

# Sources of Value Creation

## What are Analog Core Technologies?

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



### Mixing & Dispersion (Mixing)

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



### Fine Coating (Coating)

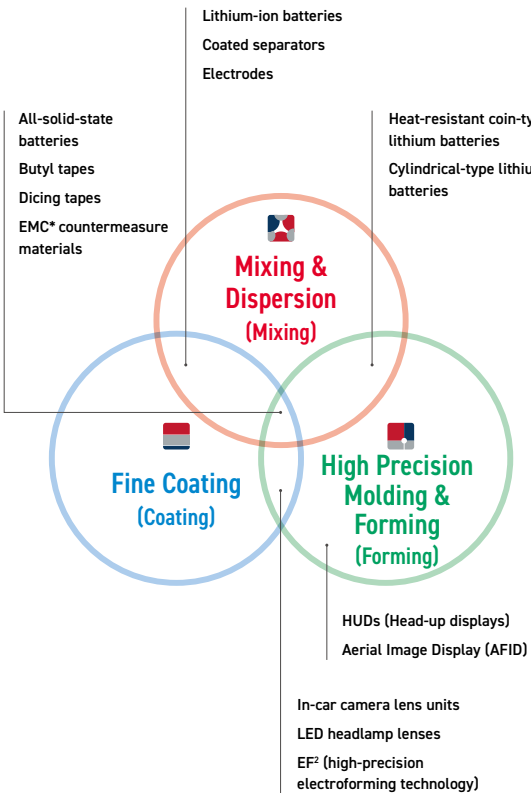
Technology for **coating** at more uniform thicknesses, from a few millimeters to nanometers  
Improves the stability of product performance



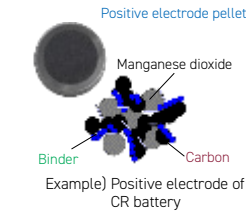
### High Precision Molding & Forming (Forming)

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

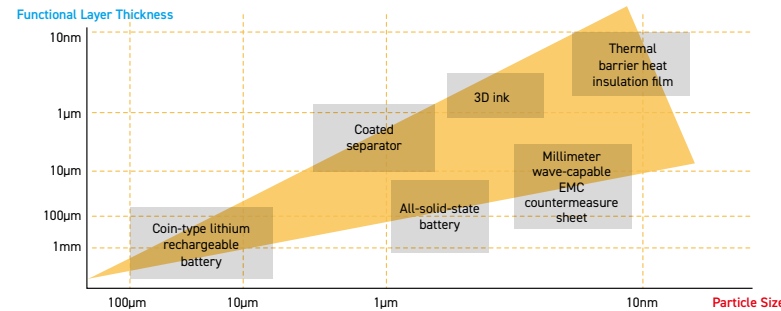
### Examples of Products Covered by Analog Core Technologies



### Mixing & Dispersion (Mixing)



- Elemental Technologies**
  - Modify surface quality of powders (dry processing, liquid phase processing)
  - Kneading/Dispersion (bead mill/media-less dispersion)
  - Making coating materials (precise dilution, defoaming treatment, fluidity control)
- Monozukuri (Manufacturing) Strengths**
  - Monozukuri that mixes and processes with a high degree of precision and speed suitable for the materials
- Product Strengths**
  - Realizes high-capacity, high- and low-temperature resistant, long life batteries



### Fine Coating (Coating)



- Elemental Technologies**
  - Coating (die interior and slit shape design, fluid simulation)
  - Coated film drying (air flow control, temperature dispersion control, drying simulation)
  - Precise solution supply (piping, pump design, filter technology, defoaming, viscosity adjustment)
  - Base material conveyance (roll shape design, tension control, high-speed running)
- Monozukuri (Manufacturing) Strengths**
  - Monozukuri that creates a thin layer of dissolved and mixed adhesive, to a thickness of several dozen microns
- Product Strengths**
  - Realizes tapes with thin layers that simultaneously offer a high degree of adhesive strength and superior releasability

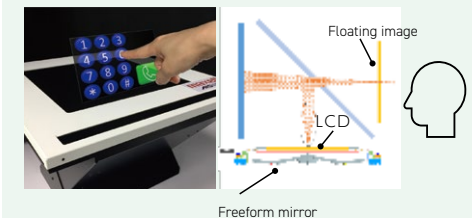
### High-Precision Molding & Forming (Forming)

- Elemental Technologies**
  - Forming (high-precision technology resulting from unique expertise and flow analysis)
  - High-performing technology resulting from 40 or more years of accumulated expertise
  - Processing (lens piece polishing technology, high-cycle technology)
- Monozukuri (Manufacturing) Strengths**
  - Integrated Monozukuri, from design through to die molding
- Product Strengths**
  - Realizes high-precision lenses with shape-correcting technology tailored to a variety of designs

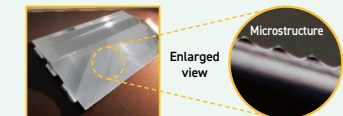


Example) Molding die for LED headlamp lenses with 8 cavities

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



### Freeform mirror



\* Electromagnetic Compatibility

# Value Creation Process

**Basic Management Policy (MVVSS)**  
MISSION VISION VALUE SPIRIT SLOGAN

**VISION**  
The "Future" Maxell wants to realize **Create Maximum Excellence for employees, customers, and society by leveraging unique Analog Core Technologies**

**INPUT** Capital to be invested and enhanced

Flows back from OUTCOME

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

Financial Capital	Manufacturing Capital	Intellectual Capital	Human Capital	Social Capital	Natural Capital
<b>FY2022</b> Net Sales.....132.8 billion yen Operating Profit.....5.6 billion yen Operating Profit Ratio .....4.2% ROIC.....3.5%	<b>FY2022</b> Capital Investment .....3.8 billion yen Depreciation Cost .....4.7 billion yen	<b>FY2022</b> Research & Development Costs .....6.4 billion yen	<b>FY2022</b> Consolidated Number of Employees .....4,111 Ratio of Overseas Employees .....41%	<b>FY2022</b> Number of Bases .....48 Number of Countries in which Maxell Operates Businesses..... 15	<b>FY2022</b> CO <sub>2</sub> Emissions (Scope 1 and 2) Global ..... 86.7Kt-CO <sub>2</sub> Domestic ..... 49.3 Kt-CO <sub>2</sub> Total Waste Emissions.....5,238t
<b>FY2023 Targets</b> Net Sales.....133.0 billion yen Operating Profit..... 7.5 billion yen Operating Profit Ratio .....5.6% ROIC.....4.8%	Moving to mass production of growth area products Example) All-solid-state batteries Investment in production facility Approximately 2 billion yen	<b>FY2026 Target</b> Number of Patents related to Next-Generation Development Technologies: 1.5 times compared to the number in FY2021	<b>FY2026 Targets</b> Employee Awareness Survey Improve overall satisfaction ratio: 90% or higher Formulate human resource portfolio	Build sincere and close relationships with customers and partner companies in various industry and business categories, and create product value, services, and new markets	<b>FY2030 Targets</b> Domestic CO <sub>2</sub> emissions: 50% reduction (compared to FY2013) Renewable energy ratio (= Volume of renewable energy used/total electricity): 15%

## BUSINESS PROCESS

Creating high added value through Analog Core Technologies

**Materialities** 01 Creating Innovation through Unique, Original Technologies



# OUTPUT Products / Technologies / Business outcomes

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



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

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

## Target Products and Technologies in 3 Focus Areas



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

For example...

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



### Contributing to an advanced information society

For example...

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



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

For example...

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

\*Adaptive Driving Beam

Flows back to INPUT

# Key Maxell products that provide value to society

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

Hydraulic tools

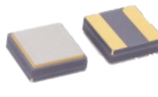


**No.1<sup>1</sup>**  
share in Japan

Tape for semiconductor manufacturing processes



All-solid-state batteries



Tape for industrial processes




Highly-reliable coin-type lithium batteries (CR)




Used in CGM<sup>\*2</sup> (Continuous Glucose Monitoring)

Shavers



Semiconductor-related embedded systems



**Top share<sup>1</sup>**  
among leading manufacturers in the semiconductor manufacturing equipment industry

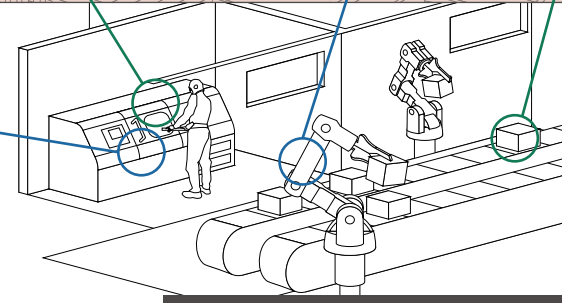


Illustration showing uses in a factory

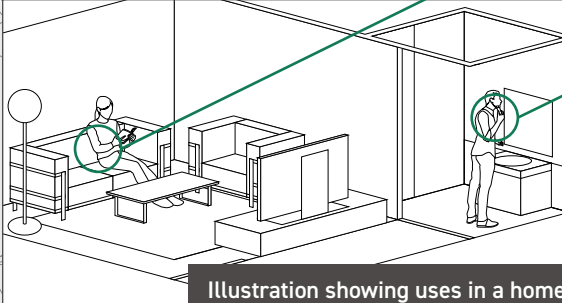



Illustration showing uses in a home

Aerial image displays



Head up displays (front monitors)



In-car camera lens units



**No.1<sup>1</sup>**  
among Japanese manufacturers

EMC<sup>\*3</sup> countermeasure materials



Foamed sheet (high-strength, lightweight)



Cylindrical type lithium batteries




Smart meters

Coated separators (insulating material for HEVs and EVs<sup>\*4</sup>)

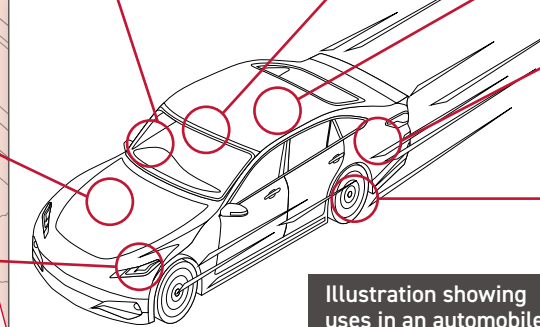



Illustration showing uses in an automobile

Tape for construction and construction materials



**No.2<sup>1</sup>**  
share in Japan

LED headlamp lenses



**No.1<sup>1</sup>**  
share in the world

Heat-resistant coin-type lithium batteries




Used in TPMS (tire pressure monitoring systems)

**No.1<sup>1</sup>** share in the world

<sup>\*1</sup> Maxell's research (FY2023 target) <sup>\*2</sup> Continuous Glucose Monitoring <sup>\*3</sup> EMC (Electromagnetic Compatibility) <sup>\*4</sup> HEVs (Hybrid Electric Vehicles), EVs (Electric Vehicles)