing for batteries used in tire puncture detection sensors. Demand is also growing for plastic lenses used in autonomous driving system sensors, and we feel there is further potential in this field.

Within these 3 focus areas, we have identified 13 growth businesses that will drive the future growth of Maxell, and are working to strengthen them. We set, as a materiality KPI, "Overall sales growth ratio of 13 growth businesses in 3 focus areas: 10% (FY2023 vs FY2021)," and surpassed that target in fiscal 2022 (sales growth ratio: 13%). The net sales weighting of the 3 focus areas is also increasing. In addition, from fiscal 2022, the New Business Producing Division has been allocating considerable resources to all-solid-state batteries, aerial image displays (AFIDs), and our "RIC-FOAM" low-pressure foam molding technology.

Expanding the 3 focus areas through concentration of resources into growth businesses



## ▲ Message from the President

### Enhance organization to expand overseas sales

Proportion of overseas net sales accounted for 42% of Maxell's total in fiscal 2022. Considering that overseas net sales accounted for around 70% of the total in the era when battery and cassette tape sales were at their peak, there is significant room to further expand overseas sales. In light of this, we will be focusing on expanding our overseas BtoB sales.

Therefore, firstly we believe we need to change our global sales framework and approach. Currently, engineers in Japan develop products and visit clients for discussions. There is a limit to our capacity for sending engineers overseas from Japan to provide on-site support, and this hinders the smooth expansion of our overseas operations. To address this, we plan to unify overseas sales forces across segments, enabling overseas sales companies to directly build relationships with customers and expand sales of new products, and will establish a four-pole sales structure, covering Japan, Asia, the U.S., and Europe.

We will also focus our sales efforts on

niche product areas to better differentiate ourselves from competitors. This will mean that local sales staff with in-depth technical knowledge will be crucial, and we will therefore be focusing on training sales engineers and overseas marketing staff as well as significantly increasing their number.

### Launch of all-solid-state battery mass production, proposing expanded range of applications emphasizing convenience of maintenance-free products

We are working to further develop all-solid-state batteries as a new core business for Maxell. In June 2023, we became the first company in the world to ship mass-produced small-size sulfide-based all-solid-state batteries. To mitigate business risk we started with an investment of around 2 billion yen and are focusing our efforts on a limited number of industries such as industrial robots.

The long lifespan of all-solid-state batteries removes the need for frequent replacement work, and can therefore help to reduce equipment

management costs. We will continue our development efforts with the aim of facilitating perpetual power sources with an emphasis on promoting the convenience of maintenance-free products, and will open up a wide range of fields in which such products will create significant value. In fiscal 2023, as capital investment depreciation begins, we expect that it will be difficult to generate profit, but we are targeting improvement from fiscal 2024 onwards. We are planning significant investment to coincide with the completion of development work on high-capacity products, and expect to boost profit from fiscal 2025. We are targeting net sales of 30 billion yen in fiscal 2030, but are looking to reach that target ahead of schedule.

Furthermore, we are advancing research into energy harvesting technologies that make it possible to generate electricity from small energy sources in the surrounding environment. This initiative has the potential to lead to extremely significant innovations. Being able to generate electricity from a variety of energy sources, such as temperature differentials, vibrations, rotational movement, or slight air movements, will truly bring us closer to being able to recharge devices

perpetually, thereby providing the freedom to install various types of equipment without constraints.

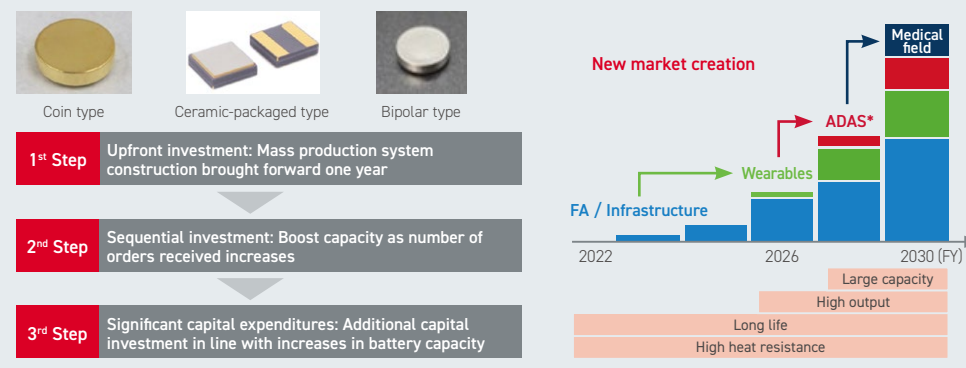
For instance, automobile tire puncture detection sensors currently utilize primary batteries and are required to transmit data about once every minute. With automated driving systems, however, they need to continuously gather and transmit wide-ranging data about contact between tires and the road surface, vehicle posture control, and so on. Since primary batteries can't provide sufficient capacity for this, there is a need to switch to using rechargeable batteries, which could, for example, be recharged using the energy from the rotation of the wheels or other energy sources. We intend to step up the development of new approaches like this.

No company has yet been successful in the energy harvesting field, and we aim to forge ahead through collaboration with other companies and universities, paving the way towards perpetual power sources and driving significant innovations.



### Phased capital investment targeting all-solid-state batteries net sales of 30 billion yen by FY2030

- April 2023: All-solid-state battery mass production facilities completed
- June 2023: Shipping of mass-produced batteries (Sequentially starting customer evaluations for mass-produced products)
- FY2024 onward: Sequential investment and significant capital expenditures in line with growth of orders received and completion of high-capacity product development



\*Advanced driver assistance systems

## ▲ Message from the President

### Focusing on company-wide optimization of organizational functions and personnel enhancement

In fiscal 2021, we centralized the organizational structure—which had been separated vertically by business unit—under the corporate headquarters. This consolidation is aimed at speeding up information-sharing and communication, and enables all business divisions to advance company-wide initiatives. Furthermore, starting from fiscal 2022, the Human Resources & General Affairs Department and Finance & Accounting Department, and from fiscal 2023, the Procurement & SCM Division, have also been consolidated under the corporate headquarters. Under this new structure, we will work to generate synergies between businesses, focusing on global expansion in growth areas.

With the aim of enhancing our human capital, we are working to increase the mobility of personnel across the entire company, and will cultivate personnel with wide-ranging experience and knowledge. As part of this, from fiscal 2021 onwards we have been reviewing personnel role definitions by hierarchical level, and performing proactive evaluation that aligns with the required personnel criteria.

To ensure the penetration of the MVSS philosophy and thorough addressing of materialities, since fiscal 2020 I have been engaging in direct dialogue with employees through town hall-style meetings at various major domestic bases, including those of group



Town hall-style meeting

companies. Additionally, starting from June 2022, we held a series of 11 sustainability workshops over the course of about a year.

### Steady advancement of sustainability initiatives

In fiscal 2021, Maxell identified seven materialities to address on the way to bolstering sustainability management. In fiscal 2022, KPIs were established for each of the seven materialities. Progress towards these KPIs is being monitored by the responsible officers.

One of the challenges in addressing the materialities of “Strengthening Group Governance” relates to IT systems. While the entire Group is advancing digitalization, the IT Department has formulated a longer-term roadmap for using digitalization to create new value, and will be actively advancing this initiative.

In terms of environmental initiatives, we established an Environmental Vision in July 2023 (refer to page 45). Some of our targets relating to our efforts to achieving a carbon-free society include reducing CO<sub>2</sub> emissions by 50% or more compared to fiscal 2013 levels by fiscal 2030, and achieving carbon neutrality by fiscal 2050. To contribute to achieving a recycling-oriented society we also aim to reduce waste generation per production unit by 19% compared to fiscal 2021 by fiscal 2030, and to commence chemical/material recycling of composite plastic waste.

Furthermore, in April 2023, the New Business Producing Division launched development work on an electrolytic reactor in collaboration with Osaka University to perform electrolytic reduction of CO<sub>2</sub> as part of the New Energy and Industrial Technology Development Organization (NEDO) project “Integrated Electrochemical Systems for Scalable CO<sub>2</sub> Conversion to Chemical Feedstocks.” Looking ahead, we will continue to work on environmental issues as a key area of focus.

### To our stakeholders

For Maxell to continue growing and developing into the future, it is important for us to balance both economic value and social value. This means creating social value, including technological development, while simultaneously enhancing economic value. Without striking a balance between the two, our products will not be embraced by the public.

Our strategies of enhancing the sales and earning power of 13 growth businesses, and concentrating resources into our 3 focus areas, are aimed at simultaneously increasing economic value and social value. Maxell has expanded the range of applications of its existing products through performance enhancement and

diversification, and this approach has significant further growth potential. Moreover, new products require multiple steps from development and commercialization to market launch before going on to become core businesses, typically taking three, five, or even 10 years. We will concentrate on areas with promising growth potential while exploring other development avenues. We will steadily implement new initiatives focused on existing businesses and new products, advancing our growth scenario.

Maxell has immense potential. With strong unity between management and employees, we will continue addressing challenges, generating innovation through our strength, Analog Core Technologies, and creating value that has the power to transform society.



**Keiji Nakamura**

President and  
Representative Director

September 2023

## Message from the Financial Director

# Aiming to maximize corporate value through promotion of ROIC-focused management and strengthening of our management foundation

Noritoshi Masuda  
Director

## Review of Fiscal 2022

In fiscal 2022, we revised our full-year profit forecast downward at the time of our second-quarter financial result announcement, and operating profit was 5.638 billion yen, down 39.6% year-on-year. The main factors behind this were the global surge in raw materials costs and a one-time cost stemming from the reform of our domestic BtoC business. We have been playing catch up with the soaring raw materials costs and have been quick to reflect the increases in product prices in a reasonable manner based on objective figures.

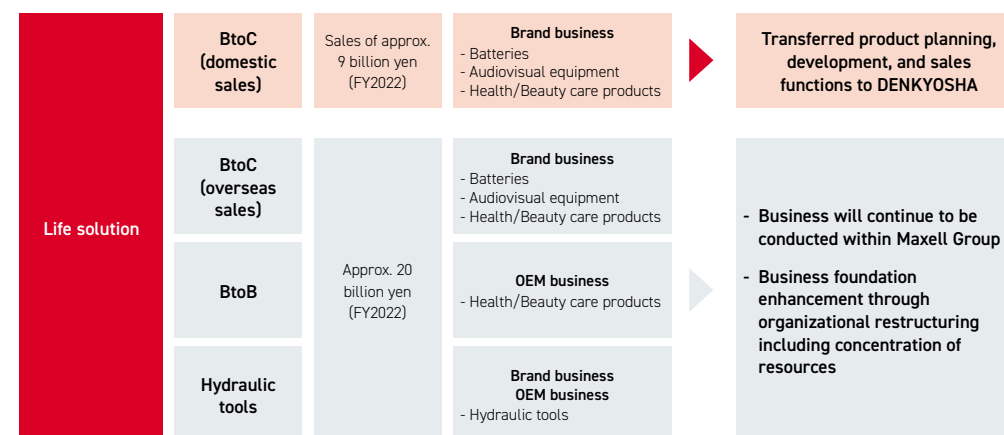
The decision to reform the domestic BtoC business in fiscal 2022 was made based on the financial discipline and future prospects. Although demand for ozone anti-bacterial deodorizers expanded during the COVID-19 pandemic, leading to increased profit, that demand subsequently plateaued, resulting in a loss for fiscal 2022. Furthermore, in order to concentrate on business that leverages our strengths, Analog

Core Technologies, in April 2023, we transferred the product planning, development, and sales functions of this product group to DENKYOSHA CO., LTD., a company with strong consumer electronic product sales capabilities. Under this new structure, we will aim to expand our brand business in the domestic consumer market.

As part of this business reform, we recorded a one-time cost of approximately 600 million yen, including expenses related to personnel transfers. Some reform-related costs are continuing to be incurred in fiscal 2023, but we will concentrate resources on businesses focused on our Analog Core Technologies, and continue with reforms to ensure a steady return towards profitability.

Regarding cash flow, in fiscal 2023, we plan to invest aggressively, resulting in increased investment cash flow and a slightly negative free cash flow. The land sales we conducted in fiscal 2022 were aimed at addressing this in advance.

## Domestic BtoC Sales Business Alliance



## Objectives of Business Alliance

### - Expansion and reinforcement of BtoC business

Further expand BtoC business through integration of Maxell's planning and development capabilities with DENKYOSHA's sales capabilities

### - Maximization of corporate value

Accelerate maximization of corporate value through concentration of resources into businesses focused on our Analog Core Technologies

## ▲ Message from the Financial Director

### Progress with ROIC Management

Since fiscal 2019, we have been utilizing return on invested capital (ROIC) as a core metric across the Group. Since introducing the ROIC metric, we have continued to explain it to employees in order to deepen their understanding. This has involved implementing e-learning initiatives and emphasizing how their efforts up until now have directly contributed to results, thus helping to make it more tangible for employees on the frontlines. We also now use ROIC as one of the criteria in personnel assessment. Furthermore, we now link the annual plans of each business division with ROIC, setting targets that are closely aligned with the work of employees on the frontlines, such as determining how much sales prices need to be increased to achieve the target ROIC.

In MEX23, our target is to achieve ROIC of more than 7%, which exceeds the cost of our invested capital (WACC: weighted average cost of capital) of 6%. However, due to factors such as the deteriorating business environment leading to reduced earnings, the outlook for fiscal 2023 is 4.8%. While strengthening investments for future growth, we intend to further strengthen management focus on capital costs. Through these efforts, we aim to achieve our target ROIC of more than 7% from fiscal 2024 onwards.

As part of our efforts to enhance ROIC through boosting profit, we are advancing initiatives such as ABC-XYZ (profit and loss control by business), and profit and loss improvement by model project (PIPJ).

With ABC-XYZ, we visualize the profit or loss of each business, rank all business segments based on factors like operating profit ratio and growth potential, and manage them within four quadrants: "Resource concentration businesses" (A & B) and "Developing businesses" (C) with high profit ratios or growth potential and "Profit securing businesses" (X) and "Observing businesses" (Y) with low profit ratios or growth potential. By efficiently executing strategies in accordance with each rank, we can boost the replacement of our business portfolio. In fiscal

2022, factors like soaring raw materials costs and component supply shortages, especially for semiconductors, led to an increase in the number of "Observing businesses" (Y) and the ratio of "Resource concentration businesses" (A & B) was 43%. We will continue strengthening growth businesses to attain the materiality KPI of 50% in fiscal 2023.

The profit and loss improvement by model project is a financial discipline at the product level, focusing on profit and loss control for each individual model. It is aimed at generating profits by increasing the profitable products and reducing the unprofitable ones. The number of target models was around 6,000 in fiscal 2022, and this is expected to decrease to approximately 5,000 in fiscal 2023. The reduction in losses for fiscal 2022 amounted to more than one billion yen, and we are aiming for a similar reduction in fiscal 2023. We will be brushing up our efforts in this area and incorporating them into our monthly actions.

On the other hand, in order to optimize denominator factors of ROIC such as inventory and non-current assets, we are focusing on monitoring investments and improving the cash conversion cycle (CCC). To shorten the CCC, we are working on improving working capital through actions like inventory optimization. In fiscal 2022, the CCC grew longer due to factors such as soaring raw materials costs and semiconductor shortages, which led us to increase inventory levels. We are aiming for improvements through reducing and optimizing inventory levels, including from a manufacturing perspective.

In terms of investment monitoring, we conduct thorough examinations of the profitability of investments through our Investment Committee. For new investments amounting to 100 million yen or more, the Investment Committee creates a checklist based on which deliberations are conducted. Each person responsible for technology, marketing, procurement, environmental issues, financial affairs, legal affairs, and intellectual property,

scrutinizes proposals based on their own expertise to determine whether it contributes to the enhancement of corporate value and if it is truly worth investing in. Cases that have passed this review process are then referred to the Management Committee and Board of Directors. After an investment is carried out, progress is monitored through reviews conducted on a quarterly basis.

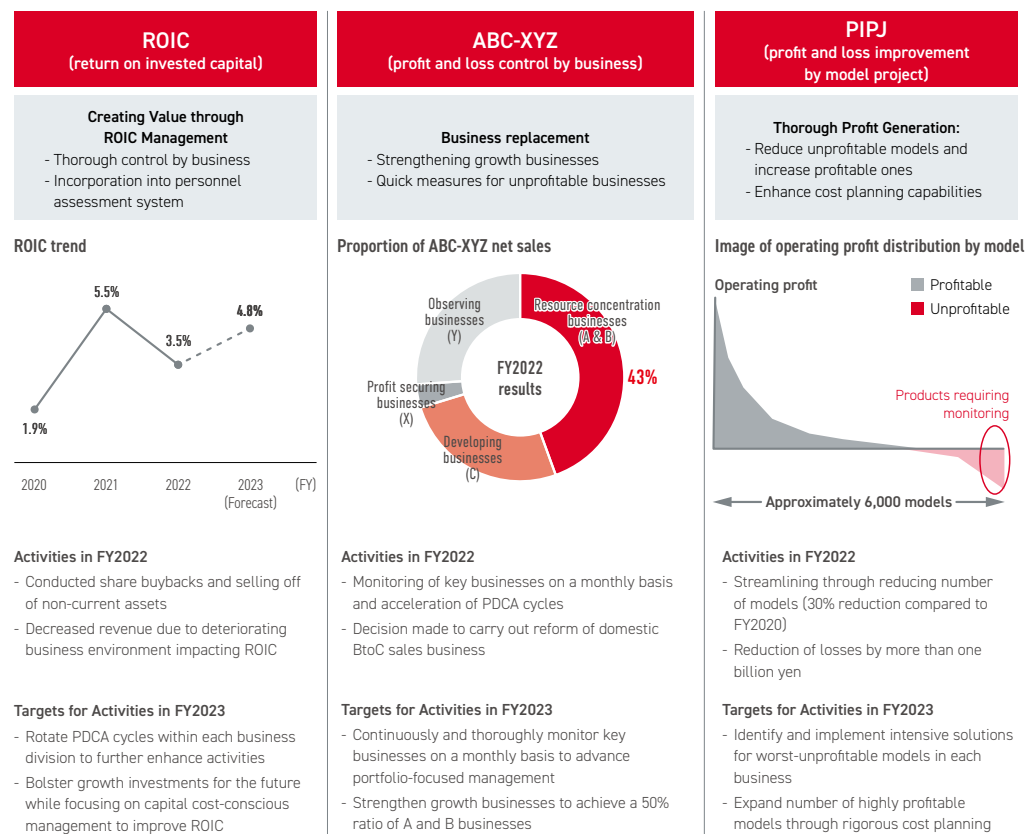
Investments in our existing growth businesses are progressing according to plan, and we intend to step up our growth investments in new businesses. We will concentrate capital expenditure on the "13 growth businesses," and aim to deliver results starting from fiscal 2023.

Our capital expenditure for fiscal 2023 is expected to increase significantly, from 3.8 billion yen in fiscal 2022 to 8 billion yen. The cumulative

Boosting the replacement of businesses and products through continuous monitoring and thoroughgoing discipline.

- Action Plans**
- Strengthen marketing for efficient R&D
  - Transformation to manufacturing that solves the social issues ahead of customer issues
  - Continuously improve business portfolio through the two axes of market growth and business earnings (ABC-XYZ control)

**KPI** Sales proportion of highly profitable A and B businesses: Over 50% (FY2023)



## Message from the Financial Director

capital expenditure for the three fiscal years of 2021, 2022, and 2023 is expected to be 13.9 billion yen against the planned 16 billion yen, due to delays in component procurement caused by the global semiconductor shortage in 2021 and 2022.

As for our growth investment capacity (for new business creation, etc.), our projection for the cumulative total for the three fiscal years of 2021, 2022, and 2023, is 6 billion yen against the planned 17 billion yen. We intend to maintain the current growth investment capacity limit and step up investments in growth areas such as all-solid-state batteries from fiscal 2023 onwards.

### Working towards PBR Over 1.0

As we work towards achieving a price-to-book ratio (PBR) of over 1.0, it is crucial for us to enhance and maximize corporate value. We will achieve this by driving improvements in

both ROIC and return on equity (ROE), while strengthening our management foundation. Expanding business earnings is the most essential factor in improving ROIC and ROE. The Finance & Accounting Department will support this by promoting disciplined growth investments to further bolster the shift towards BtoB business, accelerated launching of new businesses, and expansion of existing growth businesses. Additionally, to enhance capital efficiency for ROIC and ROE improvement, we will utilize financial leverage and establish a structure that facilitates flexible shareholder returns.

Regarding shareholder returns, dividend payments will continue to be made in a stable manner, in line with our basic policy of maintaining a dividend payout ratio of 30% to 40%. We expect that the dividend per share for fiscal 2023 will be the same as in fiscal 2022 at 40 yen, with a projected dividend payout ratio of

35.2%. Additionally, in fiscal 2022, we conducted share buybacks and disposition totaling 5 billion yen. The total amount of share buybacks in recent years has reached approximately 10 billion yen. In terms of strengthening the business foundation, we are committed to promoting sustainable management, and enhancing governance, human capital, and environment-focused management, while also expanding and enhancing our disclosure of non-financial information.

We intend to disclose information on these initiatives in the autumn of 2023. We will continue to ensure appropriate returns to shareholders and investors. Through investor relations and shareholder relations activities, we aim to enhance communication with stakeholders and work towards achieving a price-to-book ratio of over 1.0 as soon as possible.

#### Dividends

Continuous and steady payment of dividends in line with basic policy of "maintaining dividend payout ratio of 30% to 40%"

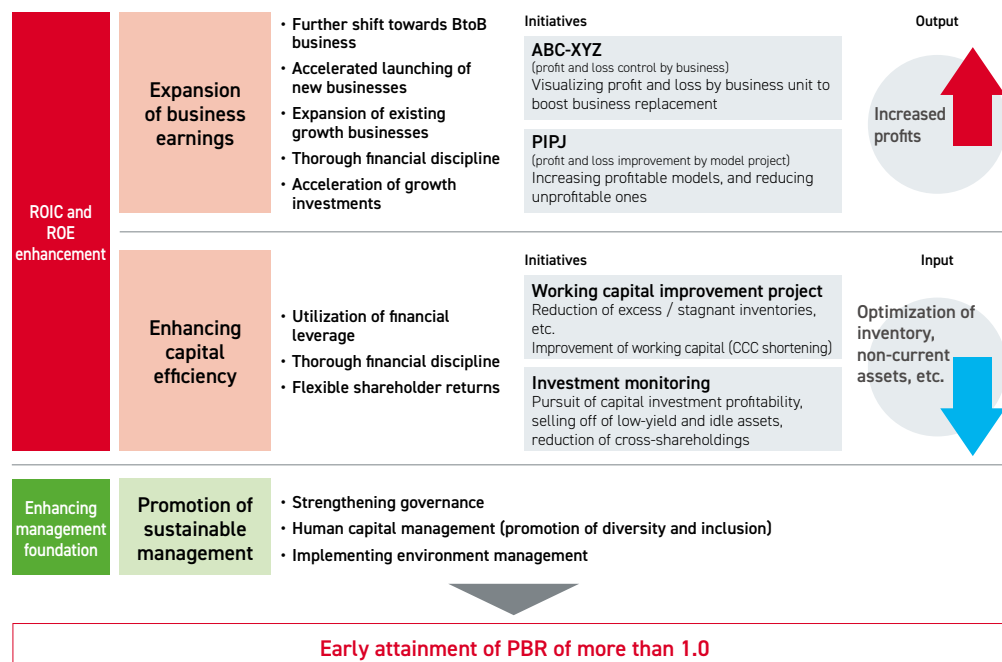
	Interim	Year-end	Total
FY2022	20 yen	20 yen	40 yen
FY2023 (forecast)	20 yen	20 yen	40 yen

#### Share Buybacks

- Enhance shareholder return measures taking into account current cash on hand, stock price, and other factors
- Conduct share buybacks and disposition after ensuring sufficient funds for investments for growth

Buyback period	May 16, 2022 through March 10, 2023
Number of shares acquired (total value)	3,645,700 shares (5 billion yen)
Plan after buyback	Disposition of all acquired shares

Promoting Management Approach to "Commit to Value," Taking Into Account Cost of Capital and Stock Price



## Noritoshi Masuda

Director

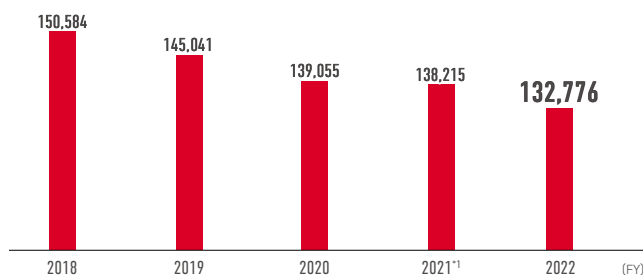
September 2023



## Financial Highlights

### Net Sales

(Millions of yen)

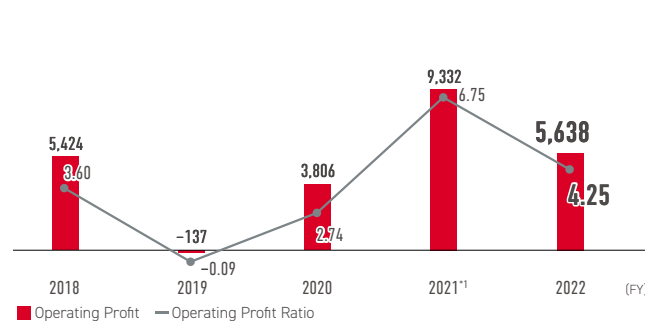


Net sales are trending downward mainly due to a review of the business portfolio. In FY2022, sales of products for the automotive and semiconductor markets increased, but as a result of factors such as a reduction in sales of projectors accompanying a business downsizing, and a drop in sales of rechargeable batteries and BtoC products, net sales declined 3.9% compared to the previous year.

### Operating Profit/Operating Profit Ratio

(Millions of yen)

(%)

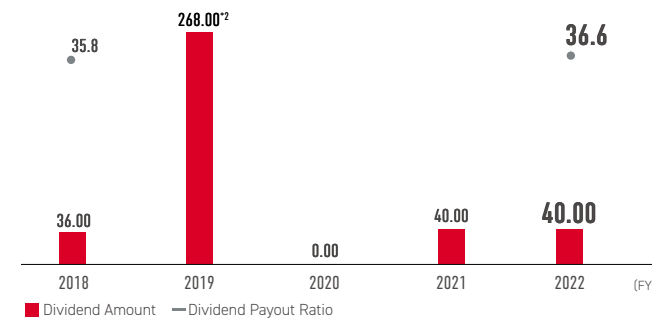


In FY2021 Maxell posted its highest operating profit since relisting, but in FY2022, operating profit fell by 39.6% compared to the previous year due to the impact of declining sales of rechargeable batteries, BtoC products and projectors, as well as soaring raw material costs. The operating profit ratio was 4.25%.

### Dividend Amount/Dividend Payout Ratio

(Yen)

(%)

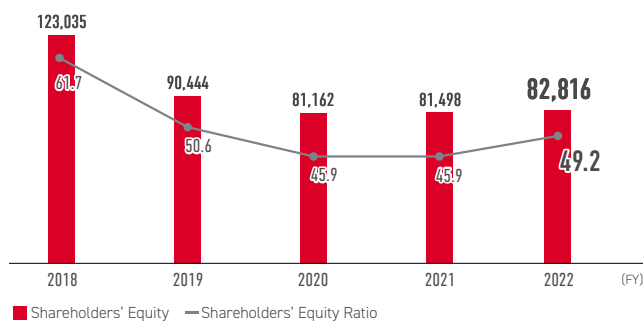


Maxell's basic policy is to continue to return profits to shareholders stably and appropriately, while taking into consideration recent capital investment funding and investment funds focused on future business development. Maxell adopts a dividend payout ratio of 30-40% as a guide when paying dividends to its shareholders.

### Shareholders' Equity/Shareholders' Equity Ratio

(Millions of yen)

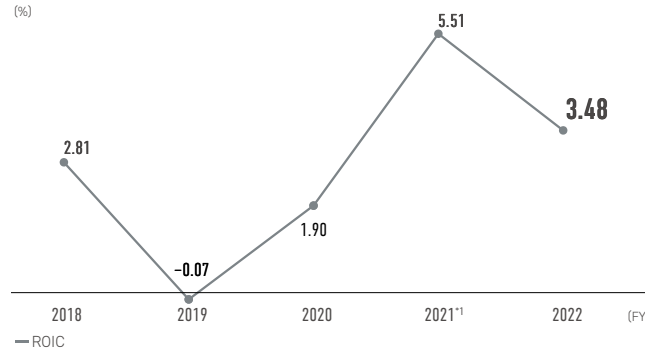
(%)



Maxell views around 50% as an appropriate shareholders' equity ratio from the standpoint of capital structure optimization. It is working to return profits to shareholders stably and on an ongoing basis, as well as ensure it has a robust financial condition, while utilizing borrowings as well.

### ROIC

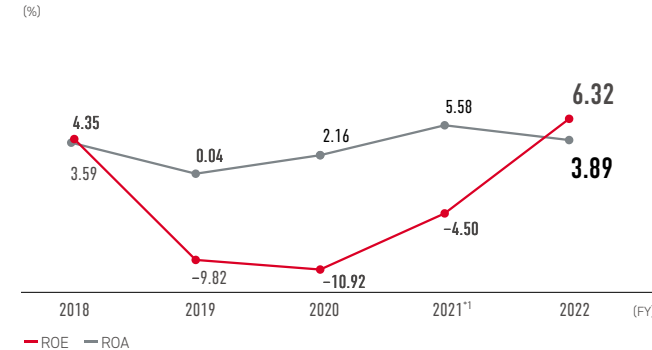
(%)



Maxell has been employing ROIC as an important, groupwide management benchmark since FY2019, as an indicator that demonstrates profitability with regard to invested capital. As a result of the decline in operating profit in FY2022, ROIC declined to 3.48%.

### ROE/ROA

(%)



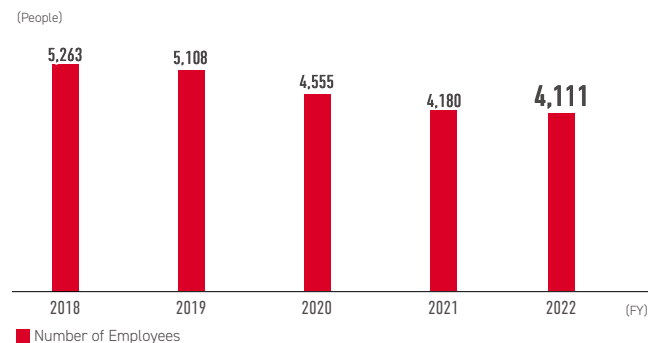
In FY2022 ROE improved significantly, to 6.32%, as a result of a return to a current net profit. On the other hand, ROA declined to 3.89% as a result of the decline in operating profit.

\*1 From the beginning of FY2021, the Company has applied the "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29 of March 31, 2020), etc. The numbers relating to FY2021 onwards are after application of the accounting standards, etc.

\*2 Ordinary dividend: 18 yen Special dividend: 250 yen

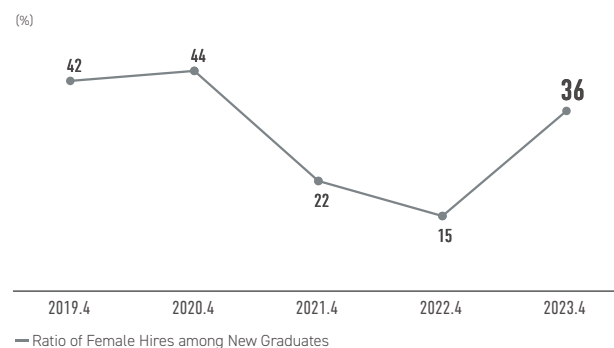
## Non-Financial Highlights

### Number of Employees



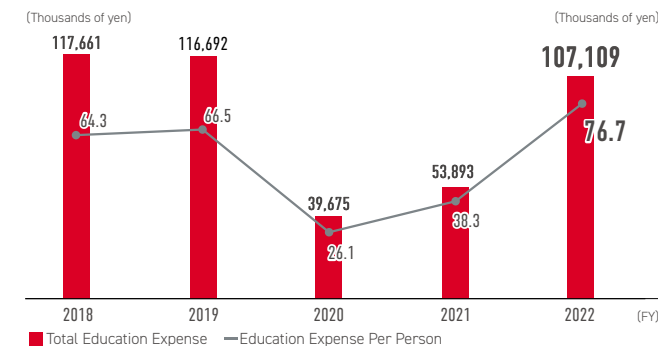
At the end of FY2022 the number of employees had fallen slightly compared to the previous year, mainly as a result of a decline in the number of manufacturing staff at group companies overseas.

### Ratio of Female Hires among New Graduates



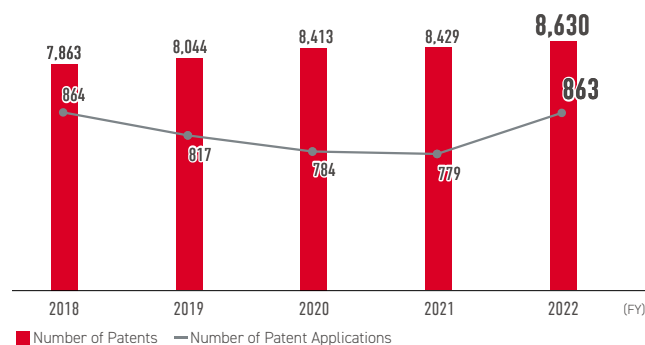
The ratio of new female graduates who joined the company in April 2023 was 60% for administrative positions (target: 50%) and 29% for engineering positions (target: 25%), so the targets were achieved in both cases. The overall ratio was 36%.

### Education Expense



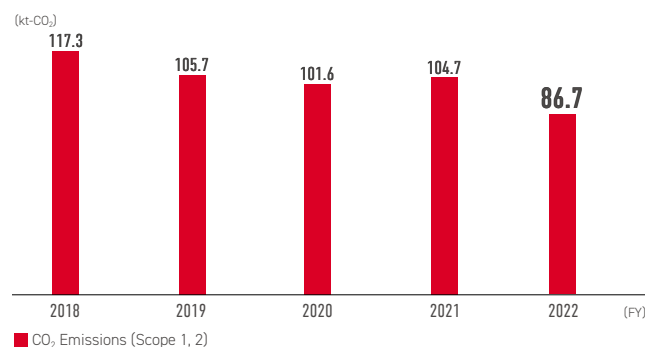
Education expense per person fell temporarily in FY2020 due to business restructuring, etc., but investment was bolstered from FY2022, and education expense per person reached its highest level in 5 years.

### Number of Patents/Number of Patent Applications



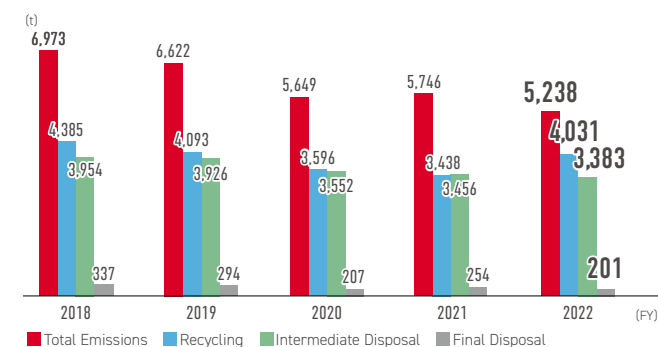
Due to the impact of a business portfolio review, the number of patent applications had been declining from 2018, but in FY2022 the number climbed by 11% compared to the previous year thanks to focused investment in invention-creation resources for next-generation development technologies, such as all-solid-state batteries, and an increase in invention creation in the Optics & Systems Segment. As a result, the number of patents also increased.

### CO<sub>2</sub> Emissions (Scope 1, 2)



Domestically, Maxell's CO<sub>2</sub> emissions declined by 26% in FY2022 compared to the previous fiscal year, and by 0.4% overseas, leading to a 17% reduction in CO<sub>2</sub> emissions across Maxell Group as a whole. Additionally, from this year's Integrated Report, the trend includes Maxell Izumi, Ube Maxell Kyoto and Maxell Kureha for 5 years.

### Waste Emissions



Domestically, Maxell's total waste emissions fell by 7.6% in FY2022 compared to the previous fiscal year, and by 1.7% overseas, leading to an 8.9% reduction in waste emissions across Maxell Group as a whole. Additionally, from this year's Integrated Report, the trend includes Maxell Izumi, Ube Maxell Kyoto and Maxell Kureha for 5 years.

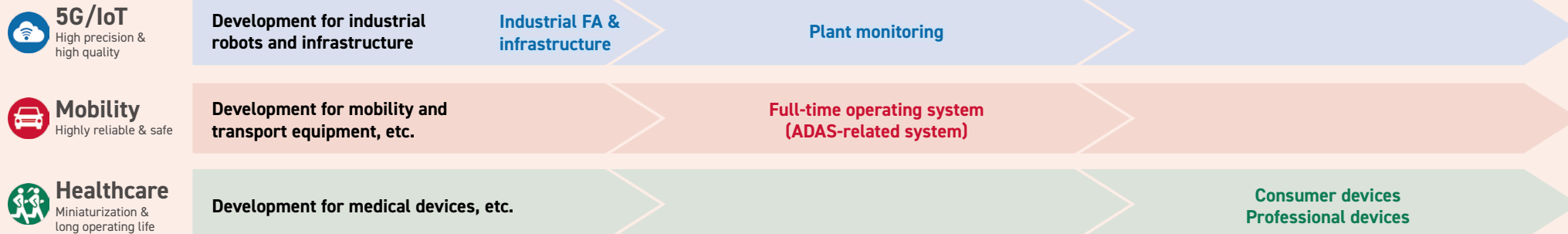
\* Scope 1: Direct emissions due to fuel incineration, etc. at business sites. Scope 2: Indirect emissions from purchased electricity, etc.

## 2

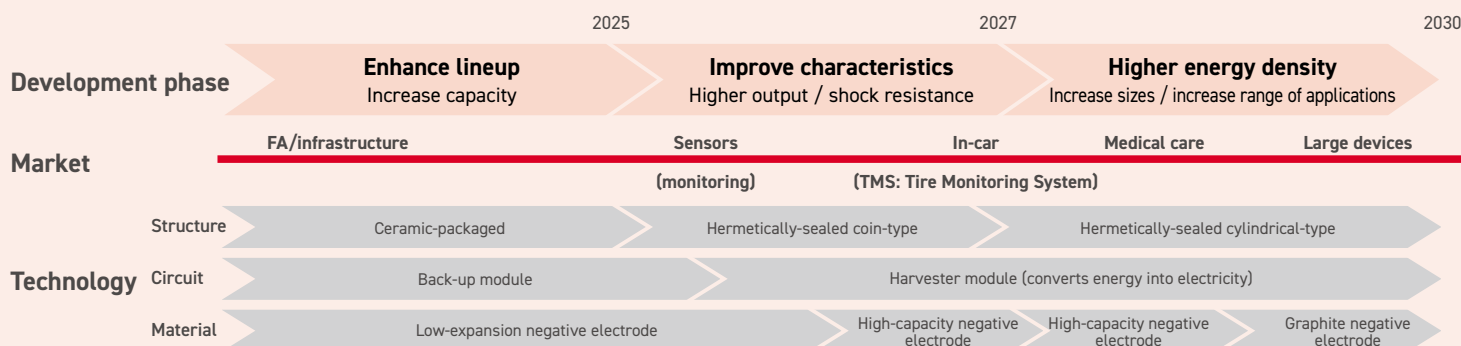
# Value Creation Report

Developing “All-Solid-State Batteries”  
that have an impact on society in the 3 focus areas

## Direction of development of applications in the 3 focus areas



## Development Road Map (product development aligned to market expansion)



### The Potential of All-Solid-State Batteries, and Maxell's Strengths

Because all-solid-state batteries do not use an electrolyte solution, there is no risk of electrolyte leakage or combustion. They have the potential to be applied to a variety of purposes, and can be expected to be essential to future society as independent power supplies that can be used in low- and high-temperature environments that are off-limits to people, for example. To that end, Maxell will make steady progress along the development road map outlined on the left.

Because Maxell is using an argyrodite-type sulfide-based solid electrolyte as an electrolyte, it is possible to realize a long operating life and high heat resistance while achieving a large capacity and high output also.



## Helping to Make Industrial Robots Maintenance-Free

**Achieve long hours of operation in severe environments and reduce maintenance costs to contribute to enhanced productivity**

### Development of all-solid-state batteries through the evolution of Analog Core Technologies

In modern industry, industrial robots are indispensable to manufacturing. Those robots utilize batteries, but conventional batteries are of limited use under high temperatures, and maintenance is also required accompanying battery replacements, so there is a need to equip batteries with a longer operating life. With their long operating life and ability to withstand high temperatures and high humidity, all-solid-state batteries offer a way of resolving these issues, and as such, they are capable of contributing to the realization of a maintenance-free society in a broad range of fields.

As a result of not using an electrolyte solution, all-solid-state batteries are superior on the safety and long operating life fronts. On the other hand, the powders need to be mixed and hardened uniformly. Maxell has made further advances with its Analog Core Technologies, such as the powder mixing and hardening techniques it cultivated with micro batteries and lithium-ion batteries, and employs a new manufacturing method that does not generate variability in characteristics. Furthermore, Maxell established a sealing technology that enables the batteries to retain their airtightness even when used for long periods of time under harsh conditions, and succeeded in developing all-solid-state batteries that use a ceramic package. Additionally, Maxell realized mass production promptly, as a result of moving ahead with commercialization while integrating design, production technology and manufacturing from the mass production facility concept stage.

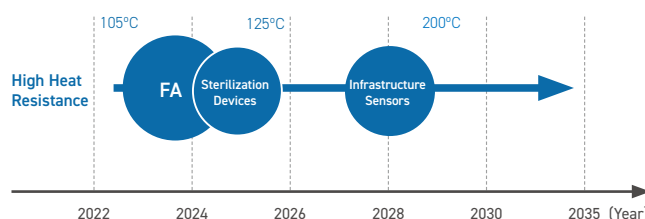
### Toward a higher heat resistance and a longer operating life

In products for industrial robots, because the shock-resistance and vibration-resistance that are demanded differ depending on the environment in which the products are used, the structural design within the ceramic package is important for realizing a long operating life. Going forward, Maxell will improve its current products while

moving ahead with commercializing all-solid-state batteries for a broader range of uses and establishing mass-production technologies, in parallel.

Additionally, customers who are exploring adopting all-solid-state batteries have begun requesting further high heat resistance and longer operating lives. With the technologies that led to commercialization as a foundation, we will add unprecedented products to enhance our lineup by drawing on the development capabilities we have steadily realized in response to customers' needs over many years, and the unique Analog Core Technologies that lie at the core of Maxell's manufacturing.

Development Road Map for the FA/Industrial Robot Field



Capital Investment Plan

1st Step Up to April 2023

**Anticipatory investment: Bring forward the construction of a mass production system by 1 year**

2nd Step From FY2024

**Sequential investment: Increase production capacity accompanying growth in orders**

### Social issues to be resolved

- Declining labor force population
- Infrastructure deterioration
- Energy problems

**Maintenance-free, safety, heat resistance, long operating life, small-sized**



**Itaru Goshō,**

Senior Manager,  
Design Department,  
Energy Division





## Helping to Improve Vehicle Safety

**Expand supply for sensors and as backup power sources for automobiles used in severe environments**

**Strive to raise awareness of all-solid-state batteries and expand their uses**

Accompanying progress in vehicle electrification and employing electronic devices to achieve "safe driving" and "reduced environmental impact," which are challenges in the automobile market, responses are being sought to the heat problems posed by EVs' batteries, integrated circuits, etc., and to backup power sources for emergencies. Additionally, the need has emerged to optimize safe driving and operating costs by monitoring vehicle balance using tire wear and air pressure detection, for example. Maxell has always believed that all-solid-state batteries are ideally suited to achieving

long operating life in the severe environments posed by these in-vehicle uses.

However, although all-solid-state batteries had for some time been attracting attention as the main power sources for automobiles, not much interest had been shown in them as small industrial batteries. In light of that, the Sales & Marketing Division has been holding proactive public relations activities with the goal of lifting the batteries' market profile, including by disseminating information via press releases and social media, and through exhibitions. Furthermore, as a result of promoting all-solid-state batteries' strong points to customers based on our global sales network, progress has been made in cultivating uses for the batteries, and this has led to their adoption in the FA field, where a long operating life under high temperatures is demanded.

### Aim for a global product rollout in the mobility area

The in-house communication at Maxell is good, and a culture exists of addressing things with a sense of urgency. Additionally, building amicable relationships with customers and enthusiastically resolving customers' challenges is in our DNA. Leveraging these strengths, we have begun holding business discussions about all-solid-state batteries with the sensor makers and tire makers that we have a track record in supplying with heat-resistant coin-type lithium batteries for TPMS<sup>\*1</sup> modules, which we commercialized in 2004 and for which we currently hold the leading market share<sup>\*2</sup>. The companies are pinning high expectations on all-solid-state batteries' ability to offer a long operating life in severe environments, and we will strive to expand supply by preparing a lineup of primary and rechargeable batteries as small batteries for use in vehicles.

The needs of customers that operate global businesses are becoming more diverse. Going forward, in order to bolster both our technology sales capability to connect technology seeds with customer needs, and capability to undertake marketing and respond to customers in the global market, we are planning to increase our

### Social issues to be resolved

- Improved vehicle safety
- Reduced environmental burden
- Greater mobility efficiency

Maintenance-free, safety, heat resistance, long operating life, small-sized



workforce of overseas marketing and market development staff by around three times by fiscal 2026.

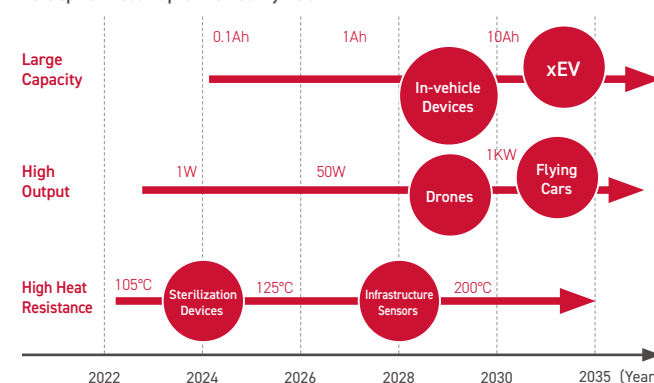
\*1 Tire Pressure Monitoring System

\*2 As of September 2023. Share of heat-resistant coin-type lithium batteries for TPMS worldwide. Maxell's research.

### Masaharu Tanigawa,

General Manager,  
Sales and Marketing Division,  
and Senior Manager,  
Development Sales Department

### Development Road Map for the Mobility Field





## Helping to Make Medical Care More Efficient

**Cultivate various uses, such as small-sized devices for clinical trials that need to be highly reliable**

### All-solid-state batteries that also cope with sterilization treatment

Against the backdrop of aging populations in developed countries and population growth in emerging countries, the cost of medical care is increasing, and furthermore, medical care professionals are facing an increased burden as a result of the infection control measures introduced in recent years. Amid that, moving ahead with making medical care more efficient through digitalization and the use of devices is being counted on to improve patients' and medical care professionals' QOL by helping to alleviate their burdens.

In order to resolve such issues, Maxell is eyeing the possibilities of utilizing all-solid-state batteries in the medical care field as well. When utilizing small devices with built-in batteries in medical care, one challenge is sterilization treatment. With autoclave sterilization (steam sterilization under pressure), the commonly-used sterilization approach, the treatment takes place at 130°C or higher, and since it is not possible to use mainstream, electrolyte-solution-based batteries, a special sterilization treatment is needed for the batteries alone. Because Maxell's all-solid-state batteries are capable of withstanding high temperatures, high pressures, and high levels of humidity, autoclave sterilization can be used in the same way as for other devices.

### Increase probabilities that support usability for medical care purposes

Initially, Maxell proceeded with developing coin-type all-solid-state batteries, and due to the batteries' heat resistance and long operating life, they succeeded in satisfying customers' needs for wearables. However, after receiving requests for batteries that have a long operating life under 100°C-plus environments, and which are able to be reflow-mounted<sup>\*1</sup> and sterilized from various industries, the need arose to increase the batteries' airtightness and chemical stability. To that end, we employed ceramic packaging for the exterior cladding,

which had no precedent in batteries, and achieved products that have a long operating life in 105°C environments, are reflow-mountable on circuit boards at around 250°C, and can handle autoclave sterilization at around 130°C.

In markets where high levels of reliability are demanded, such as for medical care purposes or in-vehicle uses, in addition to a high level of technological skill, a market track record and probabilities that support performance, such as theoretical analysis, are required. Because our all-solid-state batteries will be world-first<sup>\*2</sup> products, it will be important to lift such probabilities. To begin with, we will work to commercialize all-solid-state batteries for industrial devices and accumulate results-based data on long life performance under high temperatures. We hope to realize social implementation worldwide in 2030, and contribute to environmental initiatives and to resolving issues facing various industries, not just the medical care field.

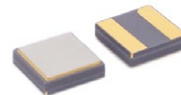
<sup>\*1</sup> A method of installing components on a circuit board by melting cream solder in a high-temperature furnace

<sup>\*2</sup> As of September 2023. With regard to the commercialization of small, sulfide-based all-solid-state batteries. Maxell's research.

#### Lineup of specifications tailored to customers' demands



Coin-type

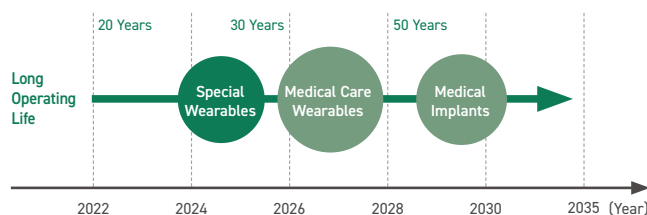


Ceramic-packaged



Power supply module kit for evaluation

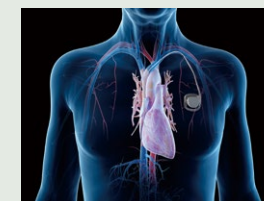
#### Development Road Map for the Healthcare Field



#### Social issues to be resolved

- Reduced burden for patients
- Implant treatment
- Contactless diagnoses

Maintenance-free, safety, heat resistance, long operating life, small-sized



\* For implants

#### Masayuki Yamada,

Senior Manager,  
Business Development Department,  
New Business Producing Division



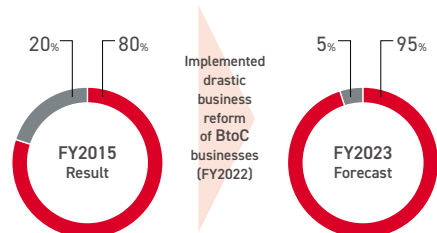
## The Current Status of the Business Portfolio Shift, and the Future

Currently in the process of transforming to a highly profitable structure  
by accelerating the shift to BtoB businesses

## Transforming the Business Portfolio

Proportion of Sales

■ BtoB ■ BtoC



### Pursuing Maximum Excellence Further

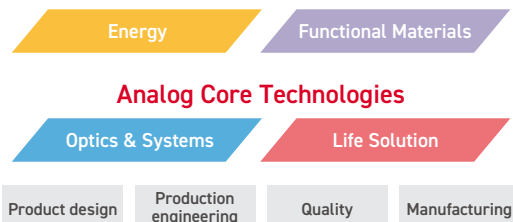
Commit to value  
Added value = pursuit of profits,  
stabilization of high profit level

- Clarify businesses to be strengthened and businesses to be reformed
- Targeted markets: Healthcare, 5G/IoT, Mobility
- Organizational reform: Promotion of speed-oriented management arising from a structure capable of manifesting company-wide optimization and technology & production synergies

### Strengthen BtoB

Analog Core Technologies x Monozukuri (Manufacturing) Capabilities x BtoB Sales Force

#### BtoB Monozukuri Capabilities



#### Analog Core Technologies

×

#### BtoB Sales Force

- Strengthen technology sales
- Bolster sales force and market development strength globally

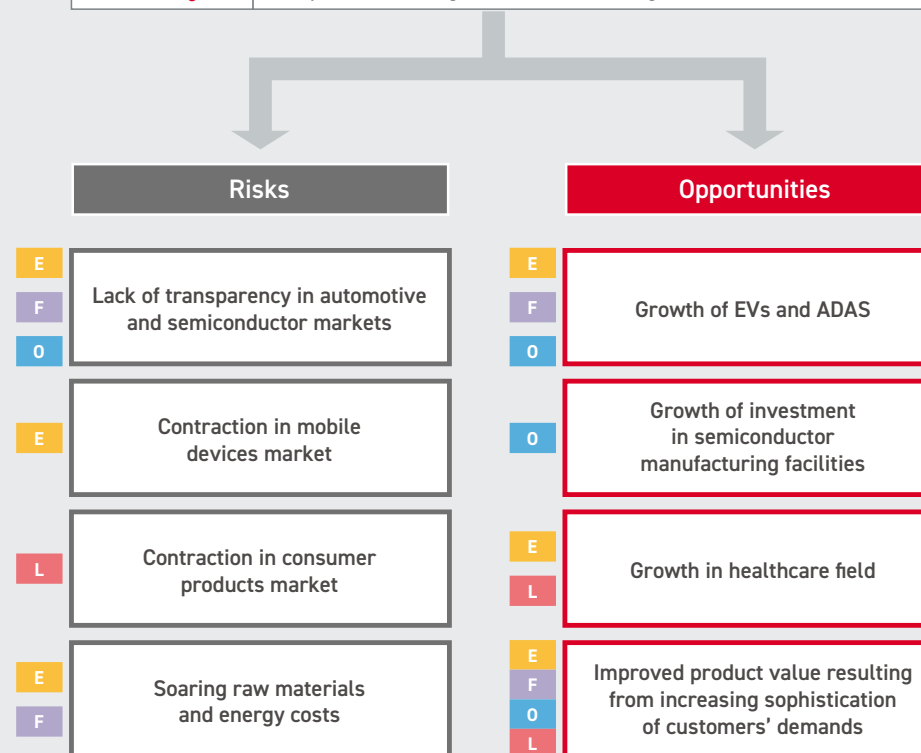
Develop optimal products and provide services by aligning technologies  
at a high level in response to the complex and delicate demands of each customer

Themes  
Going  
Forward

- Develop products tailored to customers
- Maximize resources and improve efficiency
- Strengthen overseas businesses (local production for local consumption)

Aim to respond to the external environment and risks,  
and grasp opportunities, based on PEST analysis

<b>Political</b>	Clarify difficult-to-predict political situations and geopolitical risks, and shift from a growth emphasis to a sustainability emphasis
<b>Economical</b>	Identify growth areas resulting from the maturity of developed countries and the growth of emerging countries
<b>Social</b>	Aim for a society that solves social issues through the environment, human resources, supply chains and governance
<b>Technological</b>	Shift to customer-oriented approach and business model transformation in response to technological innovation and changes in consumer behavior





Work to increase sales of lithium batteries, centering on the healthcare field, by leveraging the technological strengths we have cultivated since our foundation

**Mission** Become an excellent business division that drives company profit and focuses on value, while harboring a sense of pride and responsibility as a founding business division

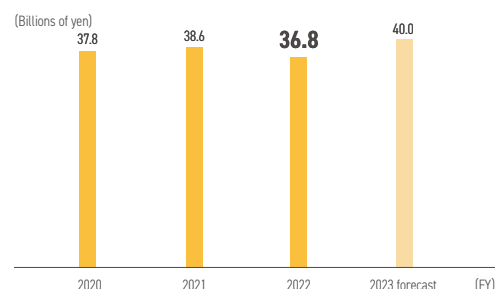
**Vision** Continue to contribute to the development, safety and security of society through innovation in batteries and systems by using Maxell's original, unique technologies

**Hiroyuki Ota**  
General Manager, Energy Division

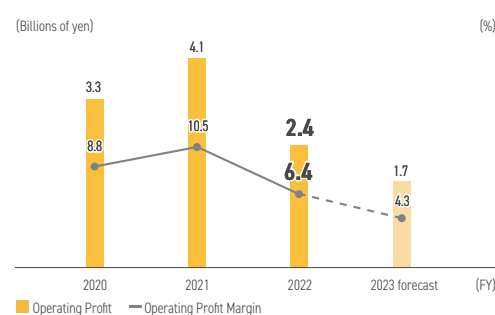
## Situation in Fiscal 2022

Sales of primary batteries increased, centering on batteries for automotive and medical care uses, but sales of rechargeable batteries declined significantly due to the impact of a decline in customers' production triggered by the semiconductor shortage. Consequently, energy sales as a whole fell by 4.8% (1.857 billion yen), to 36.774 billion yen. On the profit front, as a result of the impact of the decline in revenue from rechargeable batteries, coupled with the impact of soaring costs for raw materials such as lithium and cobalt, operating profit fell by 41.8% (1.691 billion yen) to 2.359 billion yen.

Trend in Net sales



Trend in Operating Profit/Operating Profit Margin



## Value Creation Process by Business Segment - Business Strategy from 2023 -

FY2022 Result

Financial Capital	Manufacturing Capital	Intellectual Capital	Human Capital
Net sales ..... 36.8 billion yen	Capital investment ..... 1.6 billion yen Depreciation cost ..... 1.5 billion yen	Research and development costs ..... 1.4 billion yen	Consolidated number of employees ..... 785 people

**INPUT**  
Invest capital in growth businesses

**BUSINESS PROCESS**  
Business growth strategy

**OUTPUT**  
Products & Services

**OUTCOME**  
Results & Impact

### Target Markets and Strategies

TPMS market	Smart meter market	CGM market	Wearables market
Maintain top global share Develop applications other than TPMS	Accelerate efforts to cultivate applications	Increase medical care-related partners in preparation for market expansion	Increase sales channels for rechargeable batteries for hearing aids
<ul style="list-style-type: none"> <li>Reflect soaring raw materials costs and rising energy costs in selling prices</li> <li>Strengthen and expand small batteries in the healthcare, 5G/IoT and mobility areas</li> <li>Introduce mass production facility for all-solid-state batteries and prepare for mass production</li> </ul>			

### Products and Services to be Created

Heat-resistant coin-type lithium batteries	Cylindrical-type lithium batteries	Highly-reliable coin-type lithium batteries	Coin-type lithium-rechargeable batteries
Enhance safety and reliability Contribute to traffic safety worldwide	Higher capacities, longer lives Respond to IoT environment Improve labor productivity	Enhance safety and reliability Respond to increase in number of diabetics	Longer product life Improvement in QOL for hearing-impaired people

### Business Value

Productivity	Profitability
Reduce costs by improving production process for various batteries	Improve through increased production + expansion in sales channels & market share Optimize selling prices

Ensuring safety in society through the effective utilization of small, high-capacity batteries



**Social Value**  
Contribute to a safe and secure society, to an extension in healthy lifespan, and to medical care

**Environmental Value**  
Maximize energy efficiency

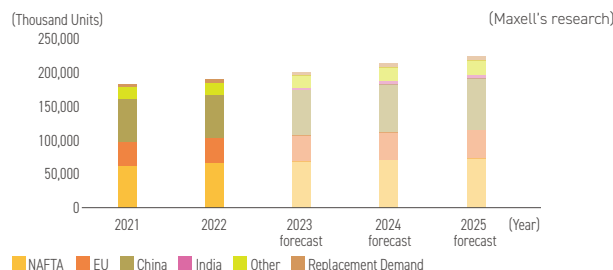
## Strategy Progress Report

### Current Situation Regarding Strategic Products

#### Heat-resistant Coin-type Lithium Batteries

##### Market Size, Growth Rate and Market Trends

###### TPMS Devices Market (Domestic and Overseas)



- Market growth slowing after completion of legalization in each country

##### Key Market Share / Positioning

Worldwide share in direct type TPMS 2021-2023  
Approximately **70%** (No. 1 share maintained)

##### Maxell's Strengths



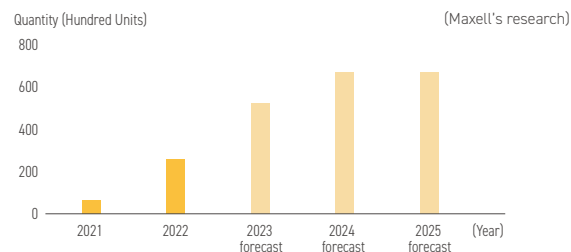
TPMS (illustration)

- Operate in severe environments
  - Temperature: -40°C to +125°C
  - Acceleration: 2,000G (3,000G when used in tire mount type)
- Market experience as top manufacturer
  - Track record of shipping approximately 1.5 billion units cumulatively, over a 20-year period

#### Highly-reliable Coin-type Lithium Batteries

##### Market Size, Growth Rate and Market Trends

###### CGM Demand Forecasts



- Demand will expand due to an increase in the number of diabetics, and cost reductions in CGM

##### Key Market Share / Positioning

Market share for CGM batteries 2023 Target  
**15% or more**

##### Maxell's Strengths



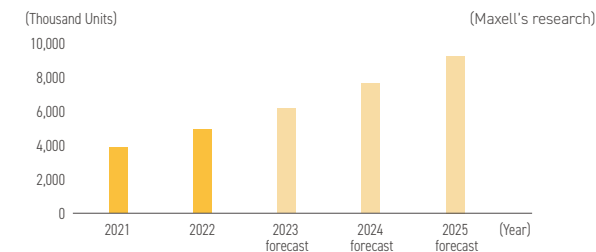
CGM (illustration)

- Ensure safety thanks to sealing and long-life technologies cultivated through heat-resistant coin-type lithium batteries
- Achieve the high degree of reliability demanded from batteries used in medical care

#### Coin-type Lithium-ion Rechargeable Batteries

##### Market Size, Growth Rate and Market Trends

###### Rechargeable Hearing Aid Market Forecasts (Domestic and Overseas)

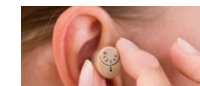


- Significant growth anticipated as a result of reduction in battery-replacement burden and running costs

##### Key Market Share / Positioning

Market share for rechargeable hearing aid batteries 2023 Target  
Approximately **20%**

##### Maxell's Strengths



Hearing aid (illustration)

- High-capacity and cycle characteristics differentiate Maxell's batteries from those of its competitors
- Improved reliability thanks to sealing technology cultivated through heat-resistant coin-type lithium batteries
- Laminated structure results in compact, thin designs

“

Put briefly, the strength of Maxell's production engineering technology is the ability to process accurately and at high speed, with Analog Core Technologies. Furthermore, those Analog Core Technologies are evolving every time Maxell engages in new production, such as by introducing new facilities. For example, the Analog Core Technologies needed for highly-reliable coin-type lithium batteries, one of our focus products, are "mixing" and "forming." I will go over how we are evolving our Analog Core Technologies while enhancing our production engineering capabilities.

In order to enhance our production engineering capabilities, whenever we introduce new facilities, we always introduce new technologies by coming up with themes for the challenges to

be addressed, such as boosting production speed or improving accuracy. Naturally, engaging in those challenges also gives rise to various issues, but we overcome those issues by resolving them as a team. We have continued to evolve our Analog Core Technologies by repeatedly taking on challenges in this way, and they are the very thing that creates the "strength of Monozukuri (manufacturing)" that is one of Maxell's values.

In the future also, we will continue to enhance our production engineering capabilities and provide products that meet the expectations of our customers and society, so that Maxell's values may be recognized.

”

#### Mikinori Ueoka

Manager, Process Design & Facility Group, Design Department, Energy Division, Maxell, Ltd.





Aim to expand overseas sales of tape for construction, and to strengthen and increase sales of tape for semiconductor manufacturing processes and for industrial processes

**Mission** Contribute to a sustainable society by continuing to create new value through the further enhancement of Analog Core Technologies

**Vision** Aim to be an excellent supplier of converting products

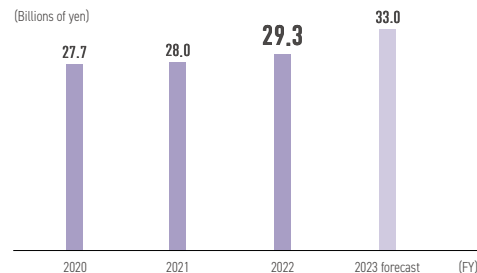
**Yukinobu Yamazaki**

General Manager, Functional Materials Division

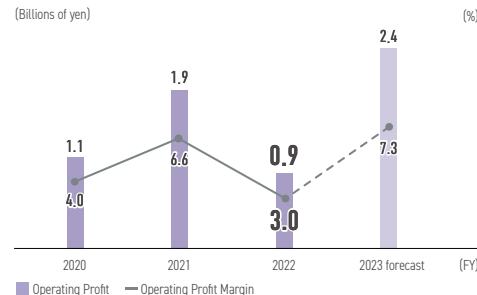
## Situation in Fiscal 2022

Sales of adhesive tape increased, centering on tape for construction, and for industrial materials, sales of industrial rubber products firmed up. As a result, sales of functional materials as a whole rose by 4.5% (1.268 billion yen) to 29.286 billion yen. On the other hand, operating profit declined by 53.6% (998 million yen) to 863 million yen due to the impact of soaring costs for raw materials such as naphtha and rubber.

Trend in Net sales  
(Billions of yen)



Trend in Operating Profit/Operating Profit Margin  
(Billions of yen)



## Value Creation Process by Business Segment - Business Strategy from 2023 -

**INPUT**  
Invest capital in growth businesses

**BUSINESS PROCESS**  
Business growth strategy

**OUTPUT**  
Products & Services

**OUTCOME**  
Results & Impact

FY2022 Result

Financial Capital	Manufacturing Capital	Intellectual Capital	Human Capital
Net sales ..... 29.3 billion yen	Capital investment ..... 400 million yen Depreciation cost ..... 700 million yen	Research and development costs ..... 1.3 billion yen	Consolidated number of employees ..... 803 people

### Target Markets and Strategies

**North America and Southeast Asia markets**

Promote adoption of airtight materials (North America)  
Promote adoption of waterproof materials (Southeast Asia)

**Semiconductor market (China and Taiwan)**

Expand market position for dicing tape

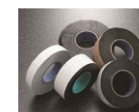
**Eyeglass lens molding applications**

Continue to introduce new products for use in molding high refractive index lenses

- Develop competitive technology and strengthen sales force in response to the needs of each market
- Continue cost-reducing activities that are committed to cost and quality
- Create new products toward boosting future profits

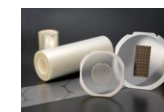
### Products and Services to be Created

**Tape for construction**



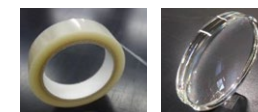
Enhance airtightness of housings and buildings  
Foster a culture that emphasizes airtightness

**Tape for semiconductor manufacturing processes**



Increase capacity and promote wider adoption  
Respond to demand for data centers

**Tape for industrial processes**



Improve reliability  
Make compatible with conditions of use when molding eyeglass lenses

### Business Value

**Productivity**

High-efficiency production by stimulating new demand in the market

**Profitability**

Enhance through market creation and share expansion

Contribute to health and economic development through the effective utilization of highly functional adhesive materials in everyday life and industries around the world



### Social Value

Effective use of the functions of adhesive materials to life and to industry

### Environmental Value

Energy-saving in housings and buildings

## Strategy Progress Report

### Current Situation Regarding Strategic Products

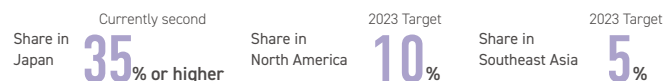
#### Tape for Construction

Trend and Forecasts for North American Housing Starts



- Accompanying growth in the number of housings being built, the number of airtight housings will also increase
- The ratio of airtight housings will also climb steadily from 2021

#### Key Market Share / Positioning



#### Maxell's Strengths

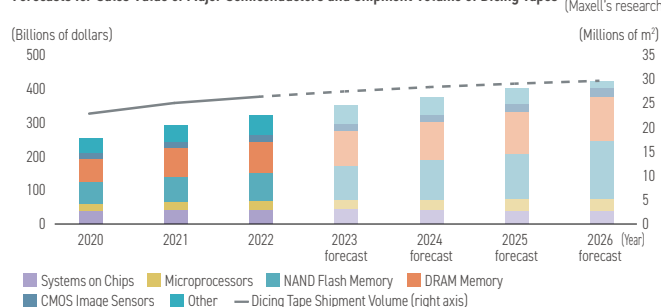


Example of construction using airtight materials

- Airtight and waterproof materials Utilize Analog Core Technologies to provide customized products that are tailored to overseas living environments (products that can solve potential problems in various construction environments)

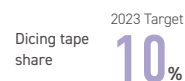
#### Tape for Semiconductor Manufacturing Processes

Forecasts for Sales Value of Major Semiconductors and Shipment Volume of Dicing Tapes

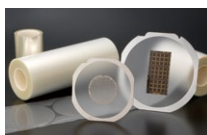


- The semiconductor market is projected to continue to grow going forward as well (average annual growth rate: 11.3%)
- Will be driven by memory (DRAM, NAND) in particular
- Accompanying growth in sales of key semiconductors, demand for dicing tape will also increase

#### Key Market Share / Positioning



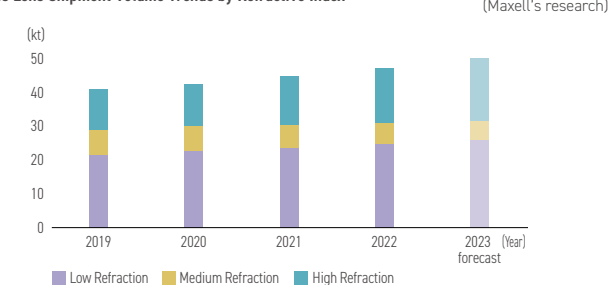
#### Maxell's Strengths



- Ability to manufacture high-quality products steadily by utilizing Analog Core Technologies (thin film and smooth coating)
- Design technology prowess in special adhesives with high fixation strength, excellent peeling characteristics, and low contamination of wafer and package surfaces

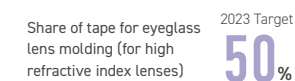
#### Tape for Industrial Processes

Eyeglass Lens Shipment Volume Trends by Refractive Index

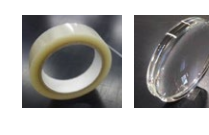


- The eyeglass lens market for high refractive index lenses that use a tape method is expanding

#### Key Market Share / Positioning



#### Maxell's Strengths



- Tape for eyeglass lens molding Ability to inhibit lens cloudiness and the generation of bubbles and wrinkles at the time of molding through compounding and coating technologies for silicon-based adhesives

“

The ability to “mix all kinds of materials and coat at all thicknesses” is a characteristic of our Analog Core Technologies, and is also one of the “strengths” of our production engineering capabilities.

With our tape for construction, we use a technology that applies a thick coat of highly-viscous adhesive material comprising combined and mixed butyl rubber and other ingredients. With our tape for industrial processes, we use a technology that uniformly coats adhesive material comprising dissolved and mixed silicon and other ingredients, to a thickness of a few dozen microns. With our tape for semiconductor manufacturing processes, we use a technology for creating a thin film (as little as 10 microns or under) of adhesive material comprising dissolved and mixed reactive polymers.

The mission of the Production Engineering Department is to evolve these technologies, which we have built up thanks to our frontrunner's expertise, into high-efficiency, high-quality mass production facilities, with methods that are appropriate to each product. We achieved greater efficiency by making large roll-to-roll coating machines wider and faster, and we achieved higher quality by automating quality checks. Going forward, we will enhance the PDCA cycle and drive growth to more highly-profitable plants, while striving to evolve further by incorporating the latest AI technologies, etc.

We intend to continue to send products out into the world that provide “value” to our customers, by capitalizing on “concurrent” and “timely” development and the “strengths” of our production engineering capabilities.

#### Makoto Shiokawa

Senior Manager, Production Engineering Department, Functional Materials Division, Maxell, Ltd.



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Focus on developing next-generation technologies for in-car lenses, and on strengthening semiconductor-related embedded systems in line with market trends

**Mission** Refine Optics & Systems' core technologies to realize a safe and secure information society

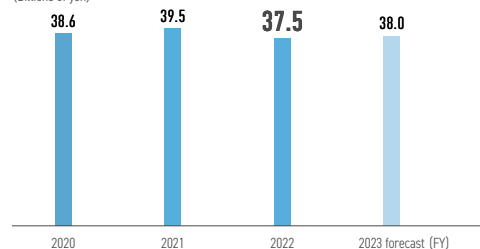
**Vision** Enhance Analog Core Technologies and shift from products to services, to contribute to people's lives and society with optical and systems component products

**Noriyoshi Bito**  
General Manager, Optics & Systems Division

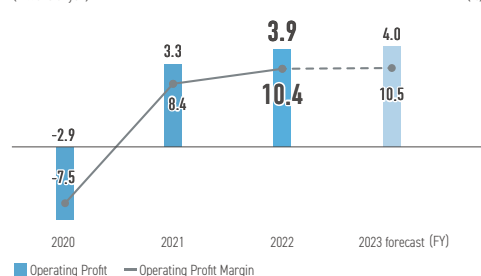
## Situation in Fiscal 2022

As a result of orders from automobile- and semiconductor-related customers firming up, sales of in-car optical components and semiconductor-related products both increased. However, the impact of downsizing in the projector business was considerable, and sales at Optics & Systems overall declined by 5.2% (2.064 billion yen) to 37.476 billion yen. Operating profit rose by 16.5% (551 million yen) to 3.889 billion yen as a result of the profit growth from automotive optical components and semiconductor-related products compensated for the impact of the decline in projector-related revenue.

**Trend in Net sales**  
(Billions of yen)



**Trend in Operating Profit/Operating Profit Margin**  
(Billions of yen) (%)



## Value Creation Process by Business Segment - Business Strategy from 2023 -

**INPUT**  
Invest capital in growth businesses

**BUSINESS PROCESS**  
Business growth strategy

**OUTPUT**  
Products & Services

**OUTCOME**  
Results & Impact

FY2022 Result

Financial Capital	Manufacturing Capital	Intellectual Capital	Human Capital
Net sales .....37.5 billion yen	Capital investment ..... 1.5 billion yen Depreciation cost ..... 1.8 billion yen	Research and development costs ..... 2.8 billion yen	Consolidated number of employees ..... 1,333 people


### Target Markets and Strategies

China/ASEAN/ India markets	Market for high-precision plastic lenses	Semiconductor manufacturing equipment market
Expand from individual headlamps to units	Maintain and enhance competitiveness as a key manufacturer	Strengthen relationships with semiconductor manufacturing equipment manufacturers
<ul style="list-style-type: none"> <li>Develop technologies that respond to the needs of each market, and increase sales channels</li> <li>Expand business through stronger relationships with existing customers (bolster product strengths and relationships based on trust)</li> <li>Expand business area by promoting new development (acquire new customers and increase sales)</li> </ul>		

### Products and Services to be Created

LED headlamp lenses	In-car camera lens units	Semiconductor-related embedded systems
		
Evolve and diversify headlamps  <b>Free-form surface designs, cost-compatible</b>	Develop hybrid lens units  <b>High precision, high durability, low cost</b>	Integrated management from design to production <b>Reduce cost, and shorten lead times</b>  Utilize production bases in Japan and overseas  <b>Handle production of multiple models and high-quality manufacturing</b>

### Business Value

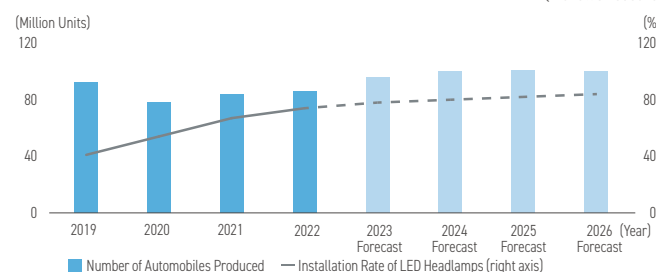
Productivity	Profitability
Enhance added value by expanding from individual components to modules	Improve profit ratio by providing unique value
Contribute to mobility diversification and energy-saving with high-precision plastic lenses and support for semiconductor development  	
<b>Social Value</b> Improve the safety of mobility, contribute to next-generation semiconductors  <b>Environmental Value</b> Energy-saving automotive products and semiconductor-related embedded products	

## Strategy Progress Report

### Current Situation Regarding Strategic Products

#### LED Headlamp Lenses

Forecasts for Number of Automobiles Produced and Installation Rate of LED Headlamps  
(Maxell's research)



- Demand for automobiles is recovering to the 2019 (pre-COVID-19) level
- Increase installation rate of LED headlamps
- Pursue higher performance and higher functionality, such as light distribution control functions and built-in sensors

#### Key Market Share / Positioning

Global share **18** % or higher (Maxell's research) 2023 Target  
All manufacturers No. **1**

#### Maxell's Strengths



LED headlamp lenses



Light guides

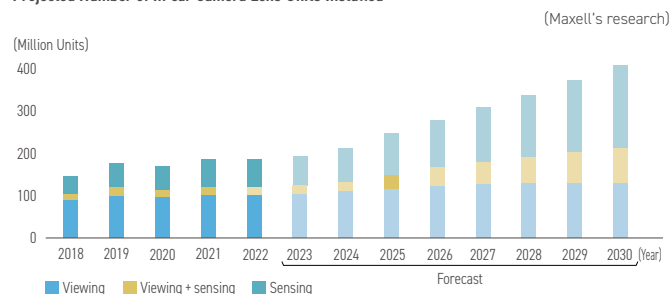


Free form lenses

- Free-form surface optics design and high-precision molding technology
- Compatible with diverse designs, such as adaptive driving beam (ADB) headlamps
- Track record of quality by integrated production from die design through to molding

#### In-car Camera Lens Units

Projected Number of In-car Camera Lens Units Installed



- Accompanying growth in CASE\* and ADAS, the number of in-car camera lens units installed in each car will increase
- Demand expansion for sensing and higher resolution

\* Connected, Autonomous, Shared & Service, Electric

#### Key Market Share / Positioning

Global share **8** % or higher (Maxell's research) 2023 Target  
Japanese manufacturers No. **1**

#### Maxell's Strengths



For sensing

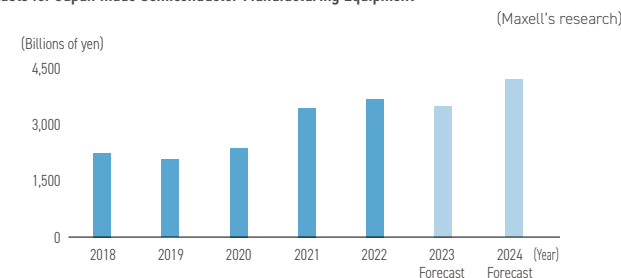


For viewing

- Hybrid lens units that employ Maxell's unique technologies
- Combine aspherical glass and plastic lenses
- Realize high precision, high durability, and low cost

#### Semiconductor-related Embedded Systems

Forecasts for Japan-made Semiconductor Manufacturing Equipment



- Demand for semiconductors has expanded as a result of the development of 5G/IoT ICT
- Demand for semiconductor manufacturing equipment is growing

#### Key Market Share / Positioning

Share among major manufacturers in the semiconductor manufacturing equipment industry **1** (Maxell's research) 2023 Target

#### Maxell's Strengths



Support for development of embedded systems; contract development and manufacturing

- Maintains relationships with key customers
- Long history of trust with global leading semiconductor manufacturing equipment manufacturers and technical expertise
- Customization capability of embedded IoT solutions
- Integrated operation from design and development through to production and assembly
- Provides multi-models production capacity and high quality



At the Production Planning & Control Department, we are further evolving the expertise that we have accumulated thus far in areas such as ultra precision machining and molding technologies, and responding to market needs by establishing production systems that boost production efficiency and stably provide high-quality products.

For example, headlamp lenses for automobiles, which are one of our focus products, are now installed to many types of vehicles, and the installation rate of LED headlamps is also increasing. On the other hand, there is growing demand for higher performance and higher functionality, such as light distribution control functions, including ADB. With that in mind, when it comes to the manufacturing process, we continue to make daily efforts on the process and production control fronts, including through the diversification of designs, small-lot, multi-model production, and

subtle adjustments to molding conditions by temperature, humidity, and die conditions.

Additionally, recently there have also been quantity fluctuations in the form of operational stoppages by automobile manufacturers, which have been triggered by the semiconductor supply shortage and other factors. Securing a prompt grasp of these sorts of market environment changes and of customer information, and devising production plans that eliminate "Overburden, Waste and Inconsistency" in order to realize appropriate inventory management, is one of the key roles that our Production Planning & Control Department is being called on to perform.

Going forward, we will engage in strengthening production with the aim of generating trust with, and bringing peace of mind to, all our customers through contributions to their businesses.

#### Shinya Shimizu

Manager  
Precision Division, Production Planning & Control Department - Production Control Section (Domestic), Maxell Frontier Co., Ltd.





Pursue customer satisfaction,  
and work to transform business  
structure to increase profit and sales

**Mission** Contribute to a sustainable society by continuing  
to take new steps

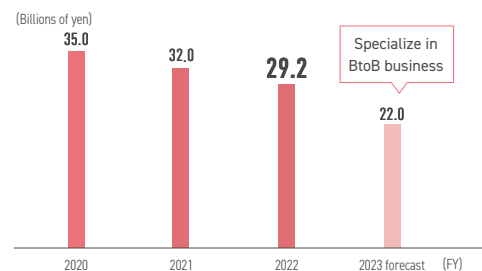
**Vision** Ensure happy futures for all people through  
products capable of coexisting with nature

**Naoto Sugimune**  
General Manager, Life Solution Division

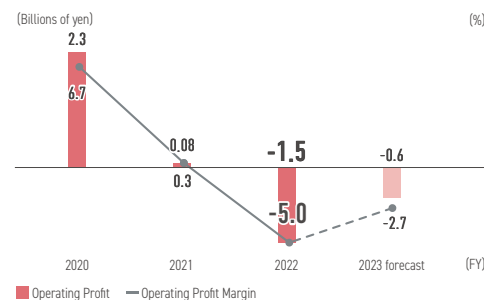
## Situation in Fiscal 2022

Sales of BtoC products declined due to an uphill battle in sales of health and beauty care products and other factors, and sales across the Life Solution segment as a whole fell by 8.7% (2.786 billion yen) to 29.240 billion yen. Operating profit fell by 1.556 billion yen, to a loss of 1.473 billion yen, due to the decline in sales of BtoC products and the impact of rapid yen depreciation on products' import prices, coupled with structural reform costs that emerged at the domestic BtoC business.

Trend in Net sales



Trend in Operating Profit/Operating Profit Margin



**INPUT**  
Invest capital in  
growth businesses

**BUSINESS  
PROCESS**  
Business growth  
strategy

**OUTPUT**  
Products &  
Services

**OUTCOME**  
Results & Impact

FY2022 Result

Financial Capital	Manufacturing Capital	Intellectual Capital	Human Capital
Net sales ..... 29.2 billion yen	Capital investment ..... 400 million yen Depreciation cost ..... 800 million yen	R&D expenses ..... 900 million yen	Consolidated number of employees ..... 945 people

### Target Markets and Strategies

Global market for shavers and  
other beauty care products

Enhance the Company's brand strength  
Expand market by developing ODM/OEM businesses

Global market for  
hydraulic tools

Build robust relationships with partners  
worldwide, mainly in North America

- Introduce products that pay attention to user convenience and functionality, in the markets for tools for electrical wiring and tools for other industries
- Develop shavers fitted with new mechanisms, for overseas markets
- Utilize medical care device certification, and develop products that answer customers' needs with an eye to a global expansion of health and beauty care products.

### Products and Services to be Created

Health and beauty care  
products (shavers)



ODM/OEM for cosmetics and beauty  
appliance manufacturers  
Flexible production in Japan and China

Hydraulic tools



Coherent structure for hydraulic tools, from  
design and development through to production  
Rolling out of products that respond to  
customers' needs and their maintenance

### Business Value

Productivity

Strengthen production capacity,  
operate an efficient business

Profitability

Introduce new products, expand share  
Promote initiatives such as introduction  
to other industries

Contribute to rich and comfortable daily lives through Monozukuri (manufacturing)  
related to electricity



\* Electric wire infrastructure

**Social Value**  
Support living together with electricity

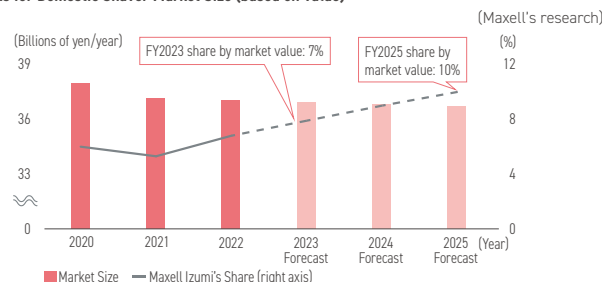
**Environmental Value**  
Support energy-saving lifestyles

## Strategy Progress Report

### Current Situation Regarding Strategic Products

#### Shavers

Forecasts for Domestic Shaver Market Size (based on value)



- Domestic: Lifestyle changes, including a recovery in inbound tourism, are expected to fuel demand
- Trend from a holding-off purchase to a revitalization of consumption

#### Key Market Share / Positioning

Share by value  
FY2023 Target  
**7%** (Domestic)

#### Maxell's Strengths

- Blade technology cultivated over 65 years, and customer credibility worldwide → 3 types of blades (reciprocating, rotary, and rotation dome) are manufactured only by Maxell Izumi
- Long-term sharpness warranty achieved as a result of excellent precision processing technology



Precision presswork



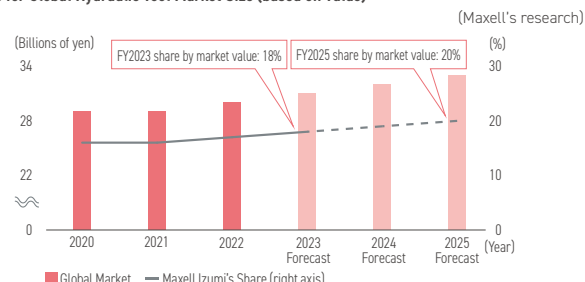
Precision electroforming



Precision etching

#### Hydraulic Tools

Forecasts for Global Hydraulic Tool Market Size (based on value)



- Growth of approximately 3% is anticipated as facility upgrades recover from FY2023

#### Key Market Share / Positioning

FY2023 Target  
Domestic share **60%**  
Overseas share **12%** (Of that, North America share 20%)  
FY2023 Target  
Global share **18%**

#### Maxell's Strengths

- Ultra-high-pressure hydraulic technology → enables high-power tools to be made small and lightweight. Potential to advance into other industries, outside of hydraulic tools
- Enhanced\* lineup of models with specifications that respond to market demands (compatibility with universal battery packs)
- Compatible with the Company's own battery packs as well as battery packs with high market share

\* 3 types, the largest number in the industry

#### Tool Business that Supports the Work of Professionals

#### Contributing to the Provision of Stable Electricity Infrastructure

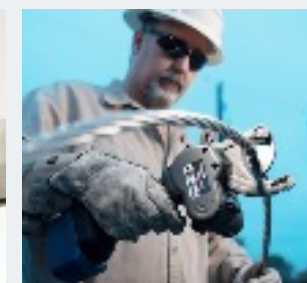
Maxell Izumi excels in ultra-high-pressure hydraulic technology, and in 1988 it led the world in bringing battery-operated hydraulic tools to the market. Ever since then, it has led the industry as a pioneer in the market for hydraulic tools that support electricity infrastructure, and commands a 50% share of the domestic market.

On the other hand, looking worldwide, European, American, and Chinese companies are steadily gaining prominence in the same market. In response to foreign players that are using price competitiveness as a means to steadily expand their market shares, Maxell Izumi has made it its mission to "Aim to be the world's No. 1 player with Monozukuri (manufacturing) that impresses above and beyond customer expectations," and is moving forward with securing global share and introducing the world's No. 1 products to the market.

Recently, in addition to our battery-operated hydraulic crimping tools, our "nano18" small, hydraulic-less crimping device for crimp terminals of 1.25mm<sup>2</sup> to 8mm<sup>2</sup> has generated a strong response. The nano18 is a product that we introduced to the market with confidence, having undertaken repeated market research and prototyping. By rolling out our small, ultra-high-pressure technologies in traffic-related and other segments of the infrastructure industry, we will move ahead with entrenching the Maxell Izumi brand and cultivating new markets.



Electric Motor-driven Crimping Tool nano18



## “

The strength of Maxell Izumi's tool business is its ability to respond to specific demand, and to changes and trends in that demand. Furthermore, as a result of Monozukuri (manufacturing) that employs multi-product, small-volume production, we are capable of responding to the varied and diverse needs not only of our customers inside and outside Japan, but also of customers in other industries, which we have been focusing on cultivating in recent years.

However, this multi-product, small-volume production ultimately presented a challenge, in that it conflictingly ended up generating high manufacturing costs. If a production plan becomes complicated, a large amount of time and effort is spent responding to that. Accordingly, we resolved this challenge with product assembly that maintains small-volume production, and a

machining process in which the input lot number is set by pursuing the cost-conscious minimum and optimum lot number.

The challenge going forward is inventory control. With multi-product, small-volume production, it is important to accurately forecast demand. When that forecasting accuracy is poor, we risk ending up saddled with a lot of inventory or suffering opportunity losses as a result of running out of stock. In order to boost accuracy, we will forecast future inventory from day-to-day sales trends, and place an even greater emphasis on initiatives that reduce the risk of high costs through adjusting production plans and monitoring inventory, so that it becomes possible to run operations with an inventory that is both appropriate and small.

”

#### Ryota Abe

Manager, Production Planning & Control, Manufacturing, Department, Hydraulic Tools Division, Maxell Izumi Co., Ltd.



## Toward the Creation of New Businesses

Define new businesses that have merit, and engage in development and market creation by leveraging Maxell's strengths

### Mission

Continue to launch high-value new businesses through company-wide technology synergies

### Vision

Grow the Company by creating new businesses that extend throughout the world

#### Action Plan

Strengthen partnerships for generating new businesses  
Implement a portfolio strategy that anticipates market changes

#### KPI

Proportion of sales accounted for by new businesses:  
Over 15% (FY2030)

Kenichi Sano

General Manager,  
New Business  
Producing Division

## Policies for Fiscal 2023


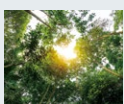

We will accelerate the launching of new businesses, with a powerful will to harness our wisdom and spirit to overcome challenges and "follow things through," toward expansion of business scale by 2030. We will implement the following 3 strategies in particular:

- (1) Contribute to resolving social issues with Maxell's unique Analog Core Technologies
- (2) Promote the development of next-generation technologies that bring contributions to the environment
- (3) Develop technologies and undertake capital investment toward expanding the business of all-solid-state batteries

The initial investment in the facility for mass-producing all-solid-state batteries is moving ahead as planned, and we are progressively entering business discussions on new products, such as AFID and foamed sheets. We are also working on CO<sub>2</sub> recycling as a medium- to long-term theme.

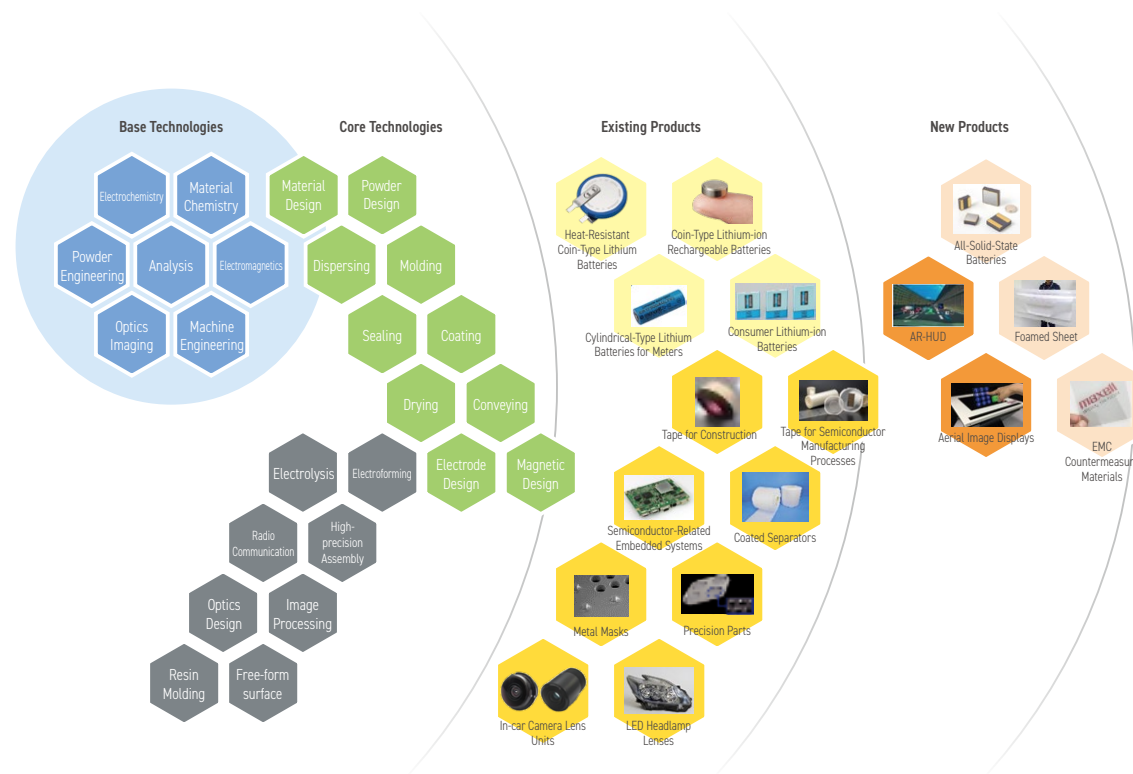
### Developing technologies that contribute to the resolution of social issues

(contributions that range from the individual through to lifestyles through to a global scale)

Social issues	Solutions	Innovations
<b>People</b>  <ul style="list-style-type: none"> <li>Declining birthrate and aging population</li> <li>Measures for infectious diseases</li> </ul>	<ul style="list-style-type: none"> <li>Improve healthcare efficiency</li> <li>Implant treatment</li> <li>Contactless diagnoses</li> </ul>	<ul style="list-style-type: none"> <li>Optical design: Aerial Image Displays (AFID)</li> <li>Battery design: All-solid-state batteries</li> <li>Analysis technologies: Early diagnosis of dementia</li> </ul>
<b>Environment</b>  <ul style="list-style-type: none"> <li>Natural disasters</li> <li>Climate change</li> </ul>	<ul style="list-style-type: none"> <li>Carbon neutrality</li> <li>CO<sub>2</sub> capture</li> <li>Mobility efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Electrode design: CO<sub>2</sub> recycling</li> <li>Molding technology: Foamed sheet</li> <li>Optical design: HUD (Head Up Display)</li> </ul>
<b>Industry</b>  <ul style="list-style-type: none"> <li>Declining labor force population</li> <li>Energy problems</li> </ul>	<ul style="list-style-type: none"> <li>Maintenance-free</li> <li>Increase communication speed</li> <li>Heat resistance, long life, small size</li> </ul>	<ul style="list-style-type: none"> <li>Dispersion technology: EMC countermeasure materials</li> <li>Battery design: All-solid-state batteries</li> <li>Material design: MID* products</li> </ul>

\* Molded Interconnect Device






### Maxell's Base and Core Technologies (Resolving Social Issues by combining Technologies from Other Fields)



## Toward the Creation of New Businesses

### Medium- to Long-Term Strategy

Develop next-generation products that center on the resolution of social issues in the 3 focus areas

Social Issues	2023	2026	2030
<b>Healthcare</b> • Improve efficiency of medical care • Disease prevention/pre-symptomatic diseases • Contactless diagnoses	• Aerial image displays • All-solid-state batteries for sterile digital devices 	• All-solid-state batteries for medical-care wearables 	• All-solid-state batteries for implants • Sensing devices
<b>5G/IoT</b> • Maintenance-free • Improve communication efficiency • Heat-resistance, long life	• All-solid-state batteries for FA and infrastructure • EMC countermeasure materials 	• All-solid-state batteries for facility monitoring • MID products 	• EMC countermeasure materials that can handle terahertz frequencies
<b>Mobility</b> • Carbon neutrality • Improve energy efficiency	• AR-HUD • Foamed sheet 	• LIB <sup>*1</sup> life assessment AI • All-solid-state batteries for ADAS/TMS 	• All-solid-state batteries for ECU/EPSC <sup>*2</sup> • CO <sub>2</sub> recycling system

\*1 Lithium-ion Battery \*2 Engine Control Unit / Electric Power Steering

“

Take the lead in fostering a culture of rising to the challenge, to create new products that resolve issues of customers and society



**Toshiyuki Watanabe**

Senior Manager, Design Department,  
New Business Producing Division

We will propose products that maximize customer value by pursuing development from a multifaceted perspective and by promoting product development with a market orientation focused on resolving the issues of our customers, on the basis of the Analog Core Technologies of "mixing, coating, and forming" that we have cultivated in developing and manufacturing batteries and tapes, along with our mass-production processing technologies and our optical structure design technologies for projectors, as well as by strengthening cross-divisional functions, enhancing human capital allocation and liquidity, and capitalizing on individual's respective experiences and expertise.

In the medium- to long-term, with an eye on megatrends, we are planning to deploy foamed sheet products that are geared to reducing the impact on the environment and conserving energy, and introduce products that respond to demand for all-solid-state batteries of even higher capacity, greater heat resistance, and longer operating life. In addition, we also intend to roll out new products that bring excitement to the world, including by proposing imaging technologies that evolve optical technologies such as AFID. Alongside new business creation and intellectual property creation, the New Business Producing Division wants to drive the Company as a whole, to enable a transformation to a culture of taking on challenges.



”

### Aerial Image Displays (AFID)



Forming



<b>Market</b>	"Contactless tech" continues to grow even after COVID-19, with the "contactless access control" market growing to a scale of around 3 trillion yen <sup>*3</sup>
<b>Characteristics</b>	A user interface that enables touch operation of floating images, which is equipped with a non-contact, high-precision area sensor on a high-luminance, high-contrast aerial image display that utilizes Maxell's proprietary LLIS <sup>*4</sup> technology
<b>Strengths</b>	<b>High Luminance</b> Maxell's proprietary optical technology provides bright, vivid images <b>In-air Operation</b> Realizes contactless operation with an optical area sensor <b>Low power consumption</b> Energy savings are realized thanks to a backlight unit that concentrates light highly efficiently
<b>Practical examples</b>	 Maxell Aqua Park Shinagawa (Living Things) briefing terminal)  Counters at banks, securities companies, and post offices Reception areas at hotels and other buildings

\*3 Maxell's research

\*4 Laser Like Image Source

### Foamed Sheet

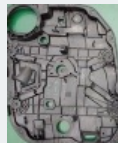



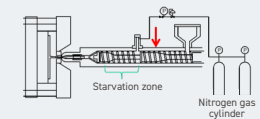
Mixing



Forming



<b>Market</b>	The global market for foam plastics is projected to grow to be worth more than \$50 billion <sup>*4</sup> accompanying the spread of products for construction materials, EVs, etc.
<b>Characteristics</b>	RIC-FOAM is Maxell's original physical foam molding technology It contributes to an energy-saving, low-carbon society through being lightweight by reducing the amount of resin used
<b>Strengths</b>	<b>Foam Technology</b> Clean mixing process of molten resin and foaming agent (low-pressure gas) Injection Molding: Patent-licensed business Extrusion Molding: PC <sup>*5</sup> sheet <b>Compatible with a wide range of thermoplastic resins</b> 5-50% reduction in quantity used
<b>Practical examples</b>	 Automobile door module (high dimensional accuracy)  PC foam sheets used to reduce weight in fields such as mobility



RIC-FOAM Example of injection molding machine structure



Molded body using PC foam sheet, and cross-sectional structure

\*5 Polycarbonate: Characterized by wide range of operating environment temperatures (-30-100°C) and high strength

## Consolidation and Enhancement of Sales Force

We will implement proposals that provide more value to our customers than ever before

### Mission

Ascertain customer needs, create new value, and contribute to a sustainable society

### Vision

Maximize\* the value of Maxell technologies and provide them to customers

\*Combine Maxell technologies (uniqueness and differentiation) and match them to customers' respective needs



## Policies for Fiscal 2023

Strengthen global sales, cultivate new businesses, and bolster our marketing and sales capabilities with a sense of urgency.

- (1) Strengthen BtoB businesses and shift to a highly-profitable business structure, to realize sustainable growth
- (2) Strengthen sales and development capabilities globally, and grow in global niche BtoB businesses
- (3) Raise awareness of Diversity & Inclusion, and create businesses that respond to diversifying needs

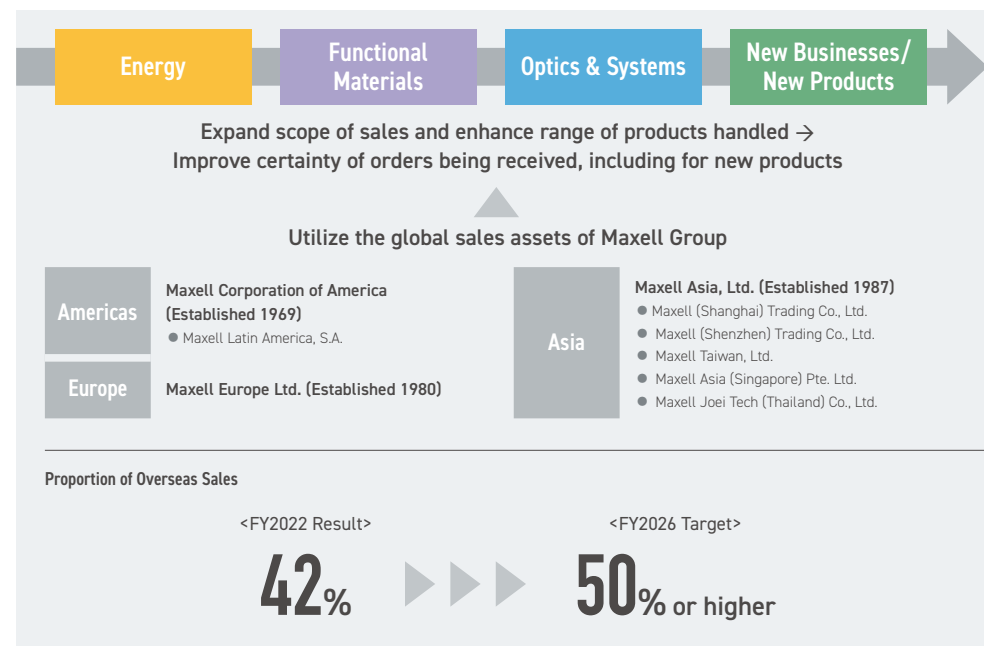
### Sales Strategy



## Strengthen Global Sales Structure

- Expand global sales of new products through a cross-segment sales organization
- Shift from product-specific specialized sales to account sales, and boost the ability to resolve customers' challenges globally

Expand sales of new products through a cross-divisional sales organization



## Consolidation and Enhancement of Sales

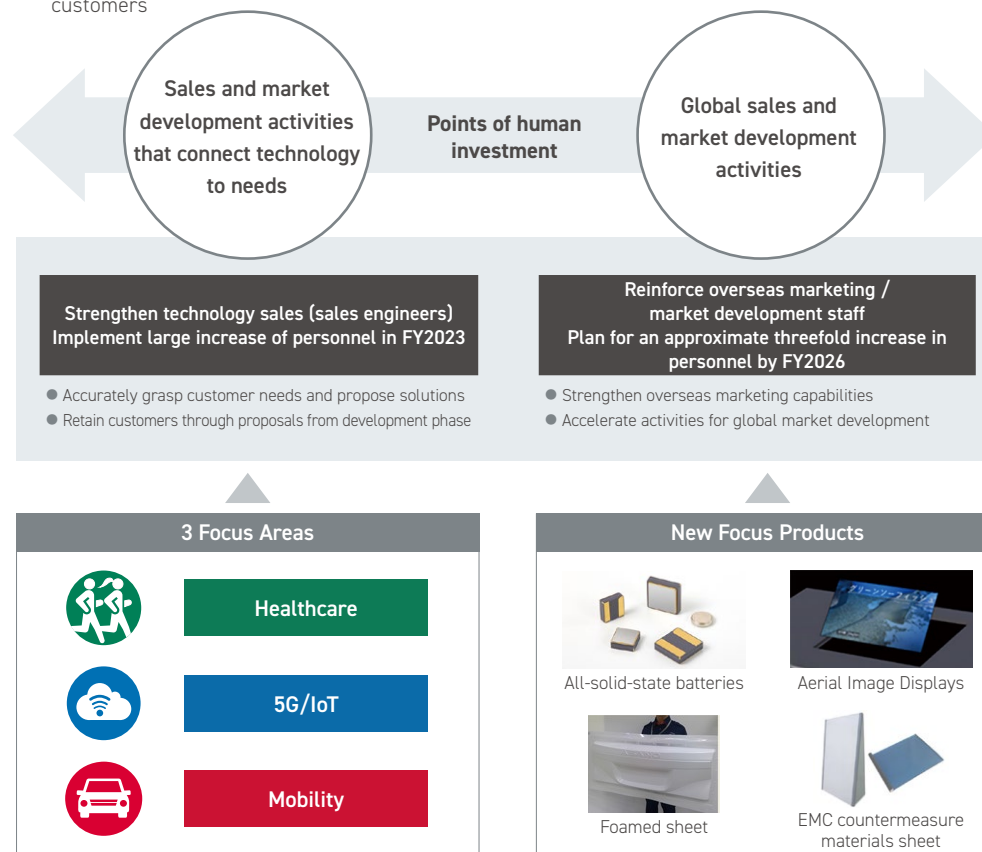
### Strengthen Capability to Develop Markets and Acquire Customers

- Acquire targeted markets and needs, by focus segment
- Capture growth opportunities that leverage Maxell's Analog Core Technologies, and realize business growth through differentiated products

Growth opportunities	Healthcare	5G/IoT	Mobility
Focus segments	Small power sources Comfortable living environments Contactless equipment Highly reliable power sources	Long life High-precision control High-quality adhesives Ultraprecise processing	Safety Highly reliable optics ADAS/CASE Lighter weight
Energy	<ul style="list-style-type: none"> <li>Expansion of CGM market due to increase in number of diabetics</li> <li>Accelerated shift to rechargeable batteries for hearing aids</li> </ul>  <p>Highly-reliable coin-type lithium battery    Coin-type lithium-ion rechargeable battery</p>	<ul style="list-style-type: none"> <li>Expansion of smart meter market for infrastructure</li> <li>Growing need to become maintenance-free through the use of power sources with long lives</li> </ul>  <p>Cylindrical-type lithium battery    All-solid-state batteries</p>	<ul style="list-style-type: none"> <li>Continued stable demand as more countries pass relevant legislation</li> </ul>  <p>Heat-resistant coin-type lithium battery</p>
Functional Materials	<ul style="list-style-type: none"> <li>Growth in airtight homes in North America and waterproofing materials in Southeast Asia</li> </ul>  <p>Tape for construction</p>	<ul style="list-style-type: none"> <li>Continued growth in the semiconductor market centered on memory</li> <li>Increase of high-refractive-index lenses for eyeglasses that use a tape method</li> </ul>  <p>Tape for semiconductor manufacturing processes    Tape for industrial processes</p>	<ul style="list-style-type: none"> <li>Reduce environmental impact toward realizing carbon neutrality</li> <li>Expansion of needs for optimized radio wave absorption for millimeter-wave radar</li> </ul>  <p>Foamed sheet    EMC countermeasure materials sheet</p>
Optics & Systems	<ul style="list-style-type: none"> <li>Expansion of contactless needs due to heightened hygiene awareness</li> </ul>  <p>Aerial Image Display (AFID)</p>	<ul style="list-style-type: none"> <li>Deepening of semiconductors due to advances in information and telecommunication</li> </ul>  <p>Semiconductor-related embedded systems    EF2 (high-precision electroforming technology)</p>	<ul style="list-style-type: none"> <li>Expansion of in-car lenses demand accompanying growth in ADAS/CASE</li> <li>Ongoing growth in the ratio of automobiles fitted with LED headlamps</li> </ul>  <p>In-car camera lens unit    LED headlamp lenses</p>

### Carry out human investment in order to strengthen global sales structure, and strengthen the capability to develop markets and acquire customers

- Strengthen technology sales and the capability to develop overseas markets and acquire overseas customers



### Strive to enhance the level of customer satisfaction by unifying the format of customer feedback

#### Action Plan

Enhance the value of the core products and services of the Maxell brand

#### KPI

Continuous improvement of format unification with regard to customer feedback

- The format concerning customer feedback was unified at the end of FY2022
- A survey on the level of customer satisfaction was carried out on 117 major customers inside and outside Japan
- When there were items that customers were dissatisfied with, the causes were analyzed, and sales representatives followed up with the customers concerned
- The next survey is scheduled to be carried out at the end of FY2023

# Intellectual Property that Supports New and Existing Businesses

Aim to build intellectual property (IP) that is conducive to Value Creation, and to contribute to our businesses through IP utilization

## Mission

Ensure Maxell's superiority and support the realization of technologies that create a sustainable society, through a cycle of IP Basic Duties, IP Utilization and Innovation Activities

## Vision

Be a company where IP is respected, and become a driving force for value creation, through vigorous IP activities

## Action Plan

Evolution of unique, original technologies that generate new value

## KPI

Number of patents related to next-generation development technologies: 1.5 times in 5 years (progress as of end of March 2023: 1.2 times (starting from FY2021))

Tatsuya Yamamoto

General Manager,  
IP Innovation Division

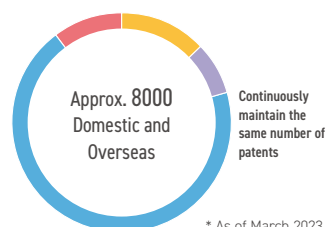
## Basic Policy

With a focus on Maxell's unique Analog Core Technologies, we are promoting business activities that integrate our technological and IP strategies. In addition, we are striving to secure Maxell's superiority and contribute to a sustainable society through the basic duties of creating, developing, and managing rights for the purpose of adequately protecting Maxell's IP including the "Maxell" brand; the proactive utilization of IP; and the pursuit of innovation in unique technologies. At the same time, in the interests of building a fair business environment, we firmly maintain a stance of respecting other companies' IP, including by carefully checking other companies' patents from the early stages of research and development.

Furthermore, in order to leverage IP for the sustainable growth of Maxell's Value Creation, the IP investment and utilization strategy is reported to the Board of Directors and is advanced on the basis of governance.

## Patent Status

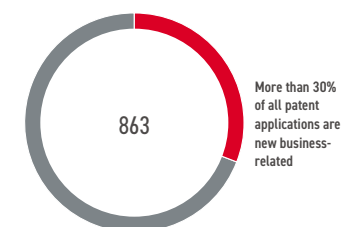
Energy Functional Materials  
Optics & Systems Life Solution



\* As of March 2023

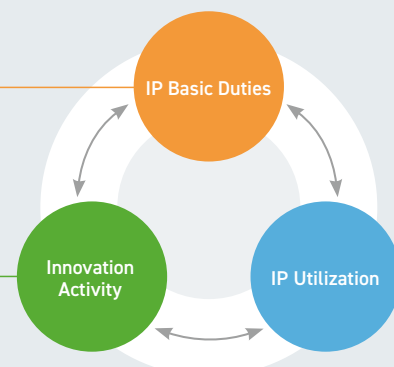
## Number of worldwide patent applications (FY2022)

New Business Producing Division Other



In order to protect our original technologies, we defend Analog Core Technologies and the products that utilize them through the solid implementation of basic duties such as IP creation, identification of expertise, and acquisition and management of rights.

**IP strategy to support business:** In order to maximize the contribution of IP to our businesses with our business environment, business strategy and IP information analysis as the base, we will steadily build an IP portfolio that will come to life in five to 10 years' time. We will achieve this through IP grand design activities, whereby we plan IP activities by "backcasting" – casting an eye back from the future use of IP envisioned at each business, to the present – and through strategic invention activities that prioritize fostering IP rights with a focus on important technologies.



We contribute to profits directly, and contribute indirectly by using IP to protect our businesses and expand them

**IP utilization policy:** We will contribute to the protection and development of the Company's businesses with IP. Additionally, we will obtain licensing fees by licensing Maxell's IP to other companies, which will directly contribute to the Company's profit and lead to the emergence of new innovation and the continuous creation of new IP. We are proactively advancing licensing activities in the area of batteries, which is Maxell's founding business, and the area of video and communications, in which we possess high-value patents. In cases where the Company's IP is not respected appropriately, we are prepared to take action when compelled to, such as lawsuits.

**Anti-counterfeit measures:** To reduce the risk of brand damage due to the improper use of the brand by third parties, we are taking firm measures against the manufacture and sale of counterfeit products that imitate designs or pose as Maxell brands, as well as the improper filing and registration of similar trademarks. Such measures include customs registration in major countries, and monitoring e-commerce sites.

Promoting the creation of original technologies for realizing a sustainable society, by providing cross-divisional support for cutting-edge research and development

**Company-wide innovation activities from an IP perspective:** Through collaborations with the IP Innovation Division, the New Business Producing Division and the Marketing & Sales Division, as well as the Group's companies, we will comprehensively explore the intellectual and human assets related to the technologies owned by Maxell Group, and drive innovation activities with the premise of creating new businesses across business segments by leveraging these assets.

**Contributing to the SDGs through invention-creation activities:** In order to promote innovation that contributes to the SDGs, we are pursuing the creation of IP that demonstrates an awareness of connections to those goals, from the invention discovery stage. As part of that effort, we are working to mention the specific SDGs that the invention in question will contribute to, in the invention's patent descriptions.

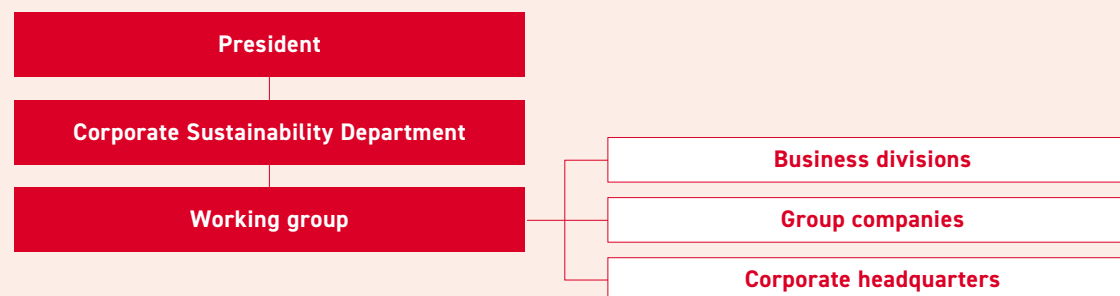
## 3

# Management Foundation Enhancement

In the area of sustainability promotion as well,  
we are executing action plans to achieve our targets

## Sustainability Promotion System

- Managed by corporate headquarters in collaboration with representatives of each business division
- Group-wide promotion system that involves all Group companies
- The Corporate Sustainability Department has formed a cross-divisional working group to advance sustainability initiatives



### Key initiatives in FY2020

- Formulation of Corporate Sustainability Vision
- Launch of Sustainability page of corporate website, disclosure of ESG-related information
- Activities to raise awareness about sustainability (education, lectures by external experts, etc.)
- Revision of long-term CO<sub>2</sub> emissions reduction targets and advancement of concrete measures
- Summarization of alignment between business activities and SDGs (level of contribution to addressing social and environmental issues)

### Key initiatives in FY2021

- Identification of 7 materialities and 20 action plans, and disclosure of information on these in our integrated report. Continuation of work on identifying KPIs
- Expressed support for TCFD recommendations
- Summarization of contributions of Maxell products and services to achievement of SDGs (level of contribution to addressing social and environmental issues)
- Promotion of adoption of renewable energy (solar power generation equipment for in-house consumption)

### Key initiatives in FY2022

- Disclosure of human capital-related information
- Partial revision of some action plans and setting of action plan KPIs
- Conduction of dialogues between president and employees at all business sites

## Creating Human Resources and Organizations that Generate Value

Maxell Group implements a variety of initiatives aimed at ensuring that the individuality of each employee is respected, and that our workplaces are rewarding to work at.

These initiatives include the promotion of diversity and inclusion, work-life balance, and personnel training aimed at passing on Maxell's technological strengths to future generations.

### Action plan

Strengthen the management that leverages human resources (build a human resources strategy, promote the right person in the right place and talent management)

### KPIs

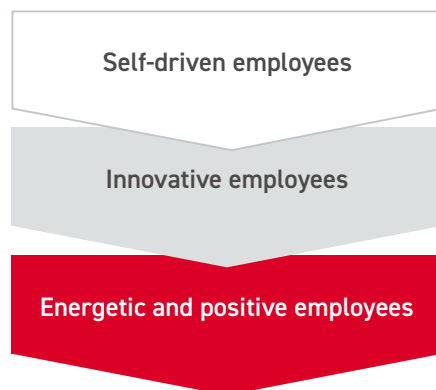
- (1) Talent management system: Introduce to Group companies by FY2026 **NEW**
- (2) Career interview implementation ratio 100%

### Introduction of New Talent Management System Completed

To further enhance trust in the Maxell brand and achieve sustainable growth, it is essential to have personnel who can identify issues, think independently, and take action in response to various changes to customer needs and market environments. We have identified three key words for the desired talent profile: self-driven employees, innovative employees, and energetic and positive employees. We will redouble our efforts to recruit and nurture exceptional personnel, enabling a diverse range of individuals to bring together and coordinate their expertise, take on the challenge of creating new value, and work together on helping to create the future.

Furthermore, in fiscal 2022 we successfully introduced our new talent management system, which we had set as a KPI. The system is aimed at visualizing human resources information and facilitating personnel development and promotions. We intend to update our human resources KPIs and introduce talent management systems at all Group companies by the end of fiscal 2026.

Desired talent



We aim to continue 100% implementation of career interviews by reviewing the manual and other operational procedures.

### Ensuring role awareness of management who “commits to value”

In fiscal 2021, we completely revamped the managerial personnel treatment system. This included redefining Maxell's managerial staff role requirements in order to provide clear and easily understandable standards for the work of each managerial staff member as leaders of Maxell's transformation.

These role definitions emphasize that committing to value involves managing the organization, crafting pathways for achieving objectives, and ensuring responsiveness to customer demands and values, and they make it clear that achieving these things results in the generation of corporate value. We are committed to fostering awareness of this among our managerial staff.

Expectations of managerial personnel

#### 1. Strengthen organizational foundation

#### 2. Establish realization processes

#### 3. Create customer value

#### 4. Create corporate value

The above expectations are defined in greater detail for each management level

### Action plan

Establishment of a system for human resource development and evaluation that creates proactive human assets capable of creating something out of nothing

### KPIs

- (1) Formulate human resource portfolio: operation start
- (2) Education for personnel evaluators: 2 times/year

### Bolster human resource portfolio based on human resources development policy

Maxell conducts training with a focus on key action items in line with the 3 basic educational policies.

#### Basic educational policies

- (1) Human resources are the most important management resource for a company, and in addition to fostering a culture of ongoing education, we aim to be a company in which people grow and develop.
- (2) Cultivate human resources able to identify societal changes, work sincerely towards achieving greater creativity and technological capabilities, and provide value to employees, customers, and society.
- (3) Develop human resources able to advance globalization and diversity.

Based on these policies, we conduct a hierarchical career education program, and during the evaluation period, training to personnel evaluators to enhance the capabilities of our personnel.

In fiscal 2022, we redefined “Succession Human Capital” as the core of our human resources portfolio, and reviewed our next generation leader selection and education programs based on this definition.

Furthermore, we implement personnel development measures in 3 areas: Globalization, Sales & Marketing, and Technology. This includes training tailored to each specialized field and hierarchy level, global education such as overseas training, and regularly updated education themes and methods aligned with current trends. Through a wide-ranging educational curriculum, we nurture talent capable of generating new value.

	Hierarchical training		Selective education		Job-specific education			Career education		
Executives	Executive training		Future leader training		Globalization education subcommittee Sales & Marketing education subcommittee Technology education subcommittee			Life planning seminar (for those aged 56 or older)		Aged 50 and over
General managers and equivalent personnel	General manager training									
Senior managers and equivalent personnel	Senior manager training									
Managers and equivalent personnel	Manager training									
Assistant managers/ engineers	Assistant manager/engineer training		OJT trainer training	OJT trainer follow-up training				Career 40 training (for 40-year-olds)		40 - 49
Junior to mid-career employees	Fifth-year training									
	Trainee thesis presentation									
New junior recruits	Second-year follow-up training	OJT trainer education								
	New employee training									
	Sales/factory employee on-site training									
	Introductory training									

<b>Action plan</b>	Promoting diversity and inclusion (utilize diverse human resources and accept different values)
<b>KPIs</b>	<ol style="list-style-type: none"> <li>(1) Improve overall satisfaction in employee awareness survey: 90% or higher (FY2026)</li> <li>(2) Recruitment ratio of female graduates: 50% or higher for administrative jobs, 25% or higher for engineering jobs</li> </ol>

At Maxell, we emphasize diversity and inclusion and aim to enhance organizational problem-solving capabilities, creativity, and flexibility by harnessing personnel with differing values, sensibilities, and experience. In particular, we place strong emphasis on activities at "M-Wing," a company-wide project run by members selected from each business division. The project's slogan is "companies and workplaces where everyone can thrive," and we continue to work towards this goal.

Our management team and employees are working together to ensure Maxell is a company where a diverse workforce can work comfortably and thrive.



Poster explaining "M-Wing" activities

## Promoting Women's Advancement in the Workplace

At Maxell, we are raising awareness of diversity, particularly among management and leadership-level personnel. We have also been working to revise company policies to facilitate more flexible working arrangements and actively promoting recruitment and appointment of women while nurturing role models. In fiscal 2019, Maxell achieved a 2-star "Eruboshi" certification, which is awarded to companies in recognition of outstanding efforts in promoting women's participation in the workplace. We are committed to further advancing women's participation in our workplaces.

We have set targets for the ratio of female hires among new graduate recruits, and are aiming to continue achieving a rate of 50% or higher for administrative jobs and 25% or higher for engineering jobs. For new hires in fiscal 2023, the ratio of female hires in administrative and sales positions exceeded that of male hires for the first time.



## Creating Human Resources and Organizations that Generate Value

Gender ratio\* of new graduate recruits

	Female	Male
FY2021 cohort	22.2%	77.8%
Engineering jobs	16.7%	83.3%
Administrative/sales jobs	33.3%	66.7%
FY2022 cohort	15.0%	85.0%
Engineering jobs	11.8%	88.2%
Administrative/sales jobs	33.3%	66.7%
FY2023 cohort	36.4%	63.6%
Engineering jobs	29.4%	70.6%
Administrative/sales jobs	60.0%	40.0%

\* Gender ratio among recruits with a bachelor's degree or higher

### Creating Pleasant Workplaces

Maxell has established a variety of flexible work arrangements to ensure that all employees can work flexibly in a way that matches their lifestyles and life stages. To facilitate a balance between work and family life, especially for those engaging in childcare and nursing care, we have established systems that go beyond legal requirements. The ratio of employees who return to their jobs after taking childcare or nursing care leave stands at 100%.

In fiscal 2022, the rate of male employees taking parental leave reached 40%. In fiscal 2023 we are introducing an additional five days of paid parental leave at birth and working on creating workplaces where taking parental leave is easy.

Employees taking childcare and/or nursing care leave

	FY2019	FY2020	FY2021	FY2022
Childcare leave	9 employees	9 employees	14 employees	15 employees (10 female, 5 male)
Nursing care leave	1 employee	1 employee	0 employees	1 employee

### Aiming to improve overall satisfaction in employee awareness surveys

At Maxell we conduct an employee awareness survey once a year. In fiscal 2021, approximately 2,000 Maxell Group employees were surveyed. The survey primarily assesses employee perceptions regarding the effectiveness of organizational activities, individual job satisfaction, education, and satisfaction with employee treatment systems.

In fiscal 2022, improvements were observed in the areas of "acceptance of diversity" and "satisfaction with employee treatment systems," indicating that ongoing work on human resources measures is yielding results. To continue enhancing satisfaction, we will focus on initiatives such as talent management to enable individuals to build their careers and acquire the skills they need, organizational invigoration through communication initiatives, and management enhancement measures utilizing 360-degree feedback.

Overall satisfaction score for company life (maximum 7.00 points)

FY2018	FY2019	FY2021	FY2022
4.11	4.29	4.37	4.50

\* Employee awareness survey was not conducted in FY2020.

### Promoting digitalization to assist with work style reforms

Maxell is proactively promoting digitalization as a key measure in strengthening its management foundation and advancing work style reforms.

To strengthen our management foundation, we are carrying out business reforms and revamping our core systems to standardize operations, moving away from the current form of management in which each domestic and overseas site establishes its own operational foundation individually. In this way, we are working towards lower operation costs, stronger corporate governance, and optimized utilization of human resources.

We are aiming to realize automation of operations and increase operational efficiency as much as possible particularly in indirect departments such as general affairs, accounting, and business operations, and looking to enhance productivity and reduce costs by promoting the digitalization measures in the upper right corner.

### Maxell's digitalization initiatives for work style reform and productivity enhancement

- Establishment and enhancement of teleworking environments.
- Online meeting standardization, streamlining, and stabilization, and promotion of efficient meeting format
- Shift to paperless operations
- Promotion of cloud utilization
- Digitalization of application approval and circulation procedures
- Business streamlining and digitalization through utilization of robotic process automation
- Strengthening of security measures in response to increased cloud utilization and teleworking

### Action plan

Improve productivity and promote the transmission of skills through the standardization of business processes

### KPIs

- (1) Improve job satisfaction level in employee awareness survey: 90% or higher
- (2) Company-wide education\* target achievement rate:

Maintain at 100% **NEW**

\* Management (hierarchical and selective education), sales, technology, global education, etc.

### Developing 5G/IoT engineers through IoT Human Resources Development Program

We aim to develop 5G/IoT engineers who can play an active role in the creation of IoT businesses, acquiring knowledge on programs related to IoT through practical education provided via the IoT Human Resources Development Program. Specifically, we provide opportunities for employees to learn practical programming and master the programming language Python with the aim of nurturing personnel who can use their IoT and AI knowledge to implement devices and applications. Approximately 60 employees are currently participating.

By steadily implementing such initiatives, we are strengthening our ability to connect needs and seeds based on reliable technologies, ultimately enhancing our capacity to create new businesses based on IoT and AI technologies.

In addition to the specialized training mentioned above, to enhance the IT literacy of each employee, we have created an environment in which employees can continue to learn, including the preparation of a platform where they can learn basic computer skills and Office operation skills that are useful in the workplace. We set the implementation of a basic digital literacy education program

## ▲ Creating Human Resources and Organizations that Generate Value

for all employees as a KPI, and almost all employees participated in this in fiscal 2022. In the future, we will update the KPI for the "100% achievement of the company-wide education plan", which is determined by the education committee, including executives, to include new educational content. This will help drive improvements in employee productivity.

### Promotion of occupational health and safety activities

#### Maxell Group's occupational health and safety activities

Maxell Group companies work as a team to carry out occupational health and safety activities under the basic policy of "Put Highest Priority on Health and Safety."

In fiscal 2022, the number of accidents remained largely unchanged year-on-year. However, we have intensified our efforts to eliminate recurrent accidents by "strictly adhering to basic safety behavior rules" and conducting "5W analysis (asking "why?" five times) for unsafe actions and conditions." In fiscal 2023, we will continue with these initiatives to strive for the elimination of workplace accidents.



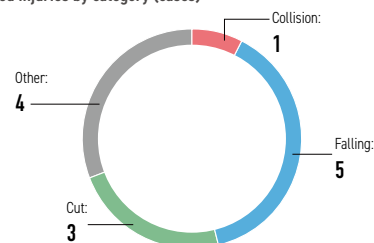
Mutual safety inspections



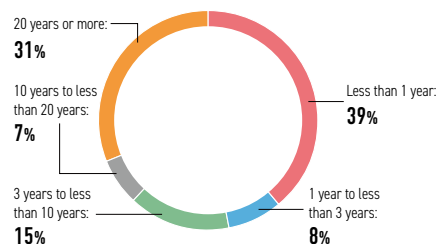
BCP (business continuity planning) disaster preparedness training

The domestic Group companies conduct "mutual safety inspections" to improve the degree of health and safety across the Group and promote communication from the point of health and safety. We are committed to creating a safety-conscious workforce and working towards achieving "zero accidents." All Group employees aim to establish pleasant workplaces where everyone can work safely and securely without accident and foster a culture of safety.

FY2022 work-related injuries by category (cases)



FY2022 work-related accident occurrence rates (by years of experience)



### Efforts to maintain and promote employee health

#### Enhancing health management

Maxell recognizes that the well-being and active engagement of employees are essential for company growth and the enhancement of corporate value. Maxell is therefore committed to a health management approach aimed at maintaining and improving the health of employees.

Maxell utilizes employee health checkups and receipt data to implement preventive programs targeting individuals with lifestyle-related diseases as well as those at risk of such diseases. Maxell also ensures that employees seconded overseas undergo thorough health checkups to enhance health management.

With regard to mental health, Maxell has shifted the focus of its stress-related efforts towards stress prevention. This includes diagnoses focused on employee stress resilience as part of statutory stress checks, seminars explaining how to utilize stress check results, and guidance from instructors on how to prevent high-stress situations.

Maxell also provides, through its employee assistance program, individualized support for a wide range of concerns that employees may have. This includes support such as external counseling services and return-to-work programs to assist those returning to their workplaces, in addition to advice from specialist staff.

Through such efforts, Maxell has once again been recognized as a "2023 Certified Health & Productivity Management Outstanding Organization" (in the large enterprise category), following on from its recognition in 2022. Maxell continues to promote the selection of its Group companies as well, and is aiming for recognition as a "White 500" enterprise, focusing on enhancing employee welfare, various initiatives to prioritize the health of all Group employees, and creating comfortable workplaces.

## Creating Economic Value through Environmental Activities

At Maxell Group, we recognize that addressing global environmental issues, including global warming, is an urgent priority.

To help address such issues, we have introduced a company-wide environmental management system and are advancing company-wide efforts.

### Environmental Management

#### Operation of Environmental Management System

In light of developments such as the adoption of the UN Sustainable Development Goals (SDGs) and the Paris Agreement, there is a growing demand for companies to make even greater contributions towards achieving a sustainable society. Maxell Group recognizes that alongside enhancing corporate value, it must play a more significant role in environmental conservation.

Maxell Group is committed to environmental initiatives, including efforts to help prevent global warming, in accordance with its "Environmental Conservation Action Guidelines."<sup>\*1</sup> The environmental activities of Maxell Group are led by the president and are conducted in line with the environmental management system. We ensure compliance with regulations such as the REACH regulation and the RoHS directive and are steadily reinforcing our compliance efforts. We are also bolstering our focus on activities aimed at achieving environmental results based on the ISO 14001:2015 standards.

The Financial Stability Board (FSB) launched the Task Force on Climate-related Financial Disclosure (TCFD) to promote the identification and disclosure of the risks and opportunities that climate change presents to companies and financial markets. In October 2021, Maxell announced its endorsement of the TCFD's recommendations and is now conducting scenario analyses (refer to pages 49, 50, and 51).

<sup>\*1</sup> Environmental Conservation Action Guidelines:  
[https://www.maxell.co.jp/csr/csr2/csr\\_guideline.html](https://www.maxell.co.jp/csr/csr2/csr_guideline.html) (in Japanese only)

#### Establishment of Maxell Group's Environmental Vision

Since the coming into effect of the Paris Agreement, companies have been expected to reduce their total greenhouse gas emissions, irrespective of business expansion. Maxell has been working to reduce the environmental impact of its manufacturing activities for some time. Maxell has identified "Creating Economic Value through Environmental Activities" as an important issue (materiality) and is conducting business operations with the target of reducing CO<sub>2</sub> emissions.

In 2020, the Japanese government set the target of achieving carbon neutrality by 2050, thereby necessitating even greater CO<sub>2</sub> reduction efforts.

Maxell Group has established the Environmental Vision in July 2023 and is pursuing a variety of initiatives on the way to achieving its goal of reducing domestic CO<sub>2</sub> emissions by 50% from the fiscal 2013 levels by fiscal 2030 to achieve a carbon-free society (Scope 1 and 2 emissions). Additionally, looking towards 2050, the group will continue with efforts such as factory energy efficiency-boosting initiatives, increased use of renewable energy, and the use of non-fossil certificates. The group will also contribute to the achievement of carbon neutrality by fiscal 2050 (global Scope 1 and 2 emissions) and the realization of a sustainable society through the implementation of decarbonization technologies developed by Maxell Group. This includes "Electrolytic Reactors" used in the electrolytic reduction of CO<sub>2</sub> developed through the production of electrodes using dispersion and coating technologies which are the Analog Core Technologies that Maxell has developed over the years in the course of developing and manufacturing products like magnetic tapes and lithium-ion batteries.

To contribute to achieving a recycling-oriented society, Maxell Group has also set targets to reduce waste intensity per production as a way to promote waste-free design and manufacturing throughout the entire Group. The initial focus will be on reducing loss resulting from manufacturing errors.

Additionally, in response to growing concern over plastic waste-

related issues like ocean plastic pollution, the group has set the target of commencing chemical and material recycling of composite plastic waste generated at its facilities by fiscal 2030.

#### Implementation of Maxell Group Environmental Action Plan for Fiscal 2022

Based on the belief that environmental activities and contribution to business performance should be managed in an integrated manner, Maxell Group aims to motivate its workforce through the management of indicators (on intensity per production basis: amount consumed/amount produced) that help to visualize efforts for improvement. The indicator we used until the previous fiscal year, which was based on intensity per net sales, is no longer used due to the increasing cost of electricity and other energy resulting from soaring crude oil prices and the rising waste disposal costs, which made it impossible to provide appropriate evaluations.

In fiscal 2022, we successfully achieved the target for energy and waste intensity per production. However, in terms of the target for water usage intensity per production, which had not been achieved, we fell short of the target due to our inability to reduce the fixed water usage volume in line with the decrease in production amount. We will persevere with efforts to make

#### Environmental Vision

Maxell aims to achieve "a carbon-free society" and "a recycling-oriented society" by pursuing innovation and contributing to the realization of a sustainable society in which everyone can live with peace of mind.

Initiatives towards achieving a carbon-free society			
Targets	FY2030	<b>Reduce CO<sub>2</sub> emissions by 50% or more (vs FY2013)</b>	Subject: Scope 1 and 2 emissions (domestic)
	FY2050	<b>Achieve carbon neutrality</b>	Subject: Scope 1 and 2 emissions (global)
Initiatives towards achieving a recycling-oriented society (Resource saving and resource recycling of plastics, etc.)			
Targets	FY2030	<b>- Achieve waste intensity per production<sup>*2</sup> of 0.0450 (tons/million yen) or less (reduction by 19% vs FY2021)</b>	Scope: Global
		<b>- Commence chemical/material recycling of composite plastic waste</b>	

<sup>\*2</sup> Waste intensity per production is an index for generated waste amount. Waste amount (t) / production amount (million yen)

## Creating Economic Value through Environmental Activities

### Environmental Action Plan for FY2022<sup>\*1</sup>

Evaluation: ■■■ Achieved ■■ Achievement rate 95% or higher ■ Achievement rate less than 95%

No.	Action targets		Classification <sup>*2</sup>	FY2022			FY2023
				Targets	Results	Evaluation	Targets
1	Net sales ratio of eco-friendly CSR/CSV products (%)		Domestic/overseas	100	100	■■■	100
2	Registration ratio of eco-friendly CSR/CSV products using new assessment approach (%)		Domestic/overseas	100	100	■■■	100
3	Market introduction ratio of eco-friendly CSR/CSV products (%)		Domestic/overseas	100	100	■■■	100
4	"Eco Mind" education participation ratio (%)		Domestic/overseas	100	100	■■■	100
5	Continuation of zero emissions (years) (target: manufacturing facilities) (Final disposal volume: less than 5t, final disposal ratio: less than 1%)		Domestic	22	22	■■■	23
6	Energy	Intensity per production x 10 <sup>-3</sup> (kL/million yen)	Domestic/overseas plants	420	403	■■■	398
			Domestic plants	350	330	■■■	324
		Intensity per personnel and floor space (kL/person + km <sup>2</sup> )	Domestic/overseas offices	22	16	■■■	18
7	Waste	Intensity per production x 10 <sup>-4</sup> (t/million yen)	Domestic/overseas plants	571	532	■■■	538
		Recycling ratio (%)	Domestic/overseas plants	70	90	■■■	70
8	Water	Intensity per production x 10 <sup>-2</sup> (m <sup>3</sup> /million yen)	Overseas plants	747	840	■	800

\*1 Value of in-house production amount at overseas plants converted to yen at fixed exchange rates

\*2 Overseas plants: Maxell Digital Products China Co., Ltd., Wuxi Maxell Energy Co., Ltd., Maxell Tohshin (Malaysia) Sdn. Bhd., Maxell Europe Ltd. Telford Plant, PT. Siontec Ekadharma Indonesia

improvements and conserve water.

In fiscal 2022, Maxell Group experienced no significant environmental incidents, and was subject to no environmental fines or complaints. Additionally, with the enforcement of the Fluorocarbon Emissions Control Act, we conducted both simplified inspections (quarterly) and statutory inspections. These inspections showed an annual leakage of 167 tons of fluorocarbons, a volume that is below the reporting threshold.

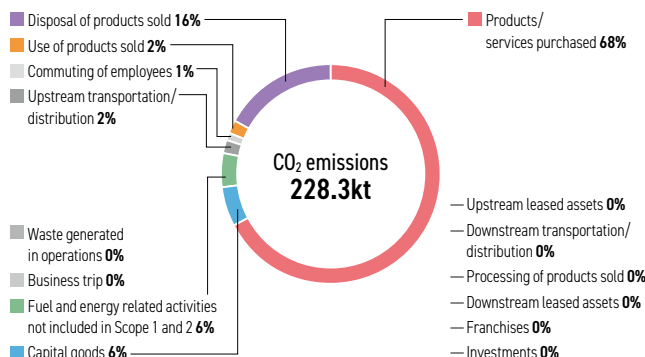
### Reduction of CO<sub>2</sub> Emissions, Including Scope 3 Emissions

Maxell Group calculates total CO<sub>2</sub> emissions across the entire supply chain, including Scope 3 emissions. Scope 3 emissions refer to indirect emissions other than Scope 1 and Scope 2 emissions. For emissions calculations, starting from fiscal 2018, we aggregate and disclose performance data in accordance with the "Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain" issued by the Ministry of the Environment and the Ministry of Economy, Trade and Industry.

In fiscal 2022, as in fiscal 2021, our Scope 3 emissions decreased, primarily owing to the downsizing of the projector business,

which consumes significant amounts of electricity during use. This resulted in a decrease in the proportion of CO<sub>2</sub> emissions associated with the use of sold products. We aim to further reduce CO<sub>2</sub> emissions during product use by promoting energy-efficient design.

Breakdown of Scope 3 CO<sub>2</sub> emissions by category  
(Excluding Maxell Izumi, Ube Maxell Kyoto and Maxell Kureha)



#### Action Plan

Strengthen environmental technologies and environmentally conscious products

#### KPI

Define standards to show the degree of contribution to social and environmental issues, and visualize the progress of sustainability  
Incorporate specific measures in the next medium-term management plan

### Reduction of Environmental Burden through Environmentally Conscious Products

At Maxell Group, we evaluate the quantitative environmental impact of new products at each stage of their life cycle in accordance with environmentally conscious design assessment criteria at the design and development stages, and register those that meet certain standards as "environmentally conscious products."

When a product does not meet the standards for "environmentally conscious products," we conduct CSR/CSV product assessments. Products deemed to meet certain criteria through this assessment are registered as CSR/CSV products that contribute to the achievement of the SDGs. In light of the current 100% CSR/CSV product registration rate, we are exploring new criteria to identify outstanding products that contribute significantly to major societal and environmental issues such as global warming, resource depletion, increasing waste generation, and ocean plastic pollution. The establishment of these new criteria will be aimed at raising awareness among design and development team members and boosting their motivation.

### Recycling of Products

In accordance with the "Act on the Promotion of Effective Utilization of Resources," Maxell has joined an association called the Japan Portable Rechargeable Battery Recycling Center (JBRC) and displays recycling symbols on the lithium-ion batteries manufactured and sold, and promotes the use of the association's collection and recycling system to customers. In fiscal 2022, the amount of small lithium-ion batteries collected through the association's activities was 592 tons, which is an 11% decrease from the previous fiscal year, which also saw a decrease, but we believe that recycling is becoming a firmly ingrained habit among consumers.

With regard to projector recycling, in April 2019 we received approval from the Ministry of the Environment under the "wide area certification system" to promote recycling, and we have continued to collect projectors for recycling since then. As for hair dryers and

## Creating Economic Value through Environmental Activities

shavers, they fall under the “Act on Promotion of Recycling Small Waste Electrical and Electronic Equipment,” and collection is carried out by each municipality.

### Action Plan

Conserving resources and energy, and promoting the introduction of renewable energy

### KPI

- (1) Domestic CO<sub>2</sub> emissions: Reduce by 50% by FY2030 (vs FY2013)
- (2) Renewable energy ratio: 15% by FY2030 (renewable energy consumption/total electricity) **NEW**
- (3) Begin considering reduction of waste plastic generated by business sites (chemical and material recycling), and incorporate related concrete measures into the next mid-term management plan

## Helping to Prevent Global Warming

We have set “Conserving resources and energy, and promoting the introduction of renewable energy” as a materiality action plan. The plan includes a KPI of achieving a 50% reduction in CO<sub>2</sub> emissions by fiscal 2030 compared to fiscal 2013, and we are proactively working towards this.

Concrete measures undertaken by Maxell Group as part of plant electricity-saving measures include visualizing electricity consumption patterns to reduce wasteful electricity usage, improving operational efficiency through demand management at facilities, updating air conditioning systems, switching to LED lighting, and planting of green walls. In fiscal 2022, the Kobuchizawa Works, Kyoto Works, and Ono Works began solar power generation for in-house consumption. The Kyoto Works started generating 109 MWh from September, and the Ono Works started generating 114 MWh from January. Furthermore, in fiscal 2022, we started purchasing non-fossil certificates. These efforts allowed the Group to exceed the “Renewable energy ratio of 10% by fiscal 2030” KPI in fiscal 2022, and we therefore set a target of “Renewable energy ratio of 15% by fiscal 2030” as a new KPI.

Additionally, we have contracted with electricity companies we selected based not only on price but also on CO<sub>2</sub> emission coefficient trends in order to reduce our CO<sub>2</sub> emissions.

In fiscal 2022, domestic CO<sub>2</sub> emissions decreased 26% compared to the previous fiscal year, and overseas emissions decreased by 1.2%, resulting in an overall 17% reduction for Maxell Group as a whole (a 47% reduction from fiscal 2013). Note that the activities of Maxell Izumi, Ube Maxell Kyoto, and Maxell Kureha have been included in the calculations from fiscal 2022 onwards.

In addition to solar power generation for in-house consumption, the Ono Works is also selling electricity generated with its solar power facilities. In fiscal 2022, 1,428 MWh of electricity was generated, contributing to the prevention of global warming.

## Ascertaining Transport-related Energy Intensity Per Production

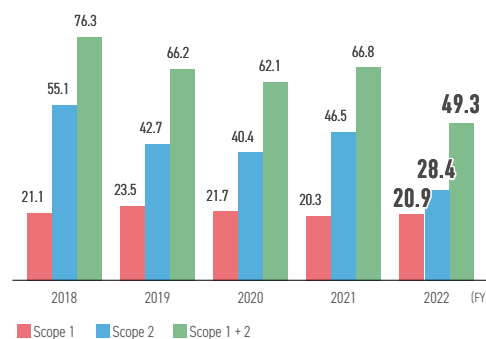
Since Maxell Group offers a wide range of products, we monitor the transport-related energy intensity per production at each manufacturing base.

In fiscal 2022, the total for all manufacturing bases increased by 5.7% compared to the previous fiscal year.

	Production amount (million yen)	Usage (thousand ton-km)	Intensity (ton-km/million yen)
FY2020	60,112	909.9	151
FY2021	58,186	1014.0	174
FY2022	51,919	958.0	184

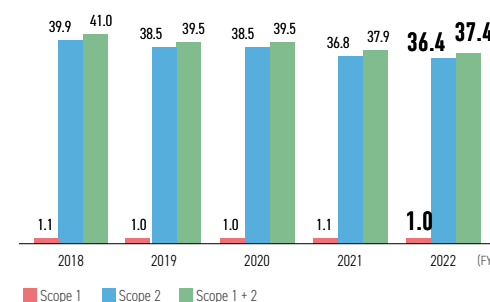
CO<sub>2</sub> emissions (Scope 1 and 2<sup>1</sup>)

Domestic  
(kt-CO<sub>2</sub>)



\*1 Scope 1: Direct emissions due to fuel combustion, etc. at business sites  
Scope 2: Indirect emissions from purchased electricity, etc.

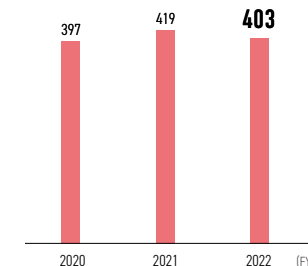
Overseas<sup>\*2</sup>  
(kt-CO<sub>2</sub>)



\*2 Electricity/CO<sub>2</sub> conversion coefficient: UK 0.19, Malaysia 0.65, China 0.61, Indonesia 0.77 (unit is t-CO<sub>2</sub>/MWh for all countries)

Energy intensity per production

Domestic + overseas  
(kL/million yen)



## Creating Economic Value through Environmental Activities

### Waste Reduction and Recycling

Regarding the conservation of resources, which we have set as a materiality's action plan, in light of the recent emphasis on addressing the environmental issue of plastic waste, we plan to set KPIs for reducing plastic waste generated at our business sites. We are currently exploring chemical and material recycling, and intend to establish concrete targets for this in our next medium-term management plan.

Furthermore, at Maxell Group, we are working towards "Zero emissions"<sup>\*1</sup> by ensuring thorough waste separation, promoting the monetization of valuable waste through information sharing at each business site, and expanding and enhancing in-house intermediate processing. For example, in the lithium-ion battery manufacturing process, we separate waste such as end cuts generated in each production step and deliver these to the recycling companies to recycle copper, aluminum and rare metals such as cobalt from waste materials (43 tons in fiscal 2022). At the Ono Works, we also recycle silver oxide (2.6 tons in fiscal 2022). The amount of valuable waste generated domestically in fiscal 2022 was down 9% compared to the previous fiscal year. As a result of our intensified recycling efforts, domestic manufacturing bases achieved zero emissions for the 22nd consecutive year.

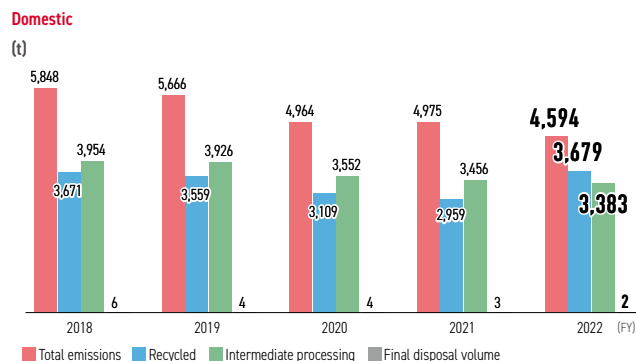
<sup>\*1</sup> Criteria for zero emissions (criteria for each business site): Final waste disposal volume less than 5 tons/year and final disposal ratio less than 1%/year

### Water Consumption Reduction Initiatives

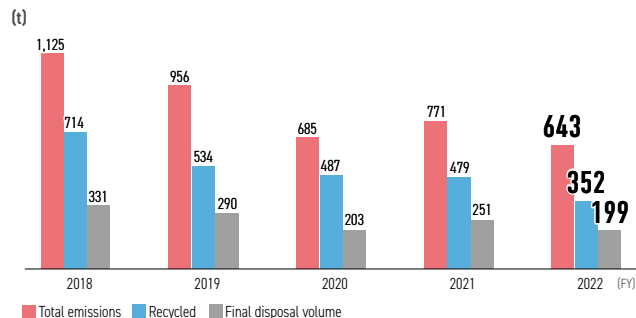
Maxell Group strives to reduce water consumption in manufacturing processes and conserve water resources through reutilization and other practices. For instance, at the Kyoto Works, a system to recover and reuse 100% of drain water was introduced in fiscal 2019 in response to increased steam usage due to the increased production of lithium-ion battery electrodes. This resulted in a saving of 40 km<sup>3</sup> of water annually. In Maxell Group's domestic business sites, there was a 17% reduction in water usage compared to the previous fiscal year, and at overseas Group's business sites where water risk<sup>\*2</sup> is particularly high, there was a 5% reduction compared to the previous fiscal year. Overall, Maxell Group achieved a 15% reduction in water usage compared to the previous fiscal year.

<sup>\*2</sup> Water Risk Atlas (Aqueduct) by World Resources Institute (WRI)

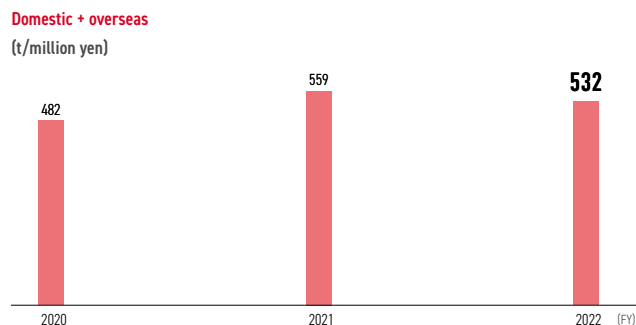
Situation of wastes, etc.



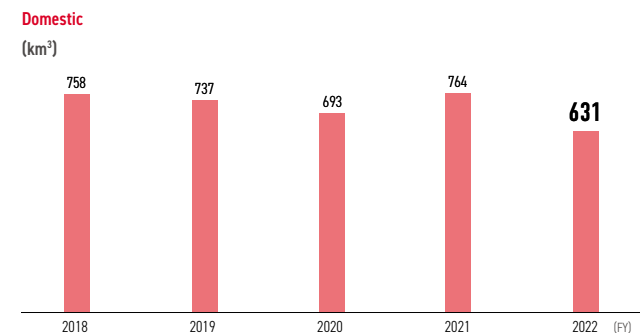
**Overseas**



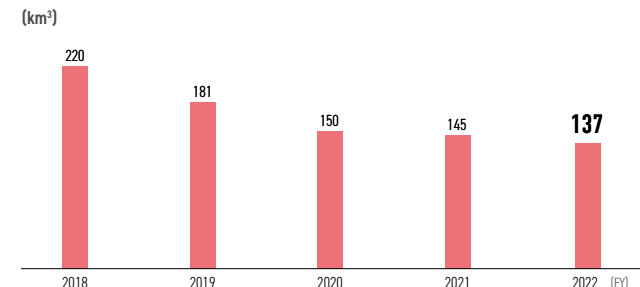
Waste intensity per production



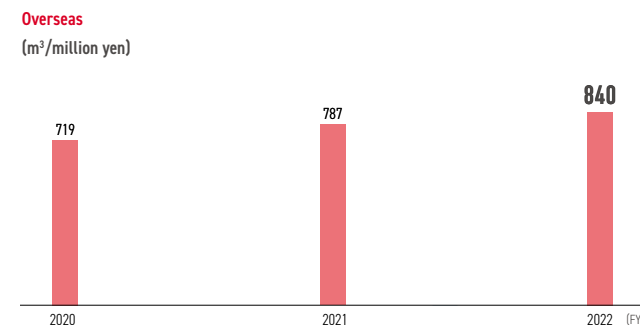
Water consumption



**Overseas**



Water intensity per production



## Reporting Based on TCFD Recommendations Analysis of climate change risks and opportunities for the Maxell Group

Since the Paris Agreement came into effect, demand has been growing for companies to reduce their total greenhouse gas emissions, regardless of business expansion. Maxell has long been proactively working to reduce the environmental impact of its manufacturing processes.

We have identified “Creating Economic Value through Environmental Activities” as an important issue (materiality), and are operating our businesses with a total emissions reduction target for greenhouse gases in place.

### Basic Approach

Climate change is a threat to both humanity and the health of the Earth, affecting our businesses, customers, and supply chain. As one of the companies addressing climate change, we believe that we have a significant role to play in contributing to global efforts to prevent climate change. Whereas we understand that climate change poses risks, such as increased costs and business disruption, we also see it as an opportunity for Maxell to create new value by meeting the societal needs that emerge.

Maxell announced its endorsement of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in October 2021. In line with the TCFD recommendations, we analyze the risks and opportunities posed by climate change to our businesses, and work to disclose relevant information relating to governance, strategy, and other areas. Maxell is implementing initiatives in accordance with the framework below, which covers the four core elements of the TCFD recommendations: governance, strategy, risk management, and metrics and targets.

### (1) Governance

The Board of Directors is responsible for decisions relating to Maxell's climate change initiatives.

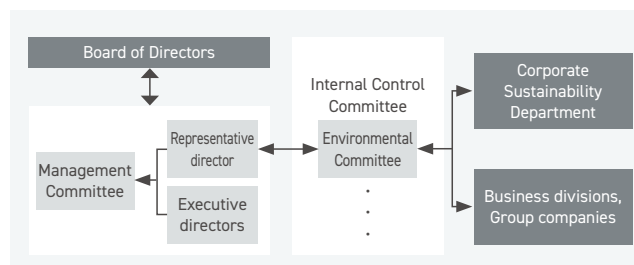
- The Board of Directors is our highest decision-making body and is responsible for all decisions, including those concerning climate change-related issues.
- The president and representative director is in charge of climate change-related issues. The president also serves as the head of the Environmental Committee, and is responsible for incorporating all environment-related issues into our corporate strategy and targets.

#### Board of Directors decisions on climate change-related initiatives

- (1) Endorsement of TCFD recommendations (October 2021)
- (2) Setting of medium- to long-term goal of reducing CO<sub>2</sub> emissions by 50% or more by FY2030 (vs FY2013) and a commitment to focus on addressing environmental issues (November 2021)
- (3) Introduction of solar power generation for in-house consumption (December 2021)
- (4) Disclosure of TCFD scenario analyses (July 2022)

- We have established an Internal Control Committee to ensure and strengthen the effectiveness of corporate governance for the enhancement of the entire Group's corporate value and the achievement of management objectives. With regard to climate change, the Environmental Committee is working to establish a Group-wide management system and enhance its functions.
- The Environmental Committee is responsible for drafting Maxell Group's overall strategy for climate change and managing the Group's progress towards achieving its climate change-related targets. The committee is composed of environmental promotion officers and environmental management officers from business divisions at each business site, as well as the chairs of specialized subcommittees. The committee meets three times a year.

#### Governance structure



### (2) Strategy

In July 2023, Maxell established an Environmental Vision to clarify the ideal features of its environmental management from a long-term perspective, positioning the resolution of environmental issues as one of the top priorities.

### Environmental Vision

"Maxell aims to achieve 'a carbon-free society' and 'a recycling-oriented society' by pursuing innovation, and contribute to the realization of a sustainable society in which everyone can live with peace of mind."

#### <Initiatives towards achieving a carbon-free society> Targets

- FY2030: Reduce CO<sub>2</sub> emissions by 50% or more (Scope 1 and 2, domestic)
- FY2050: Achieve carbon neutrality (Scope 1 and 2, global)

### Climate change risks and opportunities

In 2021, we began conducting a climate change scenario analysis, starting with the Energy Division as a model case. In fiscal 2022, we extended this analysis to cover Maxell's three other business divisions: the Functional Materials Division, the Optics & Systems Division, and the Life Solution Division.

The analysis focused on production areas where Maxell is likely to be most affected by climate change. We conducted analyses based on 1.5°C and 4°C temperature increase scenarios, to identify risks and opportunities, and consider relevant measures.

- Scenarios considered: 1.5°C (RCP1.9/SSP1) and 4°C (RCP8.5/SSP5)

Although climate change presents risks for all four divisions, it can also be turned into an opportunity through harnessing the innovative proprietary technologies that Maxell has developed over many long years.

For all four divisions, the medium- to long-term risks identified under the 1.5°C temperature increase scenario include increased tax burdens due to the introduction of carbon taxes, and significant impacts on businesses from changes in consumer behavior. Additionally, it was found that under a 4°C temperature increase scenario, the exacerbation of extreme weather events such as storms could have a significant impact on businesses.

## Reporting Based on Recommendations of TCFD Analysis of climate change risks and opportunities for the Maxell Group

**Scenario analysis** Scenario where the goal is to limit temperature increase to 1.5°C: Regarding the transition risks, it is assumed that governmental regulations will be tightened and that net zero CO<sub>2</sub> emissions will be achieved by 2050 through the implementation of countermeasures.

Scenario where temperature rises by 4°C: Regarding physical risks, abnormal weather events would be expected to intensify if additional policies are not implemented and no progress is made with climate change countermeasures.

### Risks and opportunities

Definitions for large, medium, and small business impacts: Large: 1 billion yen or more, Medium: 100 million yen to less than 1 billion yen, Small: less than 100 million yen

Risks			Major risks	Degree of business impact								Major opportunities			
				Energy Division		Functional Materials Division		Optics & Systems Division		Life Solution Division		Energy Division	Functional Materials Division	Optics & Systems Division	Life Solution Division
Categories	Sub-categories	1.5		4	1.5	4	1.5	4	1.5	4					
Transition risks	Policies/ regulation	Carbon tax increases	Introduction of carbon tax will have broad impact on raw materials, containers, and packaging materials, and result in increased costs	Medium	Small	Large	Small	Large	Small	Medium	Small	Cost reductions through installation of energy-saving equipment and improvements to energy-saving processes		Lessening environmental impact with low-carbon alternative materials	
		CO <sub>2</sub> emissions of each country	Need to switch to high-efficiency manufacturing equipment due to strengthened energy-saving policies	Small	Small	Small	Small	Small	Small	Small	Small	CO <sub>2</sub> monitoring advances and batteries integrated into infrastructural facilities, leading to increased sales	Growing demand for renewable energy in semiconductor and housing-related businesses	Growing demand for CO <sub>2</sub> monitoring leads to increased sales in semiconductor-related businesses	Growing recognition of value of environmentally conscious products, leading to increased sales
		Strengthening of emissions reduction policies		Small	Small	Small	Small	Small	Small	Small	Small	—	—	—	—
	Market	Price increases/decreases for important products	Profitability improvement due to growing market recognition of environmental value of carbon-neutral environmentally compliant products	Small	Small	Medium	Small	Medium	Small	Small	Small	Increased sales with growing recognition of value of environmentally conscious products		Acceleration of CASE and transition to Smart Cities - Increased sales of semiconductor manufacturing equipment by expansion of AI/IoT - Increased sales by growth in installation number of automotive sensing cameras	Increased sales with growing recognition of value of environmentally conscious products
	Reputation	Changes to consumer behavior	Growth of environmentally conscious purchasing by consumers in response to climate change	Medium	Small	Small	Small	Medium	Small	Small	Small				
		Changes to reputation among investors	Deterioration of reputation among investors and difficulty in procuring funds if climate change countermeasures deemed inadequate	Small	Small	Small	Small	Small	Small	Small	Small	—	—	—	—
Physical risks	Chronic	Rise of average temperatures	Increase in expenses due to increase in electricity consumption	Small	Small	Small	Small	Small	Small	Small	Small	Increased sales of batteries used as disaster/emergency power sources	Increased sales of tapes for construction due to growing demand for airtight houses as temperatures rise	- Increased market share and sales with environmentally resistant in-car camera lens units - Increased sales of systems such as disaster surveillance sensors, surveillance cameras, disaster monitoring systems, and others	Increased sales of sterilization/deodorization products due to mold growth
		Changes to precipitation/weather patterns	Frequent damage to business sites due to increased precipitation and flooding	Large	Large	Large	Large	Large	Large	Medium	Medium		Increased demand for waterproofing tape and increased waterproofing technology-related sales		
		Rising sea levels	Increasing chronic damage to business sites at low altitudes	Small	Small	Small	Small	Small	Small	Small	Small	—	—	—	—
	Acute	Intensification of abnormal weather	Frequent abnormal weather events such as storms cause repeated damage	Large	Large	Large	Large	Large	Large	Medium	Medium	Increased sales of batteries used as disaster/emergency power sources	Increased sales of masking tape and glass protection (anti-shatter) tape for use in disasters	- Increased market share and sales with environmentally resistant in-car camera lens units - Increased sales of systems such as disaster surveillance sensors, surveillance cameras, disaster monitoring systems, and others	Increased disaster-preparedness-related demand

## Reporting Based on Recommendations of TCFD Analysis of climate change risks and opportunities for the Maxell Group

### Response to Climate Change-Related Risks Based on Climate Change Scenarios

We have considered our response to the risks in the 1.5°C temperature rise scenario from the impact of an increased tax burden due to the introduction of carbon taxes on business activities. To reduce CO<sub>2</sub> emissions and mitigate the burden of carbon taxes, we will focus on energy-saving activities, solar power generation for in-house use, and the promotion of non-fossil certificates.

To mitigate risks associated with the potential impact on our business by changing consumer behavior, we will continue to provide products and services that help to resolve societal issues through the introduction of environmentally conscious products based on a new set of criteria, which we have set as an action plan.

In the 4°C temperature rise scenario, we anticipate impact from intensified abnormal weather events such as severe storms. To address this risk, we will enhance our business continuity planning to minimize damage and strengthen our resilience against disruptions in our own operations and in our supply chain.

### Response to Climate Change-Related Opportunities Based on Climate Change Scenarios

Based on the climate change scenarios, we believe that many opportunities will arise for products developed through harnessing the Analog Core Technologies of each business unit of Maxell (detailed examples on page 50).

From fiscal 2023, we will be conducting scenario analyses for group companies and overseas factories.

### (3) Risk Management

Maxell evaluates and manages the impact assessment of environmental risks and opportunities related to climate change through its Environmental Committee. When there are risks and opportunities that are considered particularly significant for the entire Maxell Group, the Management Committee deliberates on the assessment results and makes any necessary decisions. When necessary, these matters are further deliberated on by the Board of Directors.

### Environmental Committee

The Environmental Committee oversees climate change-related risks, opportunities, and strategies, and manages group-wide progress towards achieving climate change-related targets.

### (4) Metrics and targets

Maxell has set two KPIs as materialities for its initiatives contributing to a carbon-free society.

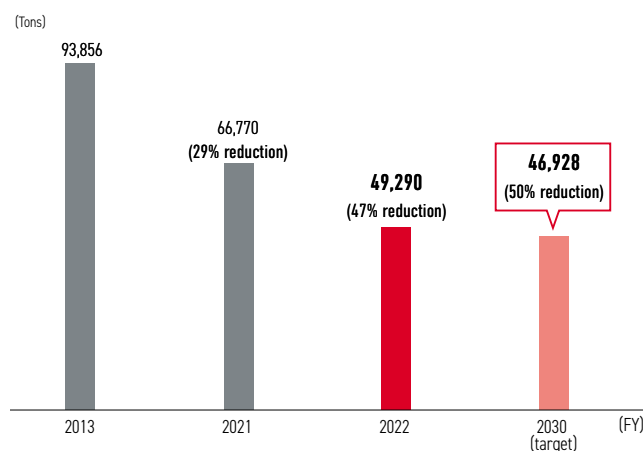
#### Scope 1 and 2 (vs FY2013)

<b>Action Plan</b>	Conserving resources and energy, and promoting the introduction of renewable energy
<b>KPI</b>	Reduce domestic CO <sub>2</sub> emissions: by 50% by FY2030 (vs FY2013)

In FY2022, we achieved a 47% reduction (vs FY2013).

To achieve its medium- to long-term targets, Maxell is implementing energy-saving measures with a broader and longer-term perspective in its domestic factories (including process improvements and upgrading to high-efficiency equipment) and has formulated a plan for reducing CO<sub>2</sub> emissions through the use of renewable energy (such as solar power and the utilization of non-fossil certificates), and is actively advancing these initiatives.

Maxell's domestic CO<sub>2</sub> emissions reduction targets (Scope 1 and 2)

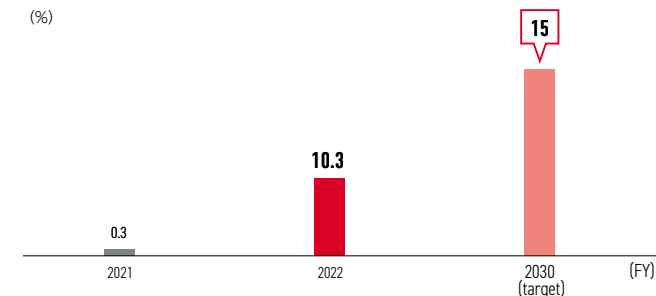


### Renewable energy ratio

<b>Action Plan</b>	Conserving resources and energy, and promoting the introduction of renewable energy
<b>KPI</b>	Renewable energy ratio: 15% by FY2030 <b>NEW</b>

We surpassed our KPI of achieving a "renewable energy ratio: 10% by FY2030" in FY2022, due to the introduction of solar power for in-house use, the utilization of non-fossil certificates and the adoption of green electricity (CO<sub>2</sub>-free electricity). We therefore set a new KPI of achieving a "renewable energy ratio: 15% by FY2030."

Renewable energy ratio target (%)



### Scope 3

CO<sub>2</sub> emissions from the "Purchased Goods and Services" category account for a large portion of overall emissions and, we are therefore working to ascertain the emissions reduction targets of our major suppliers and collaborating with them on achieving those reductions.

The next in line is the "Use of Sold Products" category, which also accounts for a significant portion of CO<sub>2</sub> emissions. We will therefore continue to design and sell energy-efficient products and work towards reducing their emissions.

Maxell has been disclosing Scope 3 emissions in its integrated reports since 2018.

#### Integrated Report 2021

[https://www2.maxell.co.jp/ir/pdf/MAX\\_IR21\\_E\\_interactive.pdf](https://www2.maxell.co.jp/ir/pdf/MAX_IR21_E_interactive.pdf)

#### Integrated Report 2022

[https://www2.maxell.co.jp/ir/pdf/MAX\\_IR22\\_E\\_interactive.pdf](https://www2.maxell.co.jp/ir/pdf/MAX_IR22_E_interactive.pdf)

## Strengthening Group Governance

At Maxell, we are working proactively to generate synergies within the Group through cross-organizational collaboration between business units and operating companies.

### Action Plan

Build effective governance in group management (deepen management)

### KPI

Further strengthen group governance by enhancing activities across the company, and by strengthening the operation of an appropriate management system, etc.

### Internal audits covering all Group companies conducted every other year

At Maxell Group, risks are managed and considered through the Risk Management Committee with the aim of strengthening governance and enhancing corporate value. Additionally, internal audits of all Group companies are conducted every other year.

### 12 Group companies audited in fiscal 2022, necessary improvements to be made within 1 year

As of March 31, 2023, Maxell Group has 4 domestic and 14 overseas consolidated subsidiaries. A breakdown of these companies is provided below. In fiscal 2022, 12 of the companies were subjected to internal audits.

Improvement plans based on PDCA cycles were created in response to the issues identified during these internal audits with the aim of making necessary improvement plans to be implemented within 1 year. Additionally, an Internal Control Committee has been established to conduct regular monitoring of constituent committees. Issues identified during internal audits and issues raised at Internal Control Committee meetings are reported to Board members to facilitate improvements.

#### Maxell Group's consolidated subsidiary companies

Business category	China	Domestic	Asia	Europe and Americas
Manufacturing	1	3	2	0
Sales/services	—	3	3	2
Manufacturing/sales	3	—	—	1

See p. 58 for details on information security and the Risk Management Committee

### Action Plan

Implementing governance to maximize group synergies (technology, information, marketing)

### KPI

Create attractive value for the future by sharing information on markets and customers on a group-wide basis and by integrating technologies within the group. Integrate group-wide IT basis for basic business operation (by FY2027)

### Advancing Development Projects through Company-wide Cross-Functional Organization

Maxell Group is advancing development projects through company-wide cross-functional organization that transcends organizational boundaries in order to generate group-wide synergies and expedite the launch of new businesses.

We are preparing new businesses on the way to the next phase (2<sup>nd</sup> phase) of our medium-term management plan, MEX23, as we work towards sustainable growth.

### Group Synergy Networking Event

To promote collaborative development and create new business, Maxell is working to enhance intergroup interactions with efforts led by the New Business Producing Division. This involves the sharing of core technologies, development themes, and challenges between Maxell and each group company.

At a networking event held at Maxell Kureha, participants shared information on business development approaches and held in-depth discussions on core technologies as a way to explore synergies that can accelerate business.



Large heat press facility  
(among the largest in Japan)

### Maximize synergies through Maxell Innovation activities (company-wide initiatives to create innovation)

Since fiscal 2019, Maxell has been implementing a project called Maxell Innovation, which is aimed at sustained creation of new businesses. The project involves soliciting ideas and business proposals from employees, subjecting them to an evaluation and selection process, and promoting the creation of new businesses.

In fiscal 2022, Maxell held a new-business-proposal pitch contest, involving various internal and external training and activity program teams.

## TOPICS

### Holding pitch contests aimed at maximizing technology integration and synergies

About 100 proposals have been gathered through the contests so far. These will be brushed up and nurtured into future businesses.

#### Aims

- Nurturing the ability of personnel to discover new business ideas
- Creating new businesses by combining and integrating core technologies
- Searching for proposals that can be developed into businesses on the way to 2030



A proposal pitch contest

## Corporate Governance

One of Maxell Group's basic management policies is to pursue medium- to long-term enhancement of corporate value by implementing management measures from the perspective of all stakeholders, including shareholders, investors, customers, and employees. Under this policy, we are striving to strengthen corporate governance by simultaneously accelerating management decision-making and business execution, and by enhancing the monitoring system.

### Corporate Governance System

#### Management structure

The Board of Directors of the Company is responsible for establishing group-wide management policies and medium- to long-term business strategies. It is also responsible for overseeing the execution of duties by directors and executive officers and the execution of operations by operating companies. The Board of Directors is chaired by the President and Representative Director, and as of June 23, 2023, it consisted of 8 members, including 3 outside directors.

As a "Company with an Audit and Supervisory Committee," since June 2016, we have been working to strengthen the audit and supervisory functions of the Board of Directors through an independent Audit and Supervisory Committee. In addition, the "Nomination and Remuneration Committee," the majority of whose members and the chairperson are independent outside directors, has been established as an advisory body to the Board of Directors with the aim of ensuring objectivity and transparency in the determination of matters related to the nomination and compensation of directors, and working to improve the effectiveness of the Board of Directors' supervisory functions.

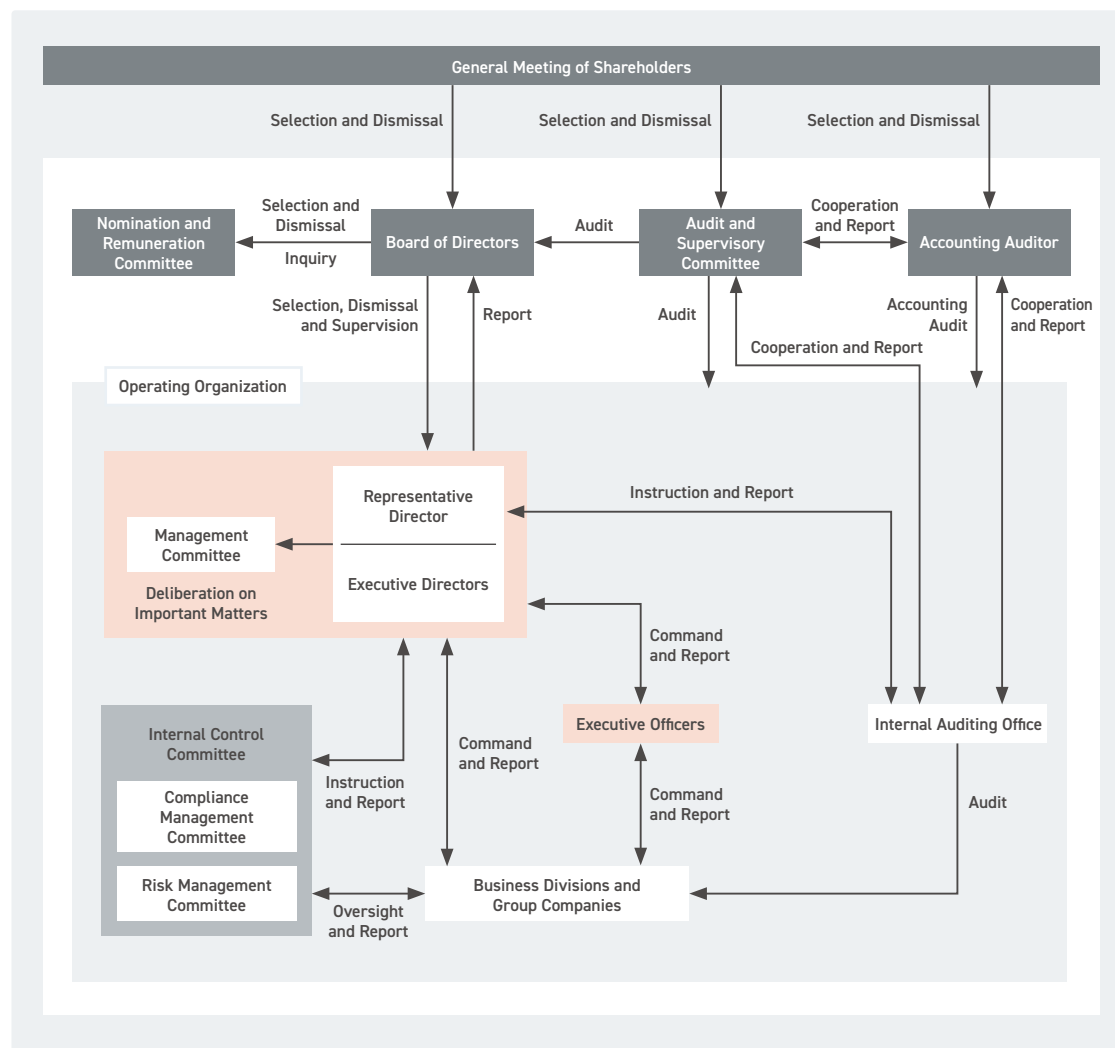
We also adopt an executive officer system to facilitate prompt decision-making and more efficient management with regard to business execution.

#### Corporate Governance Guidelines

In order to achieve sustainable growth and increase corporate value at Maxell Group over the medium- to long-term, we have established "Corporate Governance Guidelines,"\* which define our basic approach and basic policies on corporate governance. We will strive to ensure appropriate information disclosure and transparency, appropriately fulfill the roles and responsibilities of the Board of Directors, and further invigorate constructive dialogue (engagement) with shareholders and investors.

\* Corporate Governance Guidelines:  
<https://www2.maxell.co.jp/ir/governance/>

Corporate Governance Organizational Chart



## Appointment of Directors, and Ensuring Diversity

### Appointment of Outside Directors

The Company secures its management oversight system as a result of appointing outside directors who express their opinions to the Board of Directors from an independent and objective standpoint.

#### Reasons for Appointment as Outside Directors

Name	Reasons for Appointment
Sachiko Murase	As a lawyer specializing in corporate legal affairs, Ms. Sachiko Murase has a wealth of expertise and a high level of professional knowledge. In addition to her experience as an outside officer at listed companies, since being appointed as a director at the Company she has been committed to providing valuable advice at Board of Directors' meetings. Accordingly, she is expected to continue to contribute to sustaining and strengthening the Group's growth strategies, corporate governance, and risk management.
Kazuhiro Aigami	Mr. Kazuhiro Aigami has served as the Representative Director for JVCKENWOOD Corporation and in other important posts, and thus has a wealth of management experience, as well as extensive insight into global sales and marketing strategies. Accordingly, he is expected to contribute to sustaining and enhancing Maxell's global business strategies and governance by providing his advice and recommendations regarding the Company's overall management.
Kazuyoshi Hata	Mr. Kazuyoshi Hata has served as a Senior Executive Officer at Konica Minolta, Inc., and in other roles, and as such, he not only has a proven track record and vast experience in business management and business reforms, but also a wide range of insight stretching from the technology arena through to the management planning arena. Accordingly, he is expected to contribute to sustaining and enhancing Maxell's business strategies and governance in new business fields by providing his advice and recommendations regarding the Company's overall management.

Note: The Company has appointed the three outside directors – Sachiko Murase, Kazuhiro Aigami, and Kazuyoshi Hata – as independent officers based on the standards defined by the Tokyo Stock Exchange, and has submitted notification of this to the Exchange.

#### Status of Outside Directors' Activities (April 1, 2022 – March 31, 2023)

Name	Status of Activities	
Kazuaki Tsutsumi	Attendance at Board of Directors' meetings: Attended 13 of 13 meetings	<p><b>Status of comments at Board of Directors' meetings</b> He comments appropriately based on his specialist perspective concerning management as a whole.</p> <p><b>Overview of duties carried out in connection with the role expected to be fulfilled by outside directors</b> He actively points out challenges extending across management as a whole and makes recommendations conducive to enhancing corporate value, based on his wealth of experience at, and broad-ranging insight into, global companies and investment funds.</p>
Sachiko Murase	Attendance at Board of Directors' meetings: Attended 16 of 16 meetings	<p><b>Status of comments at Board of Directors' meetings</b> She comments appropriately based on her specialist perspective on corporate legal affairs as an attorney.</p> <p><b>Overview of duties carried out in connection with the role expected to be fulfilled by outside directors</b> She actively points out challenges relating to corporate governance and makes recommendations conducive to enhancing corporate value, based on the high level of expertise she has cultivated as an attorney. She also provides beneficial advice on empowering female employees.</p>
Kazuhiro Aigami	Attendance at Board of Directors' meetings: Attended 13 of 13 meetings  Audit and Supervisory Committee meetings: Attended 13 of 13 meetings	<p><b>Status of comments at Board of Directors' meetings and Audit and Supervisory Committee meetings</b> He comments appropriately based on his specialist perspective concerning management as a whole.</p> <p><b>Overview of duties carried out in connection with the role expected to be fulfilled by outside directors</b> He actively points out challenges relating to global management and makes recommendations conducive to enhancing corporate value, based on his wealth of experience and broad-ranging insight as a businessman. In addition, as Chairman of the Nomination and Remuneration Committee, which considers the personnel system and remuneration of the Company's senior management, he actively makes recommendations on the structuring of the Company's executive and remuneration systems, from an objective standpoint.</p>
Kazuyoshi Hata	Attendance at Board of Directors' meetings: Attended 13 of 13 meetings  Audit and Supervisory Committee meetings: Attended 13 of 13 meetings	<p><b>Status of comments at Board of Directors' meetings and Audit and Supervisory Committee meetings</b> He comments appropriately based on his specialist perspective concerning management as a whole.</p> <p><b>Overview of duties carried out in connection with the role expected to be fulfilled by outside directors</b> He actively raises points concerning business reforms and growth strategies and makes recommendations conducive to enhancing corporate value, based on his wealth of experience and broad-ranging insight as a businessman. In addition, as a member of the Nomination and Remuneration Committee, which considers the personnel system and remuneration of the Company's senior management, he actively makes recommendations on the structuring of the Company's executive and remuneration systems, from an objective standpoint.</p>

Note: Kazuaki Tsutsumi retired after the end of his term of office at the end of the 77th General Meeting of Shareholders held on June 23, 2023.

## Directors' Skills Matrix

Name	Position at the Company	Experience and Expertise							
		Business Portfolio Management	Global Business	Sales & Marketing	New Technology Creation	Production Improvement	Finance	Legal Affairs & Compliance	ESG
Keiji Nakamura	President and Representative Director	○			○	○			○
Hiroyuki Ota	Director	○			○	○			○
Shinichiro Takao	Director		○	○					○
Noritoshi Masuda	Director		○				○	○	○
Sachiko Murase	Outside Director							○	○
Hiroyuki Suzuki	Director (Full-time Audit and Supervisory Committee member)		○				○	○	○
Kazuhiro Aigami	Outside Director (Audit and Supervisory Committee member)	○	○	○					○
Kazuyoshi Hata	Outside Director (Audit and Supervisory Committee member)	○			○	○			○

## Definitions of Skills (Experience and Specialties)

- Business Portfolio Management: Business management experience at a domestic listed company with multiple businesses or at a global company
- Global Business: Experience in overseas business management and extensive knowledge of overseas culture and business environments
- Sales & Marketing: Extensive knowledge in the area of sales and marketing, and experience as a leader in the area
- New Technology Creation: Management experience and extensive technological knowledge as a leader in charge of promoting new technology creation (innovation)
- Production Improvement: Extensive knowledge in the area of manufacturing, including productivity improvement and cost reduction, and experience as a leader in the area
- Finance: Extensive knowledge in the area of corporate finance, and experience as a leader in the area
- Legal Affairs & Compliance: Extensive knowledge in the area of legal affairs and compliance, and experience as a leader in the area
- ESG: Extensive knowledge in the area of ESG, and experience as a leader in the area

## Remuneration for Directors

## Basic Policy

1. We will adopt a remuneration system that meets the mandates of stakeholders and contributes to sustainable growth and enhancement of corporate value.
2. We will set up remuneration that enables the recruitment of diverse and competent human resources who are responsible for Group management.
3. From the viewpoint of accountability, we will design a system that emphasizes transparency, objectivity, and rationality.

## Determination Policy

The appropriateness of the policy for determining directors' remuneration is discussed at the Nomination and Remuneration Committee, an advisory body to the Board of Directors, in which the majority of members and chairperson are independent outside directors, and the policy is decided at the Board of Directors based on the committee's recommendations.

## Remuneration Structure

Remuneration for directors (excluding outside directors and directors who serve as Audit and Supervisory Committee members) consists of a fixed monthly "base remuneration" (monetary remuneration), "bonuses" (monetary remuneration) to be paid as short-term incentives, and "share-based remuneration" to be paid as medium- to long-term incentives.

## Directors' Remuneration for Fiscal 2022

Classification	Number of Directors to be Paid	Total Remuneration (million yen)
<b>Directors</b> (excluding directors who serve as Audit and Supervisory Committee members and outside directors)	5	96
<b>Directors who serve as Audit and Supervisory Committee members</b> (excluding outside directors)	1	20
<b>Outside directors</b>	5	26

Classification	Type of Remuneration	Summary
<b>Directors</b> (excluding outside directors and directors who serve as Audit and Supervisory Committee members)	Base remuneration	A fixed amount is paid monthly in accordance with the position and responsibilities.
	Short-term incentives (bonuses)	In the interest of achieving single-fiscal-year performance targets, bonuses will be paid in June or July of the following fiscal year in an amount calculated in the range of 0% to 200% of the standard amount for each position, according to the degree of achievement of company-wide performance (operating profit, ROIC, and ROE) and individual performance (track record in addressing management issues), for the relevant fiscal year.
	Medium- to long-term incentives (share-based remuneration)	As a performance-linked stock grant trust system aimed at sustainable performance improvement in the medium- to long-term and maximizing corporate value, points will be granted in June or July of the following fiscal year, which will be calculated in the range of 0% to 200% according to the degree of achievement of performance (ROIC) during the term of office, and the shares will be granted at the time of retirement, according to the relevant points.
<b>Outside directors/directors who serve as Audit and Supervisory Committee members</b>	Base remuneration	As their position is independent from business execution, their base remuneration consists only of the monthly fixed base remuneration.

## Assessment of the Effectiveness of the Board of Directors

Based on the Corporate Governance Guidelines, the Company regularly evaluates the effectiveness of the Board of Directors, with the aim of increasing the effectiveness of the Board of Directors and enhancing corporate value.

For fiscal 2022 as well, we analyzed and evaluated the effectiveness of the Board of Directors as follows.

### 1. Methods of analysis and evaluation related to the effectiveness of the Board of Directors

An anonymous survey of all directors regarding the following items was carried out, and based on the outcome of an external agency's tabulation and analysis of those survey results, the effectiveness of the Board of Directors was analyzed and evaluated at the Board of Directors, and ways to respond going forward were considered.

- Board of Directors' structure
- Board of Directors' effectiveness
- Effectiveness of appointment and remuneration systems for directors and executives
- Board of Directors' management
- Personal evaluation
- Structure of support and cooperation by outside directors
- Roles of Audit and Supervisory Committee members, and the expectations placed on them
- Relationship with shareholders and other stakeholders

\*The evaluation covers the same items covered in fiscal 2021 in order to make the results comparable with the results of the fiscal 2021 evaluation.

### 2. Outline of analysis and evaluation results related to the effectiveness of the Board of Directors, and responses going forward

The Board of Directors of the Company recognizes that it is undertaking appropriate discussions based on the mutual understanding of directors regarding the roles and responsibilities that the Board of Directors should perform. In addition, with regard to establishing successor development plans, which emerged as an issue in fiscal 2021, the Board of Directors recognized that the established plans would need to be continuously monitored.

On the other hand, the Board of Directors reacknowledged that deepening medium- to long-term strategic discussions at the Board of Directors, and examining agenda items that are aligned with objectives of the Board of Directors, are the matters that need to be continuously addressed going forward.

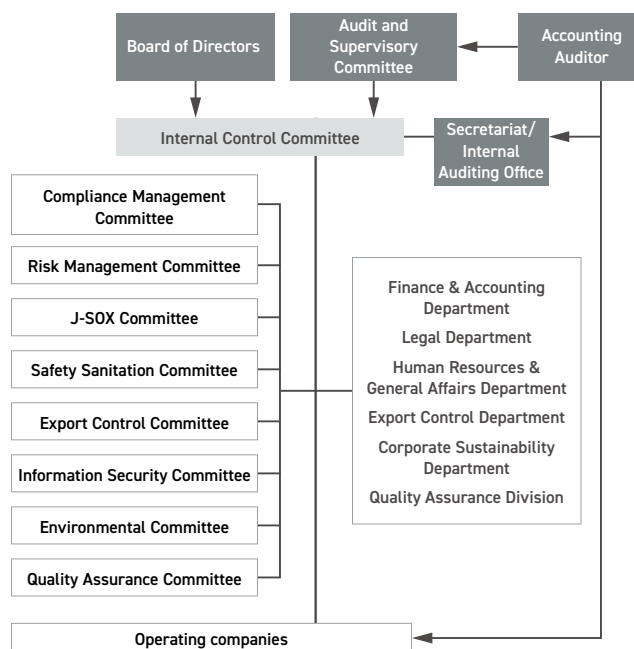
Based on the analysis and evaluation results, the Board of Directors of the Company will concentrate on addressing the above-mentioned issues, and will strive to further improve its effectiveness.

## Enhancing Internal Control Systems

Maxell Group has established the Internal Control Committee to ensure and strengthen the effectiveness of corporate governance, toward enhancing the corporate value of the Group as a whole and achieving management objectives.

Through the Committee's activities, we are striving to improve the management system and to strengthen the functions of the Group as a whole, including compliance and risk management, thereby enhancing our internal control systems.

Organizational Structure of Maxell Group's Internal Control Systems



## Strengthening Compliance and Fostering Ethical Awareness

### Compliance System

Maxell Group established the "Maxell Group Code of Conduct," which is shared and applied within the Group, in order to realize its fundamental philosophy of "ensuring fair and transparent corporate activities," and is constantly working to strengthen its compliance system. Specifically, we have established a Compliance Management Committee, which is working to establish a system to strengthen compliance within the Maxell Group. The Compliance Management Committee is chaired by the director in charge of risk management, and is composed of the directors and executive officers in charge of the sales, procurement, development, finance, general affairs, and IT departments, along with the heads of the legal and internal auditing departments. In addition, the committee meets regularly (2 times or more per year) with the president and the director who serves as full-time Audit and Supervisory Committee member attending as observers. The Compliance Management Committee deliberates and decides on policies for responding to issues that need to be addressed, such as issues related to compliance promotion activities and corporate ethics activities, including education; issues that audits, etc., of business divisions and Group companies inside and outside Japan have demonstrated; and matters related to compliance violations. It reports on the outcomes of its activities.

The Compliance Management Committee also sets out a compliance program that employees should engage in on a daily basis, chiefly from the standpoints of "preventing violations of competition laws," "preventing bribery" and "preventing anti-social trading," and it holds regular audits to confirm the state of that program's implementation. The Committee carries out audits by making on-site visits to each business division and Group company within Japan once a year, and to Group companies overseas once every two years. It uses these visits to confirm the content of various ledgers and work-related emails, and to confirm the presence or absence of contact with rival companies and/or civil servants through interview-based hearings.

Meanwhile, since 2016 the general managers of each business division and the presidents of each Group company have been designated as their respective division and company's compliance promotion officers, and simultaneously, the compliance promotion officers assigned to each business division and each Group company have been positioned as secretariats. The compliance promotion officers are responsible for making known and implementing decisions pertaining to compliance made by the Compliance Management Committee, at the respective business divisions and

## Corporate Governance

Group companies they are in charge of, and also have a duty to take appropriate steps, such as by setting out business procedures for preventing compliance violations by disseminating compliance awareness among employees.

The status of the Compliance Management Committee's activities outlined above is reported at the Board of Directors once a year, via the Internal Control Committee, which oversees the activities of all the committees in Maxell Group.

### Anti-Bribery

Up to now, Maxell Group has also been implementing initiatives concerned with the prevention of bribery in relationships with civil servants as well as non-civil servants. Furthermore, in October 2021, the "Maxell Group Anti-Bribery Guidelines" were established with the aim of continuing to maintain fair relationships with society by complying with applicable bribery-related laws and regulations in all countries and areas related to Maxell Group's business activities, and acting in a highly ethical manner. These Guidelines include eight specific action guidelines, such as prohibiting facilitation payments, and all employees at Group companies inside and outside Japan have studied the content of the Guidelines through e-learning or other platforms (3,561 employees have participated).

In addition, by conducting on-site interviews and by confirming the content of accounts and ledgers in the regular audits of Group companies inside and outside Japan, checks are made regarding whether or not activities are violating these Guidelines. We will continue working to prevent corruption in all forms, including bribery, in the future as well.

### Export Control

With regard to Security Export Control, the Export Control Committee carries out accurate compliance determination, and undertakes rigorous application and user screenings (Catch-all Control screenings), in order to prevent the diversion of Maxell's products to weapons of mass destruction and conventional weapons, and ensure compliance with relevant laws and regulations.

In November 2014, we acquired a Special General Bulk Export License,\* and will continue to work on responsible self-management.

\* Special General Bulk Export License: A system under which a company submits its internal export control rules and related information to the Ministry of Economy, Trade and Industry (METI). Provided METI recognizes that the company in question is carrying out appropriate export control, it provides the company with a bulk license for a combination of specific destinations and items that would otherwise require individual licenses.

### Establishment of an Internal Reporting Desk Independent from the Management

Maxell Group has established the "Maxell Compliance Helpline" as an internal reporting system that can be utilized by employees of the Group, and is enhancing its capacity for in-house "self-cleansing" by ensuring that it becomes aware of any illegal and fraudulent activities promptly. In addition, in order to promote compliance management, we have also established a whistle-blowing hotline to an attorney who is independent of the management, as a contact point for cases that are difficult to investigate internally. Furthermore, the internal reporting system stretches globally – we have already established a dedicated contact point that allows employees of overseas Group companies to report directly in their own language.

Incidentally, there were 13 cases of internal reports in fiscal 2022, but no reports concerning major legal violations, etc.

### Respect for Human Rights

Maxell Group recognizes respect for human rights as one of its key management issues. In September 2013, we formulated the "Maxell Group Human Rights Policy" based on the International Bill of Human Rights and the International Labour Organization (ILO)'s Declaration on Fundamental Principles and Rights at Work. In an effort to raise awareness of respect for human rights among all employees, we continue to conduct training at each employee level, and education through e-learning, every year.

In addition, as one part of our efforts to address harassment, consultants selected by both labor and management have been assigned to each business site, and awareness-raising activities are being conducted to maintain and strengthen internal systems and prevent harassment, such as by making the internal whistle-blowing system well known within the Company.

### Implementing Compliance and Ethics Education

#### Compliance and ethics education activities covering all Group employees (including temporary employees and part-timers)

Since 2009, Maxell Group has designated October of each year as "Corporate Ethics Month," and it carries out Corporate Ethics Month activities globally with the aim of becoming a model company that is trusted by society in all its company activities in regions worldwide, as a result of Maxell Group employees executing sincere and fair business, protecting the environment, ensuring sound relationships with society, civil servants, etc., respecting human rights, and ensuring good workplace environments that are free from power harassment and sexual harassment. More specifically, we distribute

the President's compliance message in the local language of each country, and we also hold e-learning courses, "workplace discussion meetings" that bring together employees to hold discussions on an individual workplace basis, and "compliance lectures" to which external lecturers are invited, on themes such as "preventing violations of competition laws," "preventing bribery," "preventing anti-social trading," and "preventing insider trading," and attendance records are kept.

As a new initiative in fiscal 2022, we distributed a "compliance card" for employees. Employees can use the internal reporting contact points printed on the cards, and can also refer to the "Maxell Group Code of Conduct" on their smartphones and other devices by following a URL (via a QR code).

#### Compliance education as one part of hierarchical training

Compliance education tailored to employment posts is held for new employees, for newly-appointed managers newly taking on a managerial position, and for all managers/senior managers. Additionally, compliance education that involves direct lectures by attorneys or other external experts is held for executive officers, who are the Company's top management.

Number of employees who participated in compliance education and activities held in Japan over the past 3 years (total number of people)

	FY2020	FY2021	FY2022
e-learning	7,504	6,629	7,344
Ethics Month "workplace discussions"	4,131	3,226	3,158
New distributions of compliance cards	—	—	3,622
Hierarchical training (managers/senior managers, newly appointed managers, new employees, others)	72	281	305
Training for executives	34	23	33
<b>Total</b>	<b>11,741</b>	<b>10,159</b>	<b>14,462</b>

## Corporate Governance

Number of employees who participated in compliance education and activities held overseas over the past three years (total number of people)

	FY2020	FY2021	FY2022
Americas	117	81	74
Europe	129	114	104
Asia	1,238	1,742	1,716
<b>Total</b>	<b>1,484</b>	<b>1,937</b>	<b>1,894</b>

### Risk Management

Maxell Group identifies and reviews company-wide risks, designates departments responsible for managing each risk item, and decides on and manages response policies.

The Risk Management Committee convenes once a year and makes decisions on important risk management matters related to strategy, finance, hazards, and operations, and summarizes each risk management activity. The results are then reported to the Internal Control Committee.

### Maintaining Information Security

Maxell Group has set out an "Information Security Policy" and is thoroughly implementing rules, systems, and safety measures related to security. We are also conducting thorough employee education to raise the security awareness of each and every employee. In addition to annual education on information security and personal information protection, we also regularly conduct "targeted e-mail drills" as training for cyberattacks. We also acquired "PrivacyMark" certification as a way of thoroughly protecting personal information, and continue to keep that certification updated and current.

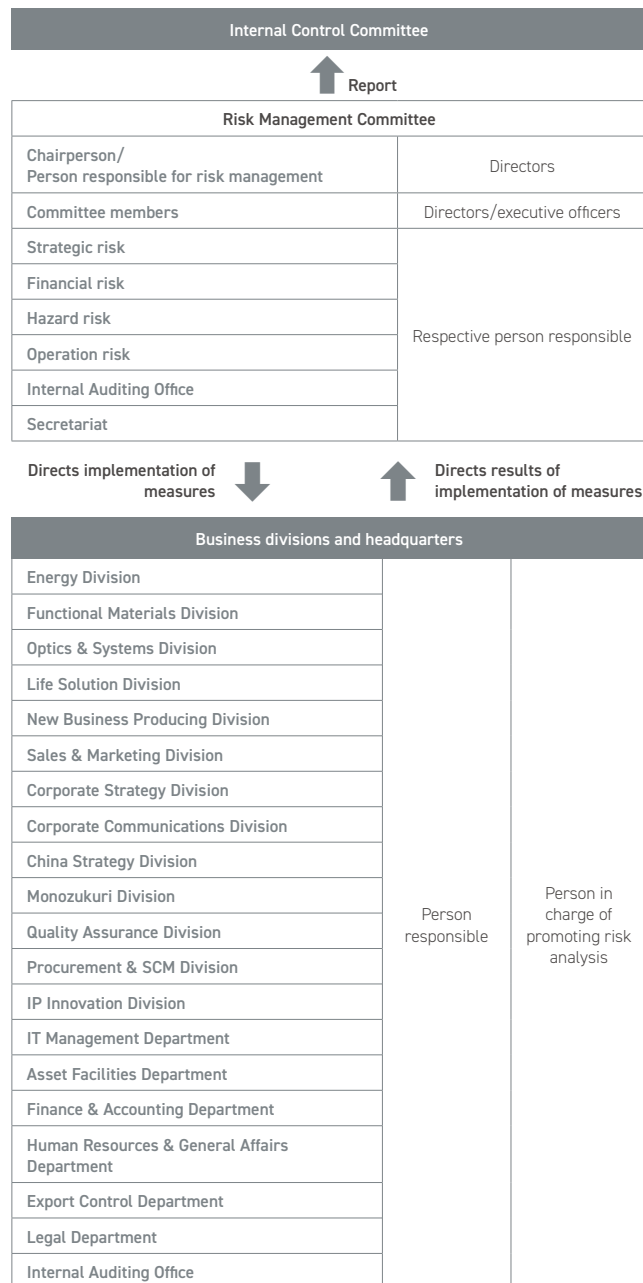
With cyberattacks growing more diverse recently, we are also working on strengthening our security measures.

### Promoting the Business Continuity Plan

Maxell Group is working to strengthen its business continuity plan in order to reduce the risk of business interruptions arising from large-scale disasters, such as earthquakes, and accidents.

In addition to establishing an employee safety confirmation system, we have formulated initial action plans and business recovery plans for emergencies, and in order to ensure the execution of these plans, we conduct training at each business site in anticipation of large-scale disasters. Furthermore, in order to respond to contingencies at our business partners, we are making steady progress in developing a database that includes information

### Risk Management System



on the locations of our primary to secondary suppliers. At the Group's overseas sales and manufacturing sites, we formulate and operate overseas crisis management manuals to ensure thorough crisis management, including with regard to terrorism and other unstable situations.

Going forward, the Group will work to minimize all risks facing its entire workforce while also making improvements, including in its responses when emergencies strike.

### Global Tax Policy (published on October 1, 2021)

As a global company, Maxell Group believes paying tax correctly is an important part of its contribution to society and local communities overseas.

Maxell Group publishes its "Global Tax Policy,"\* which covers "Governance and risk management," "Compliance and reporting," and "Arranging our taxes," in the interests of enhancing the transparency of the Group's governance regarding its tax affairs. The Global Tax Policy's content satisfies the disclosure requirements in the countries in which Maxell Group operates businesses.

\* Global Tax Policy: <https://www2.maxell.co.jp/corporate/taxpolicy.html>

### Participation in the United Nations Global Compact

Maxell Group supports the United Nations Global Compact. We support the 10 principles of human rights, labor, environment, and anti-corruption, and are engaged in activities in each field.



Please refer to the Corporate Governance Report for detailed information such as the implementation status of the Corporate Governance Code.

<https://www2.maxell.co.jp/ir/governance/>

## Board of Directors (as of October 1, 2023)

### Directors

\*Refers to the operating company "Maxell, Ltd." under the holding company structure in place from October 1, 2017, to September 30, 2021.



**Keiji Nakamura**

President and  
Representative Director

Apr. 1990 Joined the Company  
Jan. 2013 Deputy General Manager, Energy Division of the Company  
Jul. 2014 Executive Officer of the Company  
Oct. 2017 Executive Officer of Maxell, Ltd.\*  
Apr. 2018 President and Representative Director of Maxell, Ltd.\*  
Jun. 2018 Director of the Company  
Jun. 2020 President and Representative Director of the Company (incumbent)



**Hiroyuki Ota**

Director

Apr. 1983 Joined the Company  
Apr. 2007 General Manager, Production Engineering Division, Development & Technology Group of the Company  
Jan. 2013 General Manager, Corporate Strategy Division of the Company  
Jul. 2013 Deputy General Manager, Optronics Division of the Company  
Apr. 2016 Executive Managing Director, Hitachi Joei Tech Co., Ltd. (currently Maxell Frontier Co., Ltd.)  
Apr. 2019 Deputy General Manager, Optronics Division of the Company  
Oct. 2021 General Manager, Optics & Systems Division of the Company  
Apr. 2022 General Manager, Monozukuri Division; and General Manager, Quality Assurance Division of the Company  
Jun. 2022 Director of the Company (incumbent)  
Apr. 2023 General Manager of Monozukuri Division; General Manager, Quality Assurance Division; and General Manager, Energy Division of the Company (incumbent)



**Shinichiro Takao**

Director

Apr. 1991 Joined the Company  
Dec. 2006 BtoB Sales & Marketing Manager, Maxell Corporation of America  
Apr. 2014 Senior Manager, Micro Battery Sales Department, Energy Division of the Company  
Apr. 2016 Managing Director and General Manager, Maxell Taiwan, Ltd.  
Oct. 2018 President, Maxell Asia, Ltd.  
Apr. 2021 General Manager, Energy Division of Maxell, Ltd.\*  
Oct. 2021 General Manager, Energy Division of the Company  
Apr. 2023 Executive Officer of the Company  
Jun. 2023 Director of the Company (incumbent)



**Noritoshi Masuda**

Director

Apr. 1987 Joined the Company  
Oct. 2017 General Manager, Finance Department of the Company, and Deputy General Manager and Senior Manager, Finance & Accounting Department of Maxell, Ltd.\*  
Apr. 2019 Executive Officer and General Manager, Finance Department of the Company, and Director and Senior Manager, Finance & Accounting Department of Maxell, Ltd.\*  
Jun. 2019 Director and General Manager, Finance Department of the Company  
Oct. 2019 Director of Maxell, Ltd.\*  
Director of the Company (incumbent)



**Sachiko Murase**

Outside Director

Apr. 1995 Joined NICHIIHA Corporation  
Sep. 2008 Registered as lawyer  
Joined SEIWA MEITETSU LAW OFFICE  
Nov. 2015 Outside Audit & Supervisory Board member of BUNKYODO Group Holdings Co., Ltd. (incumbent)  
Sep. 2018 Joined Kudanzaka Law Office (incumbent)  
Jun. 2019 Outside Audit & Supervisory Board member of NICHIIAS Corporation (incumbent)  
Jun. 2020 Director of the Company (incumbent)  
Mar. 2021 Outside Director of Roland Corporation

### Directors who serve as Audit and Supervisory Committee members



**Hiroyuki Suzuki**

Director

Apr. 1983 Joined the Company  
Jun. 2008 Deputy General Manager, Finance & Accounting Division of the Company  
Apr. 2018 Executive Officer of the Company and Director of Maxell, Ltd.\*  
Apr. 2019 Auditor of Maxell, Ltd.\*  
Jun. 2020 Director (Full-time Audit and Supervisory Committee member) of the Company (incumbent)



**Kazuhiro Aigami**

Outside Director

Apr. 1981 Joined CEMEDINE CO., LTD.  
Apr. 1990 Joined Kenwood Corporation (currently JVCKENWOOD Corporation)  
Apr. 2007 General Manager, Communications Division of Kenwood Corporation  
Jun. 2007 Managing Operating Officer of Kenwood Corporation  
Jun. 2008 Director of the Board and Senior Managing Operating Officer of Kenwood Corporation  
Jun. 2009 President and Representative Director of the Board of Kenwood Corporation  
Jun. 2009 Director of the Board of JVCKENWOOD Holdings, Inc.  
Jun. 2010 Director of the Board and Senior Vice President & Executive Officer of JVCKENWOOD Holdings, Inc.  
May 2011 Director of the Board and Senior Executive Vice President & Executive Officer of JVCKENWOOD Holdings, Inc.  
May 2014 Representative Director of the Board and Executive Officer, Regional CEO (Americas) of JVCKENWOOD Corporation  
Jun. 2016 Representative Director of the Board and Executive Vice President, COO (Public Service Sector and Americas) of JVCKENWOOD Corporation  
Jun. 2022 Director of the Company (incumbent)



**Kazuyoshi Hata**

Outside Director

Apr. 1981 Joined Minolta Camera Co., Ltd.  
Apr. 2009 Executive Officer and General Manager, Corporate Strategy Division of Konica Minolta Holdings, Inc. (currently Konica Minolta, Inc.)  
Apr. 2011 Managing Director and General Manager, Planning and Administration Headquarters of Konica Minolta Medical & Graphic, Inc.  
Apr. 2013 Executive Officer, and President, Healthcare Company of Konica Minolta, Inc.  
Apr. 2016 Executive Officer, responsible for Alliance, of Konica Minolta, Inc.  
Apr. 2018 Senior Executive Officer, General Manager of Management Planning Division, and Head of Kansai Branch, responsible for Investor and Public Relations, of Konica Minolta, Inc.  
Apr. 2020 Advisor of Konica Minolta, Inc.  
Jun. 2022 Director of the Company (incumbent)

### Executive Officers

Kenichi Sano Noriyoshi Bito

## Outside Director Roundtable Discussion

# Expectations for Increased Innovation through Active Delegation of Authority to Executive Side and Rotation of Personnel



**Kazuhiro Aigami**  
Outside director

**Kazuyoshi Hata**  
Outside director

**Sachiko Murase**  
Outside director

### Proposal Aimed at Enhancing the Effectiveness of the Board of Directors

**Murase:** Some companies have a one-sided approach where outside directors ask questions, and inside directors provide answers during Board meetings. At Maxell, however, there is a lot of input from internal directors, and there is active exchange of opinions based on overall management considerations.

We also hold our own informal outside

director meetings once a month to engage in frank discussions about Maxell's issues from an external perspective. Even if there are outside director personnel changes, these meetings help ensure each outside director is informed to the same degree and they help to build trusting relations, and this in turn helps to invigorate Board discussions.

**Aigami:** I believe that my role as an outside director is to focus on two key areas: monitoring and strengthening governance to prevent

corporate misconduct, and enhancing long-term corporate value, competitiveness, and social value. I believe that more detailed operational matters should be delegated to the executive side and discussed at meetings of the Management Committee. This would enable the Board of Directors to concentrate on monitoring to prevent misconduct and deepening its discussions relating to medium- to long-term corporate value enhancement. That approach would ultimately increase the effectiveness of the Board of Directors.

Currently, more than half of the matters discussed at Board of Directors meetings pertain to operational decisions. Reducing that to between 20% and 30% and increasing the weighting of monitoring and oversight matters to between 70% and 80% would be ideal.

**Hata:** I strongly believe that providing a clear and specific long-term vision for the Group is one of the most crucial tasks for us. I'd like to engage in extensive discussions on this matter at Board of Directors meetings and we intend to provide strong backup support.

This is another reason why delegating authority from the Board of Directors to the executive side is so important. At the same time, on the executive side, delegating authority from management executives down to senior managers, and creating a system where senior managers have to carefully consider issues to make decisions and take responsibility for them, will also contribute to the development of future candidates for leadership roles.

**Aigami:** Maxell is a "Company with an Audit and Supervisory Committee," which allows for significant delegation of authority for important executive decision-making from the

Board of Directors to executive directors. This is a significant advantage. Mr. Hata and I, as Audit and Supervisory Committee members with the authority of directors, have decision-making powers, providing us with flexibility in strengthening monitoring processes.

**Hata:** In our monitoring activities, we pay close attention to maintaining a balance between "acceleration" and "braking" within Maxell's governance. When it comes to governance and risk management, it's easy to end up focusing solely on applying the brakes. However, when moving to seize opportunities, it's crucial to take appropriate risks and step firmly on the accelerator to get ahead.

**Murase:** At Board of Directors meetings, there are discussions, decisions, and reports on a large number of topics, so the amount of time for free discussion is limited. From fiscal 2023, we've been trialing a separate forum for officers to gather and engage in open discussions on broader themes from a long-term perspective and we have high hopes for this initiative.

### Materialities, Action Plans, and KPIs

**Murase:** In fiscal 2021, we set seven materialities and 20 action plans, and in fiscal 2022, we set KPIs for each of them. This was a significant step, and working together towards achieving these as "One Maxell" will be crucial. While KPIs are essential for enhancing the effectiveness of efforts to address materialities, we have also received reports suggesting that some KPIs need to be revised to make them more appropriate.

We aim to engage in monitoring to ensure that employees can remain actively aware of

materialities and KPIs as they go about their daily tasks. Additionally, based on regular progress reports on these initiatives, we plan to make necessary adjustments as required, with the goal of enhancing their effectiveness.

**Hata:** Some of our KPIs and KGIs need a little more fine-tuning, including adjustments to their time frames, and it's crucial that we constantly review them. I think we ought to continue to make adjustments as needed.

### Expectations for Maxell Over the Medium- to Long-Term

**Aigami:** In terms of my expectations for management, first and foremost, I'm hoping for the construction of a system for an improvement in the agility of business execution. This will involve identifying matters for resolution that can be delegated from the Board of Directors, and setting up a system where directors with executive responsibilities and executive officers can swiftly make decisions and execute these tasks. The next step is to then further advance the delegation of authority to corporate officers and department and section managers. I would like to monitor this system to verify that it's operating smoothly.

Secondly, I believe we should deepen discussions aimed at accelerating the achievement of results in line with the growth strategy. It's crucial to encourage interaction among individuals within and across business divisions to create more synergies. While Maxell has previously engaged in M&A involving companies in other industries, I would like management to explore the potential for growth in collaboration with other companies in the same industries as our four business divisions, as this may make it easier to generate synergies.

Thirdly, I believe there are situations where top-down directives are also necessary. While respecting the decisions of our business divisions is important, there are initiatives where growth has lagged behind. Striking a balance between speed and respecting business division judgments is crucial.

**Murase:** Regarding our growth strategy, there are areas where we haven't been growing in line

with targets in our medium-term management plan MEX23, and achieving our targets in those areas won't be straightforward. We have advanced technical capabilities even from a global perspective, but these capabilities aren't necessarily all translating into profits. At Board of Directors meetings, I would like to discuss, over the medium- to long-term, how to leverage our strengths to enhance corporate value. It's vital that we address concrete issues while never losing sight of where we want the Group to be heading, and adapt to societal changes as needed, patiently cultivating areas where we ought to be pursuing further growth.

**Hata:** Growth requires innovation. Innovation isn't just about inventing new technologies or launching new businesses; it also involves identifying the fundamental needs of customers and markets and combining the technologies we already possess to provide solutions. Innovation and the creation of new value become possible when there's cross-organizational communication and collaboration, with multiple departments working together to tackle the same challenges. While it may take time, it's essential to implement active personnel rotation, providing each employee with experience across a variety of different businesses.

I recently attended an R&D presentation event for employees held at the Kyoto Head Office. It was a great initiative that enhanced employees' understanding of the activities of other business units. I'd like to see more opportunities like that being provided in the future.

**Aigami:** We have set "Creating human resources and organizations that generate value" as a materiality. Employees can become complacent if they stay in the same department for a



long time, making it challenging to spark the chemistry between different business divisions to be catalyzed by employees. It's essential to encourage active interaction and idea-sharing between business divisions including those on the corporate side.

An issue with our overseas bases is the lack of local staff in president and director roles. Instead of issuing directives from Japan, involving local staff in management and encouraging them to contribute ideas from their perspective will lead to more global growth.

**Murase:** Enhancing cross-organizational collaboration with the involvement of our overseas operations is crucial. While we've seen some cross-organizational efforts in manufacturing and sales gradually emerging, we need to pick up the pace. We need to leverage our Analog



## ▲ Outside Director Roundtable Discussion

Core Technologies, which are our strengths, and combine them in order to make proposals with higher added value. Ensuring that we live up to the brand slogan “Within, the Future - the future is within” is the key to realizing Maxell’s medium- to long-term value enhancement and contributing to a sustainable society.



### Nurturing Future Leaders

**Hata:** The rotation of employees is also crucial from the perspective of nurturing future candidates for executive roles. Gaining experience in different departments and overcoming challenges and difficulties leads to significant personal growth. Over the past year, the executive leader development program has been enhanced, and we’d like to monitor progress and provide recommendations to ensure that the mechanisms for nurturing executive candidates are functioning effectively.

**Aigami:** The training of young employees to groom future leaders is crucial, and I’d like to provide advice in this regard.

President Nakamura, Mr. Hata, Director Hiroyuki Suzuki, and I have been actively involved in discussions in the Nomination and Remuneration Committee. I would like, however, to engage in discussions with others beyond our current circle, including directors other than the president, corporate officers, and general managers, whom I haven’t yet had opportunities to meet with, to hold discussions concerning future leaders.

**Murase:** Maxell is a Group that values its employees highly, and the nurturing of future leaders is positioned as an important management issue. We intend to monitor the executive leader development program to ensure its effectiveness in nurturing future leaders, along with other personnel development strategies.

What’s important is that employees who’ve participated in the executive leader development program can feel their growth and are actively and vibrantly contributing. When other employees

are inspired by their progress, aspire to reach the same stage, and also seek out a career path towards leadership, that in turn contributes to the sustainable growth of the Group.

**Aigami:** It appears in general that younger employees have recently tended to be less eager to advance up the ladder after witnessing the struggles of older employees. However, I’m expecting Maxell to become a pioneer with a positive culture where younger employees can see that dreams can come true. When I visit Maxell’s workplaces, I encounter a lot of diligent and optimistic employees. Providing more opportunities for young employees to voice their opinions would be a good way to draw on their energy.

**Hata:** I’ve heard that the president also visits workplaces around Japan to engage in dialogue with employees. I think that is a great approach that enables the president to share the company’s policies and mission with employees, gain a better understanding of how younger employees feel about their work, and give employees opportunities to get closer to the president and talk directly with him.

It would also be good if employees, in turn, eagerly create their own visions for the future and management actively incorporates their ideas. While there’s already a diligent work culture in place, if employees start thinking a lot more innovatively and dare to provide stimulus to management in positive ways, that would bring extra vitality to the entire Group.

**Murase:** Hearing from members of the “M-Wing” project team brought a new strength of Maxell to my attention. M-Wing is a project aimed at promoting diversity and the team is composed of members selected from each business division.

Their slogan is “companies and workplaces where everyone can thrive” and they’re involved in a wide range of different initiatives.

The passion of younger employees about their vision for Maxell 10 or 20 years from now is a source of growth for the Group. I have great expectations for their efforts to promote the active participation of women in Maxell’s workplaces and I would also like to contribute to those efforts through dialogue with employees.

# Data Section

# Consolidated Financial Information

## Key Financial Data

(Millions of yen)

(FY)	2018	2019 <sup>*1</sup>	2020	2021 <sup>*2</sup>	2022
Net sales	150,584	145,041	139,055	138,215	<b>132,776</b>
Operating profit (loss)	5,424	(137)	3,806	9,332	<b>5,638</b>
Operating profit (loss) to net sales (%)	3.60	(0.09)	2.74	6.75	<b>4.25</b>
EBITDA <sup>*3</sup>	10,073	5,738	9,252	13,874	<b>10,375</b>
EBITDA margin <sup>*4</sup> (%)	6.69	3.96	6.65	10.04	<b>7.81</b>
Net profit (loss) attributable to owners of parent	5,311	(10,487)	(9,373)	(3,659)	<b>5,193</b>
Net profit (loss) to net sales (%)	3.53	(7.23)	(6.74)	(2.65)	<b>3.91</b>
Depreciation	4,649	5,875	5,446	4,542	<b>4,737</b>
Capital investment	7,973	5,148	8,092	3,960	<b>3,825</b>
R&D expenses	9,729	8,864	7,934	6,379	<b>6,397</b>
Net profit (loss) per share (yen)	100.51	(205.23)	(189.51)	(73.98)	<b>109.33</b>
Net assets per share (yen)	2,328.41	1,828.68	1,640.98	1,647.78	<b>1,807.25</b>
Annual dividend per share (yen)	36.00	268.00 <sup>*5</sup>	0.00	40.00	<b>40.00</b>
Dividend payout ratio (%)	35.8				<b>36.6</b>
Average number of shares during the term (excluding treasury shares) (thousand shares)	52,840	51,099	49,459	49,459	<b>47,500</b>
Number of shares issued at the end of period (including treasury shares) (thousand shares)	53,341	53,341	53,341	53,341	<b>49,695</b>
ROE (%)	4.35	(9.82)	(10.92)	(4.50)	<b>6.32</b>
ROA (%) <sup>*6</sup>	3.59	0.04	2.16	5.58	<b>3.89</b>
ROIC (%) <sup>*7</sup>	2.81	(0.07)	1.90	5.51	<b>3.48</b>
Receivables turnover (times) <sup>*8</sup>	4.38	4.14	4.59	4.57	<b>4.38</b>
Inventory turnover (times) <sup>*9</sup>	5.91	5.32	5.82	6.02	<b>5.03</b>
Shareholders' equity ratio (%)	61.7	50.6	45.9	45.9	<b>49.2</b>
D/E ratio (times) <sup>*10</sup>	0.31	0.78	0.51	0.51	<b>0.34</b>
Current ratio (%)	177.0	209.9	174.3	172.3	<b>170.9</b>
Working capital <sup>*11</sup>	36,441	32,310	8,809	5,105	<b>10,992</b>

## Net Sales by Region

(Millions of yen)

(FY)	2018	2019	2020	2021 <sup>*2</sup>	2022
Americas	15,314	11,865	11,778	13,890	<b>14,075</b>
Europe	12,855	11,657	9,507	11,500	<b>12,577</b>
Asia and other	42,154	33,684	30,692	33,057	<b>29,367</b>
Japan	80,261	87,835	87,078	79,768	<b>76,757</b>
<b>Average foreign exchange rate over the year</b>					
JPY/USD (yen)	111	109	106	112	<b>135</b>

## Year-end Stock Price Indicators

(FY)	2018	2019	2020	2021	2022
EV/EBITDA (times) <sup>*12</sup>	8.6	13.7	8.6	3.9	<b>6.4</b>
Year-end stock price (yen)	1,570	1,064	1,399	1,202	<b>1,539</b>
Year-end market capitalization (millions of yen)	83,746	56,755	74,625	64,116	<b>76,482</b>
Year's high (yen)	2,228	1,971	1,516	1,531	<b>1,691</b>
Year's low (yen)	1,310	882	836	1,055	<b>1,110</b>

\*1 In FY2019, the Company acquired its own shares through the trust relating to the "performance-linked share-based remuneration system." The shares of the Company held by the trust are recorded as treasury shares in the consolidated balance sheets, and included in the treasury shares deducted in the calculation of the number of shares at the end of period used in the calculation of "net assets per share."

The shares of the Company held by the trust are also included in the treasury shares deducted in the calculation of the average number of the shares during the term used in the calculation of "net profit (loss) per share."

\*2 From the beginning of FY2021, the Company has applied the "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29 of March 31, 2020), etc. The numbers relating to FY2021 onwards are after application of the accounting standard, etc.

\*3 Operating profit + depreciation

\*4 EBITDA / Net Sales x 100

\*5 Ordinary dividend: 18 yen Special dividend: 250 yen

\*6 Ordinary profit / Average total assets (average of the beginning and end of the period) x 100

\*7 Net operating profit after income tax / Average invested capital (average of the beginning and end of the period)

Net operating profit after income tax = Operating profit x (1 - 0.31), Invested capital = Net assets - Non-controlling interests + Short-term and Long-term borrowings (excluding interest-free borrowings) + Lease obligations + Other interest-bearing debts

\*8 Net sales / Average accounts receivable-trade (average of the beginning and end of the period)

\*9 Cost of sales / Average inventories (average of the beginning and end of the period)

\*10 Interest-bearing debts / Year-end shareholders' equity (Year-end market capitalization)

Interest-bearing debts = Short-term and Long-term borrowings + Lease obligations

\*11 (Current assets - Cash and cash equivalents) - (Current liabilities - Short-term interest-bearing debts)

\*12 (Year-end market capitalization + Interest-bearing debts - Cash and cash equivalents) / EBITDA

## Consolidated Financial Information

### Segment Information

(FY)	2018	2019	2020
<b>Net sales</b>	<b>150,584</b>	<b>145,041</b>	<b>139,055</b>
Energy	38,265	38,203	37,811
Industrial Materials	52,398	54,413	50,843
Electronic Appliances & Consumer Products	59,921	52,425	50,401
<b>Operating profit (loss)</b>	<b>5,424</b>	<b>(137)</b>	<b>3,806</b>
Energy	2,299	2,498	3,309
Industrial Materials	2,652	887	1,432
Electronic Appliances & Consumer Products	473	(3,522)	(935)
<b>Operating profit (loss) to net sales (%)</b>	<b>3.60</b>	<b>(0.09)</b>	<b>2.74</b>
Energy	6.00	6.54	8.75
Industrial Materials	5.06	1.63	2.82
Electronic Appliances & Consumer Products	0.79	(6.72)	(1.86)
<b>Total assets</b>	<b>199,385</b>	<b>178,873</b>	<b>176,807</b>
Energy	38,339	30,771	33,269
Industrial Materials	57,464	54,955	52,888
Electronic Appliances & Consumer Products	70,045	54,797	42,555
Other	33,537	38,350	48,095
<b>Capital expenditure</b>	<b>26,042</b>	<b>5,638</b>	<b>8,343</b>
Energy	2,954	1,046	1,506
Industrial Materials	6,801	3,450	2,843
Electronic Appliances & Consumer Products	16,287	1,142	3,994
<b>Depreciation</b>	<b>4,649</b>	<b>5,875</b>	<b>5,446</b>
Energy	1,287	1,402	1,428
Industrial Materials	1,918	2,515	2,579
Electronic Appliances & Consumer Products	1,444	1,958	1,439
<b>R&amp;D expenses</b>	<b>9,729</b>	<b>8,864</b>	<b>7,934</b>
Energy	2,165	1,908	1,473
Industrial Materials	2,296	2,394	2,638
Electronic Appliances & Consumer Products	5,268	4,562	3,823
<b>Year-end number of employees</b>	<b>5,263</b>	<b>5,108</b>	<b>4,555</b>
Energy	1,014	959	862
Industrial Materials	2,165	2,073	1,980
Electronic Appliances & Consumer Products	1,853	1,844	1,477
Other (employees who cannot be categorized into specific segments)	231	232	236

(Millions of yen)

(FY)	2021*	2022
<b>Net sales</b>	<b>138,215</b>	<b>132,776</b>
Energy	38,631	<b>36,774</b>
Functional Materials	28,018	<b>29,286</b>
Optics & Systems	39,540	<b>37,476</b>
Life Solution	32,026	<b>29,240</b>
<b>Operating profit (loss)</b>	<b>9,332</b>	<b>5,638</b>
Energy	4,050	<b>2,359</b>
Functional Materials	1,861	<b>863</b>
Optics & Systems	3,338	<b>3,889</b>
Life Solution	83	<b>(1,473)</b>
<b>Operating profit (loss) to net sales (%)</b>	<b>6.75</b>	<b>4.25</b>
Energy	10.48	<b>6.41</b>
Functional Materials	6.64	<b>2.95</b>
Optics & Systems	8.44	<b>10.38</b>
Life Solution	0.26	<b>(5.04)</b>
<b>Total assets</b>	<b>177,535</b>	<b>168,177</b>
Energy	34,923	<b>37,594</b>
Functional Materials	31,471	<b>32,996</b>
Optics & Systems	35,662	<b>37,384</b>
Life Solution	29,955	<b>22,529</b>
Other	45,524	<b>37,674</b>
<b>Capital expenditure</b>	<b>4,183</b>	<b>5,131</b>
Energy	845	<b>1,883</b>
Functional Materials	889	<b>635</b>
Optics & Systems	1,867	<b>1,928</b>
Life Solution	582	<b>685</b>
<b>Depreciation cost</b>	<b>4,542</b>	<b>4,737</b>
Energy	1,376	<b>1,459</b>
Functional Materials	723	<b>745</b>
Optics & Systems	1,710	<b>1,758</b>
Life Solution	733	<b>775</b>
<b>R&amp;D expenses</b>	<b>6,379</b>	<b>6,397</b>
Energy	1,173	<b>1,412</b>
Functional Materials	1,527	<b>1,310</b>
Optics & Systems	2,961	<b>2,797</b>
Life Solution	718	<b>878</b>
<b>Year-end number of employees</b>	<b>4,180</b>	<b>4,111</b>
Energy	793	<b>785</b>
Functional Materials	786	<b>803</b>
Optics & Systems	1,280	<b>1,333</b>
Life Solution	1,021	<b>945</b>
Other (employees who cannot be categorized into specific segments)	300	<b>245</b>

### Business segments have been changed from fiscal 2021

New business segments / major products from fiscal 2021 onwards

Energy	Lithium-ion batteries, micro batteries
Functional Materials	Adhesive tapes, coated separators
Optics & Systems	Optical components, semiconductor-related embedded systems
Life Solution	Consumer products, health and beauty care products, hydraulic tools

Former business segments / major products up to fiscal 2020

Energy	Lithium-ion batteries, micro batteries
Industrial Materials	Adhesive tapes, optical components, semiconductor-related embedded systems, coated separators
Electronic Appliances & Consumer Products	Consumer products, projectors, health and beauty care products, hydraulic tools

\* From the beginning of FY2021, the Company has applied the "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29 of March 31, 2020), etc. The numbers relating to FY2021 onwards are after application of the accounting standard, etc.

## Consolidated Financial Information

### Consolidated Balance Sheets (Summary)

					(Millions of yen)
(FY)	2018	2019	2020	2021*	2022
<b>Total current assets</b>	<b>95,116</b>	<b>84,657</b>	<b>85,369</b>	<b>99,469</b>	<b>94,837</b>
Principal items included in the above:					
Cash and deposits	22,907	22,636	33,016	45,552	38,170
Notes and accounts receivable – trade	39,658	30,328	30,295	30,160	30,439
Inventories	22,848	21,431	16,034	18,378	22,476
<b>Total non-current assets</b>	<b>104,269</b>	<b>94,216</b>	<b>91,438</b>	<b>78,066</b>	<b>73,340</b>
Total property, plant and equipment	61,213	62,063	55,280	55,507	51,544
Total intangible assets	15,796	6,265	5,359	5,031	4,697
Total investments and other assets	27,260	25,888	30,799	17,528	17,099
Principal items included in the above:					
Investment securities	23,194	21,626	24,168	9,672	9,503
Net defined benefit assets	1,327	1,878	3,861	4,550	4,881
Deferred tax assets	1,521	1,457	1,732	2,152	1,780
<b>Total assets</b>	<b>199,385</b>	<b>178,873</b>	<b>176,807</b>	<b>177,535</b>	<b>168,177</b>
<b>Total current liabilities</b>	<b>53,750</b>	<b>40,335</b>	<b>48,975</b>	<b>57,719</b>	<b>55,494</b>
Principal items included in the above:					
Notes and accounts payable – trade	19,982	16,668	17,851	19,606	18,421
Accounts payable – other and accrued expenses	12,832	10,158	21,527	13,403	13,178
Short-term borrowings, current portion of long-term borrowings and lease obligations	17,760	10,406	5,210	6,692	8,218
<b>Total non-current liabilities</b>	<b>20,130</b>	<b>45,626</b>	<b>44,235</b>	<b>35,200</b>	<b>26,743</b>
Principal items included in the above:					
Long-term borrowings and lease obligations	8,025	34,004	32,856	26,170	17,776
Deferred tax liabilities	4,035	4,183	4,175	2,512	2,849
Net defined benefit liabilities	7,914	7,249	6,700	5,705	5,372
<b>Total liabilities</b>	<b>73,880</b>	<b>85,961</b>	<b>93,210</b>	<b>92,919</b>	<b>82,237</b>
<b>Total shareholders' equity</b>	<b>134,079</b>	<b>103,571</b>	<b>88,864</b>	<b>84,215</b>	<b>82,487</b>
Total accumulated other comprehensive income	(11,044)	(13,127)	(7,702)	(2,717)	329
Non-controlling interests	2,470	2,468	2,435	3,118	3,124
<b>Total net assets</b>	<b>125,505</b>	<b>92,912</b>	<b>83,597</b>	<b>84,616</b>	<b>85,940</b>
<b>Total liabilities and net assets</b>	<b>199,385</b>	<b>178,873</b>	<b>176,807</b>	<b>177,535</b>	<b>168,177</b>

\* From the beginning of FY2021, the Company has applied the "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29 of March 31, 2020), etc. The numbers relating to FY2021 onwards are after application of the accounting standard, etc.

### Consolidated Statements of Income (Summary)

					(Millions of yen)
(FY)	2018	2019	2020	2021	2022
<b>Net sales</b>	<b>150,584</b>	<b>145,041</b>	<b>139,055</b>	<b>138,215</b>	<b>132,776</b>
Gross profit	31,167	27,331	30,063	34,602	30,098
Total selling, general and administrative expenses	25,743	27,468	26,257	25,270	24,460
<b>Operating profit (loss)</b>	<b>5,424</b>	<b>(137)</b>	<b>3,806</b>	<b>9,332</b>	<b>5,638</b>
Total non-operating income/expenses (net)	1,167	213	40	556	1,089
Principal items included in the above:					
Interest income and dividend expenses	495	359	461	280	327
Interest expenses and sales discounts	(235)	(295)	(285)	(153)	(126)
Foreign exchange gains/losses	273	94	(230)	164	778
Share of profit/loss of entities accounted for using equity method	546	164	(30)	138	(152)
<b>Ordinary profit</b>	<b>6,591</b>	<b>76</b>	<b>3,846</b>	<b>9,888</b>	<b>6,727</b>
Extraordinary income/losses (net)	1,074	(9,502)	(11,544)	(11,437)	538
Principal items included in the above:					
Gains on sale of non-current assets	17	6	6,610	13	1,625
Compensation for forced relocation			1,339		
Loss on sale and retirement of non-current assets	(297)	(314)	(271)	(446)	(228)
Impairment losses	(19)	(7,782)	(4,742)	(131)	(461)
Extra retirement payments				(635)	(407)
Loss on valuation of investment securities				(10,312)	—
Business restructuring expenses		(1,587)	(7,319)		
Litigation expenses			(7,067)		
<b>Profit (loss) before income taxes</b>	<b>7,665</b>	<b>(9,426)</b>	<b>(7,698)</b>	<b>(1,549)</b>	<b>7,265</b>
Total income taxes	2,170	736	1,799	1,718	2,009
Profit (loss) attributable to non-controlling interests	184	325	(124)	392	63
<b>Profit (loss) attributable to owners of parent</b>	<b>5,311</b>	<b>(10,487)</b>	<b>(9,373)</b>	<b>(3,659)</b>	<b>5,193</b>

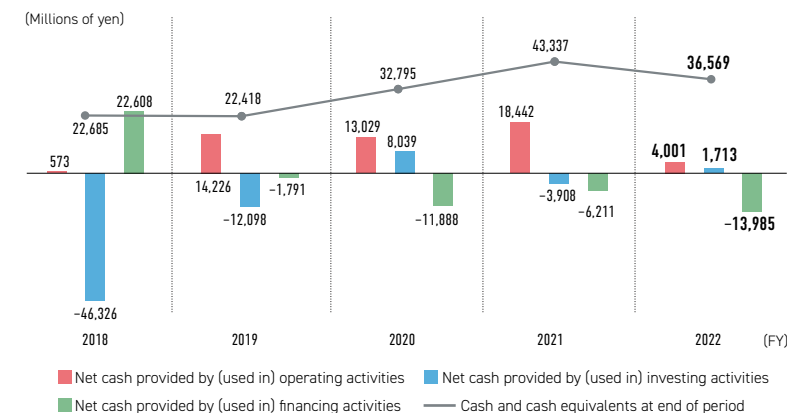
# Consolidated Financial Information

## Consolidated Statement of Cash Flows (Summary)

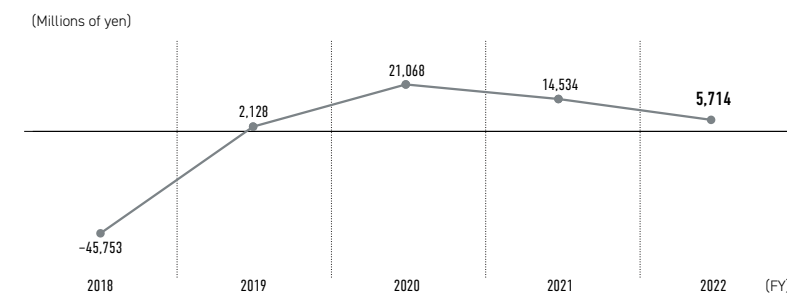
(FY)	2018	2019	2020	2021	2022
(Millions of yen)					
<b>Net cash provided by (used in) operating activities</b>	<b>573</b>	<b>14,226</b>	<b>13,029</b>	<b>18,442</b>	<b>4,001</b>
Principal items included in the above:					
Profit (loss) before income taxes	7,665	(9,426)	(7,698)	(1,549)	7,265
Depreciation	4,649	5,875	5,446	4,542	4,737
Impairment loss	19	7,782	4,742	131	461
Amortization of goodwill	923	1,231	590	590	48
Loss (gain) on sale and retirement of non-current assets	280	308	(6,339)	433	(1,397)
Decrease (increase) in trade receivables	(4,336)	9,441	464	1,004	384
Decrease (increase) in inventories	(1,344)	2,707	4,530	(1,338)	(3,868)
Increase (decrease) in trade payables	(3,229)	(3,004)	852	1,251	(1,320)
<b>Net cash provided by (used in) investing activities</b>	<b>(46,326)</b>	<b>(12,098)</b>	<b>8,039</b>	<b>(3,908)</b>	<b>1,713</b>
Principal items included in the above:					
Purchase of investment securities	(10,252)	(130)	(31)	(7)	(6)
Proceeds from sale of investment securities	274	332	37	2,403	985
Payments for construction of rental properties	(3,487)	(2,360)			
Purchase of property, plant and equipment	(9,074)	(7,898)	(6,268)	(4,030)	(4,931)
Proceeds from sale of property, plant and equipment	15	6	14,784	832	5,649
Purchase of shares of subsidiaries resulting in change in scope of consolidation	(16,683)				—
Purchase of shares of subsidiaries and associates	(4,200)				—
<b>Net cash provided by (used in) financing activities</b>	<b>22,608</b>	<b>(1,791)</b>	<b>(11,888)</b>	<b>(6,211)</b>	<b>(13,985)</b>
Principal items included in the above:					
Net increase (decrease) in borrowings	20,027	18,637	(6,388)	(5,098)	(6,844)
Purchase of treasury shares	(0)	(5,039)			(5,000)
Purchase of shares of subsidiaries not resulting in change in scope of consolidation			(5,335)		—
Proceeds from share issuance to non-controlling interests	5,029				—
Dividends paid to non-controlling interests	(16)	(38)	(64)	(9)	(128)
Dividends paid	(2,325)	(15,081)		(990)	(1,938)
Repayments of lease liabilities	(107)	(166)	(101)	(114)	(92)
Effect of exchange rate change on cash and cash equivalents	291	(604)	1,197	2,219	1,503
Net increase (decrease) in cash and cash equivalents	(22,854)	(267)	10,377	10,542	(6,768)
Cash and cash equivalents at beginning of period	45,539	22,685	22,418	32,795	43,337
Cash and cash equivalents at end of period	22,685	22,418	32,795	43,337	36,569
<b>Free cash flow*</b>	<b>(45,753)</b>	<b>2,128</b>	<b>21,068</b>	<b>14,534</b>	<b>5,714</b>

\* Net cash flow provided by (used in) operating activities + Net cash provided by (used in) investing activities

## Cash Flow Changes



## Free Cash Flow



# Maxell Group Network (as of September 1, 2023)

Maxell has been actively expanding its overseas operations since 1969.

From here on also, Maxell will work to further enhance its competitiveness within the rapidly changing global market, based on its quality, and the trust customers place in that quality.



## Japan

### Maxell, Ltd.

Tokyo Headquarters, Tokyo Office	Minato-ku, Tokyo
Kyoto Headquarters, Kyoto Office/Works	Oyamazaki-cho, Otokuni-gun, Kyoto Pref.
Miyagi Works	Watari-cho, Watari-gun, Miyagi Pref.
Kawasaki Office/Works	Kawasaki-shi, Kanagawa Pref.
Yokohama Office	Yokohama-shi, Kanagawa Pref.
Kobuchizawa Works	Hokuto-shi, Yamanashi Pref.
Ono Works	Ono-shi, Hyogo Pref.
Kyushu Works	Fukuchi-machi, Tagawa-gun, Fukuoka Pref.
Kanto and Tohoku Sales Office	Kasukabe-shi, Saitama Pref.
Nagoya Sales Office	Nagoya-shi, Aichi Pref.
Kansai Office	Osaka-shi, Osaka Pref.
Kyushu Sales Office	Fukuoka-shi, Fukuoka Pref.

### Maxell Frontier Co., Ltd.

Head Office, Yokohama Works	Yokohama-shi, Kanagawa Pref.
Tokyo Sales Office	Minato-ku, Tokyo
Gifu Works	Minokamo-shi, Gifu Pref.
Yonezawa Works	Yonezawa-shi, Yamagata Pref.
Miyagi Works	Watari-cho, Watari-gun, Miyagi Pref.

### Maxell Izumi Co., Ltd.

Head Office	Matsumoto-shi, Nagano Pref.
Kyushu Works	Fukuchi-machi, Tagawa-gun, Fukuoka Pref.
Tokyo Sales Office	Shibuya-ku, Tokyo
Osaka Sales Office	Osaka-shi, Osaka Pref.
Nagoya Sales Office	Nagoya-shi, Aichi Pref.
Fukuoka Sales Office	Fukuoka-shi, Fukuoka Pref.
Sendai Sales Office	Sendai-shi, Miyagi Pref.

### Ube Maxell Kyoto Co., Ltd.

Head Office	Oyamazaki-cho, Otokuni-gun, Kyoto Pref.
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### Maxell Kureha Co., Ltd.

Head Office, Osaka Branch	Osaka-shi, Osaka Pref.
Tokyo Branch	Taito-ku, Tokyo
Nagoya Branch	Nagoya-shi, Aichi Pref.
Kyushu Sales Office	Kitakyushu-shi, Fukuoka Pref.
Tsu Plant	Tsu-shi, Mie Pref.
Kameyama Plant	Kameyama-shi, Mie Pref.

### Overseas

Maxell Corporation of America	USA
Maxell Corporation of America, Canada Branch	Canada
Maxell Research and Development America, LLC	USA
Maxell Latin America, S.A.	Panama
Maxell Europe Ltd.	UK
Maxell Europe Ltd. German Branch	Germany

Maxell Europe Ltd. Munich Office	Germany
Maxell Europe Ltd. Hungarian Branch	Hungary
Maxell Asia, Ltd.	Hong Kong, China
Maxell Asia, Ltd. Chennai Office	India
Maxell Asia, Ltd. Bangkok Office	Thailand
Maxell Asia, Ltd. Vietnam Office	Vietnam
Maxell (Shanghai) Trading Co., Ltd.	Shanghai, China
Maxell (Shenzhen) Trading Co., Ltd.	Shenzhen, China
Maxell Taiwan, Ltd.	Taiwan
Maxell Asia (Singapore) Pte. Ltd.	Singapore
Maxell Joei Tech (Thailand) Co., Ltd.	Thailand
Maxell Tohshin (Malaysia) Sdn. Bhd.	Malaysia
PT. Stiontec Ekadharma Indonesia	Indonesia
Wuxi Maxell Energy Co., Ltd.	Wuxi, China
Maxell Digital Products China Co., Ltd.	Fuzhou, China
Izumi Products HK Limited	Hong Kong, China
Gangquan Precision (Shenzhen) Co., Ltd.	Shenzhen, China

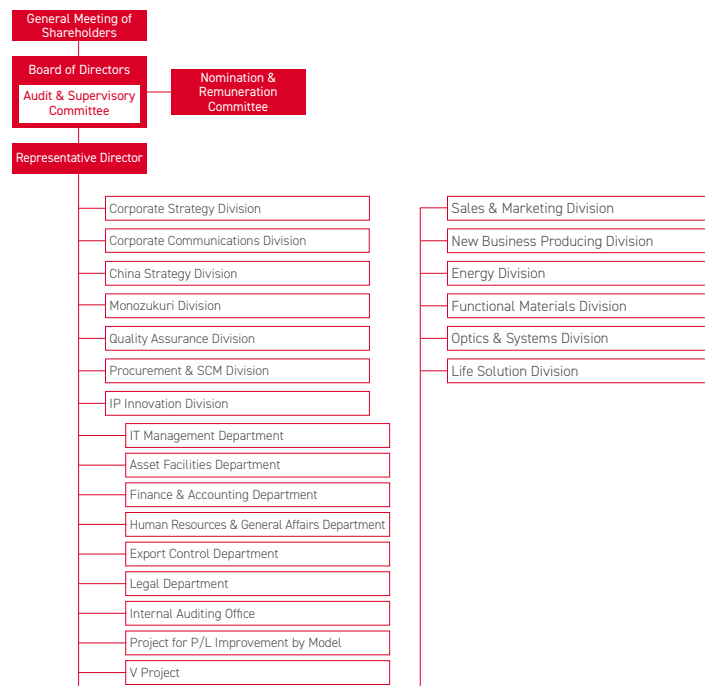
## Corporate Data (As of September 1, 2023)

### Corporate Data

Company Name	Maxell, Ltd. <a href="https://www2.maxell.co.jp/">https://www2.maxell.co.jp/</a>
Tokyo Headquarters	21F, Taiyo Life Shinagawa Building, 2-16-2 Konan, Minato-ku, Tokyo 108-8248, Japan
Kyoto Headquarters	1 Koizumi, Oyamazaki, Oyamazaki-cho, Otokuni-gun, Kyoto 618-8525, Japan
Established	September 1960
Capital	12.203 billion yen
President and Representative Director	Keiji Nakamura
Number of Employees	Consolidated: 4,111*
Shareholder Registry Administrator	Sumitomo Mitsui Trust Bank, Limited
Accounting Auditor	Ernst & Young ShinNihon LLC

\* As of March 31, 2023

### Organization Chart of Maxell, Ltd. (As of September 1, 2023)



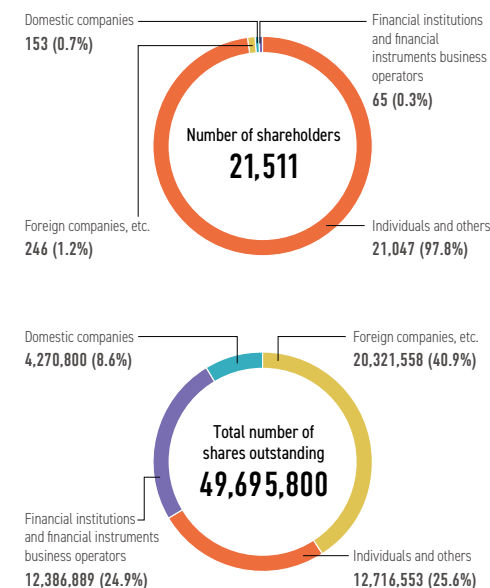
## Stock Information (As of March 31, 2023)

### Status of Major Shareholders

	Name of Shareholder	Number of Shares Held (Thousand Shares)	Shareholding Ratio (%)
1	The Master Trust Bank of Japan, Ltd.	6,506	14.19
2	Custody Bank of Japan, Ltd.	3,199	6.98
3	TAIYO FUND, L.P.	2,568	5.60
4	SSBTC CLIENT OMNIBUS ACCOUNT	2,369	5.17
5	Nichia Corporation	2,001	4.37
6	TAIYO HANEI FUND, L.P.	1,672	3.65
7	GOVERNMENT OF NORWAY	1,604	3.50
8	Zeon Corporation	1,311	2.86
9	STATE STREET BANK AND TRUST COMPANY 505227	1,276	2.78
10	STATE STREET BANK WEST CLIENT - TREATY 505234	770	1.68

Notes: 1. The numbers for the shares held by The Master Trust Bank of Japan, Ltd. and Custody Bank of Japan, Ltd. represent the numbers of shares they hold in connection to their trust duties.  
2. When calculating the shareholding ratios, treasury shares (3,854,567 shares) are excluded.

### Breakdown of Shares



### External Recognition

**Awarded a three-star rating for second year running in the "Fourth Nikkei SDGs Management Survey"**

This survey, which is carried out by Nikkei Inc., evaluates how companies are contributing to the United Nations Sustainable Development Goals (SDGs) via their businesses. Maxell, Ltd.'s SDGs management was appraised based on a survey covering four categories - "SDGs Strategy/Economic Value," "Social Value," "Environmental Value," and "Governance" - as well as public data and other information.



**Obtained a Rank A assessment in the "Second JRECO CFC Control Measure Rating"**

Obtained a Rank A assessment in the Japan Refrigerants and Environment Conservation Organization (JRECO)'s assessment of companies' efforts regarding the Act on Rational Use and Proper Management of Fluorocarbons (Fluorocarbon Emissions Control Act). Maxell Group had frameworks in place at each of its plants prior to the entry into force of the Fluorocarbon Emissions Control Act in 2015, and it carries out estimates of the amount of CFC leaked by equipment used, as well as basic inspections and regular inspections, in line with the legislation.



**Recognized as a "2023 Certified Health & Productivity Management Organization"**

Maxell, Ltd. and Maxell Frontier Co., Ltd. were recognized as "2023 Certified Health & Productivity Management Organizations" (large enterprise category), as organizations that consider and make strategic efforts to advance employees' health management from managerial perspective.



**Obtained an "Advanced" certification in the "D&I Award 2022"**

Obtained an "Advanced" certification in JobRainbow Co., Ltd.'s "D&I Award 2022," which recognizes companies that are addressing diversity and inclusion. Maxell was evaluated as a company that has spearheaded D&I, driven the advancement of D&I in Japan as a role model, and nurtured a corporate culture in which each and every employee respects D&I, and which is engaging in further reform.



**Selected as a constituent of the "Somo Sustainability Index" for seven consecutive years**

In recognition of Maxell Group's ESG efforts, it has been selected as a constituent of Somo Asset Management Co., Ltd.'s "Somo Sustainability Index" for 7 consecutive years since 2017.





#### Tagline of Maxell



"Within, the Future"  
contains the idea that we remain  
close to people at all times.



Maxell operates within the **future**. We have  
decided our corporate color will be **New**  
**Maxell Red**—a color that evokes the **future**.

#### Origin of Company Name

The company name Maxell originates  
from the brand name "Maxell"  
(**Max**imum Capacity Dry **Cell** = dry cell  
with the highest performance) created  
for the dry batteries that constituted its  
business at the time of foundation.

#### Notes about Statements about the Future

Statements made in this report with respect to our performance  
outlook, plans, strategies, and other statements that are not  
historical facts are our predictions based on information available  
to the Company as of March 31, 2023 and are subject to risks  
and uncertainties. Accordingly, please do not rely solely on these  
predictions in making investment decisions.

**Maxell, Ltd.**  
<https://www2.maxell.co.jp>