



Within, the

# FUTURE

**maxell**

Within, the Future

**Maxell, Ltd.**

Integrated Report 2022

# Corporate Philosophy of Maxell



## 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**

- Technological Value** Create new value through the sincere pursuit of originality and technological excellence
- Customer Value** Respond to customer needs with safe and secure products created by Monozukuri (Manufacturing) above and beyond customer expectations
- Social Value** 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 -



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 that 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

Introduction	I Growth Strategy	II Value Creation Report	III Management Foundation Enhancement	Data Section
1 Corporate Philosophy of Maxell	14 Materialities and KPIs	24 Materialities and KPIs	40 Materialities and KPIs	61 Consolidated Financial Statements
2 Table of Contents and Editorial Policy	15 Message from the President	25 Value Creation Process by Business Segment	41 Sustainability Management	65 Maxell Group Network
3 History of Innovation	19 Message from the Financial Director	27 Energy Segment	42 Group Governance Enhancement	66 Corporate Data/Stock Information/ External Evaluations
5 At a Glance	22 Financial and Non-Financial Highlights	29 Functional Materials Segment	43 Creating Human Resources and Organizations that Generate Value	
6 Sources of Value Creation		31 Optics & Systems Segment	47 Creation of Economic Value through Environmental Activities	
7 Supporting Society through Sustainability Innovation		33 Life Solution Segment	51 Reporting Based on TCFD Recommendations	
10 7 Priority Issues (Materialities) and Action Plans		35 Toward the Creation of New Businesses	53 Corporate Governance	
11 Value Creation Process with Analog Core Technologies		37 Intellectual Property to Support New and Existing Businesses	59 Board of Directors	
		38 Consolidation and Enhancement of Sales Organization	60 Messages from Outside Directors	

## Editorial Policy

The purpose of this report is to communicate the features of Maxell Group, which conducts business in harmony with society, to all stakeholders, including shareholders and investors. The report contains information on business, performance, and sustainability-related activities and their outcomes in form of integrated report. The 2022 report is divided into 3 chapters: Growth Strategy, Value Creation Report, and Management foundation enhancement, and focuses on materialities (identified in 2021) and KPIs (set up in 2022) related to each chapter. Detailed financial and sustainability information not included in this report is disclosed on our website.

On October 1, 2021, the Company changed its name from Maxell Holdings, Ltd. to Maxell, Ltd. through an absorption-type merger with Maxell Holdings, Ltd. as the surviving company and Maxell, Ltd. as the extinguishing company.

In fiscal 2021, we changed our business segments to 4 segments: Energy, Functional Materials, Optics & Systems, and Life Solution, with the aim of clarifying our business responsibilities and growth strategies.

## Period of Report

This report focuses on fiscal 2021 (April 2021 to March 2022), but some events in fiscal 2022 are also included.

## 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"

This report refers to the "Guidance for Collaborative Value Creation" prepared by the Ministry of Economy, Trade and Industry.

## Issue

September 2022

## 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, 2022 and are subject to risks and uncertainties. Accordingly, please do not rely solely on these predictions in making investment decisions.



# History of Innovation

## Origin of the Company Name

### Maximum Capacity Dry Cell

Brand name of dry batteries, the company's founding product  
『Maxell (Maximum Capacity Dry Cell)』



## Foundation

### 1961

Spun off the dry battery and magnetic tape divisions from Nitto Electric Industrial Co., Ltd. (current Nitto Denko Corporation) and established as Maxell Electric Industrial Co., Ltd.

**1966** | First in Japan |

Commercialized audio cassette tape

**1976** | First in Japan |

Commercialized floppy disk

**1978**

Commercialized VHS video cassette tape

**1981**

Commercialized coin-type lithium manganese dioxide battery

**1983** | First in Japan |

Commencement of production of lithium thionyl chloride battery for memory backup

**1984**

Commercialized 12-inch write-once optical disk cartridge, IC card and memory card

**1987**

Commercialized the world's smallest silver oxide battery

**1989**

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

**1995** | First in the world |

Commercialized optical modulation overdrive MO

**1996**

Commenced production of lithium-ion battery

**1998** | First in the world |

Commercialized rewritable DVD-RAM disc

**2004**

Commercialized heat-resistant coin-type lithium manganese dioxide battery

**2005**

Commenced shipment of in-car camera lens unit

**2008**

Developed heat-resistant separator that improves the safety of lithium-ion battery

**2017**

Developed proprietary injection Foam molding technique "RIC-FOAM"

**2018**

Developed Air Patch™ Battery for medical/healthcare patches

**2019**

Commenced sample shipment of coin-shaped All-solid-state battery using sulfide-based electrolytes

**2021**

Commercialized AR Head Up Display for automotive applications

**2021** | First in the world |

Developed Mountable Sulfide Based All-solid-state battery

**2022**

Commercialized AFID (Advanced Floating Image Display)

## History of Innovation

### 1960s-1980s

Developed and launched a number of consumer products during the 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 silver oxide battery. We were the first in the world to create new value in these ways. In addition to the "Mixing & Dispersion" technology accumulated from the development of dry batteries, which was our founding product, the technology for coating magnetic powder and the technology for forming the housing cultivated in cassette tapes are now being used in a variety of products as "Fine Coating" technology and "High Precision Molding & Forming" technology through further evolution.

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 high functional recording media, mainstay of the business was shifted from consumer products to industrial components.

While the market for cassette tapes, video tapes, and floppy disks shrank at the end of the 1980s, PCs, mobile phones, smartphones, and other products rapidly became popular. Against this backdrop, while supporting the transformation of the era from analog to digital, we have shifted the mainstay of our business from consumer products to industrial components.

Applying the technologies we have cultivated in tapes, we entered the market for data cartridges for computers and professional tapes for broadcast use. In 1996, we started production of lithium-ion battery. We also commercialized heat-resistant coin-type lithium manganese dioxide battery for TPMS (tire pressure monitoring systems) modules in 2004, and started shipment of in-car camera lens unit in 2005, which was the foothold for the business of automotive channel afterwards.



Professional video tapes



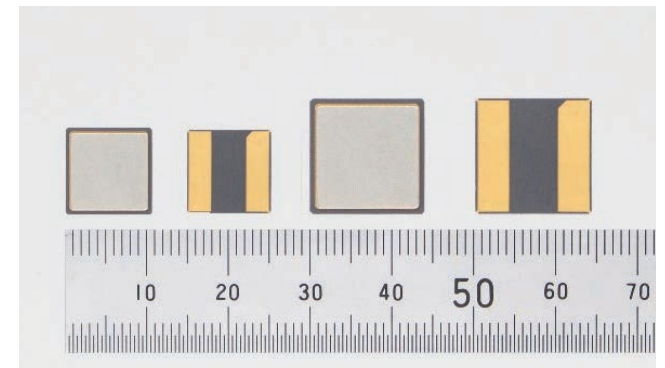
Lithium-ion batteries

### 2020s

Further enhancement of value creation through unique Analog Core Technologies

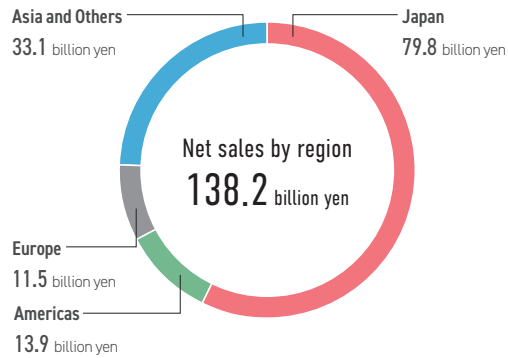
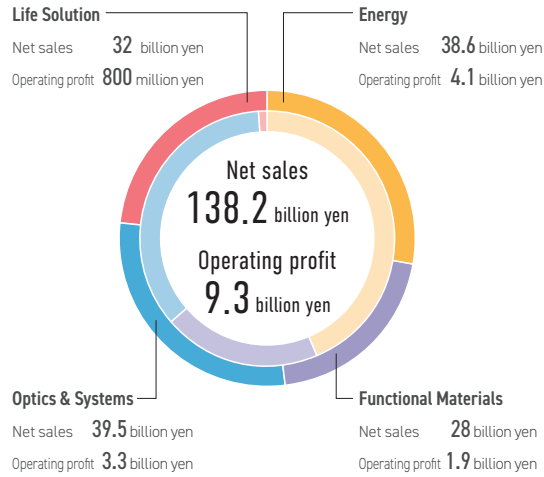
In 2020, we reviewed our management policy based on "MVVSS (Mission Vision Value Spirit Slogan)" and set up Vision to "Create Maximum Excellence for employees, customers and society by leveraging unique Analog Core Technologies (Mixing & Dispersion, Fine Coating, and High Precision Molding & Forming)." Under a new policy and organization, we have been concentrating in developing and commercializing all-solid-state battery, which is expected to be a next-generation battery, and responding to the needs of the world with the cutting-edge technologies such as world's first sulfide based surface-mountable feature, as well as high-voltage and high-output characteristics.

By combining the synergies with new group companies who joined since 2013 i.e. Maxell Frontier, Maxell Izumi, Maxell Kureha, and Ube Maxell Kyoto, we will continue to create new value that contributes to sustainable society by leveraging unique Analog Core Technologies.



Ceramic packaged all-solid-state batteries

# At a Glance



	Total Group	Energy	Functional Materials	Optics and Systems	Life Solution
Number of Major Subsidiaries	20 (Affiliated companies: 2)	1*2	3*2	4*2	2*2
Number of Employees	4,180*1	793	786	1,280	1,021
Capital investment / Capital expenditure amount	3.96 billion yen	817 million yen	872 million yen	1.737 billion yen	534 million yen

\*1 Includes 300 employees of administrative divisions, etc. that cannot be categorized into specific segments \*2 Number of manufacturing companies

## Energy



### Major Products

Lithium-ion batteries for consumer, 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
- High reliability coin type lithium batteries
- Coin-type lithium-ion rechargeable batteries

## Functional Materials



### Major Products

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

### Growth Businesses

- Tape for construction
- Tape for semiconductor manufacturing processes
- Tape for industrial processes

## Optics and Systems



### Major Products

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

### Growth Businesses

- LED Headlamp lens
- In-car camera lens unit
- Semiconductor related embedded system

## Life Solution



### Major Products

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

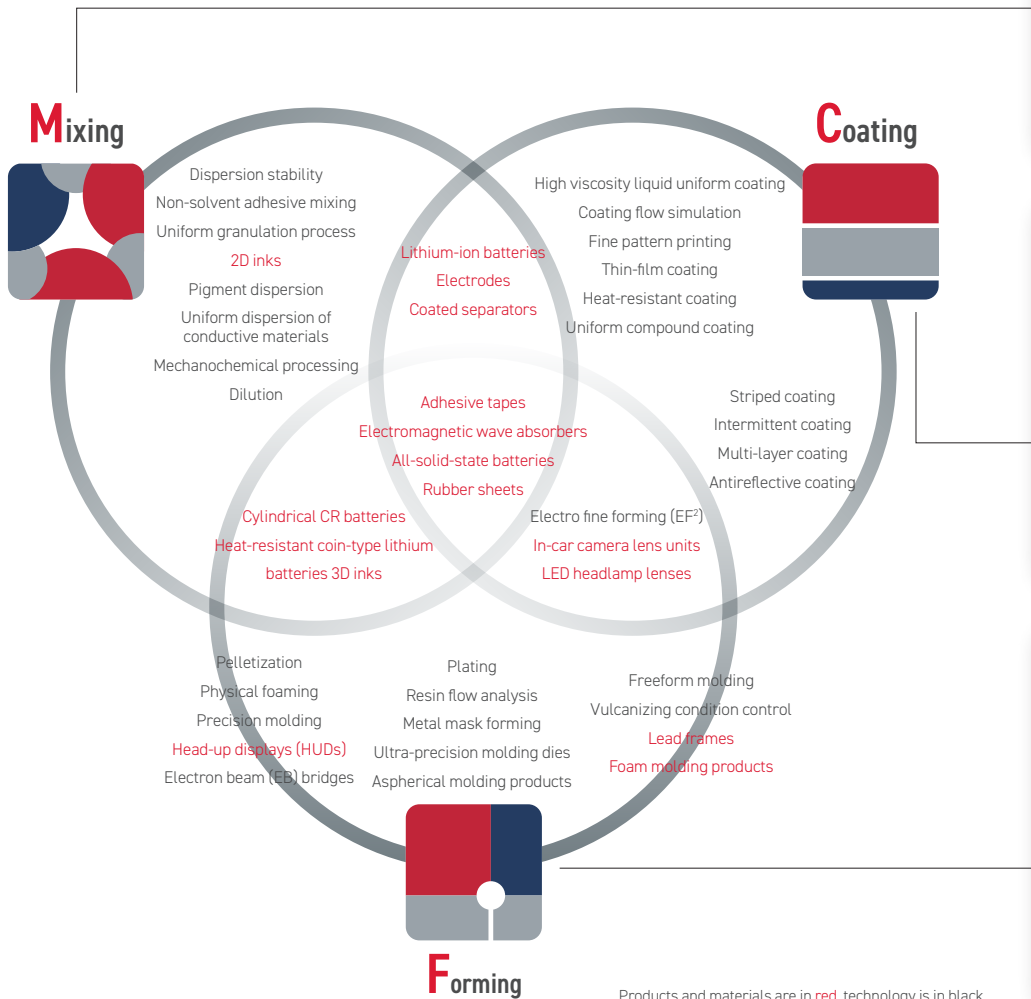
### Growth Businesses

- Healthcare equipment (anti-bacterial deodorizer: air comfort)
- Beauty care equipment (shaver)
- Hydraulic tools

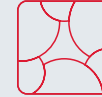
# Sources of Value Creation

Maxell develops unprecedented goods and services with its unique Analog Core Technologies (Mixing & Dispersion, Fine Coating, High Precision Molding & Forming).

 **Link to Maxell "Analog Core Technologies" explainer video**  
<https://www2.maxell.co.jp/corporate/analogcore.html>



Products and materials are in red, technology is in black



## Mixing

Mixing & Dispersion

### Technique for uniformly blending

Of any size, rigidity or stickiness

Can combine materials that were not possible in the past

For example

- Electromagnetic wave absorbers
- Heat resistant coin-type lithium batteries



## Coating

Fine Coating

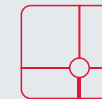
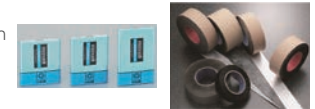
### Technique of coating with uniform thickness

From several millimeters to nano-millimeters

Possible to increase stability by coating materials uniformly over a wide range

For example

- Electrode for lithium-ion batteries
- Adhesive tape



## Forming

High Precision Molding & Forming

### Technique of shaping

From die manufacturing to wiring, filling and cross-linking

Precision molding dies enable mass production of high-precision parts

For example

- In-car camera lens units
- LED headlamp lenses



# Supporting Society through Sustainability Innovation

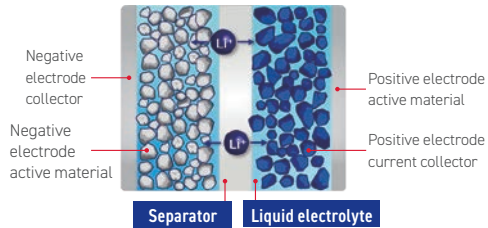
# 5G/IoT

Develop next-generation all-solid-state battery that changes the concept of batteries

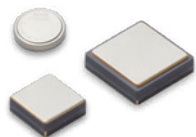
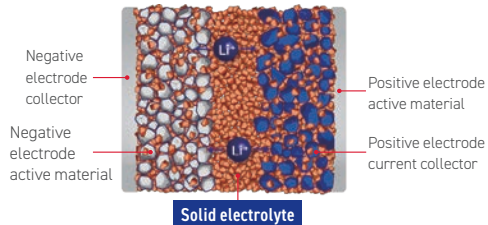
Expanding the potential of industrial and consumer equipment

Withstands harsh high and low temperature environments, realizes a battery lifetime of over 20 years

### Conventional lithium-ion batteries



### All-solid-state battery



### Characteristics

- Unburnable
- Characteristic does not change even at high temperature as liquids are not interposed
- Withstands repeated use

## Within, the Future

No firing, no explosion.  
 Discharge from -50°C to +125°C (coin type).  
 Lifetime of 20 years or more.  
 Its specification greatly expand the potential of devices used in factory automation, infrastructure, mobility, and healthcare, which require high durability in harsh environments.  
 Mixing & Dispersion, Fine Coating, high precision molding & forming technology - a new evolution of equipment begins with all-solid-state battery, which contains Maxell's intense technology.





# Supporting Society through Sustainability Innovation



# Healthcare

**Airtightness with tapes for construction**  
**Safety with the familiarization of anti-bacterial deodorizer**

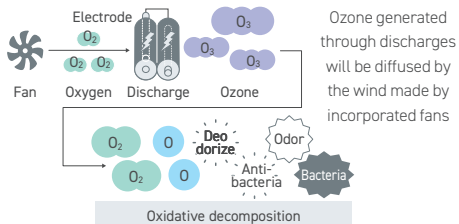
Ensure safe and comfortable lifestyle by improving the living environment

Supporting the improvement of comfort and health of people living in areas where airtightness and waterproofing are required



Decompose and remove viruses and odors by the oxidizing power of ozone

Mechanism of anti-bacterial deodorizer



## Within, the Future

With the demand for comfort in living spaces, there is an increasing need for airtightness in North America, where regional characteristics are diverse, and for waterproofing in Southeast Asia, where the climate is windy, rainy, and humid.

Maxell's tapes for construction achieve high airtightness through designing expertise and converting technologies for rubber-based adhesive. Using butyl rubber, which has non-air-passing properties, as adhesive, it contributes to improving the safety, comfort, and energy efficiency of houses by ensuring high airtightness in addition to waterproofing and wet resistance.

## Within, the Future

Needs for air pollutant countermeasures and antiviral countermeasures are increasing in all indoor spaces such as houses, restaurants, hotels, hospitals, offices and schools.

Maxell's anti-bacterial deodorizer extends the fresh air into the room, and realize safe and comfortable indoor spaces with clean air.



# Supporting Society through Sustainability Innovation

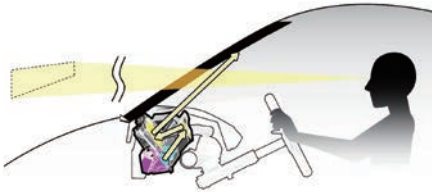
# Mobility

**Autonomous driving, flying car-  
Supporting automotive evolution with sensing technologies**

Key optical products to be used in future vehicles

Advanced technologies that contribute to high-level driving and improving safety

A head-up display displays alerts on the windshield.



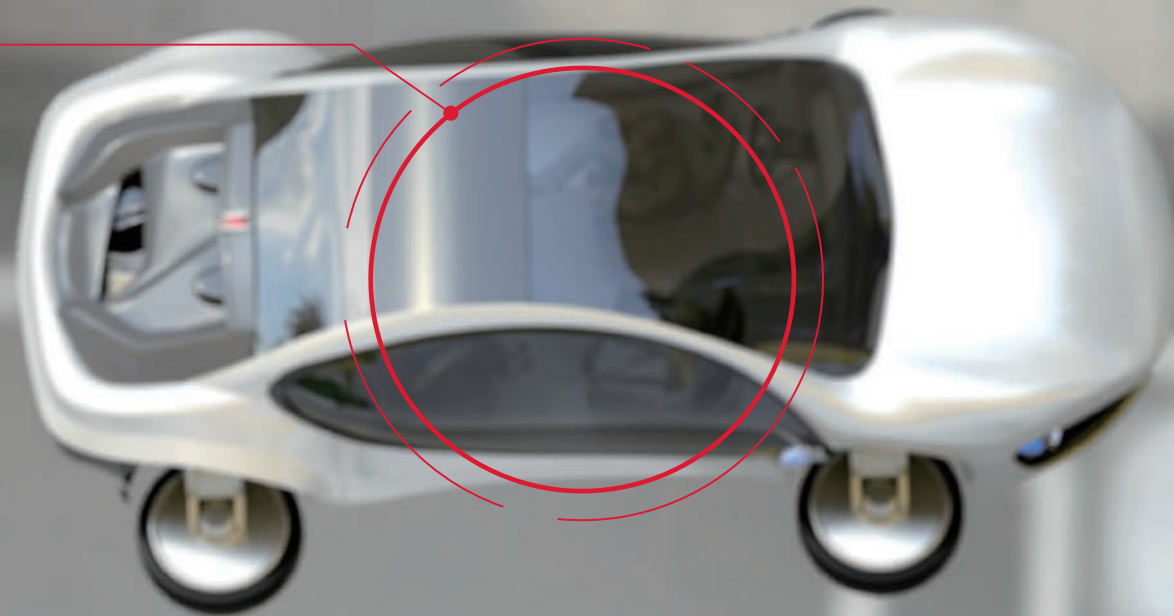
In-car camera lens units and LED headlamp lenses make it easy to measure the distance between the car during the flight as well as landing and parking.



## Within, the Future

Moving forward, backward, rising, falling, and landing.

A flying vehicle requires technologies that enable high-level driving. Driving support using a head-up display that was miniaturized using advanced free-form surface optics. An in-car camera lens unit is used for control using image data, and the LED headlamp lens has advanced functions such as light distribution control and built-in sensors. Maxell's advanced technologies support future-oriented vehicle evolution.



# 7 Priority Issues (Materialities) and Action Plans

In conjunction with the establishment of MVVSS, the Corporate Sustainability Vision has been clarified to aim to increase corporate value over the long term with an emphasis on relations with a variety of stakeholders. Based on this concept, the priority issues (materialities) to be addressed by Maxell had been newly defined in 2021. Furthermore, in 2022, KPIs were formulated in order to ensure that each materiality action plan will be surely implemented. In the future, we will work to resolve these priority issues through specific activities.

## July 2020 Establishment of MVVSS

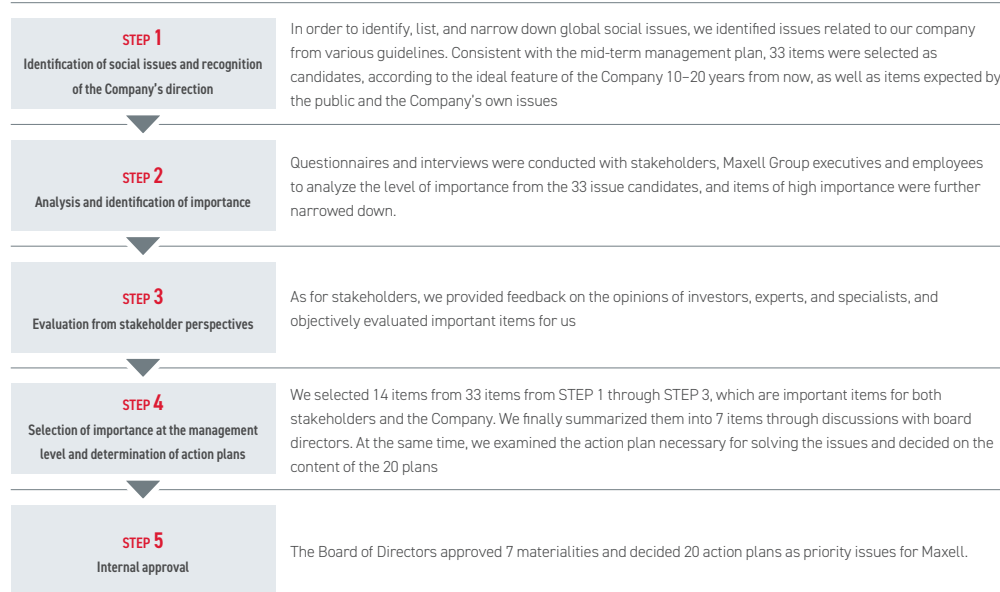
We will work to create unique solutions to social issues for Maxell Group under new management vision "Create **Maximum Excellence** for employees, customers and society by leveraging unique Analog Core Technologies."

## August 2020 Formulation of Sustainability Vision

We have clarified long-term improvement of corporate value and continuous creation of social, environmental, and economic value with an emphasis on relationships with diverse stakeholders.

## August 2021 Materiality Identification

In order to realize our Vision, we have identified priority issues that Maxell should focus on.



Materiality	Action plan
Creating innovation through unique, original technologies	<ul style="list-style-type: none"> <li>● Evolution of unique, original technologies that generate new value</li> <li>● Strengthening marketing for efficient R&amp;D</li> <li>● Strengthening partnerships to create new businesses</li> </ul>
Solving social issues through growth businesses	<ul style="list-style-type: none"> <li>● Contributing to the advanced information society through 5G/IoT related businesses</li> <li>● Contribution in advanced medical and health areas through healthcare-related businesses</li> <li>● Contributing to a safe and secure society through high-reliability sensing through mobility related businesses</li> </ul>
Creating human resources and organizations that generate value	<ul style="list-style-type: none"> <li>● Strengthen management to leverage human resources (build a human resource strategy, promote the right person in the right place and talent management)</li> <li>● Establishment of a system for human resource development and evaluation that creates proactive human assets capable to creates something from nothing</li> <li>● Promoting diversity and inclusion (utilizing diverse human resources and accepting different values)</li> <li>● Improve productivity and promote the transmission of skills through the standardization of business processes</li> </ul>
Maximization of customer value	<ul style="list-style-type: none"> <li>● Transformation into manufacturing that solves social issues ahead of customer issues</li> <li>● Establishment of a system that prioritizes quality and product safety based on the integrity</li> <li>● Enhancing the value of the Maxell brand's core products and services</li> </ul>
Creation of economic value through environmental activities	<ul style="list-style-type: none"> <li>● Strengthening environmental technologies and environmentally conscious products</li> <li>● Conserving resources and energy, and promoting the introduction of renewable energy</li> </ul>
Strengthen business portfolio management	<ul style="list-style-type: none"> <li>● Continuously improve the business portfolio through the two axes of market growth and business earnings (ABC-XYZ control)</li> <li>● Implementing portfolio strategies that anticipate market changes</li> <li>● Promoting efficiency at global production sites</li> </ul>
Strengthen group governance	<ul style="list-style-type: none"> <li>● Building effective governance in group management (deepen management)</li> <li>● Implementing governance to Maximize group synergies technology, information, marketing</li> </ul>

## August 2022 Identification of Materiality KPIs

We have formulated KPIs to ensure that action plans for Maxell's priority issues will be surely implemented

KPIs are available on the cover page of each chapter of this report, and their progress will be reported in the future.

Please refer to the Value Creation Process on the next page for information on the roles of the 7 materialities in value creation.

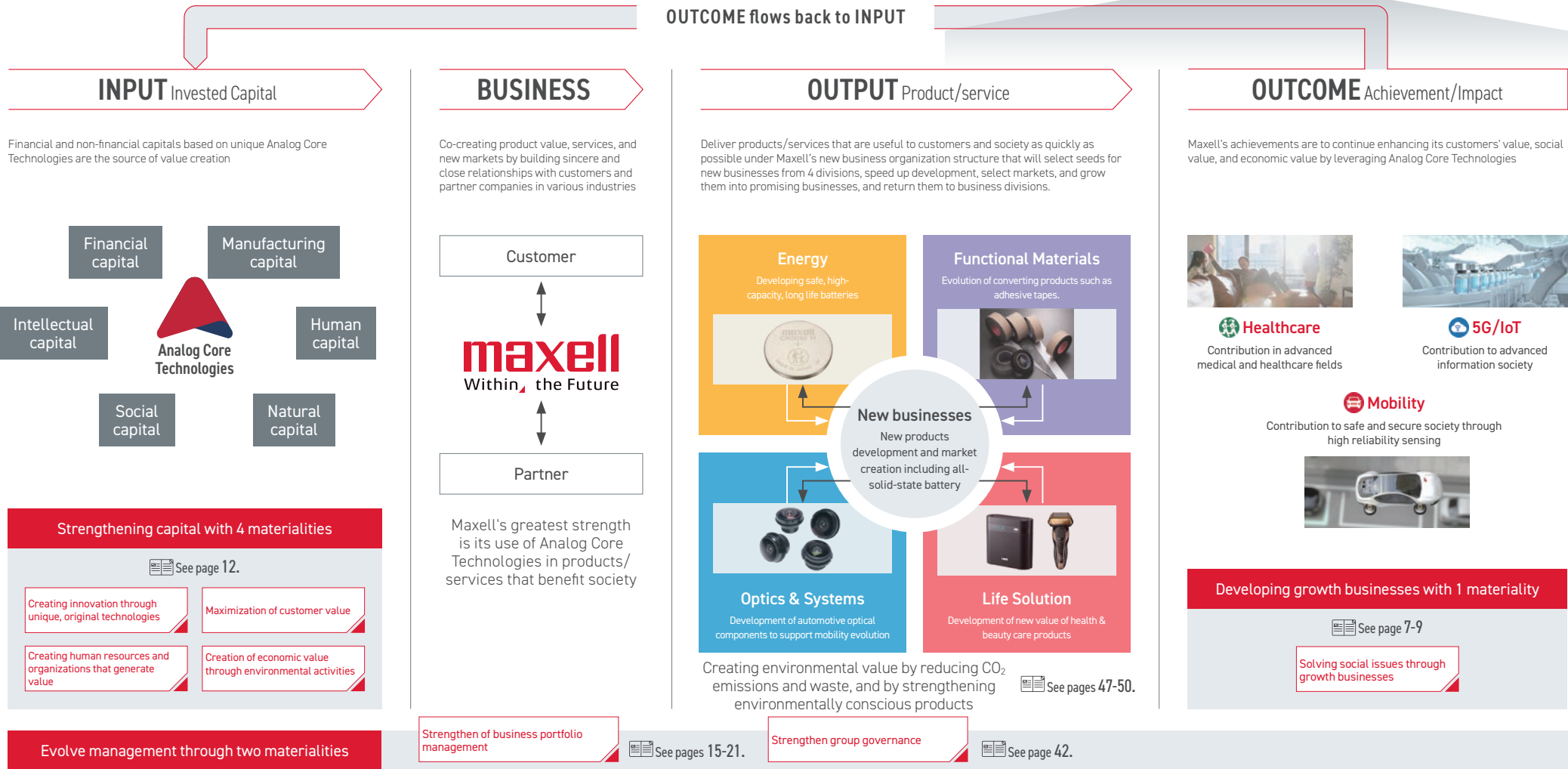
# Value Creation Process with Analog Core Technologies

In 2021, Maxell Group identified 7 materialities (priority issues), and since 2022, we have been working on them with specific goals and KPIs. By addressing these materialities, we will strive to "strengthen capital," "evolve management," and "expanding growth businesses" and implement the management policy of MVVSS (Mission, Vision, Value, Sprit, Slogan).

**MVVSS**

**Vision**  
The "Future" Maxell wants to realize

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



Red boxed letters in the chart indicate materiality.

## Value Creation Process with Analog Core Technologies

### Initiatives to Strengthen Capital

We will strive to realize value creation by setting targets against each of the current financial and non-financial capitals of Maxell Group.

#### Financial and non-financial capital be strengthened through initiatives toward 7 materialities

Financial capital	Manufacturing capital	Human capital	Intellectual capital	Social capital	Natural capital
<p><b>Targets for fiscal year ending March 2024</b></p> <p>Net sales ..... <b>125</b> billion yen</p> <p>Operating profit ... <b>12.5</b> billion yen</p> <p>Operating profit rate ..... <b>10%</b></p> <p>ROIC ..... Over <b>7%</b></p>	<p><b>Mass production of growing field products</b></p> <p>e.g., "All-solid-state battery"</p> <p>2030 Sales Target ..... <b>30</b> billion yen</p> <p>Initial capital investment on production facility</p> <p>..... Approx. <b>2</b> billion yen</p>	<p><b>Increase the number of R&amp;D personnel and personnel who develop global marketing</b></p>	<p><b>Plan to accelerate patent applications, mainly in new businesses</b></p> <p>Patent assets (domestic and overseas)</p> <p>... Maintain the scale of <b>8,000</b> cases</p>	<p><b>Each business division and affiliate company creates new value through joint development with customers and business partners.</b></p>	<p><b>Creation of economic value through environmental activities</b></p> <p>CO<sub>2</sub> emissions in FY2030 (Scope 1, 2) ..... To <b>50%</b> reduction compared to fiscal 2013</p> <p>FY2030 Renewable energy ratio target ..... <b>10%</b></p>
<p><b>Fiscal year ended March 31, 2022</b></p> <p>Net sales ..... <b>138.2</b> billion yen</p> <p>Operating income (Ratio) ..... <b>¥9.3</b> billion (6.8%)</p> <p>Net income (loss)* ... <b>-3.7</b> billion yen</p> <p>ROIC ..... <b>5.5%</b></p> <p>*Profit (loss) attributable to owners of parent</p>	<p><b>Fiscal year ended March 31, 2022</b></p> <p>Capital expenditure ... <b>4</b> billion yen</p> <p>Depreciation cost ... <b>4.5</b> billion yen</p> <p>Accelerating investing on growing field products including All-solid-state battery</p>	<p><b>Fiscal year ended March 31, 2022</b></p> <p>Number of Group Employees ..... <b>4,180</b></p> <p>Target ratio of female employees newly hired over 50% (ongoing)</p>	<p><b>Fiscal year ended March 31, 2022</b></p> <p>R&amp;D costs ..... <b>6.4</b> billion yen</p> <p>Incorporate the technologies required for new businesses centered on Analog Core Technologies</p>	<p><b>Fiscal year ended March 31, 2022</b></p> <p>Number of subsidiaries ..... <b>20</b> companies</p> <p>Of which, overseas subsidiaries ..... <b>16</b> companies</p> <p>Strengthen each company's management foundation and promote cooperation through group governance</p>	<p><b>Fiscal year ended March 31, 2022</b></p> <p>CO<sub>2</sub> emissions (Scope 1, 2) ..... <b>89.7</b>kt-CO<sub>2</sub></p> <p>Total waste emissions ..... <b>4,177</b>t</p> <p>Reviewing the development targets for environmentally conscious products</p>
<p>📄 See pages 19-21.</p>	<p>📄 See pages 19-21.</p>	<p>📄 See pages 43-46.</p>	<p>📄 See page 37.</p>	<p>📄 See page 42.</p>	<p>📄 See pages 47-50.</p>

# 1

## Growth Strategy

CONTENTS

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14	.....	Materialities and KPIs
15	.....	Message from the President
19	.....	Message from the Financial Director
22	.....	Financial and Non-Financial Highlights

# Materialities and KPIs

Among the 7 materialities, the materiality, action items, and KPIs that drive the growth strategy are as follows. Business portfolio reforms will be carried out by management on a regular and ongoing basis while confirming the growth and profitability of each business.

Materiality	Action plan	Target (Product, technology, activity)	KPI
Strengthen business portfolio management	Continuously improve the business portfolio through the two axes of market growth and business earnings (ABC-XYZ control)	<ul style="list-style-type: none"> <li>● Target: All businesses</li> <li>● Activity: ① Monitoring ABC-XYZ control by turning PDCA cycle every quarter, formulate measures for upgrading the classification of each business, follow-up of actions, determination of new classification for the next fiscal year, etc.</li> </ul>	Sales proportion of highly profitable A and B businesses: <b>over 50% (FY2023)</b>
	Implementing portfolio strategies that anticipate market changes	<ul style="list-style-type: none"> <li>● Target: New businesses</li> <li>● Activity: ① Identifying new businesses based on Analog Core Technologies ② Monthly monitoring</li> </ul>	Sales proportion of new businesses: <b>over 15% (FY2030)</b>
	Promoting efficiency at global production sites	<ul style="list-style-type: none"> <li>● Target: All businesses</li> <li>● 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 for Maxell Group from the perspective of opportunity and risk.</li> </ul>	Hold discussions on current issues or future possibilities from perspective of production area optimization as well as portfolio optimization, and reflect the concrete measures onto the next mid-term management plan

## Message from the President



**Keiji Nakamura**

President and  
Representative Director

**We will accelerate strengthening of the growth businesses and creation of new businesses by concentrating resources.**

### Review of Fiscal 2021

In the mid-term management plan, **Maximum Excellence 2023 (MEX23)**, which started in fiscal 2021, Maxell adopted a major policy of "Commit to Value" and is promoting management accordingly. In fiscal 2021, the first year of MEX23, due to effects of the business reform implemented in fiscal 2020, as well as growth in existing businesses and strengthened measures to respond to rising raw material costs, we recorded operating profit of 9.3 billion yen, up by 145.2% in comparison with the previous fiscal year, and marked a substantial new record for the Company since it was re-listed in March 2014.

On the other hand, net profit recorded a loss due to the valuation loss of investment securities. In March 2019, Maxell invested in Vehicle Energy Japan Inc. (VEJ), which is involved in automotive lithium-ion batteries and other products. In fiscal 2021, there was a temporary decline in demand

due to the impact of the shortage of semiconductor supply and other factors, and VEJ's initial plan of returning to be profitable is expected to be delayed. For this reason, the Company recorded the valuation loss for the VEJ's shares held by the Company in accordance with the accounting standards. However, the expectation for the medium- to long-term growth of VEJ in line with the expansion of automotive electrification remains unchanged, and the Company will continue to expand related businesses through its cooperative relations.

As the summary of fiscal 2021, based on MEX23's growth scenario of "achieving growth accompanied by profit by promoting business portfolio strategies, thoroughly implementing financial discipline, and strengthening cross-divisional organization functions," we have steadily made achievements and I believe that we have made a good start toward achieving our management targets for fiscal 2023.



## Message from the President

### Progress of Value Creation Initiatives

In MEX23, amidst the megatrends in terms of "people," "environment," "industry," and "consumption," we have identified 3 new focus areas of "Healthcare," "5G/IoT," and "Mobility" as areas in which Maxell's advantage of "Analog Core Technologies" can be applied. In these 3 areas, we have identified 13 growth businesses in 4 business segments as core businesses that will drive the future growth of Maxell, and are working to strengthen them.

In the Energy segment, we will promote customer development and investment to increase production, mainly for small size batteries for automotive and social infrastructures. In the Functional Materials segment, we will work to expand sales of highly durable and reliable products for construction materials, semiconductor manufacturing processes, and industrial processes, as well as to develop new products. In the Optics & Systems segment, in addition to the lens businesses for automotive, we will work to expand sales of products related

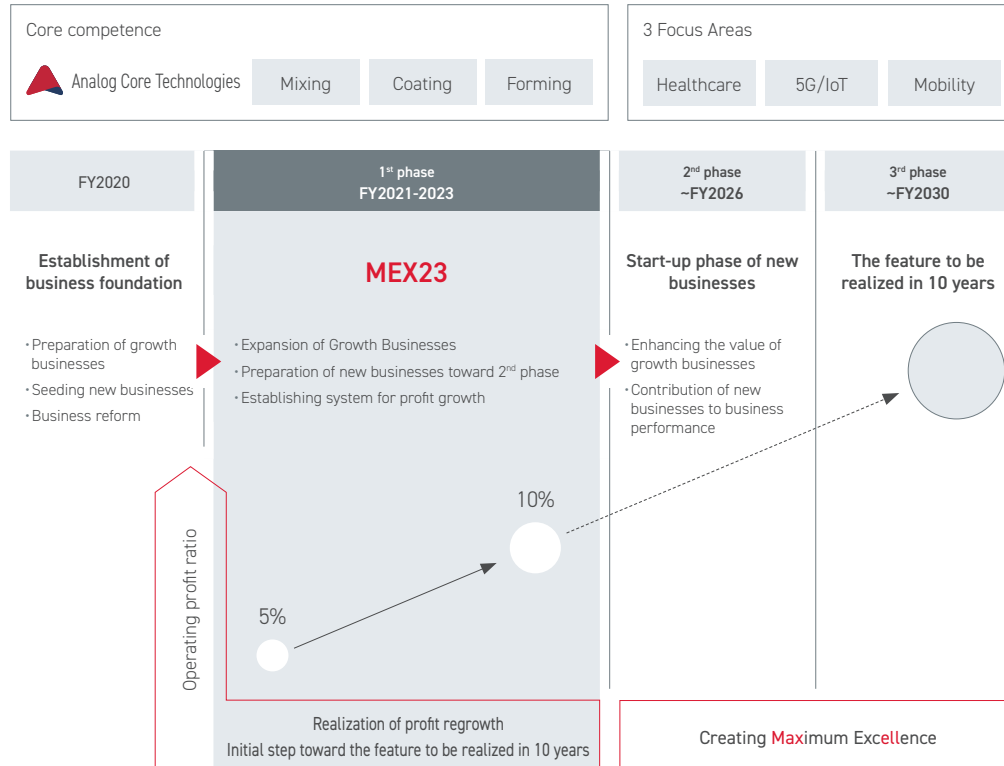
to semiconductors whose demand is strong. In the Life Solution segment, we will expand sales and increase added value of healthcare products, beauty care products, hydraulic tools. Through these efforts, and by strengthening the 13 growth businesses and other highly profitable businesses, we aim to achieve our target of operating profit of 12.5 billion yen and an operating profit ratio of 10% in fiscal 2023.

### Strengthening Development and Launch of New Businesses under company-wide organization

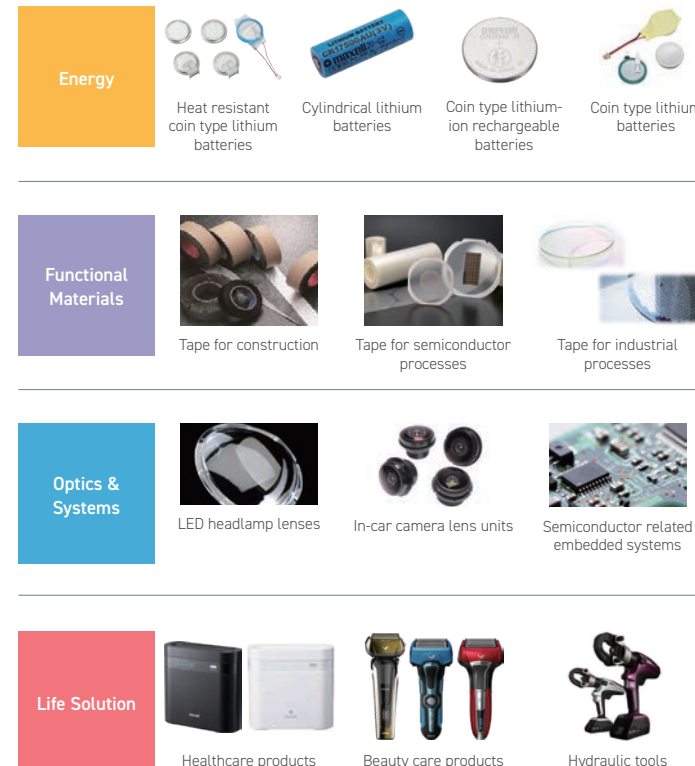
In MEX23, we are focusing on preparing new businesses led by New Business Producing Div., which was established in April 2021 through consolidation of development teams in each business division to make company-wide cross-divisional organization.

Large-scale development projects that had

### Positioning of MEX23 in Long-Term Planning



### Growth Businesses by Segment (13 Growth Businesses)



### 3 Focus Areas

**Healthcare**  
Downsizing, Long life  
Providing a space where people live healthy and safe

**5G/IoT**  
High precision, High quality  
Creating new value through the linkage of people, things, and information

**Mobility**  
High reliability, Safety  
Realize technological innovations such as autonomous driving and sensing

## Message from the President

previously been promoted by individual business divisions are transferred to New Business Producing Div. as company-wide organization. We will swiftly launch new business pillars by flexibly concentrating development resources into development themes with high priorities. New Business Producing Div. has many staffs with diverse technical backgrounds. By sharing market data across divisional boundaries and advancing development from diverse perspectives, new technological discoveries are emerging, and we feel that the foundation of continuous value creation is steadily being enhanced.

In fiscal 2021, we have consolidated the sales teams of each BtoB business division into a company-wide cross-divisional Sales and Marketing Div. This has enabled us to optimize our company-wide sales resource allocation, allowing us to spare necessary resources to launch new businesses and products. Under the product oriented organization, there were difficulties to proceed for business negotiations of the products of other divisions that they belong despite of customers' requests. Cross-selling initiatives are progressing to solve this issue, and each sales staff is becoming able to sell all products and stimulate demand. Although the scale is still small, proposals that go beyond the boundaries of business divisions are increasing, and we intend to

expand such initiatives.

We believe that it is important to promote these initiatives with a sense of speed. Maxell has a DNA for building good relations with customers and resolving customers' problems with passion. However, in order to quickly launch new businesses, we want to value not only our own resources, but also activities through collaborative partnerships. For the commercialization of new products, working with external parties to secure the production facilities, factories, and commercial distribution will become an option for us.

### As a New Pillar, Accelerate the Development of All-Solid-State Batteries

All-solid-state battery, which is being developed as a new pillar of Maxell's business, is being developed ahead of schedule, and is becoming complete enough to withstand practical applications. I believe that Maxell is in the leading position in the fierce competition to develop all-solid-state batteries, as it has established mass-production technologies based on its proprietary Analog Core Technologies, and has been able to achieve comprehensive performance in such areas as high safety (reliability), high performance (life/capacity/output), and a wide operating

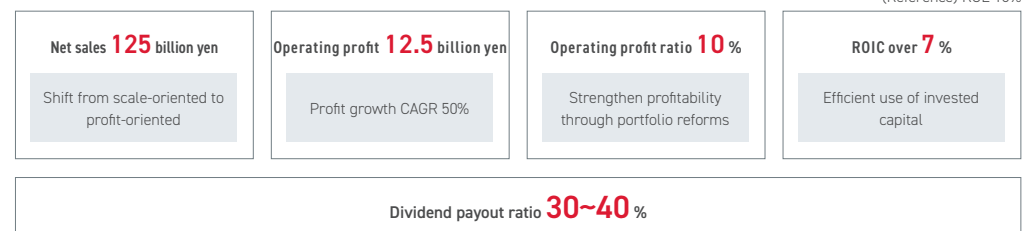
#### Key Points for Fiscal 2022

##### Initiatives for Interim Year of MEX23

- Strengthen organization and concentrate resources to expand growth businesses
- Accelerate R&D and investment to create new growth drivers
- Strengthen business portfolio by thorough financial discipline
  - Create value through ROIC management
  - Continue business replacement with ABC-XYZ<sup>\*1</sup>
  - Ensure creation of profits through PIPJ<sup>\*2</sup> activities

\*1 Profit and loss control by business \*2 P/L Improvement by Model Project

### Management Targets for FY2023



temperature range (heat resistance at 100 °C or higher).

We are currently in the process of negotiating with dozens of companies for orders, including projects for which we have already concluded development contracts. We are very pleased with the prospect of expanding use in FA equipment and infrastructure-related equipment, as well as in medical equipment and mobility-related equipment over the medium- to long-term.

With regard to our production facility, we have decided to invest approximately 2 billion yen as the first step in preparation for the start of full-scale mass production in fiscal 2023. We plan to gradually invest in expanding production capacity.

Through these initiatives, we aim to achieve sales of 30 billion yen in 2030 as a major pillar of Maxell's medium- to long-term growth. At the same time, we will contribute to the realization of a maintenance-free society through the spread of power sources with long life.

### Initiatives for Human Resources that Generate Value

The driving force of creating corporate value is generated by the value creation of every employee. For this end, I believe it is important to further penetrate "MVVSS" (MISSION, VISION, VALUE, SPIRIT, SLOGAN), the basic management policy established in July 2020, among the company and enhance our organizational strength.

In order to promote MVVSS awareness, we held town hall meetings at major sites in fiscal 2020 to convey my ideas and thoughts and gained a certain level of understanding. However, I feel that the frontline employees involved in manufacturing and



## Message from the President

technological development have not yet reached the point where they can capture MVVSS with a sense of reality in their day-to-day operations.

During the COVID-19 pandemic, I have regularly communicated messages to employees, but it is important to maintain two-way communication. In fiscal 2022, I would like to tell management's thoughts and listen to the opinions and efforts of employees at town hall meetings.

To strengthen organizational capabilities, we will establish systems so that decisions based on missions and roles at each level can be made more efficient than before. Maxell employees are highly engaged, have a good sense of unity in teamwork, and have built friendly relations with partner companies, which are good things. On the other hand, decisions tend to take a little time due to these. We will transform the organization in which all employees will be clearly aware of their duties, missions, and roles in accordance with their positions, and will be able to make decisions in a timely manner.

### Strengthening Sustainability Management

In fiscal 2021, Maxell identified 7 materialities to strengthen its sustainability management, and in fiscal 2022, set up new KPIs for each materiality. We will use KPIs to manage the progress of each initiative and steadily promote it.

In addition, in our environmental efforts, we will promote our response to a carbon neutral society, and set up our goal to reduce CO<sub>2</sub> emissions by 50% or more from the fiscal 2013 level until fiscal 2030.

In terms of Maxell's CO<sub>2</sub> emissions, the ratio of the portion emitted when products are used and the portion at the time of production of purchased parts and materials (Scope3) are rather large. However, CO<sub>2</sub> emissions at the time of product use are expected to decline significantly due to the shrinkage of the projector business.

While reducing CO<sub>2</sub> in our own production activities, we will also monitor CO<sub>2</sub> emissions of

purchased materials in their production activities and will closely share information with suppliers. In social initiatives, we will promote diversity management, sustainable procurement throughout the Group, and CSR activities in the supply chain based on new procurement guidelines.

Furthermore, in governance initiatives, we are strengthening the Group's business management foundation and strengthening information security. With regard to cyber risks, which have been increasing in recent years, we are implementing measures to cyber-attacks and the latest measures to reduce the risk of information leaks. In addition to efforts to prevent these risks, we will also review measures to minimize the impact of problems and strengthen countermeasures to deal with.

### Intellectual Property

To ensure the sustainable development of Maxell, intellectual property in the creation of innovations is securely protected by concealment or rights depending on its character, and intellectual property that has become rights will be appropriately used in our management in accordance with the business environment, such as eliminating imitators, creating colleagues, and creating new innovations. In addition to its innovation ability to create new things, Maxell maintains the ability to generate strong intellectual property, human capital and organizational structures to appropriately utilize the rights. We will take full advantage of these capabilities.

### Message to Stakeholders

We are now moving forward under a growth scenario that takes into account the major trends of the world over the medium- to long-term. In the short term, we believe there will be a variety of changes in the external environment, but we will promote management so that we can secure a medium- to long-term growth trajectory.

Looking toward the feature to be realized in 10 years, we will pursue profit growth during the period of MEX23 which is the 1st phase, and proceed with "sowing seeds" such as initiatives to create new products and businesses. In the next mid-term management plan, which is the 2nd phase, we plan to expand both sales and profit. All of our employees will make every effort to achieve our goals.

I would like to ask all of our stakeholders for their continued understanding and support of the Group.

September 2022

**Keiji Nakamura**  
President and Representative Director



## Message from the Financial Director

Noritoshi Masuda  
Director



### We will reform our corporate structure to “commit to value” by promoting ROIC management and thorough financial discipline

#### Review of Fiscal 2021

In fiscal 2021, we recorded operating profit of 9.3 billion yen under the challenging business environment, characterized by the continuing impact of COVID-19, soaring raw material and energy costs worldwide, and a shortage of semiconductor supplies. This figure was well above the record since the Company's re-listing in March 2014. The operating profit ratio rose by 4.1% to 6.8%.

Regarding foreign exchange rates, although the yen depreciated, the Group's business structure is less susceptible to the fluctuation of foreign exchange rates, and the impact on business performance was neutral. There are businesses that the yen depreciation will have positive and negative impacts, and we are building a system that balances the entire company.

As a result, our performance in fiscal 2021 can be appreciated, and I feel that we are steadily strengthening our earning power toward our target of fiscal 2023 that is operating profit of 12.5 billion yen and operating profit ratio of 10%.

In terms of cash flows, under uncertain business circumstances by the impact of the outbreak of COVID-19, overseas group companies were holding more cash until fiscal 2020 to be prepared for unstable situation such as the impact of lockdowns and other factors. Currently, a positive cycle of putting it into growth investment is beginning to emerge. In fiscal 2021, in addition to cash generated from operations, we recorded 5 billion from the sale of idle assets and cross-shareholdings, resulting in an increase in cash flow. We will not accumulate more cash than necessary, but will allocate it to investments for the next growth. During the 3 years of the Mid-Term Management Plan **Maximum Excellence 2023** (“MEX23”), there are no changes to the plan, which calls for cumulative total of capital investment of 16 billion yen and cumulative total of 17 billion yen for growth investments. We will make aggressive investment to strengthen existing growth businesses centered on 13 growth businesses as well as to create new businesses, and steadily advance initiatives that will contribute to profit after the next mid-term management plan, which

## Message from the Financial Director

will be the second phase toward the feature to be realized in 10 years.

In 2022, we see many risks that need to be prepared, such as soaring raw material and energy costs due to sudden change in the Russian-Ukrainian situation, shortage of semiconductors, stagnant logistics, and a slowdown in the Chinese market. We will closely monitor the global situation and manage cash to deal with these risks. Regarding the supply chain, we believe that it is necessary to reexamine it in terms of stable procurement and cost.

### Strengthening of Business Portfolio via Thorough Financial Discipline

We have been using ROIC (return on invested capital) as a common core indicator for the group since fiscal 2019. We emphasize this as an indicator that clarifies whether the earning power exceeds the cost of invested capital (WACC: weighted-average cost of capital) and improves corporate value.

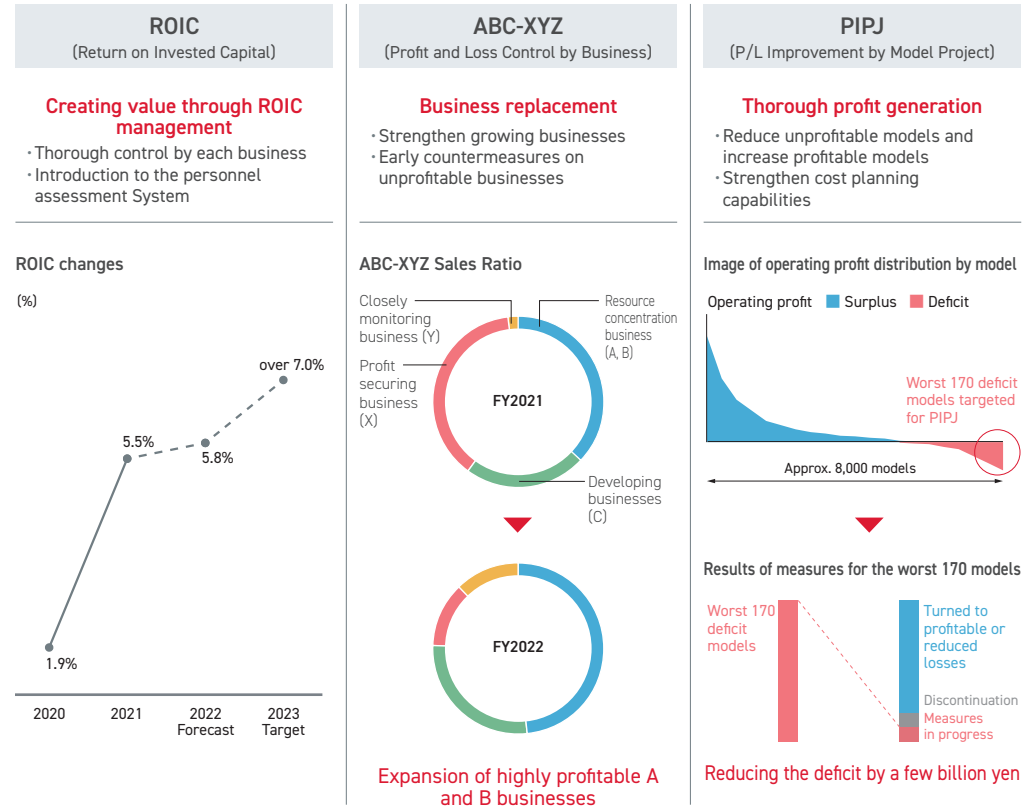
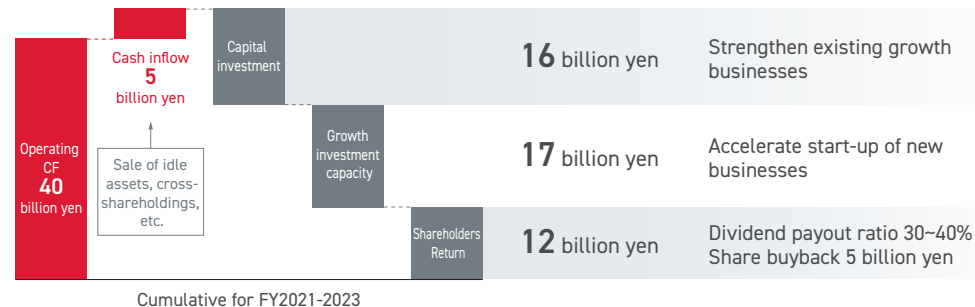
In MEX23, we have set a goal of ROIC over 7%, having each business division to set its own target. In addition, in order to instill it in employees, we are implementing e-learning and continually disseminating explanations that enable on-site

employees to capture it with sense of reality, and promoting activities to improve ROIC. A company-wide framework is designed, and a PDCA cycle is turned through quarterly portfolio meetings, in which progress by each business division is assessed and discussed for improvement.

As initiatives to improve ROIC, we are promoting ABC-XYZ operations (profit and loss control by business), carefully selected efficient investments, and PIPJ projects (profit and loss improvement projects by model) in order to improve operating profit.

ABC-XYZ operations is management tool of business groups. All business groups are ranked according to operating profit rates, growth potential, and other factors, and business strategies are efficiently implemented according to rankings to accelerate the replacement of business portfolio. Rank A and B will promote investment as a growth business, and rank C will be distinguished whether it will aim for a growth business or shift to evaluation business to be monitored closely. The X rank is profit securing business that requires careful attention, and the Y rank is low-profit business to be aimed for profit improvement within certain set period. However, if no improvement is expected, we will formulate a strategy to withdraw from this business. Z rank

### Cash allocation policy



is withdrawal business. In order to shift from business reform phase to growth phase, we are focused first on identifying low level business in XY rank and take necessary actions. Performance of the relevant businesses is followed up at monthly meetings, and some of these businesses have improved their performance.

Next, we will thoroughly implement the process of making objective investment decisions in order to implement carefully selected and efficient investments. New investments of 100 million yen or more are reviewed and discussed by the Investment

Committee based on items to be checked.

In the Investment Committee, each person in charge of technology, marketing, procurement, environment, finance, legal affairs, and intellectual property will assess from their respective knowledge whether the investment will lead to an increase in corporate value or not, whether we should really invest or rethink. Projects that have been deliberated are submitted to the Management Committee and the Board of Directors. After investment, monitoring is conducted regularly to check progress.

## Message from the Financial Director

In order to properly manage invested capital, which is the denominator of ROIC, PP (Profit Potential: to keep appropriate inventory level and to improve operating profit) has been used as a new indicator since 2020. We have established a target PP in the budget and are constantly monitoring it. The starting point of this idea is to use cash to make profit. In the spring of 2022, inventories have increased compared to the growth in sales. While problems such as global material price hikes and component shortages have not been resolved, we have deliberately decided to hold inventories based on the judgment that increasing inventories will contribute to profits. Depending on the situation, we will control appropriate inventories, which will lead to profits.

Through such thorough management under financial discipline, we become to be able to implement MEX23's policy of "Commit to Value" on a company-wide basis, and I feel that the communication between the business divisions

and the Finance & Accounting Dept. is becoming stronger. With regard to the response against soaring material cost, conventionally sales tended to avoid reflecting it onto selling prices, but now we are changing to think about what to do to make profit and act accordingly.

### Integration of Administrative Divisions to Consolidate Information and Promptly Execute Measures

In fiscal 2021, Maxell established New Business Producing Div. and Sales and Marketing Div. to share market and sales information across the board. Similarly with administrative organization, in April 2022, we put Finance & Accounting Dep., Human Resources & General Affairs Dept., and IT Management Dept. under control of the head office. This will enable us to quickly consolidate

information and execute measures.

Under this new organization, we will promote to visualize non-financial information and to adopt and enhance ESG initiatives. With regard to human capital, we believe that diversity is necessary to revitalize the company. As Maxell has undergone a number of mergers, it has employees with a variety of backgrounds and perspectives, and is thus diverse. On the other hand, the number of female engineers account for about 25% of the workforce, while female clerical employees account for about half of the workforce. We intend to increase the number of female employees and increase the ratio of female employees as well as female managers in the future.

In May 2022, we announced about the share buybacks and the cancellation. We worked to improve capital-efficiency and achieve enhancement of corporate value while also incorporating a message from the management team that business restructuring has shifted to a growth phase.

We will continue to strengthen the structure of Maxell Group from a financial perspective based on management that focuses on value and emphasizes profit growth.

September 2022

**Noritoshi Masuda**  
Director

### Profit Distribution and Shareholders Return Policy

Our basic policy on the distribution of profits is to continue to implement appropriate distribution by comprehensively taking shareholders return, capital investment, investment funds in anticipation of future business development, and the return to employees into account. Dividend payout ratio is committed to maintain 30% to 40%.

### Dividend

· Continuously and stably implement dividend in accordance with the basic policy of "dividend payout ratio 30-40%"

Dividend (Common dividend)	Interim	Year-end	Total
FY2021	20 yen	20 yen	40 yen
FY2022 (Forecast)	20 yen	20 yen	40 yen

### Share Buybacks

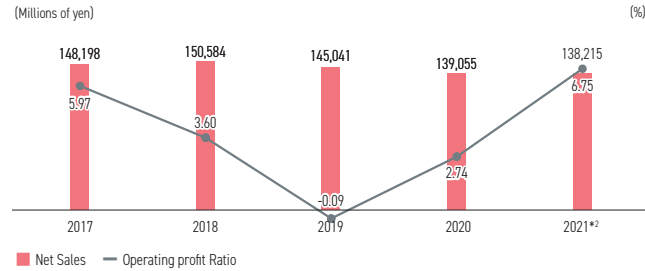
· Enhance shareholder returns taking current condition of cash on hand, stock price and other factors into account  
· Conduct share buybacks and cancellation of treasury shares after sufficiently securing investments for growth

Total amount and number of shares to be acquired	Up to 5 billion yen or 5,750,000 shares
Period of buyback	May 16, 2022-March 10, 2023
Plan after buyback	Cancel all treasury shares to be bought

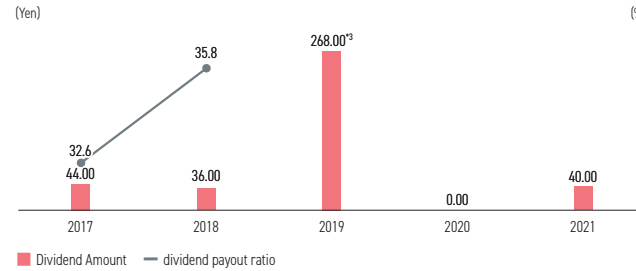


# Financial and Non-Financial Highlights

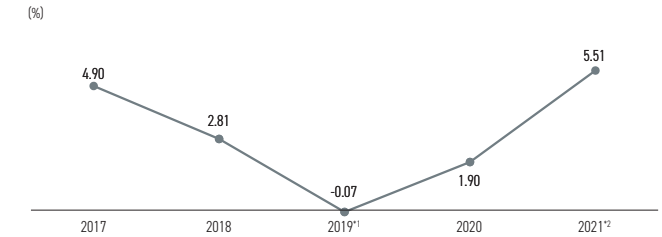
## Net Sales/Operating Profit Ratio



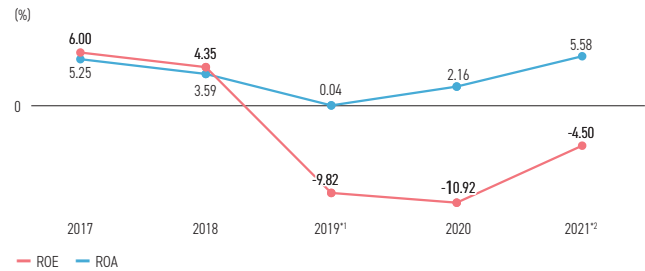
## Dividend Amount/Dividend Payout Ratio



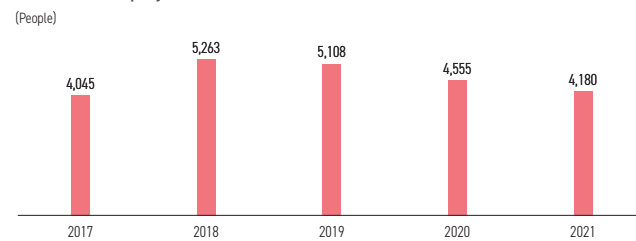
## ROIC



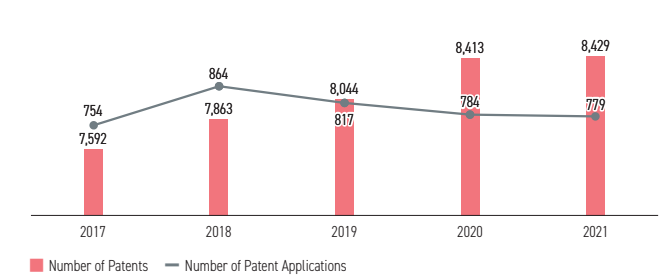
## ROE/ROA



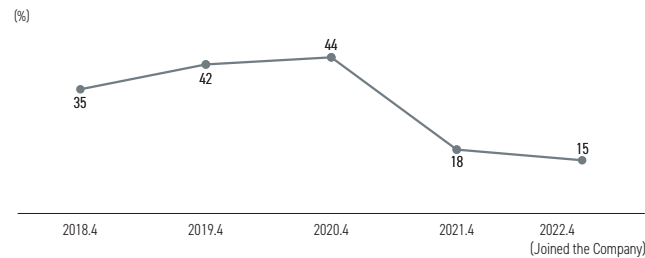
## Number of Employees



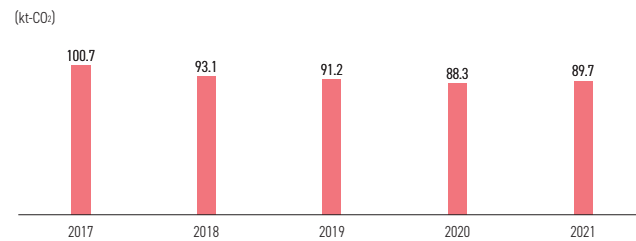
## Number of Patents/Number of Patent Applications



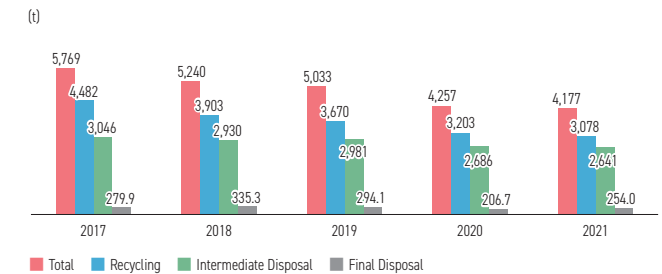
## Ratio of Female Hires among New Graduates



## CO<sub>2</sub> Emissions (Scope 1, 2)<sup>\*4</sup>



## Waste Emissions



\*1. In the consolidated fiscal year ended March 31, 2020, 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. They 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 income (loss) per share.

\*2 The Company adopted the "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29, March 31, 2020) from the beginning of fiscal 2021, and the figures for fiscal 2021 are figures after applying the said accounting standard, etc.

\*3 Ordinary dividend: 18 yen Special dividend: 250 yen

\*4 Scope 1: Direct emissions due to fuel incineration, etc. at business sites. Scope 2: Indirect emissions from purchased electricity, etc.

# 2 Value Creation Report

CONTENTS

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24	.....	Materialities and KPIs
25	.....	Value Creation Process by Business Segment
27	.....	Energy Segment
29	.....	Functional Materials Segment
31	.....	Optics & Systems Segment
33	.....	Life Solution Segment
35	.....	Toward the Creation of New Businesses
37	.....	Intellectual Property to Support New and Existing Businesses
38	.....	Consolidation and Enhancement of Sales Organization



# Materiality and KPIs

The materiality, action plans, and KPIs that drive value creation are: Each business division is implementing concrete actions in the 3 focus areas, After the New Business Producing Division nurtures growth seeds, it returns to each business, and Sales & Marketing Division implements a strategy that contributes to maximizing value for customers across all businesses.

Materiality	Action Plans	Target (Products, Technologies, Activities)	KPI
Solving Social Issues through Growth Businesses	Contributing to the Advanced Information Society through 5G/IoT related Businesses	<ul style="list-style-type: none"> <li>● Extend battery life and expand use of cylindrical-type lithium battery</li> <li>● Develop and promote next-generation all-solid-state battery</li> </ul>	Overall sales growth ratio of 13 growth businesses in 3 focus areas: <b>10% (FY2023 vs FY2021)</b>
	Contribution in advanced medical and health areas through healthcare-related businesses	<ul style="list-style-type: none"> <li>● Widespread use of products and technologies for improving housing waterproofing and airtightness in high-and low-temperature environments around the world</li> <li>● Strengthen new healthcare products</li> <li>● AFID (Advanced Floating Image Display)</li> </ul>	
	Contributing to a safe and secure society through high-reliability sensing through mobility-related businesses	<ul style="list-style-type: none"> <li>● Foamed sheets for vacuum molding</li> <li>● Develop next-generation hybrid lens units for automotive applications</li> </ul>	
Creating Innovation through Unique, Original Technologies	Evolution of unique, original technologies that generate new value	<ul style="list-style-type: none"> <li>● Strengthen development of new products and technologies in growing fields by utilizing unique, original technologies = "Analog Core Technologies" (integration of company-wide technologies, optimization of development resources, preparation of next-generation development technologies)</li> </ul>	Number of patents related to development of next generation technologies: <b>1.5 times in 5 years</b>
	Strengthening marketing for efficient R&D	<ul style="list-style-type: none"> <li>● Promote adoption of priority products in growing fields by utilizing "Analog Core Technologies" and accelerate the realization of synergies</li> <li>● Strengthen global marketing in four regions</li> <li>● Strengthen cross-sales</li> </ul>	Sales portion of highly profitable A and B businesses: <b>Over 50 % (in FY2023)</b>
	Strengthening partnerships to create new businesses	<ul style="list-style-type: none"> <li>● Collaboration of co-creation partners for key products in growth fields by utilizing "Analog Core Technologies"</li> </ul>	Sales portion of new businesses: <b>Over 15% (in FY2030)</b>
Maximization of Customer Value	Transformation into manufacturing that solves social issues ahead of customer issues	<ul style="list-style-type: none"> <li>● Envision Maxell's unknown manufacturing on the assumption that social issues ahead of customers' issues are the issues that have not yet been resolved</li> <li>● Promoting manufacturing by incorporating new policies while leveraging conventional manufacturing</li> </ul>	Sales portion of highly profitable A and B businesses: <b>Over 50 % (in FY2023)</b>
	Establishment of a system that prioritizes quality and product safety based on ethics	<ul style="list-style-type: none"> <li>● Ensuring quality for manufacturing that incorporates new measures (using other companies' production facilities and systems) while making use of conventional manufacturing knowhows</li> </ul>	Promote SQM (Super quality management for Maxell Group) and continuation of zero PS (Product safety) accidents
	Enhancing the value of the Maxell brand's core products and services	<ul style="list-style-type: none"> <li>● Aiming at enhancing the value of products and services that "maximize customer value" by incorporating new measures while making use of conventional manufacturing knowhows</li> </ul>	Unified customer feedback format in FY2022, continue to make improvements thereafter

# Value Creation Process by Business Segment

## OUTCOMES

Results and impact

## OUTPUTS

Products and services


## BUSINESSES

## INPUTS

Capital invested in growth businesses

### Energy

**Safe society by utilizing small and highly capacity battery**



**Social value**  
Safe and secure society, extend healthy lifespans, and contribute to medical care

**Environmental value**  
Maximize energy efficiency

**Productivity**  
Cost reduction by improving production processes for each battery

**Business value**  
Improvement by increasing production and expanding sales channels and market share

**Profitability**  
Improvement by increasing production and expanding sales channels and market share

**Services to be created**  
Improve safety and reliability  
**Contributing to global traffic safety**

**Services to be created**  
Higher capacity and longer life  
**Responding to the IoT environment, Improvement of labor productivity**

**Services to be created**  
Improve safety and reliability  
**Respond to an increase in diabetic patients**

**Services to be created**  
Longer product life  
**QOL (Quality of life) improvement for hearing-impaired people**


**Target Markets and Strategies**  
**TMPS (Tire Pressure Monitoring System) market**  
Keep the world's top share  
Develop applications other than TPMS

**Target Markets and Strategies**  
**Smart meter market**  
Accelerating application development


**Target Markets and Strategies**  
**Continuous Glucose Monitoring market**  
Expansion of medical partners in preparation for market expansion

**Target Markets and Strategies**  
**Wearable market**  
Expansion of sales channels for hearing aids rechargeable batteries

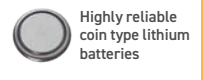
**New Business Producing Division**  
Developing high-value businesses and functions at each business division through company-wide technological synergies




Heat-resistant coin type lithium batteries



Cylindrical-type lithium batteries



Highly reliable coin type lithium batteries



Coin type lithium-ion rechargeable batteries

### Functional Materials

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



**Social value**  
Use of functions of adhesive materials in life and industry

**Environmental value**  
Energy saving in houses and buildings

**Productivity**  
High-efficiency production by stimulating new demand in the market

**Business value**  
Improve by creating markets and expanding market share

**Profitability**  
Improve by creating markets and expanding market share

**Services to be created**  
Improvement of airtightness of houses and buildings  
**Fostering cultures that emphasize airtightness**

**Services to be created**  
Higher capacity and wider adoption  
**Respond to demand for data centers**

**Services to be created**  
Enhancing reliability  
**Compatible with the conditions of use at the time of customer manufacture during eyeglass lens molding**

**Target markets and strategies**  
**North American and Southeast Asian markets**  
Spread of airtightness materials (North America), spread of sheet waterproofing construction methods (Southeast Asia)

**Target markets and strategies**  
**Semiconductor market (China and Taiwan)**  
Strengthen position in dicing tape

**Target markets and strategies**  
**Eyeglass lens molding applications**  
Continue introduction of new products for high refractive index lens molding

**Sales & Marketing Division**  
Support new market development, market expansion, and customer development for each business division's products



Tape for construction and construction materials



Tape for semiconductor manufacturing processes



Tape for industrial processes

## Value Creation Process by Business Segment

### OUTCOMES

Results and impact

### OUTPUTS

Products and services


### BUSINESSES

### INPUTS

Capital invested in growth businesses

#### Optics & Systems

**Contribute to mobility diversification and energy saving by utilizing high-precision plastic lenses and supporting for semiconductor development**



**Social value**  
Improvement of safety in mobility contributing to next generation semiconductors

**Environmental value**  
Energy-saving automotive products and semiconductor-related embedded systems

**Productivity**  
Increase added value by expanding from parts to units

**Business value**  
Improve profitability through unique value

**Profitability**  
Improve profitability through unique value


**Services to be created**

Evolution and diversification of headlamps	Hybrid lens unitization	From design to production	Utilization of domestic and overseas production bases
Free-form surface optical design, cost competitiveness	High precision, high durability, low cost	Cost reduction, shortening of lead times	Respond to production of multiple products and high-quality production


**Target markets and strategies**

Chinese, ASEAN, and Indian markets Develop from single headlamp to unit	Market for high-precision plastic lenses Maintain and improve competitiveness as a major manufacturer	Semiconductor manufacturing equipment market Strengthening relationships with semiconductor manufacturing equipment manufacturers
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**New Business Producing Division**  
Developing high-value businesses and functions at each business division through company-wide technological synergies



LED headlamp lenses



In-car camera lens units



Semiconductor-related embedded systems

#### Life Solution

**Offers Space Sterilization, Health Maintenance, and Beauty Care worldwide**



**Social value**  
Healthy and comfortable spaces QOL improvement in beauty care

**Environmental value**  
Propose energy-saving lifestyle support equipment

**Productivity**  
Sales through both BtoC and BtoB channels

**Business value**  
Expand targets from sterilization and deodorization to air comfort improve profitability by adding brand and other value

**Profitability**  
Expand targets from sterilization and deodorization to air comfort improve profitability by adding brand and other value

**Services to be created**

Verification of effectiveness of sterilization through industry-academia collaboration, Develop sterilization businesses overseas	ODM/OEM for cosmetics and beauty appliance manufacturers	Integrated structure from design and development to production for hydraulic tools
The strengths of a pharmaceutical equipment-certified plant, low-concentration ozone control technology	Flexible production in Japan and China	Product deployment and maintenance in response to customer needs

**Target Markets and Strategies**

Ozone anti-bacterial deodorizer (Air Comfort) market Increased demand for sterilization amid COVID-19 pandemic, leading position in domestic market	Shavers, beauty care equipment, global market Improve own brand-power, market expansion through ODM/OEM deployment	Global market for hydraulic tools Building strong relationships with partners in North America and other in the world
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**Sales & Marketing Division**  
Support new market development, market expansion, and customer development for each business division's products



Healthcare equipment (anti-bacterial deodorizer: Air Comfort)



Beauty equipment (shavers)



Hydraulic tools

# Energy Segment



**Shinichiro Takao**  
General Manager, Energy Division

**Leveraging our technological strengths cultivated since our foundation, we will work to increase sales of lithium batteries mainly in the healthcare field.**

**MISSION**

Become an excellent business division that has pride and a sense of responsibility as a founding business division, driving company-wide earnings and focusing on value

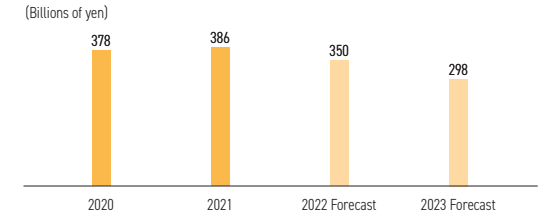
**VISION**

Continue to contribute to the development, safety, and security of society by innovating batteries and systems through original, unique technologies

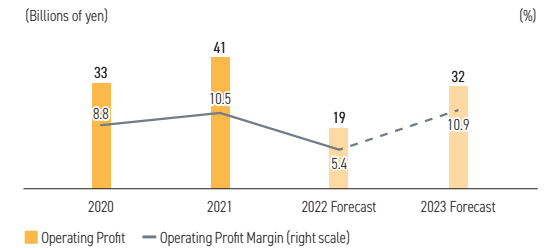
**Situation in Fiscal 2021**

Sales of prismatic-type lithium-ion batteries decreased due to a decline in production of customers caused by a shortage of semiconductors. However, higher sales of heat-resistant coin type lithium batteries due to recovering demand in automotive market, and higher sales of coin type lithium-ion rechargeable batteries, mainly for hearing aids, and cylindrical-type lithium batteries, mainly for smart meters, resulted in sales of 38.6 billion yen. Operating profit was 4.1 billion yen due to cost reduction measures and increasing profits from heat-resistant coin type lithium batteries and other factors, despite a decline in profits by sharpening rise in raw material costs and decrease in sales of prismatic-type lithium-ion batteries.

**Net Sales**



**Operating Profit / Operating Profit Margin**



**Growth Strategy**

Focus areas and market environment	<p><b>Mobility</b> Legislation of TPMS in each country completed and market growth slowed down</p>	<p><b>5G/IoT</b> Expansion of demand for batteries for smart meters</p>	<p><b>Healthcare</b> Expansion of the CGM* market against the backdrop of an increase in diabetic patients</p>	<p><b>Healthcare</b> Expansion of the rechargeable hearing aid market</p>
Growth businesses	<p><b>Heat-resistant coin type lithium batteries</b></p>	<p><b>Cylindrical-type lithium batteries</b></p>	<p><b>Highly reliable coin type lithium batteries</b></p>	<p><b>Coin type lithium-ion rechargeable batteries</b></p>
Analog Core Technologies	<b>Mixing &amp; Dispersion</b> <b>High Precision Molding &amp; Forming</b>		<b>Mixing &amp; Dispersion</b> <b>Fine Coating</b>	
Main measures	<ul style="list-style-type: none"> <li>Further strengthen competitive advantage based on high reliability</li> </ul>	<ul style="list-style-type: none"> <li>Providing high-capacity batteries</li> <li>To build an increased production system</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of traceability systems and provision of highly reliable products</li> </ul>	<ul style="list-style-type: none"> <li>Development of compact, high-capacity batteries</li> <li>Implementing cost reduction</li> </ul>

\*Continuous Glucose Monitoring

**Opportunities and Risks**

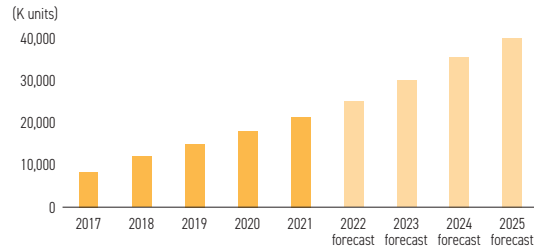
<b>Opportunities</b>	<ul style="list-style-type: none"> <li>Expansion in the healthcare market</li> <li>Shift to smart meters</li> <li>Rising awareness of safe driving</li> </ul>
<b>Risks</b>	<ul style="list-style-type: none"> <li>Soaring prices for rare metals and other materials</li> <li>Intensifying competition with other companies</li> </ul>
<b>Response to Opportunities and Risks</b>	<ul style="list-style-type: none"> <li>Assessing customer needs and improving quality</li> <li>Analysis of market information and reflection in strategies</li> <li>Rationalization of sales prices</li> <li>Cost reduction, process improvement</li> </ul>

## Energy Segment Strategies by Growth Business

### Cylindrical-type lithium batteries

Market Size, Growth Rate, and Market Trends

Market Forecast for Smart Meters (Cylindrical-type lithium batteries Used) (Domestic and Overseas) (Maxell research)



Smartification of meters progresses following enhanced IoT environment and worker shortages

Key Market Share Positioning

Target (2023):  
Share of smart meters (models using cylindrical-type lithium batteries)  
..... **10% or more**

Maxell's Strengths

- Achieved high capacity with original electrode technology
- Long-life technologies cultivated in Heat-resistant coin type lithium battery
- Original electrode realizes high operating voltage until the end of discharge
- Reliability to meet customer requirements



Smart meters

Interview with the Person in Charge



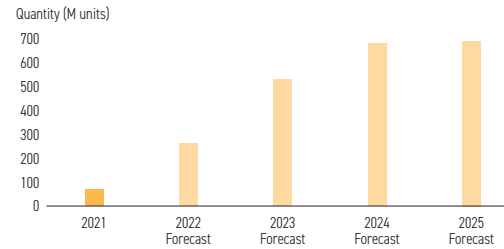
The biggest feature of our cylindrical-type lithium batteries is high capacity. It is necessary to pack the material efficiently in order to increase the battery capacity, and by increasing the thickness of the electrode, which is an original technology, high filling becomes possible, resulting in higher capacity.

**Tomoki Kishimoto**  
Assistant Manager, Cylindrical-type Primary Battery Production Group, Production Department, Energy Division

### Highly reliable coin-type lithium batteries

CGM Demand Forecast

(Maxell research)



Demand expands due to an increase in diabetic patients and cost reductions in CGM

Target (2023):  
Market share of CGM batteries .....approx.. **15%**

- Ensuring safety through sealing technology and long-life technologies cultivated through heat-resistant coin type lithium battery
- Quality of batteries for medical use



CGMs



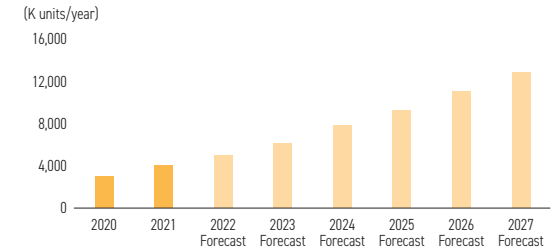
Coin type batteries will be expanded in the medical field in the future. Since CGM is placed and used in the human body, the high reliability, safety, and quality control systems cultivated in heat-resistant coin type lithium battery have been highly evaluated, and the batteries have been adopted by major customers.

**Kyohei Takeuchi**  
Manager, Coin type Primary Battery Design Group, Design Department, Energy Division

### Coin type lithium rechargeable batteries

Hearing Aid Market Forecast (Domestic and Overseas)

(Maxell research)



Significant growth is expected due to reduction of battery replacement burden and running cost

Target (2023):  
Share in rechargeable hearing aids .....approx.. **20%**

- Differentiation from competitors by high capacity and cycle characteristics
- Improved reliability through sealing technology cultivated through heat-resistant coin type lithium battery
- Compact and thin design with laminated structure



Hearing aids



The electrodes of our coin type lithium-ion rechargeable batteries employ a laminated structure, which provides easy output and excellent cycle characteristics. In addition, we are leveraging our strengths in high safety cultivated in coin type batteries to expand into the small-sized wearable market.

**Arisa Kimura**  
Coin type Rechargeable Battery Design Group, Design Department, Energy Division

# Functional Materials Segment



**Yukinobu Yamazaki**  
General Manager, Functional Materials Division

## Aiming to expand overseas sales of tape for construction and construction materials, and strengthen sales of tape for semiconductor manufacturing processes and industrial process tapes

### 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

### Situation in Fiscal 2021

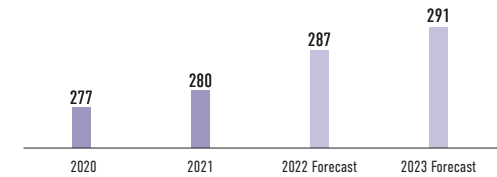
Sales of coated separator showed a decline due to the adoption of the Revenue Recognition Accounting Standard, etc. However, sales of adhesive tape and industrial rubber products increased, resulting in net sales of 28 billion yen. Operating profit increased to 1.9 billion yen, due to higher selling prices of adhesive tapes reflecting increase of raw material cost and cost reductions, as well as higher profits from industrial rubber products.

### Growth strategy

Focus areas and market environment	<p>Healthcare</p> <p>Growing demand for air-tight housing around the world due to climate change</p>	<p>5G/IoT</p> <p>Needs for manufacturing process tape rise due to the expansion of the semiconductor market</p>	<p>Healthcare</p> <p>Growing need for high value-added tapes used in manufacturing processes</p>
Growth businesses	<p>Tape for construction and construction materials</p>	<p>Tape for semiconductor manufacturing processes</p>	<p>Tape for industrial processes</p>
Analog Core Technologies	<p>Mixing &amp; Dispersion</p> <p>Fine Coating</p> <p>High Precision Molding &amp; Forming</p>		<p>Mixing &amp; Dispersion</p> <p>Fine Coating</p>
Main measures	<p>Deploying strengths in the domestic market to overseas</p> <ul style="list-style-type: none"> <li>Application to highly air-tight housing in North America</li> <li>Developing a market for waterproofing construction methods in Asia</li> </ul>	<p>To secure a market position</p> <ul style="list-style-type: none"> <li>Expand sales of dicing tapes for memory semiconductors</li> <li>Expansion of product lineup and expanding sales of back grind tapes</li> </ul>	<ul style="list-style-type: none"> <li>Development of process tapes match to customer usage conditions during eyeglass lens molding</li> </ul>

### Net Sales

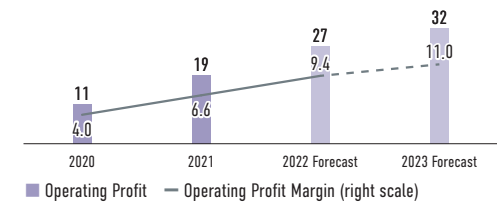
(Billions of yen)



### Operating Profit / Operating Profit Margin

(Billions of yen)

(%)



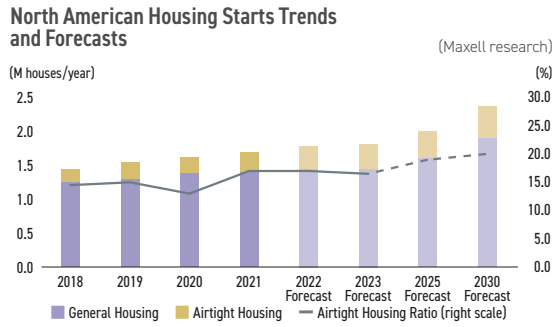
### Opportunities and Risks

Opportunities	<ul style="list-style-type: none"> <li>Response to low-carbon housing by growing momentum of decarbonation</li> <li>Enhancement of production for expanding semiconductors and electronics-related markets</li> </ul>
Risks	<ul style="list-style-type: none"> <li>Entry of overseas manufacturers</li> <li>Soaring materials costs</li> </ul>
Response to Opportunities and Risks	<ul style="list-style-type: none"> <li>Market needs analysis and response</li> <li>Development and sales expansion by leveraging our strengths</li> <li>Cost reduction through process improvement</li> </ul>

## Functional Materials Segment Strategies by Growth Business

### Tape for construction and construction materials

Market Size, Growth Rate, and Market Trends



- Airtight housing will also increase as the number of housing starts increases.
- The airtight housing ratio will also gradually increase 2021 onward.

Key Market Share Positioning

**Current status:**  
 Share in Japan ..... **Over 35% (No. 2)**  
**Target (2023):**  
 Share in North America ..... **10%**  
 Share in Southeast Asia ..... **5%**

Maxell's Strengths

#### Airtightness and waterproof materials

• By utilizing Analog Core Technologies, providing customized products tailored to overseas living environments (products that can solve potential problems in various construction environments)



Example of construction of air-tight materials

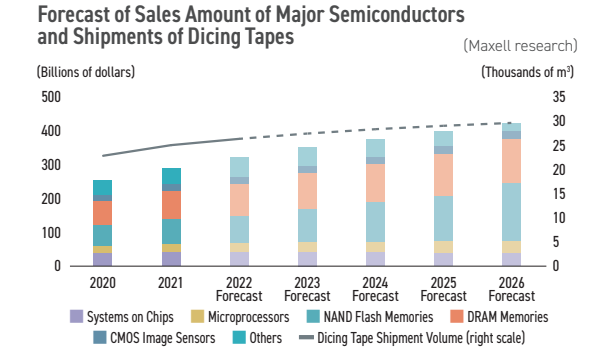
Interview with the Person in Charge



An important part of our business development in North America is to identify differences in business practices. In the U.S., short-term meetings are preferred, so we omit company introductions and other information when we meet, and strive to give presentations in which the key points are communicated in an immediate fashion.

**Chikashi Tanaka**  
 Assistant Manager, Business Planning Department, Functional Materials Division

### Tape for semiconductor manufacturing processes



- Semiconductor market is expected to continue to grow (CAGR: 11.3%)
- Particularly driven by memory (DRAM, NAND)
- Demand for dicing tape will also increase in line with the increase in sales of major semiconductors.

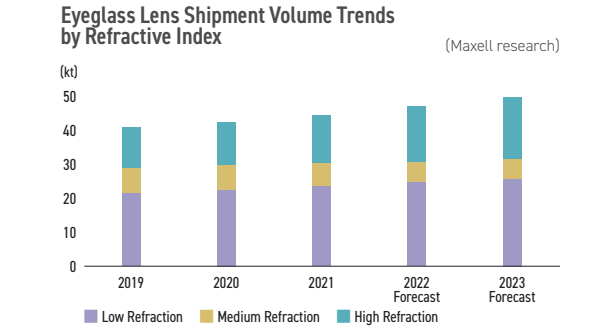
**Current status:**  
 Dicing tape share ..... **6.0% (2020), 7.5% (2021)**  
**Target (2023):**  
 Dicing tape share ..... **10.0%**

- Stable and high-quality manufacturing capabilities through the use of Analog Core Technologies (thin film and smooth coating)
- Design technology for special adhesives with high fixation strength, excellent peeling characteristics, and low contamination of wafer and package surfaces
- For silicon wafers: Strengths for memory use
- Packaging: Strengths in China and other Asian countries

The design of adhesive requires a technical approach from a variety of perspectives, and we have enhanced our technological capabilities through numerous trials and errors. In addition, we are striving to develop products from the user's perspective in order to respond to recent market changes.

**Keisuke Suzuki**  
 Business Planning Department, Functional Materials Division

### Tape for Industrial processes



Eyeglass lens market: Expansion of lenses with high refraction index for which the tape method is used

**Current status:**  
 For eyeglass lenses molding (for high refraction)..... **Over 30% (2020)**  
**Target (2023):**  
 For eyeglass lenses molding (for high refraction)..... **50%**

- Tapes for molding eyeglass lenses**
- Ability to control the cloudiness of lenses and the generation of bubbles and wrinkles at the time of molding through the compounding and coating technologies for silicon-based adhesives

Process tapes for eyeglass lens molding require characteristics that match the usage conditions of customers. We make full use of our adhesive compounding technology and coating technology to design products that are customized for each customer and have added value.

**Nao Kagami**  
 Design Department, Functional Materials Division

# Optics & Systems Segment



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

## Focus on developing next-generation technologies for automotive lenses and strengthening semiconductor related embedded system in line with market trends

### MISSION

Refine optics and systems core technologies to realize a safe and secure information society

### VISION

Enhance Analog Core Technologies and contribute to people's lives and society with optical and system component products, shifting from products to services

### Situation in Fiscal 2021

Net sales decreased due to the termination of projector sales in the Americas, Europe and Asia (excluding China and South Korea). However, net sales were 39.5 billion yen due to an increase in sales of semiconductor-related embedded system following the recovery in the semiconductor market, an increase in sales of optical components such as in-car camera lens units and LED headlamp lenses, and the recovery in automotive market, and an increase in sales due to the commencement of mass production of head-up displays. Operating profit was 3.3 billion yen due to business restructuring of projectors, improvement of profitability of optical components and head-up displays, and increased profits of semiconductor-related embedded systems.

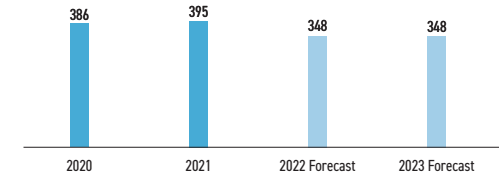
### Growth strategy

Focus areas and market environment	Automotive Market CASE ADAS* Expansion <b>Mobility</b>		Development of ICT Diversification of devices <b>5G/loT</b>	
Growth businesses	<b>LED headlamp lenses</b> 	<b>In-car camera lens units</b> 	<b>Semiconductor-related embedded systems</b> 	
Analog Core Technologies	<b>Mixing &amp; Dispersion</b>	<b>Fine Coating</b>	<b>High Precision Molding &amp; Forming</b>	<b>Mixing &amp; Dispersion</b>
Main measures	<ul style="list-style-type: none"> <li>Deployment of diversification and design to meet local requirements by leverage from free-form surface optical design and high-precision molding technology</li> <li>Investment to increase production at overseas plants</li> </ul>	<ul style="list-style-type: none"> <li>High precision, high durability, and low cost thanks to hybrid lens unit using proprietary technology (aspherical glass and plastic lenses)</li> <li>Develop markets through collaboration between overseas sales companies and works</li> </ul>	<ul style="list-style-type: none"> <li>Integrated response through unique, original technology from development to production</li> <li>Providing a wide variety of customized products and high quality</li> <li>Investment to increase production at domestic plants</li> </ul>	<ul style="list-style-type: none"> <li>Investment to increase production at domestic plants</li> </ul>

\*CASE: Connected, Autonomous, Shared and Electric. ADAS: Advanced Driving Assistance Systems

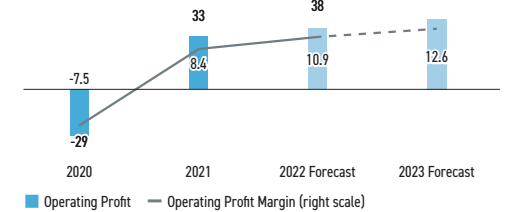
### Net Sales

(Billions of yen)



### Operating Profit / Operating Profit Margin

(Billions of yen)



### Opportunities and Risks

Opportunities	<ul style="list-style-type: none"> <li>Accelerating toward a safe and secure society without traffic accidents, shifting to high-function, high-performance, energy-saving products</li> <li>High-speed communication and expansion of information volume for 6G</li> </ul>
Risks	<ul style="list-style-type: none"> <li>Improved accuracy and variety of optical components</li> <li>Insufficient supply of semiconductors and components</li> </ul>
Response to Opportunities and Risks	<ul style="list-style-type: none"> <li>Market needs analysis and response</li> <li>Customization through unique, original technology from development to production</li> <li>Investment in increased production to support a wide variety of products</li> <li>Advance parts arrangement and preliminary study of alternative parts</li> </ul>



## Optics & Systems Segment Strategies by Growth Business

### LED headlamp lenses

**Forecast of Automotive Production and Ratio of LED Headlamps Installed** (Maxell research)

Year	Automotive Production (M units)	LED Headlamp Installation Ratio (%)
2019	~90	~40
2020	~80	~50
2021	~85	~60
2022 Forecast	~85	~70
2023 Forecast	~90	~75
2024 Forecast	~95	~80
2025 Forecast	~100	~85
2026 Forecast	~105	~85

- Increase ratio of LED headlamps penetration rate
- Higher performance and functionality, such as light distribution control functions and built-in sensors

**Key Market Share Positioning**

**Current status (2021):**  
 Global share ..... **18% (No. 1)**  
 (Maxell research)

**Maxell's Strengths**

**Free-form surface optical design and high-precision molding technology**

- Respond to diversified design of ADB (Adaptive Driving Beam) and other lamps

**Quality performance of integrated production from die design to molding**

**Interview with the Person in Charge**

We are developing high precision molds and evolving our molding technology and assembly processes to meet a wide range of needs. At the same time, we are working to build a low-cost production system and maintain zero external defects with the 4 Actuals Principle\*

**Yukari Ota**  
 Engineer, Production Section, Precision Products Division, Maxell Frontier Co., Ltd.

### In-car camera lens units

**Predicted Number of In-car Camera Lens Units Installed** (Maxell research)

Year	View (Millions)	View + sensing (Millions)	Sensing (Millions)	Annual Growth Rate (%)
2018	~80	~30	~10	3%
2019	~90	~40	~15	13%
2020	~100	~50	~20	16%
2021	~110	~60	~25	13%
2022 Forecast	~120	~70	~30	16%
2023 Forecast	~130	~80	~35	13%
2024 Forecast	~140	~90	~40	16%
2025 Forecast	~150	~100	~45	13%
2026 Forecast	~160	~110	~50	16%
2027 Forecast	~170	~120	~55	13%
2028 Forecast	~180	~130	~60	16%
2029 Forecast	~190	~140	~65	13%
2030 Forecast	~200	~150	~70	16%

- The number of camera used per vehicle is increasing by expansion of CASE/ADAS
- Expanding demand for sensing camera and higher resolution requirement

**Current status (2021):**  
 Global share ..... **8% (No. 1 for Japanese manufacturers)**  
 (Maxell research)

**Hybrid lens unit using proprietary technology**

- Combination of aspherical glass and plastic lenses
- Realization of high precision, high durability, and low cost

**Interview with the Person in Charge**

With regard to aspherical plastic lenses, which are the key to improving the performance of in-car camera lens unit, we will work to strengthen price competitiveness and improve yields by fully automating peripheral facilities, while working with Maxell Frontier's die design members to address forming technology issues.

**Saravanan Muniandy**  
 Manager, Head of Manufacturing Division, Maxell Tohshin (Malaysia) Sdn. Bhd.

### Semiconductor-related embedded systems

**Semiconductor Manufacturing Equipment (manufactured in Japan) Sales Forecast** (Maxell research)

Year	Sales (Billions of yen)
2018	~22,000
2019	~20,000
2020	~23,000
2021	~33,000
2022 Forecast	~35,000
2023 Forecast	~37,000

- Demand for semiconductors expanded due to the development of 5G and IoT-ICT
- Increasing demand for semiconductor manufacturing equipment

**Current status:**  
 Share among major manufacturers in the semiconductor manufacturing equipment industry ..... **No. 1**  
 (Maxell research)

**Maintain relationships with major customers**

- Responsive technologies and long-term reputation for reliability with semiconductor manufacturing equipment manufacturer of high global market share

**Ability to offer customized embedded IoT solutions**

- Integrated services from design and development to production and assembly
- Providing high-quality and multi-product production capacity

Support for development of embedded systems, contract development and manufacturing

**Interview with the Person in Charge**

Semiconductor-related embedded systems have long life cycles and some products require production to continue for more than 10 years. In response to customers' demand for continuous production, we are responding to revisions, such as proposals for substitutes for discontinued products, and we will be able to continue receiving orders.

**Masanori Hasumi**  
 Engineer, System Design Section, DMS Division, Maxell Frontier Co., Ltd.

\*GENBA(actual place), GENJITSU(actual situation), GENBUTSU(actual object), GENJIN(actual person)

# Life Solution Segment



**Shuji Wada**  
General Manager, Life Solution Division

## Strengthening sales channel and global operation with competitive and differentiated products

### MISSION

Continuous business growth by customer value creation and rebuild Maxell brand with confidence and reassurance

### VISION

Enriching people's minds by creating safe, comfortable, and smart spaces

### Situation in Fiscal 2021

Net sales totaled 32 billion yen, reflecting a decline in sales of health-related products due to a slowdown in sales of anti-bacterial deodorizers, for which demand increased in 2020 due to the spread of COVID-19 infections, and the businesses transfer of part of healthcare products, and decline in sales of other consumer products, such as beauty care products and optical disks. Operating income was 80 million yen, mainly due to a decrease in profit of health care products and beauty care products.

### Growth strategy

Focus areas and market environment	 <p><b>Health care</b></p> <p>Air comfort market remains steady due to coexistence with viruses Steady demand for distinctive beauty care products</p>	 <p><b>5G/IoT</b></p> <p>Maintenance demand increased due to resumption of power infrastructure investment</p>	
Growth businesses	<p><b>Health care products (anti-bacterial deodorizer: Air comfort)</b></p> 	<p><b>Beauty care products (shavers)</b></p> 	<p><b>Hydraulic tools</b></p> 
Main measures	<p><b>Projected high added value and re-growth through Maxell Unique Value (MUV) *</b></p> <p>* Create products with new customer value by improving the commercialization process</p> <ul style="list-style-type: none"> <li>From "eliminate bacteria deodorization" to "Air Comfort" business</li> <li>Create heterogeneous advantage + competitive beauty care products by MUV</li> <li>Strengthen global operation and develop branded businesses by leveraging technology and production capacity</li> </ul>		<ul style="list-style-type: none"> <li>Strengthen global operation by having compatibility with universal battery packs</li> <li>Increase market share by supplying ODM to power tool manufacturers</li> <li>Expansion of business domains through development of other industries</li> </ul>

### Net Sales

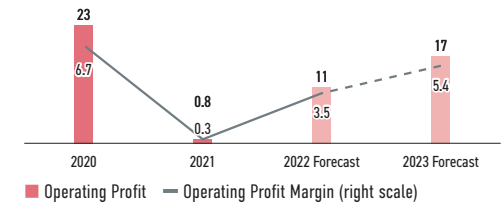
(Billions of yen)



### Operating Profit / Operating Profit Margin

(Billions of yen)

(%)



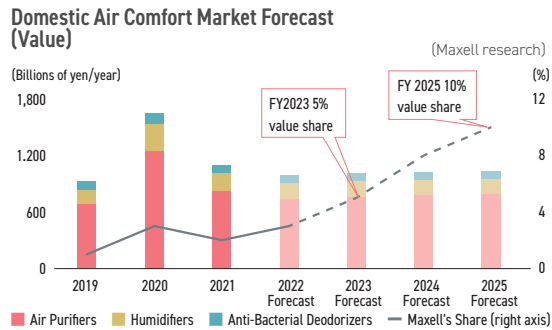
### Opportunities and Risks

Opportunities	<ul style="list-style-type: none"> <li>Expansion of business area to air comfort market</li> <li>Expansion of maintenance demand due to expansion of infrastructure investment</li> </ul>
Risks	<ul style="list-style-type: none"> <li>Soaring material costs of electronic components, resins, and raw materials for batteries</li> <li>Increase in procurement costs due to the depreciation of Japanese yen</li> </ul>
Response to Opportunities and Risks	<ul style="list-style-type: none"> <li>Cost reduction by consolidating items and strengthening procurement capabilities</li> <li>Optimization of sales prices</li> <li>Promotion of production system that responds to exchange rate fluctuations, and flexible procurement from Japan and overseas etc.</li> <li>Strengthen domestic sales in China, centered on Chinese affiliates</li> </ul>

## Life Solution Segment Strategies by Growth Business

### Anti-bacterial deodorizer: Air comfort

Market Size, Growth Rate, and Market Trends



The threat of viruses remains, and demand remains firm

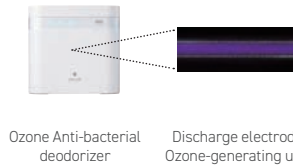
Key Market Share Positioning

Current status (FY2021):	
Anti-bacterial deodorizer category	
Volume share .....	10%
Value share .....	6%
Targets (FY 2023):	
Air comfort market*	
Value share .....	5%
Targets (FY 2025):	
Value share .....	10%

\* Anti-bacterial deodorizer + humidifiers + Air cleaners

Maxell's Strengths

- Possession of ozone-generating technology and spatial ozone density control technology
- Experience of ozone effects evaluation and verification technologies in cooperation with third-party organizations, such as the JAPAN OZONE ASSOCIATION
- Broad sales network in B2B/B2B2C



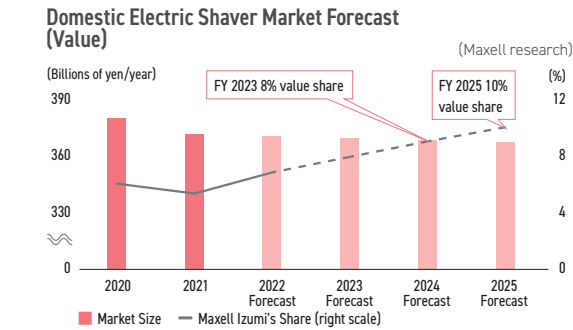
Interview with the Person in Charge



We will provide new value through creative and heterogeneous products based on MUV's future prospect and consumer receptivity surveys and verifications. In addition, we will expand the concept from eliminate bacteria deodorization to air comfort and security and promote the branding of OZONEO technology.

Manabu Morimoto  
Senior Manager, Designing Department, Life Solution Division

### Electric Shaver



Domestic market slightly down, global market slightly up

Current status (FY2021):	
Value share .....	6% (Japan)
Targets (FY 2023):	
Value share .....	8% (Japan)
Targets (FY 2025):	
Value share .....	10% (Japan)

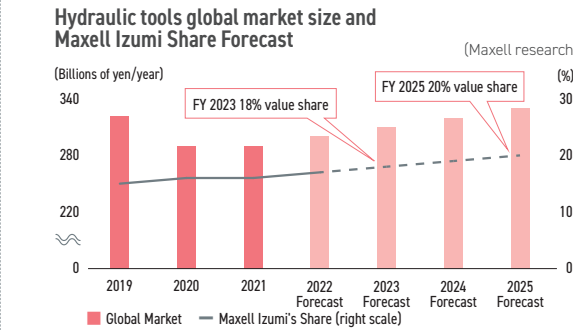
- Blade technology cultivated over 65 years and global customer reliability → 3 types of blade (reciprocating, rotary, and rotation dome) are manufactured only by Maxell Izumi
- Realization of 3-year SUS blade warranty with excellent precision etching processing technology



We develop and manufacture 3 types of electric shavers (reciprocating, dome, and rotary) in-house. We will further evolve the processing technologies and quality capabilities of our blades, which we have cultivated over 65 years, and develop our business with high-value-added products.

Tsuyoshi Nakano  
Senior Manager, Manufacturing Department, Electric Appliance Division, Maxell Izumi Co., Ltd.

### Hydraulic tools



Expecting to grow by around 3% due to restart of equipment renewals from fiscal 2022 onward

Current status (FY2021):		Targets (FY 2023):	
Domestic market share .....	53% (No.1)	Domestic market share .....	60%
Overseas market share .....	9% (No.2)	Overseas market share .....	12%
(of which, shares in North America 15% (No.2))		(share in North America 17%)	
Global market share...	16%	Global market share...	18%
*Including ODM models		Targets (FY 2025):	
		Global market share...	20%

- Ultra-high hydraulic technology → Miniaturization and reduction of weight for high-power tools; can be expanded to other industries besides electrical equipment
- Expansion of models with specifications in response to market demands (compatibility with universal battery packs)
- \* 3 types, biggest number in the industry
- Compatible with in-house as well as universal battery packs with high market share



We will strengthen our North American strategy and promote expansion of sales channels for IZUMI brand products through new partnerships in addition to our conventional OEM strategy. Over the long term, we aim to further expand our market share by entering the market for new OEMs.

Hiroaki Sakayori  
Manager, Overseas Sales Section, Sales Department, Hydraulic Tools Division, Maxell Izumi Co., Ltd.

# Toward the Creation of New Businesses

Maxell has identified new businesses with distinctive features, and has begun to develop and create markets by leveraging our strengths.

## MISSION

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

## VISION

Growing the company by creating new businesses that expand globally

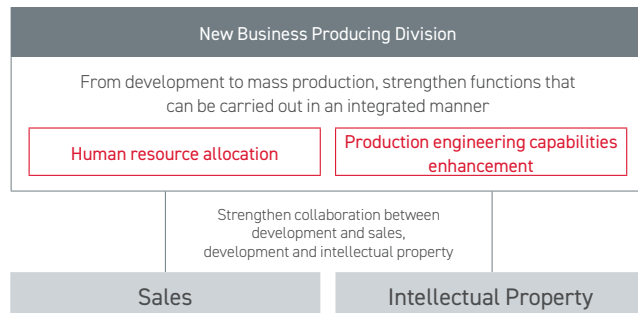



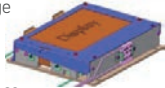

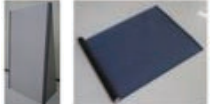
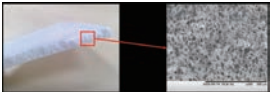
**Kenichi Sano**  
General Manager, New Business  
Producing Division

## Policies for Fiscal 2022

In order to speed up development, we will strengthen functional organizations such as material procurement, production engineering, and quality assurance so that we can conduct integrated operations up to mass production. We will strengthen our production engineering capabilities by concentrating the technologies of each business field, and aim to be an organization with a strong flexibility to allocate the required specialist human resources.

We will also strengthen cooperation between development and sales, development and intellectual property, to build an immediate sales force and an intellectual property portfolio that can be used for the future.



Focus products	Target market (Figures; Maxell research)	Maxell's strength
<b>AFID (Advanced Floating Image Display)</b>	<ul style="list-style-type: none"> <li>• Touchless panel display solution market size: 2 trillion yen</li> <li>• AFID market: Fast growing, demonstration tests begin at variety of places</li> </ul>	<ul style="list-style-type: none"> <li>• <b>High-brightness, high-contrast aerial images</b> Image projection technology that cultivated in developing projectors and HUD New development of highly efficient, thin LLIS (Laser Like Image Source) light sources</li> <li>• <b>Thin, large-screen</b> Ultra-high-precision die technology accumulated through LED headlamp lenses</li> <li>• <b>Aerial switching</b> Add interactive features on the in-air image display surface</li> </ul>  
<b>HUD (Head Up Display)</b>	<ul style="list-style-type: none"> <li>• HUD market: Growth in China and Europe (Annual rate of approx. 145% (2021-2022 forecast))</li> <li>• AR-HUD market: Demand is expanding due to the expansion of safety systems and autonomous driving</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Industry's smallest AR-HUD</b> Achieved both large-screen projection and miniaturization of the unit through our proprietary advanced free-surface optics and LLIS technologies Progress: Mass production in April 2021 → Launched in the Chinese market</li> <li>• <b>High reliability</b> Realized high reliability (heat resistance, etc.) by utilizing development know-how since 2013</li> </ul> 
<b>Electromagnetic wave absorber</b>	<ul style="list-style-type: none"> <li>• Automotive components with high frequencies, 5G and next-generation high-speed communications equipment and components</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Absorbs and shields unwanted electromagnetic wave components</b> Permeable and stable absorption characteristics</li> <li>• <b>Forms according to usage applications</b> Support for films, thin rubber sheets, molded bodies, etc.</li> </ul> 
<b>Foamed sheet</b>	<ul style="list-style-type: none"> <li>• Areas where reductions of weight, materials and energy are required</li> </ul>	<ul style="list-style-type: none"> <li>• <b>3D molding of highly heat-resistant resin</b> Stable accuracy during melt molding</li> <li>• <b>Lightweight and high impact strength</b></li> </ul> 

Toward the Creation of New Businesses

# Accelerate Development of All-Solid-State Batteries and Create a Marketplace

## Providing value to the market by generating innovation in lithium Batteries as a compilation of Maxell's Analog Core Technologies

All-solid-state batteries can be expected to improve safety, longer life, heat resistance, etc. because solid ion conductors are used instead of organic liquid electrolyte and the whole battery is made up of solid materials.

Maxell's all-solid-state batteries are in a leading position in the fierce competition to develop all solid-state batteries, as it is ensuring overall performance such as high safety (reliability), high performance (life/

capacity/power), and wide operating temperature range (heat resistance above 100°C) by our Analog Core Technologies, "Mixing & Dispersion" and "Fine Coating" and "High Precision Molding & Forming" as the source of value creation, and by mass production technology as a manufacturing capability.

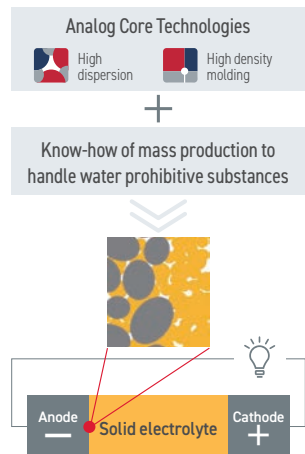
To cultivate the market, the Sales & Marketing Division takes the lead in ascertaining customer needs and applying them to product development. Currently, the adoption of all-solid-state batteries for high heat-resistant

and long-life applications is increasing, particularly in factory automation and infrastructure-related equipment. In the future, we will continue to work toward the adoption of all-solid-state batteries in medical equipment and mobility-related equipment with the aim of creating new markets.

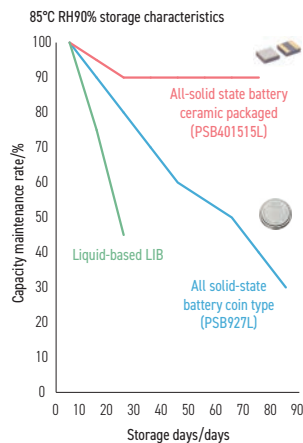
### Maxell's all-solid-state battery features



Achieved extremely high filling density during mass production



Excellent storage characteristics



### Focus on FA/infrastructure market business

**Customer Needs**

**FA Equipment**

- Global trend of factory automation
- Severe specification requirements due to the development of robot technology

**Infrastructure**

- Global difficulty in securing workers
- Growing demand for maintenance-free products

Characteristics required 105°C for 10 years

Required service life : 20 years

**Only Maxell satisfies all of 3 characteristics!**

Note: Limited to small batteries (Maxell research)

**Business development status**

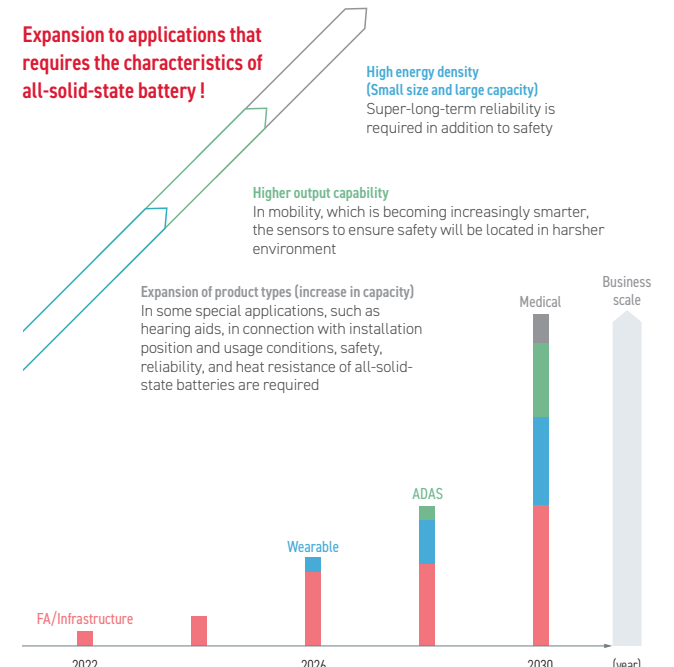
- Business discussions are underway with several dozen companies, including those with completed development contracts
- Forecasting sales of 30 billion yen in 2030 by steadily progressing joint development to orders

**Production facility**

- Decided to invest approximately 2 billion yen as the first step towards the start of full-scale mass production in Fiscal2023
- Planning to gradually invest in capacity expansion to prepare for further sales gains from 2030 onward

### Go-to-market strategy: medium to long term

Develop applications such as wearable, mobility (ADAS), and medical



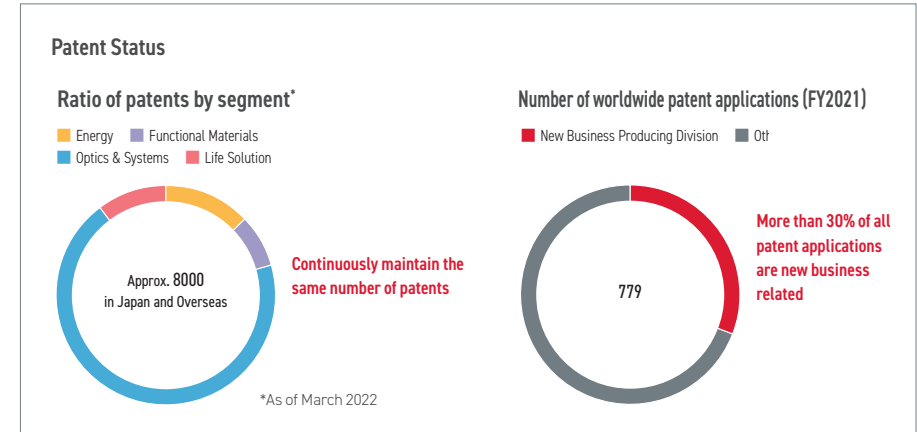
# Intellectual Property to Support New Businesses and Existing Business

Ensure Maxell's superiority and support the realization of technologies that create a sustainable society through the cycle of IP basic duties, IP utilization, and innovation activity

## Basic Policy on Intellectual Property Activities

With a focus on Maxell's original Analog Core Technologies, we are promoting business activities that integrate our technological and intellectual property strategies. In addition, we strive to secure Maxell's superiority and contribute to a sustainable society by conducting basic duties to create, develop, and manage rights intended for adequate protection of the Maxell brand and other intellectual properties.

At the same time, we firmly maintain a stance of respecting the intellectual property of other companies in order to build a fair business environment, such as carefully checking other companies' patents from the early stages of research and development.



In order to protect original technologies, we will ensure basic operations such as intellectual property creation, know-how identification, rights acquisition, and management, and defend Analog Core Technologies and its applied products with intellectual property.

### IP strategy to support business

Based on our business environment, business strategy and intellectual property information analysis, in order to maximize the contribution of intellectual property to our business, we will steadily build an intellectual property portfolio that will be active in five to ten years' time through IP grand design activities, in which we plan intellectual property activities through back casts that look back from the future use of intellectual property envisioned by each business to the present, and strategic inventions that foster intellectual property rights with a focus on important technologies.

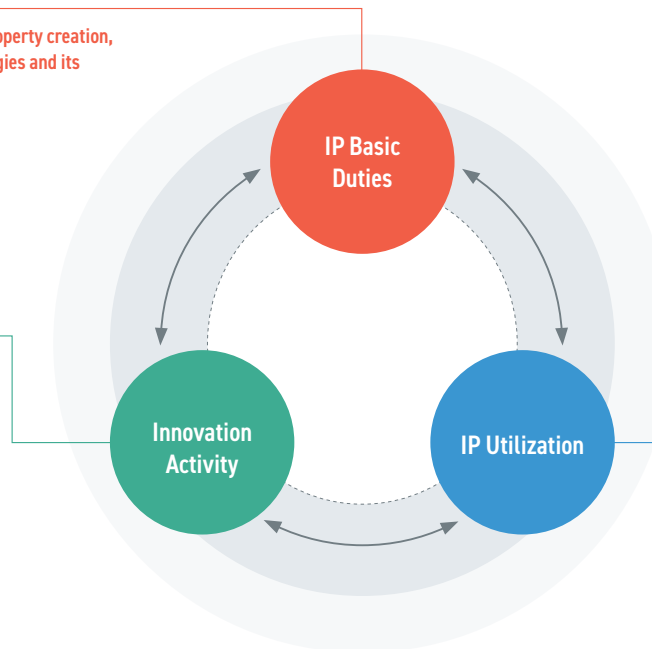
### Promoting the creation of creative technologies that realize a sustainable society by providing cross-divisional support for cutting-edge research and development

#### Company-wide innovation activities from an intellectual property perspective

Through collaboration between the IP Innovation Division and the New Business Producing Division, we comprehensively searches for intellectual and human assets related to technologies owned by the Maxell Group and leverages these assets to promote innovation activities based on the premise of creating new businesses that transcend business segments.

#### Contributing to the SDGs through invention creating activities.

In order to promote innovation that contributes to the SDGs, we promote the creation of intellectual property with an awareness of the connection to the SDGs from the invention discovery stage. As part of this effort, we are working to include the development goals of the SDGs to which the invention contributes in the patent statements.



### Direct contribution to the profit and indirect contribution by protecting and expanding businesses with intellectual property

#### Intellectual Property Utilization Policy

We will strive to protect and grow our own business through appropriate use in accordance with our business environment, including the elimination of imitators through intellectual property rights and the creation of colleagues using intellectual property rights. In addition, we will acquire implementation fees through the appropriate release of intellectual property for our own technologies to other companies, which will directly contribute to our own profit and contribute to the creation of new innovation funds.

#### Anti-Counterfeit Measures

To reduce the risk of brand damage due to 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 application and registration of similar trademarks, through customs registration in major countries and monitoring of e-commerce sites.

# Consolidation and Enhancement of Sales Organization

**With the new organization, we are providing 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 customer needs.

### Sales Policy

Aggressively acquire demand of major companies in each industry through an account sales structure based on product characteristics and regional needs



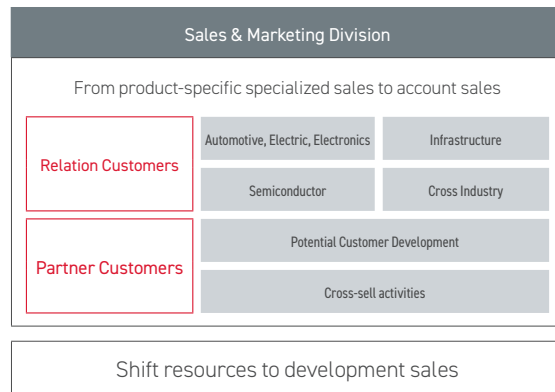
**Masazumi Ishiwata**  
General Manager, Sales & Marketing Division

### Policies for Fiscal 2022

In addition to launching full-scale businesses with the New Business Producing Division's priority products (all-solid-state batteries, electromagnetic wave absorbers etc.), we will move into the healthcare and infrastructure business areas to plant seeds for growth and expand the value chain from "selling products" to "selling services" for future growth.

In response to the current challenges of soaring material and logistics costs, we will strive to secure profits by appropriately reflecting such costs in selling prices. Furthermore, under the new organizational structure, we will reallocate personnel resources to accelerate cross-selling and new product development.

### Global marketing structure See "Overseas Sales Ratio" on page 5.



**New Organizational Initiatives**

**Consolidation of sales personnel**

- February 2022: Metropolitan area → Consolidation into Tokyo Office
- June 2022: Kansai area → Consolidation into Kansai Office (Shin Osaka)

**Conversion to account sales**

- Split sales operations into relationship customers by market and partner customers including potential customers, and develop "cross-selling" across business divisions.
- In the future, actively develop cross-selling by deepening product knowledge through online factory tours, etc.
- Expand sales of new products in collaboration with the New Business Producing Division

3 approaches	Example of Maxell's growth opportunities
<b>Sales Targeting Customers in Developed Countries</b> Propose product value that only Maxell can offer on a global basis	<ul style="list-style-type: none"> <li>Stable expansion of TPMS market (heat-resistant coin type lithium batteries)</li> <li>Expansion of ADAS/CASE related demand (LED headlamp lenses, in-car camera lens units)</li> <li>Expanding demand for smart meters (Cylindrical lithium batteries)</li> </ul>
<b>Provide value according to regional characteristics</b> Propose product value that meets the needs of each of the 4 global regions	<ul style="list-style-type: none"> <li>Expanding demand for semiconductors due to the development of information and telecommunications (semiconductor-related embedded systems, tape for semiconductor manufacturing processes)</li> <li>Evolution of small medical devices equipped with batteries (coin type lithium batteries)</li> <li>Expanding demand for image sensors for smartphones (tape for industrial processes)</li> </ul>
<b>Global horizontal expansion from Japan</b> Provide new product value developed in Japan to the global market	<ul style="list-style-type: none"> <li>Creation of demand for all-solid-state batteries for factory automation/infrastructure</li> <li>Global expansion of highly airtight housing (tape for construction)</li> <li>Requests to reduce environmental impact (plastic reduction, weight reduction etc) (foamed sheet)</li> <li>Expanding demand for touchless panels (Advanced Floating Image Display)</li> </ul>

# 3 Management Foundation Enhancement

## CONTENTS

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40	.....	Materialities and KPIs
41	.....	Sustainability Management
42	.....	Group Governance Enhancement
43	.....	Creating Human Resources and Organizations that Generate Value
47	.....	Creation of Economic Value through Environmental Activities
51	.....	Reporting Based on TCFD Recommendations
53	.....	Corporate Governance
59	.....	Board of Directors
60	.....	Messages from Outside Directors



# Materialities and KPIs

The materialities, action plans, and KPIs that promote enhancement of management foundation are as follows. In particular, we are emphasizing on initiatives to steadily strengthen human capital. In addition, we believe that environmental activities generate economic value, and we are implementing these activities with the targets. In addition, we have established action plans to be promoted by the entire Maxell Group.

Materiality	Action plans	Target (product, technology, activity)	KPI
Creating human resources and organizations that generate value	Strengthen management to leverage human resources (build human resource strategy, promote the right person in the right place and talent management)	● To build a system of talent management that maximizes performance for both human resources and the whole organization	Talent management system To be introduced in FY2022
		● Maintain and continue appropriate communication between managers and staffs to maximize the abilities and skills of human resources	Career interview implementation ratio 100%
	Establishment of system for human resource development and evaluation that creates proactive human resources capable to create something from nothing	● Establishment of recruitment system that clarifies the human resources we seek for and allocation system that allows proactive human resources to play active role	Formulation of human resource portfolio
		● Setting of challenging targets and improvement of management ability to evaluate challenges appropriately	Education for personnel evaluators 2times/year
	Promoting diversity and inclusion (utilizing diverse human resources and accepting different values)	● Improve employee satisfaction by fostering a workplace culture in which each and every diverse human resource can play active role	Improving overall satisfaction ratio in the employee awareness survey 90% or higher (in FY2026)
		● Maintenance and continuation of recruitment and promotion without being captured by attributes such as gender or nationality	Recruitment ratio of new female graduates 50% or higher for administrative jobs and 25% or higher for engineering jobs
	Improve productivity and promote the transmission of skills through the standardization of business processes	● Continuous improvement in productivity through improvement in ratio of employees who find their jobs rewarding	Improving ratio of employees who find their jobs rewarding in the employee awareness survey 90% or higher (in FY2026)
● Implementation of Re-skilling training to improve productivity and promote skill transfer		Implementation of basic digital literacy education programs for all employees	
Creation of economic value through environmental activities	Strengthening environmental technologies and environmentally conscious products	● Target: Maxell Group 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 SDGs, etc.	Define standards to show the degree of contribution to social and environmental issues, and visualize the progress of sustainability, and incorporate specific measures in the next mid-term management plan
		● Target: CO <sub>2</sub> emissions (Scope1&2 for domestic sites) ● Activity: ① Promote energy conservation activities at business sites ② Promote renewable energy (self-consumption)	Reduce domestic CO <sub>2</sub> emissions by 50% in FY2030 (vs FY2013)
	Conserving resources and energy, and promoting the introduction of renewable energy	● Target: Waste plastics (domestic sites) ● Activity: Determine targets and initiatives by FY2023. ① Recycling of chemical materials ② Reducing waste by improving productivity	Renewable energy ratio 10% in FY2030 (Renewable energy consumption/Total electricity)
Strengthen Group governance	Building effective governance in group management (deepening of management)	● Target: Risk management, ● Activity: ① Group-wide sharing of issues and measures (participation of business managers), ② Risk reduction activities: Promote activities through information security management and the Risk Management Committee, ③ Strengthening Diversity and Work-Life Management	Further strengthen group governance by enhancing activities across the company and strengthening the operation of an appropriate risk management system
	Implementing governance to maximize group synergies (technology, information, marketing)	● Target: Technology, Information, Marketing ● Activity: ① Sharing of strategies (regular meetings for domestic affiliates and overseas sales companies), ② Maximize synergy through MI (Maxell Innovation) activities (companywide initiatives to create innovation) (1) New development themes, (2) Creation of integrated technologies and products through new production technologies, and (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 in FY2027

# Sustainability Management

In April 2020, Maxell established a dedicated organization to promote sustainability to realize its mission. In implementing its basic policy on promoting sustainability, 2 concepts of "thinking and evaluating in medium- to long-term (not merely pursuing short-term profits)" and "balancing social and environmental value creation with economic value" were introduced for business activities throughout the Group.

## Sustainability of Maxell Group

Based on its basic management policy, MVVSS, Maxell aims to realize its VISION of "Create Maximum Excellence for employees, customers and society by leveraging unique Analog Core Technologies" by solving social issues through its businesses.

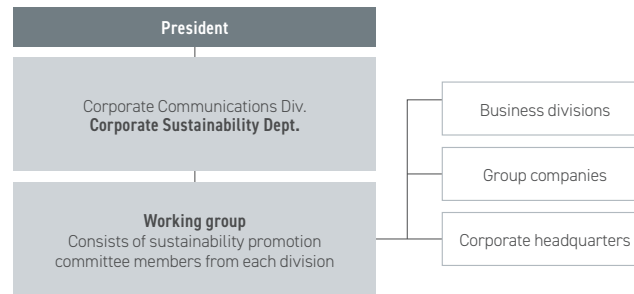
To resolve these issues, we believe it is important to identify Maxell's key issues to focus on and establish specific initiatives and targets in medium- to long-term strategies.

<b>Basic Policy</b>	Through its business activities, the Maxell Group contributes to solving social, environmental and economic issues in the global market, and supports to implement sustainability management which leads to sustainable growth and maximization of corporate value.
<b>Mission</b>	<ol style="list-style-type: none"> <li>Contributing to achievement of SDGs' goals through CSR/CSV initiatives</li> <li>Formulation of key issues in addressing ESG/SDGs</li> <li>Establishment and support of company-wide activities by business divisions and corporate headquarters</li> <li>Promote both internal and external education and enlightenment activities</li> <li>Visualization of activities and enhancement of communication ability to stakeholders (customers, employees, business partners, shareholders and investors)</li> <li>Improving the rating of ESG related evaluations</li> <li>Support for integrating SDGs and management (linking business activities)</li> <li>Strengthening brand power through SDGs related activities</li> </ol>

## Activities of Corporate Sustainability Department

We have formed a working group in which Sustainability Promotion Committee members for company-wide activities from business divisions, group companies, corporate headquarters collaborate and carry out activities. In fiscal 2022, we strengthened our system of corporate communication in response to the needs of flexible response to rapid changes in the world, and the Corporate Sustainability Dept. became a subordinate department of the Corporate Communications Div. We will actively promote information disclosure on our various responses to changes in society and our business activities.

## Sustainability Promotion System



## Characteristics

- Established a group-wide promotion system that includes group companies
- The Corporate Sustainability Dept. of the Corporate Communications Div. forms cross-divisional working group and promotes sustainability activities together with representatives from business divisions

## Major activities in fiscal 2021

- Identified materialities (7 materialities and 20 action plans) and disclosed in Integrated Report 2021, started to identify KPIs
- Expressed support for TCFD recommendations (October 2021), and conducted scenario analysis for Energy Div.
- Organized the status of contribution of Maxell Group products and services to SDGs (Degree of contribution to social and environmental issues)
- Promoted introduction of renewable energy (self-consumption solar power generation (PPA\*))

\*Power purchase agreement

## TOPICS

### Emphasizing dialogues and discussions, and setting KPIs employees can work on with satisfaction

We divided the materialities into 4 groups by each corresponding division, and selected working group members from the relevant divisions that will play a core role in the project. Workshops were held separately by each group to deepen discussions.

With regard to "Creating Innovation through Unique, Original Technologies", "Solving Social Issues through Growth Businesses" and "Maximization of Customer Value", members from 4 Business Divisions, New Business Producing Div. and Sales & Management Div. took the leadership in discussing invested capital and value creation through value chain, and analyzed KPIs that are consistent with materialities (see P.25-26). Regarding "Creating Human Resources and Organizations that Generate Value" we have created a group centered on members participating in "M-Wing" diversity promotion project. Based on the results of discussions at the group, Human Resources & General Affairs Dept. has identified tentative KPIs. These results were explained to executives in multiple installments. Subsequently, we worked to instill understanding through dialogue with the president so that understandings and satisfaction of all employees would lead to each employee's autonomous action toward achieving KPIs goals.

Going forward, we will use the KPIs to respond to materialities and, in turn, improve corporate value by contributing to solve social issues.

## Formulation flow

Nov. 2021	Briefings for working group members
Dec. 2021 - Feb. 2022	Workshops
Mar. 2022 - Aug. 2022	Explanation to executives, identified tentative KPIs
Apr. 2022 -	Dialogue between president and employees (town hall meetings, group discussions)
Aug. 2022	Approved by the Management Committee

# Group Governance Enhancement

As of October 1, 2021, the Company has dissolved the holding company structure and changed the name of the Company from Maxell Holdings, Ltd. to Maxell, Ltd. The Company has established the new structure in which Maxell, Ltd. will lead the whole Group and will realize cross-divisional cooperation between business divisions and operational companies, and synergies within the Group.

**Action plan**

## Building effective governance in Group management (Deepening of management)

**KPI**

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

### Building Group governance

In order to strengthen governance of the Maxell Group and enhance corporate value, we operate various subordinate organizations to enhance the discussions at the Management Committee and the Board of Directors. Investment projects are assessed for their effectiveness in the form of a committee. For information security and other various risks, the Risk Management Committee decides the policies and manages them.

### Company-wide Meetings for Group Governance

Meetings	Initiatives
<b>Round-table Discussion</b>	<ul style="list-style-type: none"> <li>Preliminary deliberations on important matters to be submitted to the Management Committee. To be held once a month in principle</li> <li>Same members as the Management Committee</li> <li>Examination and sharing issues related to business execution</li> </ul>
<b>Steering Committee</b>	<ul style="list-style-type: none"> <li>Preliminary deliberations on important matters to be submitted to the Board of Directors To be held once a month in principle</li> <li>Same members as the Board of Directors</li> <li>Discussion on key management issues</li> </ul>
<b>Investment Committee</b>	<ul style="list-style-type: none"> <li>Investment plans to be submitted to the Management Committee and the Board of Directors are discussed at the Investment Committee</li> <li>Members of the Investment Committee make discussions from a variety of perspectives including business strategy, sales strategy, procurement strategy, manufacturing strategy, legal affairs and intellectual property, and judge the effectiveness of investment</li> </ul>

**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 in FY2027

### Sharing technology and sales information

With the aim of promptly launching new businesses and strengthening existing growth businesses, we are promoting development projects and consolidating sales divisions through a company-wide organization that transcends the boundaries of business divisions. We will prepare for new businesses and realize sustainable growth toward the next phase (Phase 2) after the current mid-term management plan "MEX23."

### Accelerating the Creation of New Businesses and Products through a Company-wide Organization



**TOPICS**

## Held pitch contest to maximize technology integration and synergies

Since fiscal 2019, Maxell has implemented the MI (Maxell Innovation) project, aiming at continuous creation of new businesses. It is a system for soliciting product ideas and business proposals from employees and promoting the creation of commercialization after evaluation and selection. In fiscal 2021, both internal and external trainings were conducted, and a new business proposal-based contest (pitch contest) was held by the activity program team.



**Aims**

- Provide opportunities to develop human resources capable to discover new business themes
- Promote understanding on Maxell's technologies and create new business themes by combining and integrating technologies
- Explore themes for 2030

**Theme lists**

No	Theme	Team
1	Low-resistance transparent film actuator	Cross-Divisional "MIRA" Activities A
2	Solving social issues in the livestock industry through ozone	Selected team of New Business Exploring Program B
3	"On-the-spot" measurement, small food inspection kits	External Cooperation Program A
4	Live terrarium	External Cooperation Program B
5	Delivery and transport system	Selected team of New Business Exploring Program A
6	Concrete reinforcement and repair business	Selected team of New Business Exploring Program C
7	Infrastructure monitoring business	Selected team of New Business Exploring Program D
8	Wireless power supply type power source for sensors	Cross-Divisional "MIRA" Activities B
9	Development of recycling technologies and application to adhesives	Cross-Divisional "MIRA" Activities C

# Creating Human Resources and Organizations that Generate Value

The Maxell Group conducts a variety of initiatives with the aim of respecting the individuality of each and every employee and realizing a rewarding workplace. We are promoting the development of human resources to realize diversity and inclusion and work-life management, and to pass on the technologies that are strengths of the Company to the next generation.

**Action plan**

## Strengthen management to leverage human resources

(build a human resource strategy, promote the right person in the right place and talent management)

**KPI**

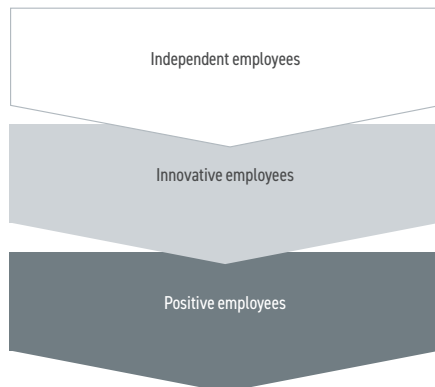
- ① Talent management system to be introduced in FY2022
- ② Career interview implementation ratio 100%

### Human resources to seek for

In order to further increase confidence in Maxell brand and realize sustainable growth, it is essential that we have human resources who are able to discover issues themselves in response to various changes, including customer needs and the market environment, and who can think on their own and take action.

We have identified three keywords for the ideal image of human resources that Maxell seeks: employees who are independent, innovative

#### Human resources to seek for



and positive.

We will redouble our efforts to recruit and nurture talented human resources so that diverse human resources can fuse and collaborate their expertise, take on the challenge of creating new value, and co-create the future.

### Role of managers

In fiscal 2021, we completely revamped the personnel treatment system for managers, in which we have redefined the roles of managers required in Maxell. It is designed to make it easier for each and every manager who leads Maxell's transformation to be aware of the level of work to be practiced. In the role definition, we clearly state these elements in order to thoroughly instill the awareness "that focusing on value means building a path for achieving objectives while managing the organization, and that corporate value is achieved as a result of meeting the requirements and values of customers."

### Elements of expected roles



Above mentioned elements are defined by class of managers

**Action plan**

## Establishment of a system for human resource development and evaluation that creates proactive human assets capable to create something from nothing

**KPI**

- ① Formulation of human resource portfolio
- ② Education for personnel evaluators twice a year

### Human resource development policy

With the 3 basic educational policies, Maxell is conducting educational programs by setting major initiatives.

#### Basic educational policies

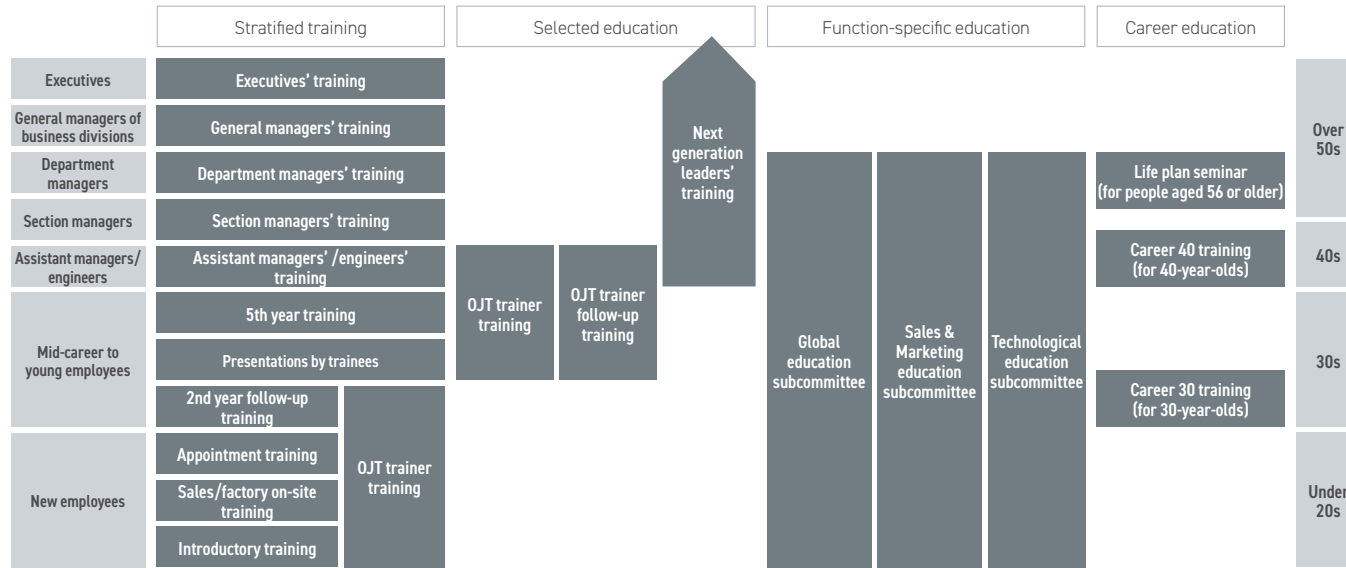
- ① Human resources are the most important management resource for a company, and in addition to fostering an educational culture, we aim to be a company in which people develop.
- ② Cultivate human resources that can capture changes in the world, sincerely pursue creativity and technological capabilities, and provide value to employees, customers, and society.
- ③ Develop human resources capable of promoting globalization and diversity

Based on these policies, we are implementing stratified career educations, and during the evaluation period we are conducting evaluator training to raise the level of our human resources.

In addition, by implementing human resource development measures for the 3 areas of globalization, marketing and sales, and technology, we are cultivating human resources who can create new values through a variety of educational curriculums, including training tailored to the level of each specialized area, global education such as training at overseas sites, and regular refinements to educational themes and methods in line with the trends.

## Creating Human Resources and Organizations that Generate Value

### Human resource development system



Regarding the development of successors, we are strengthening the human resource base for creating strong and new businesses by selecting the next generation's and generation after next generation's successive management candidates through human resource meetings and by planning and promoting education, rotation, and other measures.

#### Action plan

### Promoting diversity and inclusion

(utilizing diverse human resources and accepting different values)

#### KPI

- ① Improving overall satisfaction ratio in the employee awareness survey
- ② Recruitment ratio of new female graduates  
50% or higher for administrative jobs, 25% or higher for engineering jobs

### Diversity promotion project "M-Wing"

At Maxell, we emphasize diversity & inclusion, and strive to improve organizational problem-solving capabilities, creativity, and flexibility by leveraging human resources with different values, sensibilities, and experiences. In particular, we are focusing on "M-Wing" activities, a company-wide project composed of members selected from business divisions, and are continuing our activities under slogan of "Creating company and workplace where everyone can play active role."

In M-Wing activities in fiscal 2021, there were 4 working groups (WGs), including 3 WGs with focus on 3 types of diversity, "diversity of attributes," "diversity of internal roles," and "diversity of values", and the PRWG, which drove whole M-Wing activities.

We created educational contents, posters, and methods for using IT tools by reflecting opinions of actual workplaces on the consideration to LGBTs, communication issues when working with variety of members and knowhow for managing work and life.

Going forward, we will continue to pursue activities aimed at creating a company in which diverse human resources can work comfortably and work vigorously.

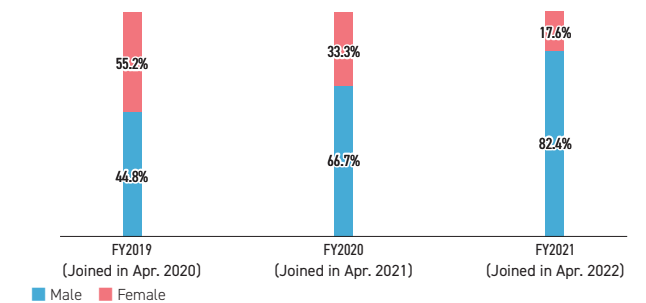


Poster introducing "M-Wing" activities

### Empowering women

Maxell is trying to raise awareness of diversity among management leaders in particular, and is reviewing its corporate system to realize flexible working styles. It is also promoting the active recruitment and promotion of women while cultivating role models. In fiscal 2019, we won the 2 stars of the "Eruboshi" certification mark, which is issued to the companies with outstanding status on promotion of women's participation in the workplace, and we are working to further promote women's participation. Regarding recruitment, we are aiming to raise the percentage of female recruitment in regular annual recruitment to 50% or more.

### Changes of male/female ratio\* of recruitment of new graduates



\*Percentage of men/women among recruited graduates with university or higher degrees

## Creating Human Resources and Organizations that Generate Value

### Promoting creation of pleasant workplace

Maxell has established a variety of work systems that enable all employees to work in a flexible manner according to their lifestyles and life stages. In particular, in order to balance work and family life, we have established a system that exceeds statutory standards for childcare and family care. The return to work percentage of employees who take childcare and family care leave is 100%.

In fiscal 2022, we revised the “work-at-home system” to expand the scope of application and standardize the system, irrespective of measures to fight COVID-19, and we are advancing initiatives for new working styles.

### Use of childcare and nursing care leave system

	FY2019	FY2020	FY2021
Childcare leave (person)	9	9	14
Nursing care leave (person)	1	1	0

### Employee awareness survey

The employee awareness survey is conducted once a year. In fiscal 2021, the survey was conducted for about 2,000 Maxell Group employees. The survey mainly checks employee awareness of whether organizational activities are being conducted effectively, individual work satisfaction, education, and satisfaction with the personnel treatment system. Although there were many items that were improved from the previous time, including the overall level of employee satisfaction, there were also specific issues by the business division and job type, and improvement efforts are being made on a site-by-site basis based on the results of the survey.

### Overall satisfaction rate for life in Company (maximum 7.00 points)

FY2018	FY2019	FY2021
4.11	4.29	4.37

\*No employee awareness survey in FY2020

## Promoting work style reforms

### Promoting digitization to assist work style reform

Maxell is aggressively promoting digitization as a key measure in strengthening its management base and advancing work style reforms.

Under the recent spread of COVID-19, it has forced a shift from the conventional face-to-face and three-way principle (actual place, actual object, and actual situation) to remote operation. Telework, such as work-at-home, is expanding both in Japan and overseas. At the same time, online meetings and business digitization are rapidly advancing.

To strengthen our management base, we are reforming our operations and revamping our core systems to standardize operations, from the form of management in which each domestic and overseas site establishes its own operational base individually. In this way, we are working to strengthen low-cost operations and corporate governance and optimize the use of human resources.

In particular, indirect departments such as general affairs, accounting, and business operations are aiming to realize automation of operations and operational efficiency as much as possible, and are working to improve productivity and reduce costs by promoting the following digitization measures.

### Digitization measures in work style reform and improvement of productivity

- Establishment and strengthening telework environments
- Promoting rules, efficiency, stabilization, and efficiency for online meetings
- Paperless operations
- Promotion of cloud utilization
- Electronic application for approval/circulation procedures
- Improvement of efficiency of operation and digitization by utilizing robotic process automation (RPA)
- Cloud utilization and enhancement of security for expanded of teleworks

### Action plan

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

### KPI

- ① Improving ratio of employees who find their jobs rewarding in the employee awareness survey 90% or higher (in FY2026)
- ② Implementation of basic digital literacy education programs for all employees

### Develop “5G/IoT” engineers through “IoT Human Resource Development Program”

We will 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 of “IoT Human Resource Development Program.”

Specifically, we provide opportunities for employees to learn practical programming and acquire programming language Python with the aim of nurturing people who can use their IoT and AI knowledge to implement devices/applications. Approximately 60 employees participate in these opportunities.

By steadily implementing such initiatives, we will strengthen our efforts to create new businesses by linking needs and seeds based on reliable technologies and utilizing IoT and AI technologies.

In addition to the specialized content described above, in order to increase IT literacy of each employee, we have prepared platforms that enable employees to learn basic skills of PC and Office operating skills that can be used in the workplace, thereby creating an environment in which employees can continue to learn.

### Major digital literacy (basic) education programs

- Introductory training for developing AI with Python
- Mouse-based AI practical training
- Human resource development program for IoT
- Others

## Creating Human Resources and Organizations that Generate Value

### Promote occupational health and safety

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

The Maxell Group carries out group wide occupational health and safety activities under the basic occupational health and safety policy that "protecting safety and health is of utmost priority."

In fiscal 2021, we saw an increase in the number of injuries without lost workdays. We are strengthening our efforts to eliminate recurrence accidents by thoroughly implementing basic actions and "5W for accidents (a set of 5 "why" questions)." In fiscal 2022, we will continue to develop these initiatives with the aim of eliminating operational accidents.

"Mutual safety inspections" are conducted between the sites of domestic Group companies to promote communication between Group companies through activities to improve the level of safety and health and to ensure safety. We strive to create a comfortable workplace and foster a culture of safety in which all Group employees can work safely and with peace of mind without accidents.

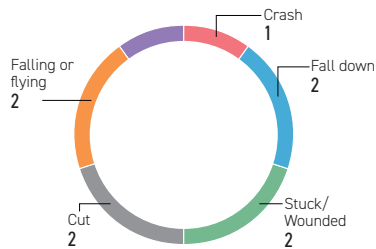


Mutual safety inspection

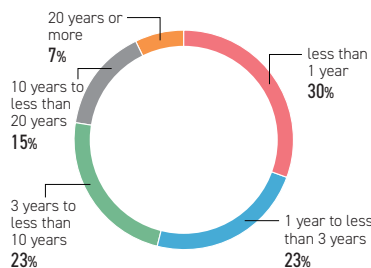


BCP disaster prevention drill

#### 2021 occupational injuries category (cases)



#### 2021 occurrence rate of occupational injuries (by number of years of experience)



In addition, for the spread of COVID-19, under the basic policy of "placing top priority on ensuring the health of employees, customers, business partners and society as a whole, and striving to prevent the spread of infectious diseases," we are implementing measures in response to changing conditions on a daily basis to ensure safety and ensure business continuity.

### Maintaining and improving employees' health

#### Strengthen health management

Maxell believes that vigorous and active employees are essential for the growth of a company and enhancement of corporate value. Accordingly, we are focusing on health management initiatives aimed at maintaining and improving the health of our employees.

Employee medical checkups and receipt data are used to implement prevention programs targeted at persons subject to lifestyle-related diseases as well as potential persons. For employees seconded overseas are also undergoing thorough health checkups to strengthen health management.

With regard to mental health, through EAP\*, we utilize counseling provided by an external consultation desk for various concerns faced by employees. In addition, we have introduced a rework program as part of our mental health program to assist employees returning to work, and respond individually with the advice of our specialist staff.

Stress checks have been conducted since June 2016 in accordance with laws and regulations. We have evolved into preventive activities from high stress through new initiatives, such as conducting diagnostics focusing on the resilience to stress, holding seminars to explain how to use the test results, and providing guidance by lecturers.

\*EAP: Employee Assistance Program

#### Initiatives for health management

Maxell acquired the 2022 Certified Health and Productivity Management Organization (Large Corporate Sector). Aiming to promote the acquisition by newly joined Group companies and to achieve White 500, we will enhance our welfare and promote various initiatives to create a company that values the health of all Group employees.



# Creation of Economic Value through Environmental Activities

At the Maxell Group, we consider global warming and other global environmental issues to be urgent. To address these issues, we have introduced a Company-wide environmental management system and are promoting Group-wide initiatives.

## Environmental management

### Operation of environmental management

With the adoption of SDGs and the Paris Agreement, companies are expected to contribute even more to the realization of a sustainable society. In this context, the Maxell Group, together with enhancement of corporate value, must make a significant contribution to global environmental conservation.

In line with the "Environmental Conservation Action Guidelines"<sup>1</sup>, the Maxell Group operates an environmental management system with the president as top management in order to carry out initiatives such as preventing global warming. We are steadily strengthening our compliance with laws and regulations, such as REACH regulations and RoHS directives, and are upgrading our activities to focus on achieving environmental results based on ISO14001 2015 edition.

In addition, the Financial Stability Board (FSB) launched the Task Force on Climate-related Financial Disclosure (TCFD) to identify and disclose the risks and opportunities that climate change poses to companies and financial markets.

In October 2021, Maxell expressed its support for TCFD recommendations, and is now conducting scenario analysis of the Group

See pages 51 and 52.

<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)

### Formulation of Maxell Group long-term CO<sub>2</sub> emissions reduction plan

Since the entry into force of the Paris Agreement, companies have been required to reduce total GHG emissions regardless of their business expansion.

Maxell has long been implementing activities to reduce the environmental impact of manufacturing. We have identified "Create Economic Value through Environmental Activities" as one of the important issues (materialities) and are conducting business operations with the total volume target for reducing CO<sub>2</sub> emissions (Scope 1, 2).

Previously, CO<sub>2</sub> emissions were calculated using fixed values for CO<sub>2</sub> emission factors in order to visualize the reduction efforts at individual business sites. Nowadays, however, the accelerating response to global

warming is required worldwide, and we switched from fiscal 2020 to a calculation method based on GHG Protocol, which is the de facto standard. Maxell aims to reduce CO<sub>2</sub> emissions by 50% in comparison with the level of fiscal 2013 by fiscal 2030. Currently, we are continuously working to formulate action plans through fiscal 2030 and increase the feasibility of specific measures.

Beginning in fiscal 2022, Maxell Izumi, Ube Maxell Kyoto, and Maxell Kureha, which joined Maxell Group from 2018 onward, will carry out activities to reduce CO<sub>2</sub> (the quantitative action targets for fiscal 2022 mentioned below include the 3 companies).

### Maxell Group environmental action plans for fiscal 2022

Based on the belief that environmental activities and contribution to business performance are managed in an integrated manner, the Maxell Group uses indicators (on intensity per net sales basis: expenses/net sales) for which the results of environmental activities are visible. In addition, we will work to increase motivation by managing it together with indicators that show improvement efforts (on intensity per production basis: amount consumed/amount produced). In fiscal 2021, same as in the previous year, we continued to promote energy conservation activities in line with the spread of COVID-19, and most of the targets were achieved. In terms of intensity per net sales related to energy, which fell short of the

### Environmental action plans for fiscal 2022<sup>2</sup>

Assessment: Achieved targets Achievement rate 95% or more Achievement rate less than 95%

No.	Action targets	Classification <sup>3</sup>	FY2021			FY2022
			Goal	Actual	Assessment	Goal
1	Net sales rate of eco-friendly, CSR/CSV products (%)	Domestic/Overseas	100	100		100
2	Registration rate of eco-friendly, CSR/CSV products using new assessments (%)	Domestic/Overseas	100	100		100
3	Market introduction rate of eco-friendly, CSR/CSV products (%)	Domestic/Overseas	100	100		100
4	Participation rate of Eco Mind education (%)	Domestic/Overseas	100	100		100
5	Maintenance of zero emissions (years) (target: manufacturing bases) (Amount of final disposal: less than 5t, final disposal rate: less than 1%)	Domestic	21	21		22
6	Intensity per production x 10 <sup>-3</sup> (kl/million yen)	Domestic/Overseas plants	405	404		420
		Domestic plants	351	315		350
	Intensity per net sales x 10 <sup>-2</sup> (%)	Domestic/Overseas plants	168	206		205
		Domestic plants	144	150		184
	Intensity per indirect personnel and floor space (kl/person*km <sup>2</sup> )	Domestic/Overseas Offices	18	14		22
7	Intensity per production x 10 <sup>-4</sup> (t/million yen)	Domestic/Overseas plants	470	415		571
		Domestic/Overseas plants	974	828		1,247
	Recycle rate (%)	Domestic/Overseas plants	70	92		70
8	Intensity per production x 10 <sup>-2</sup> (m <sup>3</sup> /million yen)	Overseas plants	600	518		747
		Overseas plants	525	517		756

<sup>2</sup> Quantitative action targets: Maxell Izumi, Ube Maxell Kyoto and Maxell Kureha are included from FY2022

<sup>3</sup> Classification: In-house production and sales at overseas plants are converted to yen at fixed exchange rates

<sup>4</sup> Overseas plants: Maxell Digital Products China Co., Ltd., Wuxi Maxell Energy Co., Ltd., Maxell Tohshin (Malaysia) Sdn. Bhd., Maxell Europe Ltd. Telford Plant, PT. Siontek Ekadharm Indonesia



## Creation of Economic Value through Environmental Activities

target due to higher unit prices, including electricity, following the sharp rise in crude oil prices in the 2nd half of the fiscal 2021, we will work to improve them by further saving energy and introducing renewable energy.

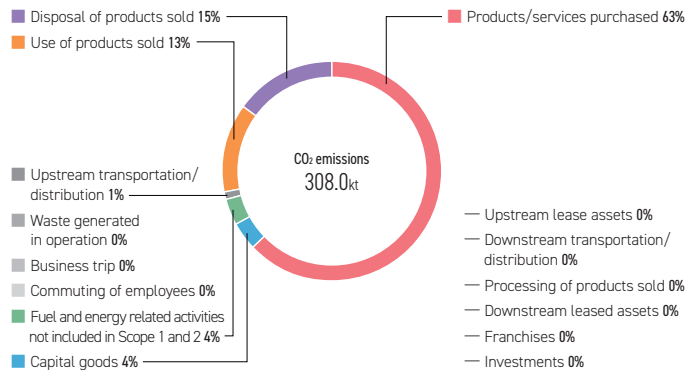
There were no significant environment-related accidents, fines or complaints in fiscal 2021. In addition, following the enforcement of the Fluorocarbon Emissions Control Law, we carried out statutory inspections, and as a result, the amount of CFC leaks was at a level that did not require reporting.

### Scope 3

Maxell Group also calculates CO<sub>2</sub> emissions throughout the supply chain, including Scope 3. Scope 3 is indirect emissions other than Scope 1 and 2. In calculating emissions, results are aggregated in accordance with "Basic Guidelines on Accounting Greenhouse Gas Emissions Throughout the Supply Chain" by the Ministry of the Environment and the Ministry of Economy, Trade and Industry.

In fiscal 2021, the total volume of Scope 3 decreased due to the shrinkage of the projector business, which consumed a large amount of electricity during use, and the percentage of CO<sub>2</sub> emitted during use of the products sold decreased. We will reduce CO<sub>2</sub> emissions during use of products by promoting energy-saving designs.

### Breakdown of Scope 3 CO<sub>2</sub> emissions by category



### Action plan

## Strengthening environmental technologies and environmentally conscious products

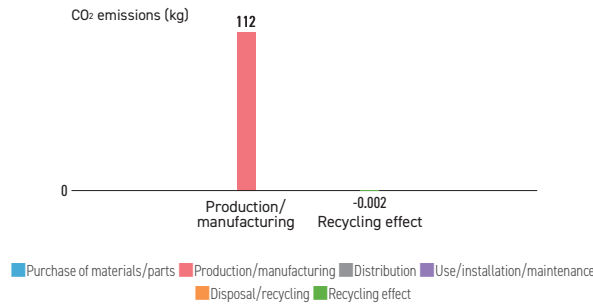
### KPI

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 mid-term management plan

### Visualization of environmental performance through LCA

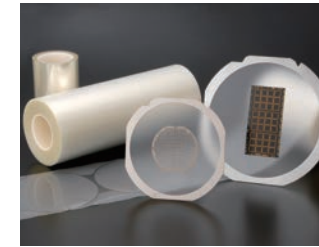
For the all-solid-state batteries we are currently developing, we have made efforts to visualize environmental performance in terms of CO<sub>2</sub> emissions, waste, and water consumption based on LCA (Life Cycle Assessment). There are no comparable products due to differences in shape, performance, and application. However, as a consequence, CO<sub>2</sub> emissions, waste, and water consumption throughout the entire life cycle, from material production to manufacturing, distribution, use, and disposal, have been clarified. We will use this data to improve environmental value in the future.

### (New product) CO<sub>2</sub> emissions of all-solid-state batteries



## Reduction of environmental burden through environmentally conscious products

At the design stage of new products, the Maxell Group quantitatively evaluates and utilizes environmental impact at each stage of the life cycle in accordance with environmentally conscious design assessment criteria, and products that exceed certain standards are registered as "environmentally conscious products." In fiscal 2021, we registered all-solid-state battery and dicing tape and double-sided adhesive tape.



Dicing tape



Double-sided adhesive tape

With regard to the materiality's action plan "Strengthening environmental technologies and environmentally conscious products," we plan to examine new standards in fiscal 2022 for selecting, among environmentally conscious products, outstanding products that contribute to solving social issues such as reducing CO<sub>2</sub> and reducing waste plastics, as well as environmental issues. In addition to raising the motivation of persons who design and develop products, we plan to create a system to create balanced products that contribute to the SDGs.

## Recycling of products

Under the "Act on the Promotion of Effective Utilization of Resources," Maxell joins the General Incorporated Association JBRC\* and displays a recycling mark for lithium-ion batteries manufactured and sold, and promotes the use of this collection and recycling system to customers. In fiscal 2021, the volume of small lithium-ion batteries collected through support by JBRC activities was decreased to 666t, which is 92% of the previous year, but we believe that recycling practices among consumers have been increasing.

In April 2019, the Ministry of the Environment approved a wide-area certification system for our projectors for the purpose of promoting recycling. Hair driers and electric shavers are subject to the Act on Promotion of Recycling Small Waste Electrical and Electronic Equipment, and collection is conducted by each municipality.

\*Japan Portable Rechargeable Battery Recycling Center

## Creation of Economic Value through Environmental Activities

### Action plan

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

#### KPI

- ① Reduce domestic CO<sub>2</sub> emissions by 50% in FY2030 (vs FY2013)
- ② Renewable energy ratio of 10% in FY2030 (Renewable energy consumption/Total electricity)
- ③ Begin considering contributions to the reduction of waste plastic generated by business sites (chemical material recycling), and incorporate specific measures in the next mid-term management plan

### Prevention of global warming

With regard to the materiality's action plan, "Conserving resources and energy, and promoting the introduction of renewable energy," we set up KPI as 50% reduction in CO<sub>2</sub> emissions by fiscal 2030 (vs fiscal 2013), and will work on it.

Concrete measures taken by the Maxell Group as part of plant energy conservation activities include the visualization of electricity consumption trends, efficient operation through demand control of facilities, renewal of air conditioning and lighting, installation of green curtains, and power saving through light-down activities. In fiscal 2021, CO<sub>2</sub> emission coefficients were increased by all domestic electric power companies contracted to procure electricity, resulting in an increase in CO<sub>2</sub> emissions (although it should have been down by 1.6%, if the coefficient were same as previous year). In fiscal 2022, we will reduce CO<sub>2</sub> emissions by selecting and contracting electric power companies in consideration of trends in CO<sub>2</sub> emission factors on top of prices, and by purchasing non-fossil certificates for 10% of electricity.

With regard to renewable energy, Ono and Kobuchizawa Works conducted solar power generation, which generated approximately 1,573MWh annually. In fiscal 2022, we plan to install solar panels on the roofs of Ono and Kyoto Works and begin self-consumption by entering into contracts with PPA (Power Purchase Agreement) companies. As the KPI, we will set a 10% renewable energy rate by fiscal 2030 and work on it.

In addition, Maxell participated in the Carbon Neutral LNG Buyers Alliance as part of its new efforts to reduce CO<sub>2</sub> emissions, and began introducing carbon neutral LNG at the Kawasaki Works.

Domestic CO<sub>2</sub> emissions in fiscal 2021 increased by 5.6% compared to the previous fiscal year, while overseas emissions decreased by 3.3%. As a result, the Maxell Group's emissions increased by 1.6% (down 36.3% compared to fiscal 2013). Starting in fiscal 2022, activities of Maxell Izumi, Ube Maxell Kyoto, and Maxell Kureha are included. Including these 3 companies, CO<sub>2</sub> emissions in fiscal 2021 will be 28.9% lower than in fiscal 2013.



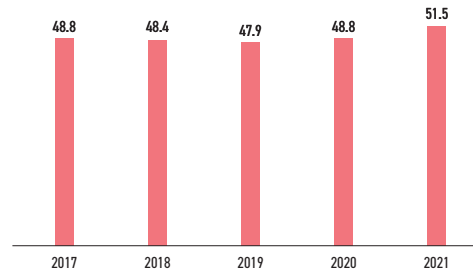
### Ascertain intensity per production/transportation energy

Since the Maxell Group has a variety of products, we monitor the intensity per transportation energy based on production output at each manufacturing site. The total of all sites in fiscal 2021 increased by 11% compared to the previous fiscal year.

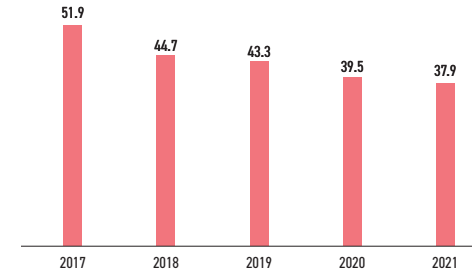
	Production (million yen)	Usage (thousand ton-km)	Intensity (ton-km/million yen)
FY2019	56,543	11,084	196
FY2020	60,112	9,099	151
FY2021	58,186	10,140	174

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

#### Japan (kt-CO<sub>2</sub>)

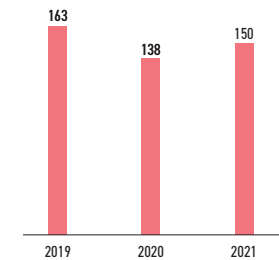


#### Overseas<sup>2</sup> (kt-CO<sub>2</sub>)



### Intensity per net sales related to energy

(x10<sup>-2</sup> (%))



<sup>1</sup> Scope 1: Direct emissions due to fuel incineration, etc. at business sites  
Scope 2: Indirect emissions from purchased electricity, etc.

<sup>2</sup> Power/CO<sub>2</sub> conversion factors: Domestic 0.36, UK 0.487, Malaysia 0.656, China 0.745, Indonesia 0.726 (unit is t-CO<sub>2</sub>/MWh for all countries)

## Creation of Economic Value through Environmental Activities

### Waste reduction and recycling

Regarding resource conservation, which is an action plan of the materiality, we will set a KPI for reducing waste plastics discharged from business sites in response to the recent emphasis on waste plastics measures as an environmental issue. During the period of the current mid-term management plan, MEX23, we are currently considering chemical material recycling, and plan to set targets in the next mid-term management plan.

In addition, the Maxell Group thoroughly separates wastes and promotes the conversion of wastes into valuable resources through sharing of information at each site and expands its internal intermediate treatment in order to realize “zero emissions”<sup>\*1</sup>. For example, in the lithium-ion battery manufacturing process, fractions and paint residuals generated in each process are sorted and passed to the appropriate waste disposal companies to recycle rare metals such as cobalt, copper, and aluminum (107t in fiscal 2021). The Ono Works also recycles silver oxide (3.0t in fiscal 2021).

The amount of valuable waste generated domestically in fiscal 2021 was 4.6% lower than the previous fiscal year. Thanks to strengthened recycling efforts, domestic manufacturing sites achieved zero emissions for 21 consecutive years.

\*1 Criteria for zero emissions (criteria for each business site): Final waste disposal amount less than 5 tons/year and final disposal rate less than 1%/year

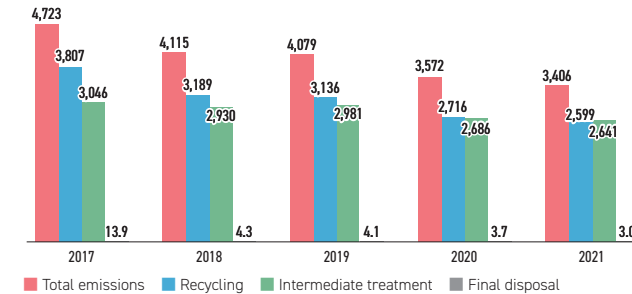
### Water consumption reduction activity

In addition to reducing water consumption in the manufacturing process, at the Maxell Group, we are striving to conserve water resources by reusing water after use. For example, the Kyoto Works has remodeled the system to collect and reuse 100% of drainage water in line with the increased steam consumption associated with the increased production of electrodes for lithium-ion batteries. As a result, we achieved annual saving of 40km<sup>3</sup> of water. At the domestic business sites of the Group, water consumption was decreased by 5.0%, and at overseas business sites of the Group which have higher water risks<sup>\*2</sup>, it was decreased by 3.5% compared to the previous fiscal year. As a result, Maxell Group as a whole, it was decreased by 4.6% compared to the previous fiscal year.

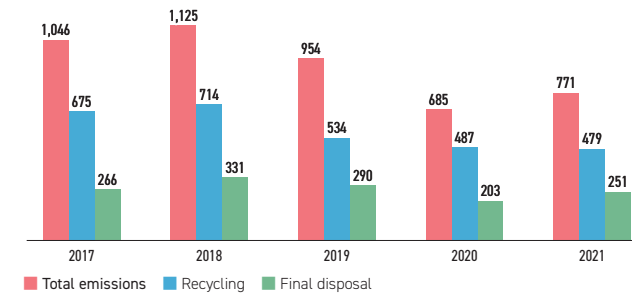
\*2 According to World Resources Institute’s Aqueduct Water Risk Atlas

### Waste situation

#### Japan (t)

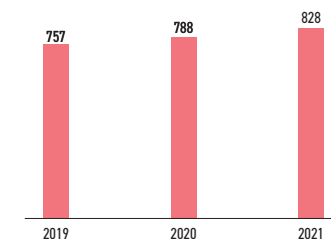


#### Overseas (t)



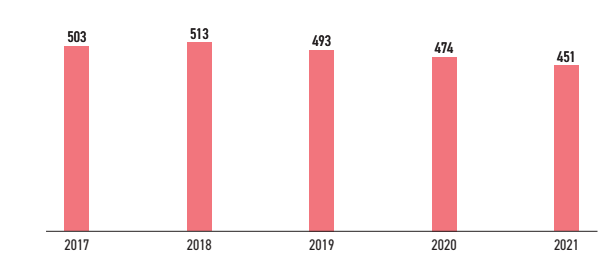
### Intensity per net sales related to waste

#### (x10<sup>-4</sup> (%))

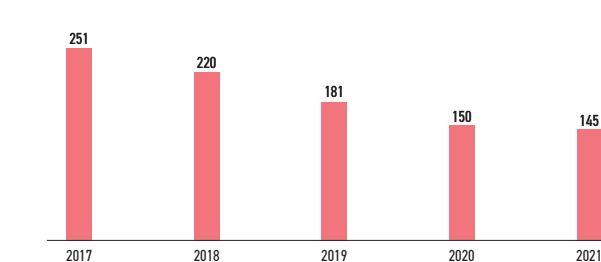


### Water consumption

#### Japan (km<sup>3</sup>)

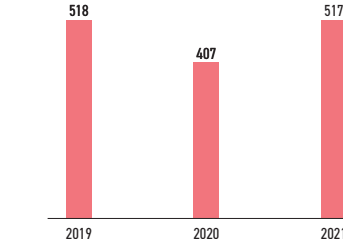


#### Overseas (km<sup>3</sup>)



### Intensity per net sales related to water

#### (x10<sup>-4</sup> (%))



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

Since the Paris Agreement entered into force, companies have been required to reduce total GHG emissions regardless of their business expansion. Maxell has long been implementing activities to reduce the environmental impact of its manufacturing activities. Currently, we have identified "Creation of Economic Value through Environmental Activities" as a priority issue (materiality) and are conducting business operations with the target of reducing total GHG emissions.



## Basic concept

Climate change is a threat to the health of humankind and the planet earth, as well as affecting our businesses, customers and supply chain. As one of the companies facing to this climate change, Maxell believes that it has a vital role to play in addressing global climate change countermeasures. In addition, while climate change poses risks such as increased costs and business disruptions, it also generates new needs for society, and we believe that it is an opportunity for Maxell to create new value.

In October 2021, Maxell announced its support for the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). Based on TCFD recommendations, we analyze the risks and opportunities posed by climate change on our business and work to disclose relevant information, such as governance and business strategies. Maxell is moving forward with the following framework for the 4 core elements required in TCFD recommendations: governance, strategy, risk management, and metrics and targets.

## Scenario analysis

In 2021, scenario analysis related to climate change has been started in Energy Division as a model case. The analysis focused on production sector, which is expected to be the most susceptible to climate change in Maxell. We envisaged a society with temperature rises of 1.5°C and 4°C, and examined risks/opportunities and countermeasures.

- Assumed scenario: 1.5°C (RCP1.9/SSP1)  
4°C (RCP8.5/SSP5)
- Time axis for scenario analysis: as of 2030

### ① Governance

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

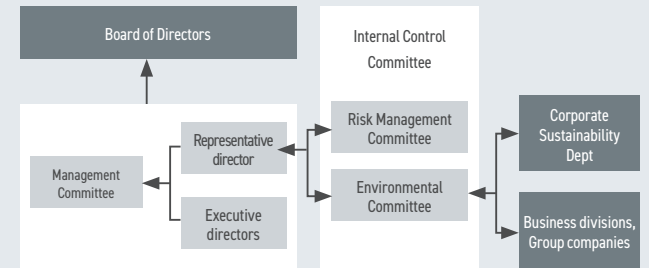
- The Board of Directors is the highest decision-making body of the Company and is responsible for all decisions, including climate change issues.
- The president is responsible for climate change issues. The president is also the top management of the Environmental Committee and is responsible for reflecting all environment related issues in our management strategies and targets.

#### Decisions related to climate change at the Board of Directors

- ① Support for TCFD recommendations (October 2021)
- ② Decided to focus on environmental issues and set a medium- to long-term goal of reducing CO<sub>2</sub> emissions by 50% (vs fiscal 2013) by fiscal 2030 (November 2021)
- ③ Introduction of self-consumption renewable energy (December 2021)

- The Internal Control Committee has been established to ensure and strengthen the effectiveness of corporate governance aimed at enhancing the corporate value of the Group as a whole and achieving management objectives. With regard to climate change, the Risk Management Committee and the Environmental Committee are working to establish a group-wide management system and strengthen its functions.
- The Environmental Committee is responsible for formulating the Maxell Group's overall strategy for climate change and managing the achievement of the Group's overall climate change objectives. The committee is composed of environmental promotion officers, environmental management officers, and specialized subcommittee managers from business divisions in each business site, and held 3 times a year.

### Governance structure



### ② Strategy

Scenario analysis was conducted for Energy Div. which handles main business of Maxell. (See p. 52.). While the emergence of climate change brings risks for Energy Div., it could be opportunity by leveraging the technologies accumulated over many years.

In terms of medium- to long-term risks, we found that a rise of 1.5°C would increase the tax burden imposed on business activities by introduction of a carbon tax, and a change in consumer behavior would have a major impact on business. When the rate rises by 4°C, extreme weather conditions, such as storms, have a major impact on business.

In contrast, the Energy Div.'s battery products leveraging Analog Core Technologies can be used as a reliable energy source in a harsh environment.

Starting in FY2022, we will conduct scenario analysis at the other 3 business divisions and Group companies.

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

**Contents of analysis for Energy Div.** Society aiming for rise by 1.5°C: Regarding the transition risks, it is assumed that regulations will be strengthened and that zero CO<sub>2</sub> emissions will be achieved by 2050 through the implementation of measures. Society with rise by 4°C: As for physical risks, abnormal weather is assumed to be intensified if additional policies are not taken and countermeasures for climate change do not progress.

Risk item		Major risks	Business impact	Risk item		Major opportunities				
Classification	Sub-classification			Classification	Sub-classification					
Society aiming for rise of 1.5°C	Policy/Regulation	Increase of carbon taxes	The introduction of carbon tax will have a broad impact on raw materials, containers, and packaging materials, and will increase costs	High	Society aiming for rise by 1.5°C	Policy/Regulation	CO <sub>2</sub> emissions	CO <sub>2</sub> monitoring progresses and sensors are installed in products and infrastructure facilities, resulting in increased sales		
		CO <sub>2</sub> emissions	Energy-saving policies will be strengthened, and manufacturing facilities need to be replaced by high-efficiency machines.	Medium			Market	Increase/decrease of product prices	Increase sales and improve profitability as a result of changes to a market that recognizes environmental value	
		Strengthening of reduction policy	Improving profitability as a result of changes to a market that recognizes the environmental value of carbon neutral eco-products	Low				Reputation	Change of consumer behavior, change of investor	Values of products meet environmentally conscious standards are recognized in the market
	Market	Increase/Decrease of Product Prices	Improving profitability as a result of changes to a market that recognizes the environmental value of carbon neutral eco-products	Medium		Society with rise by 4°C			Chronic	Rise of average temperature
		Reputation	Change of consumer behavior	Expansion of purchasing behavior that considers environmental impact due to climate change			High			Change of precipitation/weather
			Change of investor reputation	Poor reputation among investors and difficulty in financing when climate change countermeasures are inadequate			Medium	Acute	Intensified abnormal weather	
Society with rise of 4°C	Chronic	Rise of average temperature	Increase in expenses due to increase in electricity consumption	Low	Society with rise by 4°C	Chronic	Change of precipitation/weather	Batteries are used for disaster prevention surveillance sensors, surveillance cameras, disaster monitors, etc., and sales increase		
		Change of precipitation/weather	Frequent damage to sites due to increase of precipitation and floods	High			Acute	Intensified abnormal weather	Batteries are used for disaster prevention surveillance sensors, surveillance cameras, disaster monitors, etc., and sales increase	
		Rise of sea level	Damage becomes chronic at business sites at low altitudes	Low		Acute		Intensified abnormal weather	Batteries are used for disaster prevention surveillance sensors, surveillance cameras, disaster monitors, etc., and sales increase	
	Acute	Intensified abnormal weather	Frequent occurrence of abnormal weather such as storms bring frequent damages	High						

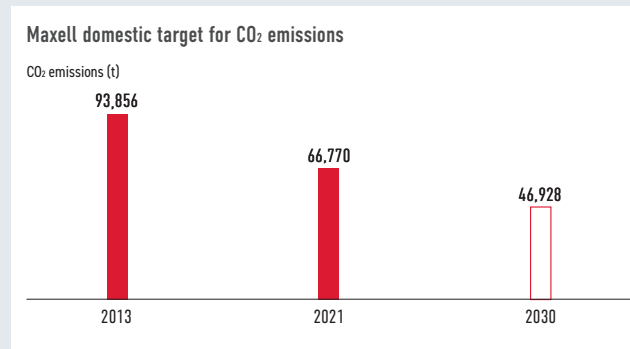
### ③ Risk Management

Risks related to climate change are managed by the Risk Management Committee and the Environmental Committee, through the following processes.

- Risk Management Committee  
The Risk Management Committee, held once a year, makes decisions on important risk management matters related to strategy, finance, hazard, and operations, and summarizes each risk management activity. The results are reported to the Internal Control Committee.
- Environmental Committee  
It is responsible for overseeing risks, opportunities, and strategies for climate change, and managing the achievement of Group-wide targets for climate change.

### ④ Metrics and targets

- Scope 1, 2 (vs FY2013)  
Reduce CO<sub>2</sub> emissions by 50% by fiscal 2030



In order to achieve its medium- to long-term targets, Maxell has formulated and is implementing a broader range of energy-saving measures at its domestic plants from a long-term perspective (review of manufacturing methods, upgrades to highly efficient facilities, etc.), and a plan to reduce CO<sub>2</sub> through the use of renewable energy (solar power, use of renewable energy certificates, etc.).

- Renewable energy rate  
10% or higher of total electricity consumption by fiscal 2030
- Scope 3  
Since CO<sub>2</sub> emissions from "use of products sold" account for a large portion, we will continue to design energy-saving products and work to reduce them.  
Since CO<sub>2</sub> emissions from "purchased products/services" comes next, we will identify CO<sub>2</sub> emission reduction targets of our main suppliers and work together to reduce them. Maxell has been reporting CO<sub>2</sub> emissions in Integrated Reports since 2018.

See "Scope 3" on p. 48.

# Corporate Governance

One of the 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 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 28, 2022 consisted of 9 members, including 4 outside directors.

Since June 2016, we have been working to strengthen the audit and supervisory functions for the Board of Directors through an independent Audit and Supervisory Committee as a "Company with an Audit and Supervisory Committee." In addition, the "Nomination and Remuneration Committee," in which majority of the members and the chairperson of the committee 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 improving the effectiveness of the supervisory functions for the Board of Directors.

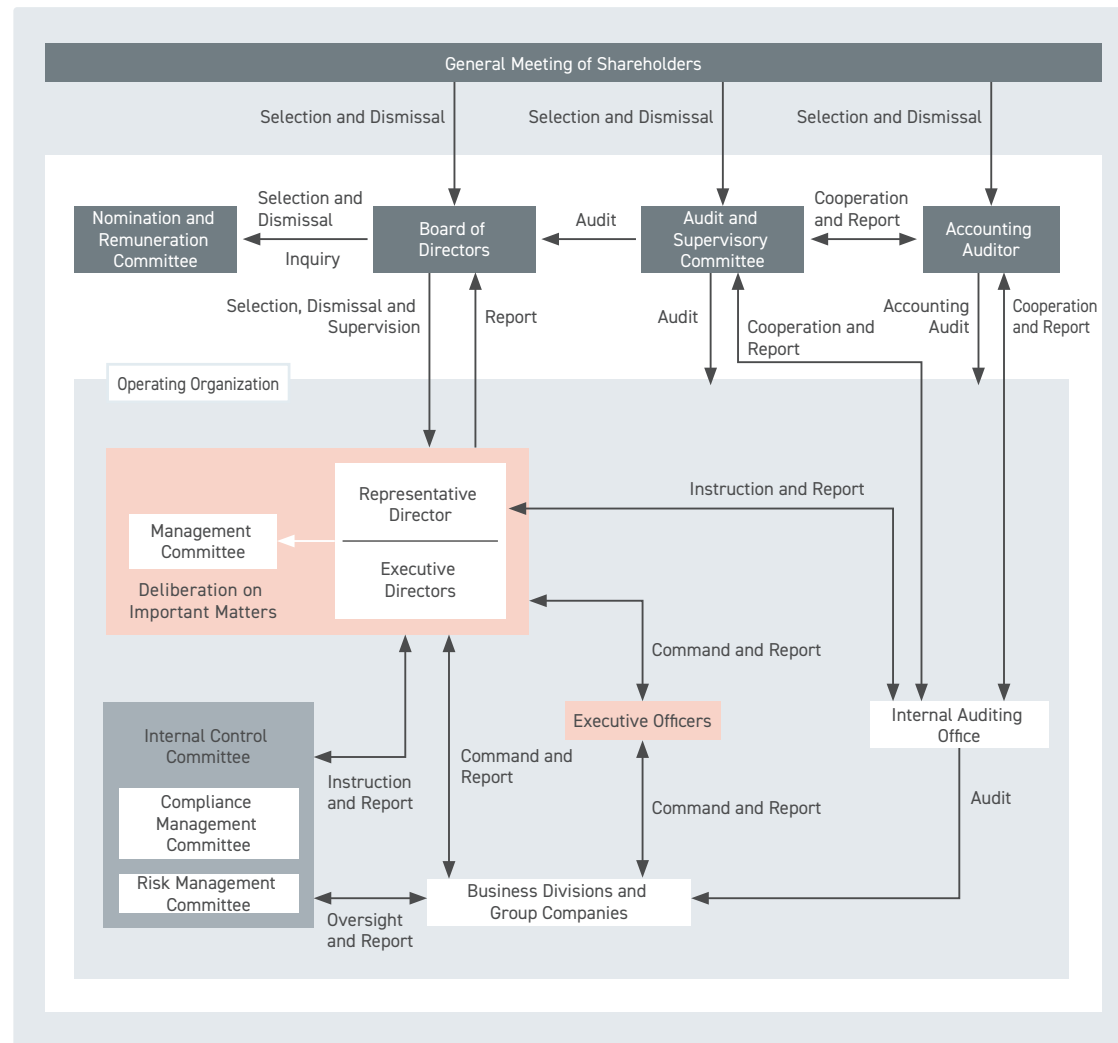
We have also adopted an executive officer system to facilitate prompt decision-making and more efficient management relating to business execution.

### Corporate Governance Guidelines

In order to achieve sustainable growth and increase corporate value over the medium- to long-term, we have established the "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 dialogues (engagements) with shareholders and investors.

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

Corporate Governance System



## Corporate Governance

### Appointment of Directors and Ensuring Diversity

#### Appointment of Outside Directors

We ensure supervisory system for management by appointing outside directors who express their opinions at the Board of Directors' meetings from independent and objective standpoint.

#### Reasons for appointing Outside Directors

Name	Reason for appointment
Kazuaki Tsutsumi	Mr. Kazuaki Tsutsumi accumulated experience at a global company and has assumed important posts at an international investment fund management company. He thus has a wealth of experience and extensive expertise in the business revitalization and management support for Japanese companies. Accordingly, he is expected to promote global strategies for further enhancement of the Company's corporate value.
Sachiko Murase	As a lawyer specialized 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 of listed companies, she has been contributing to the Company with her valuable advice at meetings of the Board of Directors since she took office as director of the Company in June 2020. Accordingly, she is expected to continue to contribute to sustaining and strengthening the growth strategies, corporate governance, and risk management of the Group.
Kazuhiro Aigami	Mr. Kazuhiro Aigami served as representative director and other important posts for JVCKENWOOD Corporation and thus has a wealth of management experience and extensive insights on global sales and marketing strategies. Accordingly, he is expected to contribute to sustaining and enhancing global business strategies and governance of the Company by providing his advice and recommendations regarding the entire management of the Company.
Kazuyoshi Hata	With his experience including serving as senior executive officer for Konica Minolta, Inc., Mr. Kazuyoshi Hata not only has proven track records and vast experience in business operations and business reforms but also has a wide range of insights covering the technical arena and the management planning arena. Accordingly, he is expected to contribute to sustaining and enhancing growth strategies and governance of the Company in new business fields by providing his advice and recommendations regarding the entire management of the Company.

Note: The Company has appointed the 3 outside directors, Sachiko Murase, Kazuhiro Aigami, and Kazuyoshi Hata, as independent directors in accordance with the standards defined by the Tokyo Stock Exchange and has submitted notification of this to the exchange.

#### Activities of Outside Directors (April 1, 2021 – March 31, 2022)

Name	Status of Activities
Brian K. Heywood	<p>Attendance at the Board of Directors: Attended 19 of 19 meetings</p> <ul style="list-style-type: none"> <li>• Status of comments at the Board of Directors: He made comments as appropriate from a specialist perspective on overall management.</li> <li>• Outline of roles expected to be fulfilled by outside directors: Based on his abundant experience and broad insight as a manager of global investment funds, he actively points out issues related to overall management and makes proactive proposals that contribute to improving corporate value.</li> </ul>
Sachiko Murase	<p>Attendance at the Board of Directors: Attended 19 of 19 meetings</p> <ul style="list-style-type: none"> <li>• Status of comments at the Board of Directors: From an expert's point of view on corporate legal affairs as an attorney, she made comments as appropriate.</li> <li>• Outline of roles expected to be fulfilled by outside directors: Given the high level of expertise cultivated as an attorney, she positively pointed out issues related to the promotion of corporate governance and made recommendations that contribute to enhancing corporate value. She also provided beneficial advice about promotion of women's participation.</li> </ul>
Tatsuhiko Izumi	<p>Attendance at the Board of Directors: Attended 19 of 19 meetings Attendance at the Audit and Supervisory Committee: Attended 17 of 17 meetings</p> <ul style="list-style-type: none"> <li>• Status of comments at the Board of Directors and the Audit and Supervisory Committee: He made comments as appropriate from a specialist perspective on overall management.</li> <li>• Outline of roles expected to be fulfilled by outside directors: Based on his wealth of experience and broad insight as a corporate manager, he actively made recommendations regarding management reforms and contributing to the enhancement of corporate value. In addition, as the chairman of the Nomination and Remuneration Committee, which deliberates on the personnel system and remuneration of senior management of the Company, he actively made recommendations on the establishment of executive and remuneration systems from an objective standpoint.</li> </ul>
Shinobu Watanabe	<p>Attendance at the Board of Directors: Attended 19 of 19 meetings Attendance at Audit and Supervisory Committee: Attended 17 of 17 meetings</p> <ul style="list-style-type: none"> <li>• Status of comments at the Board of Directors and the Audit and Supervisory Committee: He made comments as appropriate from a specialist perspective on overall management.</li> <li>• Outline of roles expected to be fulfilled by outside directors: Based on his wealth of experience and broad insight as a corporate manager, he proactively provided advice on global management and recommendations that contribute to enhancing corporate value. In addition, as a member of the Nomination and Remuneration Committee, which deliberates on the personnel system and remuneration of senior management of the Company, he actively made recommendations on the establishment of executive and remuneration systems from an objective standpoint.</li> </ul>

Note: Brian K. Heywood, Tatsuhiko Izumi, and Shinobu Watanabe retired following the end of their term of office at the conclusion of the 76th General Meeting of Shareholders held on June 28, 2022.

## Corporate Governance

### Skill Matrix of Directors

Name	Position	① Business Portfolio Management	② New Technology Creation	③ Global Business	④ Business Transformation	⑤ Operation & Finance	⑥ Production Improvement	⑦ Compliance & ESG
Keiji Nakamura	President and Representative Director	○	○		○	○	○	○
Hiroyuki Ota	Director	○	○		○	○	○	○
Seiji Sumoto	Director			○	○	○		
Noritoshi Masuda	Director			○	○	○		○
Kazuaki Tsutsumi	Outside Director	○		○	○	○		○
Sachiko Murase	Outside Director					○		○
Hiroyuki Suzuki	Director (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 Expertise)

- ① **Business Portfolio Management:** Business management experience at a domestic listed company or at a global company with multiple businesses
- ② **New Technology Creation:** Management experience and extensive technological knowledge as a leader in charge of promoting new technology creation (innovation)
- ③ **Global Business:** Experience in overseas business management and extensive knowledge of overseas culture and business environment
- ④ **Business Transformation:** Extensive knowledge of promoting business transformation and management experience as a leader in charge of promoting it
- ⑤ **Operation & Finance:** Extensive knowledge and either experience in a responsible role, or as a leadership role in an external professional organization in the area of sales and marketing, supply chain, human resource development, corporate finance, legal or business management
- ⑥ **Production Improvement:** Extensive knowledge and experience in a responsible role in the area of manufacturing, including productivity improvement and cost reduction
- ⑦ **Compliance & ESG:** Extensive knowledge and either experience in a responsible role, or as a leadership role in an external professional organization in the area of compliance and ESG

## Remuneration for Directors

### Basic Policy

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

### Determination Policy

Policy for determining directors' remuneration is discussed in the appropriateness in the Nomination and Remuneration Committee, an advisory body to the Board of Directors, in which majority of members and chairman are independent outside directors, and decided by 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.

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

### Directors' Remuneration of fiscal 2021

Classification	Number of Directors to be Paid	Total Remuneration (million yen)
Directors (excluding directors who serve as Audit and Supervisory Committee members and outside directors)	4	185
Directors who serve as Audit and Supervisory Committee members (excluding outside directors)	1	20
Outside directors	3	26



## Corporate Governance

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

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

Based on the Corporate Governance Guidelines, we regularly evaluate the effectiveness of the Board of Directors with the aim of enhancing the effectiveness of the Board of Directors and enhancement of corporate value.

For fiscal 2021, 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

We carried out an anonymous survey among its directors and asked outside directors for their opinion on the results of the survey containing the following items. Based on the results, the Board of Directors analyzed and evaluated its effectiveness as well as examined ways to make improvements going forward.

- 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 expectations to them
- Relationship with shareholders and other stakeholders

#### 2. Outline of analysis and evaluation results related to the effectiveness of the Board of Directors

We recognize that the Board of Directors of the Company is structured to balance diversity and appropriate size, and that at the Board of Directors' meetings, every director has ample opportunity to speak, and that free and constructive discussions are taking place.

On the other hand, the Board of Directors reaffirmed that it is necessary to continue to address issues such as enhancing effective discussions at the Board of Directors' meetings, establishing successor development plans, and improving training programs for directors.

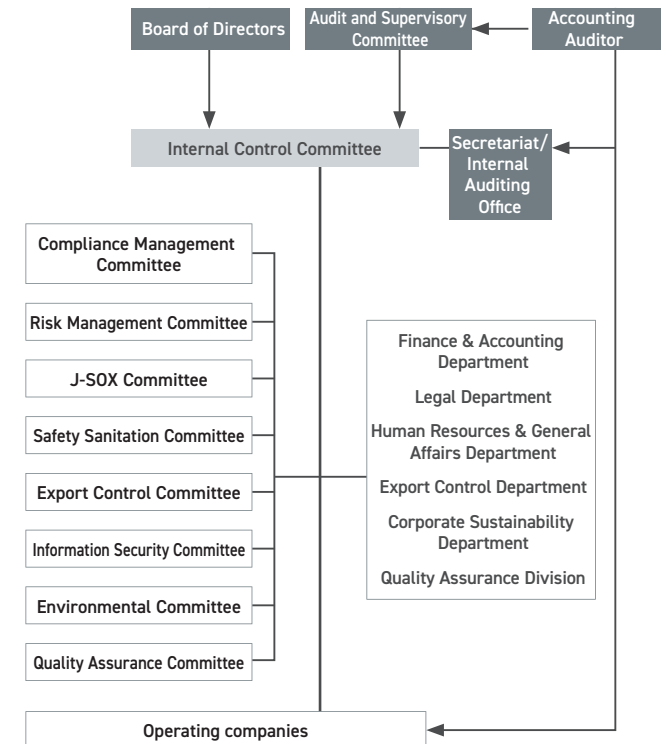
Based on the analysis and evaluation results, the Board of Directors will focus on the above issues and strive to further improvement of the effectiveness of the Board of Directors.

### Internal Control Systems

#### Reinforcing Internal Control Systems

Maxell Group has established the Internal Control Committee to ensure and strengthen the effectiveness of corporate governance in order to enhance the corporate value of the Group as a whole and to achieve management objectives. Through committee activities, we are striving to improve the management system of the Group, including compliance and risk management, and to strengthen its functions, thereby reinforcing the internal control systems.

Maxell Group Internal Control Systems Organizational Structure



## Corporate Governance

### Strengthening Compliance and Fostering Ethical Awareness

The Maxell Group is constantly working to strengthen its compliance system in order to realize its basic philosophy of "ensuring fair and transparent corporate activities." Specifically, we have established a Compliance Management Committee and are working to establish a system to strengthen compliance within the Maxell Group. The committee is chaired by the director who is in charge of risk management, and is composed of directors and executive officers in charge of sales, procurement, development, finance, general affairs, and IT, and head of legal and internal auditing. In addition, the committee is held regularly with the president and full-time Audit and Supervisory Committee member as observers. The committee deliberates and decides on policies for responding to issues that need to be addressed, including issues related to compliance promotion activities and corporate ethics activities, including education, issues that need to be addressed through audits of each business division and Group companies, including overseas companies, and matters related to compliance violations, and reports the results of these activities.

In addition, the general managers of each business division and the presidents of each Group company are designated as their respective compliance promotion officers, and at the same time, through the compliance promotion officers assigned to each business division and each Group company, a system has been put in place for disseminating and implementing decisions made by the Compliance Management Committee throughout the Group.

Furthermore, the Maxell Group has designated October of each year as "Corporate Ethics Month," and distributes a message from the president, calling on all Maxell Group employees worldwide to emphasize and thoroughly observe the basics and ethics, and to make judgments based not on losses and gains but according to right or wrong. In addition, from the perspectives of preventing violations of competition laws, anti-bribery, anti-social trade, and preventing harassment, we are striving to strengthen employee awareness of compliance and foster ethical awareness through various measures, such as hosting external lectures, e-learning courses on an individual basis, and holding workplace discussion meetings to discuss the content of the Maxell Group Codes of Conduct on an individual workplace basis.

#### Anti-Bribery

In the past, the Maxell Group has been implementing anti-bribery initiatives in relation to 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 relations with society by complying with applicable bribery-related laws and regulations in all countries and areas involved in the business activities of the Maxell Group and acting in a highly ethical manner. The guidelines stipulate 8 specific action guidelines, including the prohibition of facilitation payments, and we will continue working to prevent corruption in all forms, including bribery.

#### Export Control

With regard to security trade control, the Export Control Committee conducts accurate judgments on classification and rigorous application and user screenings (catch-all control screenings) in order to prevent the diversion of its products to weapons of mass destruction and ordinary weapons, and to comply with the relevant laws and regulations. In November 2014, we acquired a special general comprehensive license\*, and we will continue to strive for responsible self-management.

\* Special general comprehensive license: A system under which a corporation submits its internal rules on export controls and related information to the Ministry of Economy, Trade and Industry, which then provides bulk licenses for a combination of certain destinations and items that would previously have required individual approval.

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

The Maxell Group has established the "Maxell Compliance Helpline" as an internal reporting system to recognize illegal and fraudulent activities at an early stage and enhance the self-purification capabilities within the organization. In order to promote compliance management, we have also established a whistle-blowing hotline to an attorney who is independent from management as a contact point for cases that are difficult to investigate internally. Furthermore, we have already established a contact point that allows employees of overseas Group companies to report directly to us in each country's language, and the internal reporting system is permeating globally. There were no internal reports in fiscal 2021.

#### Respect for Human Rights

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

In addition, as part of efforts to address harassment, consultants selected from both labor and management have been assigned to each business site, and awareness-raising activities are being conducted to maintain and strengthen the internal system and prevent harassment, such as thoroughly disseminating the internal whistle-blowing system within the company.

#### Participation in the United Nations Global Compact

The 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.



## Corporate Governance

### Risk Management

The Maxell Group identifies and reviews company-wide risks, establishes department responsible for managing each risk item, and decides and manages response policies.

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

#### Information Security

The Maxell Group has established "Information Security Policy" and is thoroughly implementing rules, systems, and safety measures related to security. We are also conducting thorough employee training 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 training as an education for cyber attacks. We have also acquired the Privacy Mark as a thorough measure to protect personal information, and we are currently updating it.

We are also strengthening security measures in light of the recent diversification of cyber-attacks.

#### Promotion of Business Continuity Plans

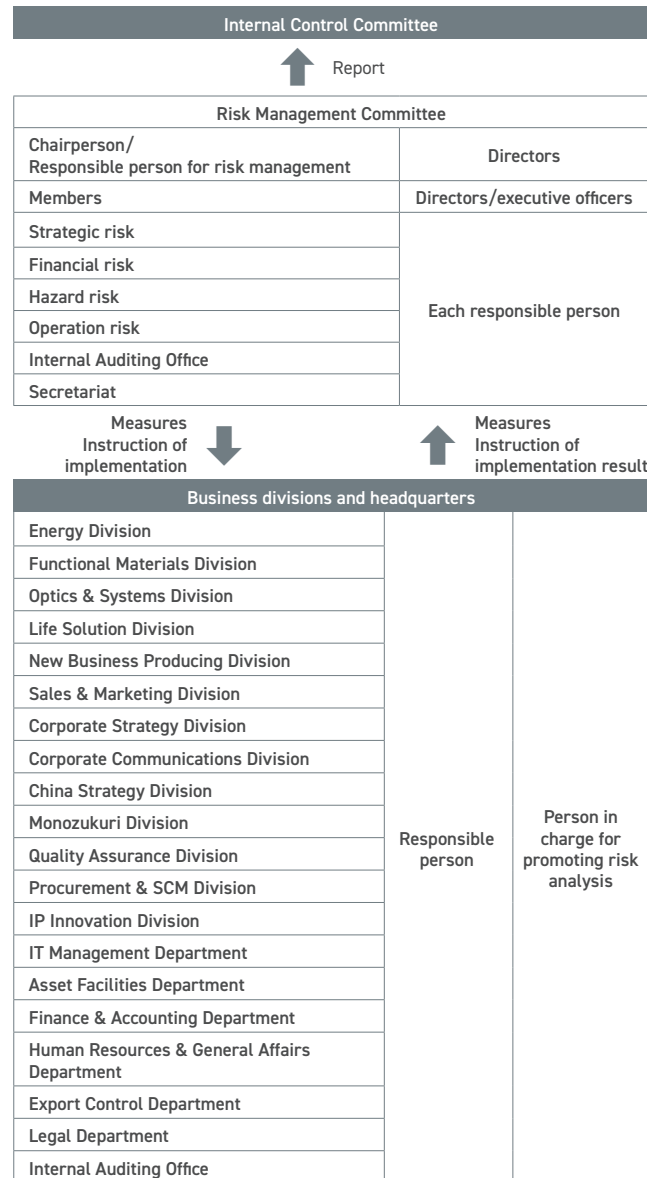
The Maxell Group is working to strengthen its business continuity plan in order to reduce the risk of business interruption due to large-scale disasters, such as earthquakes, and accidents.

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 trainings at each business site in anticipation of large-scale disasters. In addition, in order to respond to the contingencies of our business partners, we have started to develop a database that includes information on the location 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 concerns about terrorism and other conditions.

In particular, regarding COVID-19, we have divided our

Risk Management System



measures against infectious disease into 4 stages, and take appropriate measures in line with changes in social conditions.

We will continue to minimize all risks for all Group employees and make improvements in the event of an emergency.

#### Global Tax Policy

As a global company, we believe that paying the tax in a correct manner is an important part of our contribution to society and local communities overseas.

The Global Tax Policy\* comprises 3 topics: "Governance and risk management," "Compliance and reporting," and "Arranging our taxes." These topics have been publicly disclosed in order to enhance the transparency of the Group's tax governance as well as to meet any country-specific disclosure requirements

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

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 September 1, 2022)

\* "Maxell, Ltd." refers to the operational company under the holding company structure from October 1, 2017 to September 30, 2021.

## Directors



**President and Representative Director**  
**Keiji Nakamura**

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)



**Director**  
**Hiroyuki Ota**

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 Juei Tech Co., Ltd. (currently Maxell Frontier Co., Ltd.)  
Deputy General Manager, Optronics Division of the Company  
Apr. 2019 General Manager, Optronics Division of Maxell, Ltd.\*  
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 (incumbent)  
Jun. 2022 Director of the Company (incumbent)



**Director**  
**Seiji Sumoto**

Apr. 1990 Joined the Company  
Jul. 2014 Executive Officer and General Manager, Energy Division of the Company  
Apr. 2015 Executive Officer and General Manager, Sliontec Division of the Company  
Apr. 2018 Executive Officer of the Company, and Director and General Manager, Sliontec Division of Maxell, Ltd.\*  
Apr. 2019 Executive Officer and General Manager, Sales Strategy Department of the Company, and Director and General Manager, Sales Division of Maxell, Ltd.\*  
Jun. 2019 Director and General Manager, Sales Strategy Department of the Company  
Apr. 2021 Director of Maxell, Ltd.\*  
Director of the Company (incumbent)



**Director**  
**Noritoshi Masuda**

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)



**Outside Director**  
**Kazuaki Tsutsumi**

Apr. 1998 Joined Nissho Iwai Corporation (currently Sojitz Corporation)  
Dec. 2000 Manager, Nissho Iwai American Corporation (currently Sojitz Corporation of America)  
Jul. 2009 Joined Taiyo Pacific Partners L.P.  
Nov. 2012 Director, Taiyo Pacific Partners L.P. (incumbent)  
Mar. 2019 Outside Director, Roland Corporation  
Jun. 2022 Director of the Company (incumbent)



**Outside Director**  
**Sachiko Murase**

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 Kudanzakaue 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 (incumbent)

## Directors who serve as Audit and Supervisory Committee members



**Director**  
**Hiroyuki Suzuki**

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)



**Outside Director**  
**Kazuhiro Aigami**

Apr. 1981 Joined CEMEDINE CO., LTD.  
Apr. 1990 Joined Kenwood 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  
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)



**Outside Director**  
**Kazuyoshi Hata**

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 Officer

**Kenichi Sano**

## Messages from Outside Directors



To achieve the targets of the mid-term management plan, MEX23, monitor progress and responses to changes in external factors

**Sachiko Murase**  
Outside Director

In fiscal 2021, in anticipation of the targets set forth in the mid-term management plan, MEX23, I monitored progress and held a number of discussions on changes in the business environment and responses.

In order to continue generating corporate value and achieving profit growth, it is important to respond to changes in society's demand and to tap into new demand. In order to realize MEX23's theme of "Commit to Value," we have selected "Healthcare," "5G/IoT," and "Mobility" as the 3 focus areas for our segment growth strategies, which are overlapping areas of potential demand in the megatrends and our strength of Analog Core Technologies, and made a policy of prioritizing the investment of resources into this area. However, because society demand is constantly changing and we need to respond flexibly to these changes, we are closely monitoring the progress of our growth businesses. To this end, in addition to the Board of Directors' meetings, I also have opportunities to hear directly from frontline employees as needed.

I am also paying close attention to whether there are any social trends or events that affect the growth scenarios in the mid-term management plan, and whether we are able to respond accordingly. In response to a number of risk factors, such as the worldwide supply shortage of semiconductors and geopolitical risks, by leveraging my past experience in corporate legal affairs, I am expressing opinions on anticipated

risks and opportunities to expand business, in order for us to be able to pursue innovation and create value continuously.

In fiscal 2021, Maxell identified 7 materialities to strengthen its sustainability management, and in fiscal 2022, it entered into an examination of their KPIs. Regarding KPIs, The Board of Directors made recommendations from an objective perspective and held discussions over time. We will monitor and follow up on our progress in ways and frequency according to the content so that we can incorporate them into our business activities, enable our employees to understand their meaning and become aware of them in their day-to-day operations.

As part of the restructuring of Group governance, we integrated the holding company and a major operational company in fiscal 2021 in order to build a system that strongly drives the entire Group. We dissolved the holding company structure, and established a system for realizing synergies by fostering cross-divisional cooperation between business divisions and operational companies within the Group. As the next step, I recognize it is important that the Board of Directors will ensure the effectiveness of the governance of the entire group and will thoroughly discuss about the long-term strategy of the group as a whole to enhance corporate value as "One Maxell."



Supporting initiatives to accelerate growth and build internal systems to enhance corporate value over the medium- to long-term

**Kazuaki Tsutsumi**  
Outside Director

Maxell's strengths lie in its technological capabilities backed by its long history, which began with the battery and tape businesses. Maxell has raised development and production technologies of "mixing, coating, and forming" to a level that cannot be copied by other companies. They are called "Analog Core Technologies," but there are not many companies in the world that have such strengths. I think that if we will be able to enhance these strengths and use them well, Maxell will be able to contribute to the resolution of social issues more than ever before.

In this fiscal 2022, Maxell is in a phase of accelerating value enhancement. I think there are a number of management issues that need to be addressed, including further strengthening our business portfolio, realization growth investments, and designing incentives to give employees more fair treatment.

Internal mechanisms for successful implementation of these measures are also indispensable. Particularly important for management is thorough "visualization" and decision-making based on it.

First, about "visualization." We believe that visualization of financial indicators, such as profitability by product or profitability by region, is a matter of course, and we should also work to visualize our human resource portfolio (where and what kind of human resources are assigned globally) and our technology portfolio (what technologies we have and how we want to grow).

Understanding within the company from a variety of perspectives highlights not only management issues, but also solution of those issues.

Next is decision making. What we understood through visualization will also be the waste of treasure if management does not make decisions. Once we know what to do by making it visible, we will go through sufficient discussions, steadily solidify management will, and disseminate it both inside and outside the company. As a member of the Board of Directors, I would like to support decision-making in a more accurate and quicker manner.

President Nakamura and other members of the management team have a firm core, listening to various opinions from inside and outside the company, and I feel that they have an open mindset to incorporate good things. At the same time, there are many employees in Maxell who have good ideas and positive awareness of issues. I hope that management and employees will work together to pursue **Maximum Excellence**.

In corporate management, the most important thing for all stakeholders, including employees, to be happy over the medium to long term is to continue to increase corporate value. I would like to work hard for development of Maxell which "Commit to Value."

# Consolidated Financial Information

## Key Financial Data

(FY)	2017	2018	2019 <sup>*1</sup>	2020	2021 <sup>*2</sup>
Net sales	148,198	150,584	145,041	139,055	<b>138,215</b>
Operating profit (loss)	8,848	5,424	(137)	3,806	<b>9,332</b>
Operating profit (loss) to net sales (%)	5.97	3.60	(0.09)	2.74	<b>6.75</b>
EBITDA <sup>*3</sup>	12,445	10,073	5,738	9,252	<b>13,874</b>
EBITDA margin <sup>*4</sup> (%)	8.40	6.69	3.96	6.65	<b>10.04</b>
Net profit (loss) attributable to owners of parent	7,127	5,311	(10,487)	(9,373)	<b>(3,659)</b>
Net profit (loss) to net sales (%)	4.81	3.53	(7.23)	(6.74)	<b>(2.65)</b>
Depreciation	3,597	4,649	5,875	5,446	<b>4,542</b>
Capital investment	4,593	7,973	5,148	8,092	<b>3,960</b>
R&D expenses	10,592	9,729	8,864	7,934	<b>6,379</b>
Net profit (loss) per share (yen)	134.88	100.51	(205.23)	(189.51)	<b>(73.98)</b>
Net assets per share (yen)	2,290.22	2,328.41	1,828.68	1,640.98	<b>1,647.78</b>
Annual dividend per share (yen)	44.00	36.00	268.00 <sup>*5</sup>	0.00	<b>40.00</b>
Dividend payout ratio (%)	32.6	35.8	—	—	<b>—</b>
Average number of shares during the term (excluding treasury shares) (thousand shares)	52,841	52,840	51,099	49,459	<b>49,459</b>
Number of shares issued at the end of period (including treasury shares) (thousand shares)	53,341	53,341	53,341	53,341	<b>53,341</b>
ROE (%)	6.00	4.35	(9.82)	(10.92)	<b>(4.50)</b>
ROA (%) <sup>*6</sup>	5.25	3.59	0.04	2.16	<b>5.58</b>
ROIC (%) <sup>*7</sup>	4.90	2.81	(0.07)	1.90	<b>5.51</b>
Receivables turnover (times) <sup>*8</sup>	5.42	4.38	4.14	4.59	<b>4.57</b>
Inventory turnover (times) <sup>*9</sup>	7.41	5.91	5.32	5.82	<b>6.02</b>
Shareholders' equity ratio (%)	71.9	61.7	50.6	45.9	<b>45.9</b>
D/E ratio (times) <sup>*10</sup>	0.01	0.31	0.78	0.51	<b>0.51</b>
Current ratio (%)	269.3	177.0	209.9	174.3	<b>172.3</b>
Working capital <sup>*11</sup>	16,066	36,441	32,310	8,809	<b>5,105</b>

## Net Sales by Region

(FY)	2017	2018	2019	2020	2021 <sup>*2</sup>
Americas	12,844	15,314	11,865	11,778	<b>13,890</b>
Europe	12,498	12,855	11,657	9,507	<b>11,500</b>
Asia and other	42,955	42,154	33,684	30,692	<b>33,057</b>
Japan	79,901	80,261	87,835	87,078	<b>79,768</b>
<b>Average foreign exchange rate over the year</b>					
JPY/USD (yen)	111	111	109	106	<b>112</b>

## Year-end Stock Price Indicators

(FY)	2017	2018	2019	2020	2021
EV/EBITDA (times) <sup>*12</sup>	5.3	8.6	13.7	8.6	<b>3.9</b>
Year-end stock price (yen)	2,072	1,570	1,064	1,399	<b>1,202</b>
Market capitalization (millions of yen)	110,524	83,746	56,755	74,625	<b>64,116</b>
Year's high (yen)	2,817	2,228	1,971	1,516	<b>1,531</b>
Year's low (yen)	1,881	1,310	882	836	<b>1,055</b>

\*1 In fiscal 2019, 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. They 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 income (loss) per share.

\*2 From the beginning of fiscal 2021, the Company has applied "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29 of March 31, 2020), etc. The numbers relating to fiscal 2021 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 x 100

\*7 Net operating profit after tax / Average invested capital

Net operating profit after 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 (From this Integrated Report, figures for fiscal 2017 and afterwards were revised retroactively.)

\*8 Net sales / Average accounts receivable-trade

\*9 Cost of sales / Average inventories

\*10 Interest-bearing debts / Year-end shareholders' equity

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 (Market capitalization + Interest-bearing debts - Cash and cash equivalents) / EBITDA

## Consolidated Financial Information

### Segment Information

(Millions of yen)

(FY)	2017	2018	2019	2020	2021*
<b>Net sales</b>	<b>148,198</b>	<b>150,584</b>	<b>145,041</b>	<b>139,055</b>	<b>138,215</b>
Energy	44,970	38,265	38,203	37,811	38,631
Industrial Materials	49,940	52,398	54,413	50,843	28,018
Electronic Appliances & Consumer Products	53,288	59,921	52,425	50,401	39,540
<b>Operating profit (loss)</b>	<b>8,848</b>	<b>5,424</b>	<b>(137)</b>	<b>3,806</b>	<b>9,332</b>
Energy	5,559	2,299	2,498	3,309	4,050
Industrial Materials	2,889	2,652	887	1,432	1,861
Electronic Appliances & Consumer Products	400	473	(3,522)	(935)	3,338
<b>Operating profit (loss) to net sales (%)</b>	<b>5.97</b>	<b>3.60</b>	<b>(0.09)</b>	<b>2.74</b>	<b>6.75</b>
Energy	12.36	6.00	6.54	8.75	10.48
Industrial Materials	5.78	5.06	1.63	2.82	6.64
Electronic Appliances & Consumer Products	0.75	0.79	(6.72)	(1.86)	8.44
<b>Total assets</b>	<b>168,230</b>	<b>199,385</b>	<b>178,873</b>	<b>176,807</b>	<b>177,535</b>
Energy	35,226	38,339	30,771	33,269	34,923
Industrial Materials	48,432	57,464	54,955	52,888	31,471
Electronic Appliances & Consumer Products	33,346	70,045	54,797	42,555	35,662
Other	51,226	33,537	38,350	48,095	29,955
<b>Capital expenditure</b>	<b>9,439</b>	<b>26,042</b>	<b>5,638</b>	<b>8,343</b>	<b>4,183</b>
Energy	1,855	2,954	1,046	1,506	845
Industrial Materials	6,525	6,801	3,450	2,843	889
Electronic Appliances & Consumer Products	1,059	16,287	1,142	3,994	1,867
<b>Depreciation</b>	<b>3,597</b>	<b>4,649</b>	<b>5,875</b>	<b>5,446</b>	<b>4,542</b>
Energy	965	1,287	1,402	1,428	1,376
Industrial Materials	1,582	1,918	2,515	2,579	723
Electronic Appliances & Consumer Products	1,050	1,444	1,958	1,439	1,710
<b>R&amp;D expenses</b>	<b>10,592</b>	<b>9,729</b>	<b>8,864</b>	<b>7,934</b>	<b>6,379</b>
Energy	2,280	2,165	1,908	1,473	1,173
Industrial Materials	2,549	2,296	2,394	2,638	1,527
Electronic Appliances & Consumer Products	5,763	5,268	4,562	3,823	2,961
<b>Year-end number of employees</b>	<b>4,045</b>	<b>5,263</b>	<b>5,108</b>	<b>4,555</b>	<b>4,180</b>
Energy	1,010	1,014	959	862	793
Industrial Materials	1,943	2,165	2,073	1,980	786
Electronic Appliances & Consumer Products	854	1,853	1,844	1,477	1,280
Other employees cannot be categorized into specific segments	238	231	232	236	1,021
					300

### Business segments have been changed from fiscal 2021

#### New business segments 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 up to fiscal 2020

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

\* From the beginning of fiscal 2021, the Company has applied "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29 of March 31, 2020), etc. The numbers relating to fiscal 2021 are after application of the accounting standard, etc.

## Consolidated Financial Information

### Consolidated Balance Sheets (Summary)

(FY)	2017	2018	2019	2020	2021*
	(Millions of yen)				
<b>Total current assets</b>	<b>97,888</b>	<b>95,116</b>	<b>84,657</b>	<b>85,369</b>	<b>99,469</b>
Principal items among above:					
Cash and deposits	45,920	22,907	22,636	33,016	45,552
Notes and accounts receivable – trade	29,175	39,658	30,328	30,295	30,160
Inventories	17,553	22,848	21,431	16,034	18,378
<b>Total non-current assets</b>	<b>70,342</b>	<b>104,269</b>	<b>94,216</b>	<b>91,438</b>	<b>78,066</b>
Total property, plant and equipment	53,047	61,213	62,063	55,280	55,507
Total intangible assets	4,333	15,796	6,265	5,359	5,031
Total investments and other assets	12,962	27,260	25,888	30,799	17,528
Principal items among above:					
Investment securities	9,731	23,194	21,626	24,168	9,672
Net defined benefit asset	1,328	1,327	1,878	3,861	4,550
Deferred tax assets	931	1,521	1,457	1,732	2,152
<b>Total assets</b>	<b>168,230</b>	<b>199,385</b>	<b>178,873</b>	<b>176,807</b>	<b>177,535</b>
<b>Total current liabilities</b>	<b>36,351</b>	<b>53,750</b>	<b>40,335</b>	<b>48,975</b>	<b>57,719</b>
Principal items among above:					
Notes and accounts payable – trade	20,672	19,982	16,668	17,851	19,606
Accounts payable – other and accrued expenses	11,882	12,832	10,158	21,527	13,403
Short-term borrowings, current portion of long-term borrowings and lease obligations	68	17,760	10,406	5,210	6,692
<b>Total non-current liabilities</b>	<b>9,085</b>	<b>20,130</b>	<b>45,626</b>	<b>44,235</b>	<b>35,200</b>
Principal items among above:					
Long-term borrowings and lease obligations	544	8,025	34,004	32,856	26,170
Deferred tax liabilities	1,731	4,035	4,183	4,175	2,512
Net defined benefit liability	6,740	7,914	7,249	6,700	5,705
<b>Total liabilities</b>	<b>45,436</b>	<b>73,880</b>	<b>85,961</b>	<b>93,210</b>	<b>92,919</b>
<b>Total shareholders' equity</b>	<b>131,093</b>	<b>134,079</b>	<b>103,571</b>	<b>88,864</b>	<b>84,215</b>
Total accumulated other comprehensive income	(10,076)	(11,044)	(13,127)	(7,702)	(2,717)
Non-controlling interests	1,777	2,470	2,468	2,435	3,118
<b>Total net assets</b>	<b>122,794</b>	<b>125,505</b>	<b>92,912</b>	<b>83,597</b>	<b>84,616</b>
<b>Total liabilities and net assets</b>	<b>168,230</b>	<b>199,385</b>	<b>178,873</b>	<b>176,807</b>	<b>177,535</b>

### Consolidated Statements of Income (Summary)

(FY)	2017	2018	2019	2020	2021*
<b>Net sales</b>	<b>148,198</b>	<b>150,584</b>	<b>145,041</b>	<b>139,055</b>	<b>138,215</b>
Gross profit	34,328	31,167	27,331	30,063	34,602
Total selling, general and administrative expenses	25,480	25,743	27,468	26,257	25,270
<b>Operating profit (loss)</b>	<b>8,848</b>	<b>5,424</b>	<b>(137)</b>	<b>3,806</b>	<b>9,332</b>
Total non-operating income / expenses (net)	(281)	1,167	213	40	556
Principal items among above:					
Interest income and dividend expenses	376	495	359	461	280
Interest expenses and sales discounts	(255)	(235)	(295)	(285)	(153)
Foreign exchange gains / losses	(765)	273	94	(230)	164
Share of profit / loss of entities accounted for using equity method	346	546	164	(30)	138
<b>Ordinary profit</b>	<b>8,567</b>	<b>6,591</b>	<b>76</b>	<b>3,846</b>	<b>9,888</b>
Extraordinary income / losses (net)	(526)	1,074	(9,502)	(11,544)	(11,437)
Principal items among above:					
Gain on sale of non-current assets	471	17	6	6,610	13
Compensation for forced relocation	–	–	–	1,339	–
Loss on sale and retirement of non-current assets	(855)	(297)	(314)	(271)	(446)
Impairment losses	(385)	(19)	(7,782)	(4,742)	(131)
Loss on valuation of investment securities	–	–	–	–	(10,312)
Business restructuring expenses	(303)	–	(1,587)	(7,319)	–
Litigation expenses	–	–	–	(7,067)	–
<b>Profit (loss) before income taxes</b>	<b>8,041</b>	<b>7,665</b>	<b>(9,426)</b>	<b>(7,698)</b>	<b>(1,549)</b>
Total income taxes	868	2,170	736	1,799	1,718
Profit (loss) attributable to non-controlling interests	46	184	325	(124)	392
<b>Profit (loss) attributable to owners of parent</b>	<b>7,127</b>	<b>5,311</b>	<b>(10,487)</b>	<b>(9,373)</b>	<b>(3,659)</b>

\* From the beginning of fiscal 2021, the Company has applied "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29 of March 31, 2020), etc. The numbers relating to fiscal 2021 are after application of the accounting standard, etc.



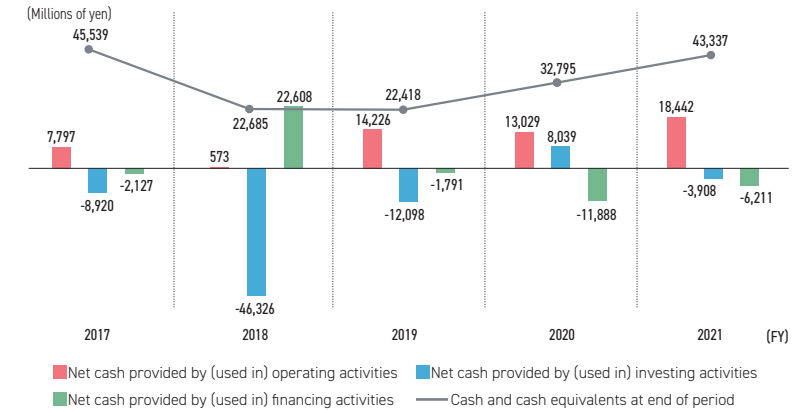
## Consolidated Financial Information

### Consolidated Statement of Cash Flows (Summary)

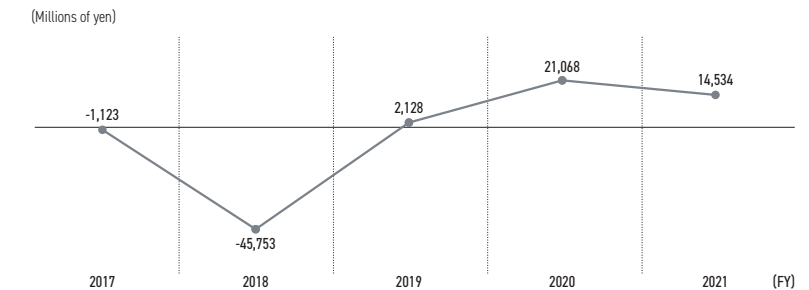
(FY)	2017	2018	2019	2020	2021
(Millions of yen)					
<b>Net cash provided by (used in) operating activities</b>	<b>7,797</b>	<b>573</b>	<b>14,226</b>	<b>13,029</b>	<b>18,442</b>
Principal items among above:					
Profit (loss) before income taxes	8,041	7,665	(9,426)	(7,698)	(1,549)
Depreciation	3,597	4,649	5,875	5,446	4,542
Impairment loss	385	19	7,782	4,742	131
Amortization of goodwill	540	923	1,231	590	590
Loss (gain) on sale and retirement of non-current assets	384	280	308	(6,339)	433
Decrease (increase) in trade receivables	(3,519)	(4,336)	9,441	464	1,004
Decrease (increase) in inventories	(3,599)	(1,344)	2,707	4,530	(1,338)
Increase (decrease) in trade payables	5,349	(3,229)	(3,004)	852	1,251
<b>Net cash provided by (used in) investing activities</b>	<b>(8,920)</b>	<b>(46,326)</b>	<b>(12,098)</b>	<b>8,039</b>	<b>(3,908)</b>
Principal items among above:					
Purchase of investment securities	(1,632)	(10,252)	(130)	(31)	(7)
Proceeds from sale of investment securities	—	274	332	37	2,403
Payments for construction of rental properties	—	(3,487)	(2,360)	—	—
Purchase of property, plant and equipment	(5,523)	(9,074)	(7,898)	(6,268)	(4,030)
Proceeds from sale of property, plant and equipment	830	15	6	14,784	832
Purchase of shares of subsidiaries resulting in change in scope of consolidation	(4,940)	(16,683)	—	—	—
Purchase of shares of subsidiaries and associates	—	(4,200)	—	—	—
<b>Net cash provided by (used in) financing activities</b>	<b>(2,127)</b>	<b>22,608</b>	<b>(1,791)</b>	<b>(11,888)</b>	<b>(6,211)</b>
Principal items among above:					
Net increase (decrease) in borrowings	(36)	20,027	18,637	(6,388)	(5,098)
Purchase of treasury shares	(1)	(0)	(5,039)	—	—
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	(31)	(16)	(38)	(64)	(9)
Dividends paid	(1,902)	(2,325)	(15,081)	—	(990)
Repayments of lease liabilities	(157)	(107)	(166)	(101)	(114)
Effect of exchange rate change on cash and cash equivalents	(112)	291	(604)	1,197	2,219
Net increase (decrease) in cash and cash equivalents	(3,362)	(22,854)	(267)	10,377	10,542
Cash and cash equivalents at beginning of period	48,901	45,539	22,685	22,418	32,795
Cash and cash equivalents at end of period	45,539	22,685	22,418	32,795	43,337
<b>Free cash flow*</b>	<b>(1,123)</b>	<b>(45,753)</b>	<b>2,128</b>	<b>21,068</b>	<b>14,534</b>

\* Net cash 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, 2022)

Maxell has been actively expanding its overseas operations since 1969. Going forward, Maxell aims to expand its business scale in each country and region, including emerging countries, based on its quality cultivated in Japan and the trust customers have in this quality. Further, we will work to enhance our international competitiveness within the rapidly changing global market.



Japan	
Maxell, Ltd.	
Tokyo Headquarters, Tokyo Office	Minato-ku, Tokyo
Kyoto Headquarters, Kyoto Office/Works	Oyamazaki-cho, Otokuni-gun, Kyoto Pref.
Yoyogi Office	Shibuya-ku, Tokyo
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	Nagoyashi, Aichi Pref.
Kansai Office	Osaka-shi, Osaka Pref.
Chugoku and Shikoku Sales Office*	Hiroshima-shi, Hiroshima Pref.
Fukuoka Office	Fukuoka-shi, Fukuoka Pref.
Kyushu Sales Office	Fukuoka-shi, Fukuoka Pref.

Maxell Frontier Co., Ltd.	
Head Office, Yokohama Works	Yokohama-shi, Kanagawa Pref.
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.
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.
Maxell Kureha Co., Ltd.	
Head Office	Osaka-shi, Osaka Pref.

Osaka Branchi	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. Telford Plant	UK

Maxell Europe Ltd. German Branch	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 Joei Tech (Thailand) Co., Ltd.	Thailand
Maxell Asia, Ltd. Vietnam Office	Vietnam
Maxell Asia (Singapore) Pte. Ltd.	Singapore
Maxell (Shanghai) Trading Co., Ltd.	Shanghai, China
Maxell (Shenzhen) Trading Co., Ltd.	Shenzhen, China
Maxell Taiwan, Ltd.	Taiwan
Maxell Tohshin (Malaysia) Sdn. Bhd.	Malaysia
PT. Sliontec Ekadharna 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

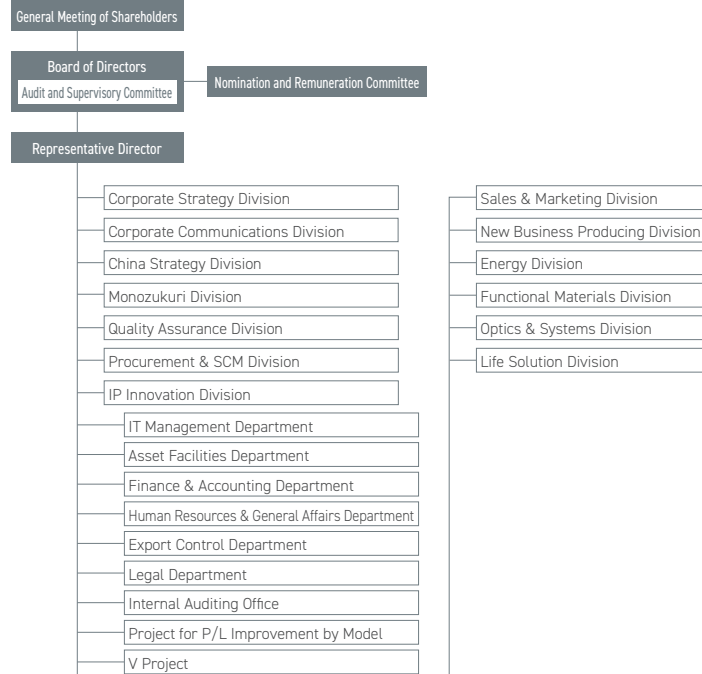
\* To be closed and consolidated to Kansai Office as of September 30, 2022

## Corporate Data (As of September 1, 2022)

<b>Company Name</b>	Maxell, Ltd. <a href="https://www2.maxell.co.jp/">https://www2.maxell.co.jp/</a>
<b>Tokyo Headquarters</b>	21F, Taiyo Life Shinagawa Building, 2-16-2 Konan, Minato-ku, Tokyo 108-8248, Japan
<b>Kyoto Headquarters</b>	1 Koizumi, Oyamazaki, Oyamazaki-cho, Otokuni-gun, Kyoto 618-8525, Japan
<b>Establishment</b>	September 1960
<b>Capital</b>	12,203 million yen
<b>Representative Director</b>	Keiji Nakamura, President
<b>Number of Employees</b>	Consolidated: 4,180*
<b>Transfer Agent</b>	Sumitomo Mitsui Trust Bank, Limited
<b>Accounting Auditor</b>	Ernst & Young ShinNihon LLC

\* As of March 31, 2022

### Organization Chart of Maxell, Ltd. (As of September 1, 2022)



## Stock Information (As of March 31, 2022)

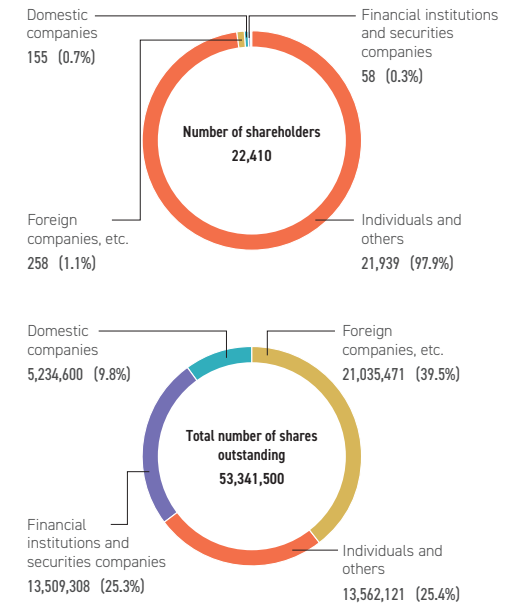
### Major Shareholders

	Shareholder	Number of Shares (Thousand Shares)	Percentage of Shareholdings (%)
1	The Master Trust Bank of Japan, Ltd.	7,876	15.92
2	Custody Bank of Japan, Ltd.	3,573	7.22
3	TAIYO FUND, L.P.	2,568	5.19
4	SSBTC CLIENT OMNIBUS ACCOUNT	2,348	4.75
5	Nichia Corporation	2,001	4.05
6	TAIYO HANEI FUND, L.P.	1,672	3.38
7	Zeon Corporation	1,311	2.65
8	STATE STREET BANK AND TRUST COMPANY 505227	1,288	2.60
9	STATE STREET BANK AND TRUST COMPANY 505103	1,182	2.39
10	STATE STREET BANK WEST CLIENT - TREATY 505234	816	1.65

Notes:

- The number of shares held by The Master Trust Bank of Japan, Ltd. and Custody Bank of Japan, Ltd. are the number of shares held in trust.
- The percentage of shareholdings is calculated without taking treasury shares (3,863,595 shares) into account.

### Breakdown of Shareholders (As of March 31, 2022)



### External Evaluations

Rated as 3 stars in "the 5<sup>th</sup> Nikkei Smart Work Management Survey" for 3 consecutive years

Maxell was rated as 3 stars in the 5<sup>th</sup> Nikkei Smart Work Management Survey which selects the leading companies taking on the challenge of productivity innovations through work style reforms.



Ozone Anti-bacterial Deodorizer "OZONEO AERO μ" and Professional Use Ozone Water Generator newly acquired certification by Japan Ozone Association

2 products that use ozone acquired certification for type approval of small-size ozone generating device by a specified non-profit organization, the Japan Ozone Association.



Recognized as "2022 Certified Health & Productivity Management Organization"

Maxell, Ltd. and Maxell Frontier Co., Ltd. were recognized as "2022 Certified Health & Productivity Management Organization" (large enterprise category) who consider employee health management from managerial perspective and work with it strategically.



Awarded as "ASIA IP Elite 2022" for IP activities

Maxell's intellectual property (IP) activities to date have been highly evaluated, and following on from 2018 and 2019, we were selected as one of the companies that effectively utilize patents as strategic business assets by internationally authoritative intellectual property media, Intellectual Asset Management (IAM) and were awarded as "ASIA IP Elite 2022" (Asian Intellectual Property Elite).

Selected as a constituent of "Sompo Sustainability Index" for 6 consecutive years

In recognition of Maxell Group's ESG efforts, we were selected as a constituent of "Sompo Sustainability Index" by Sompo Asset Management Co., Ltd. for 6 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" (**Maximum Capacity Dry Cell** = dry cell with the highest performance) created for the dry batteries that constituted its business at the time of foundation.