

Marumae Co., Ltd. Integrated Report 2022 Fiscal Year ended August 31, 2022

MARUMAE REPORT 2022

Marumae Co., Ltd.

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https://www.marumae.com/en/index.html



Origin of Name

Marumae began as a plateworks engaged mainly in tank fabrication and welding in 1965.
Our company name combines the Japanese words *maru*, meaning to smooth things over or settle things peacefully, and *mae*, meaning ahead or forward, conveying our founder's emphasis on pushing ahead with business peacefully and smoothly.
We have inherited this mindset and attach importance to gaining new friends and allies rather than making enemies.

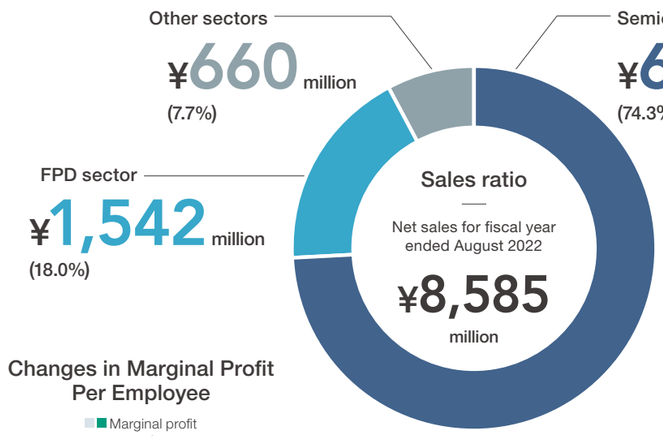
MARUMAE

Aiming to be components, and supply

We develop and manufacture vacuum components that serve as the core units of semiconductor and flat panel display (FPD*) production equipment.
With our advanced technologies and supply capabilities, we supply components to world-class semiconductor and FPD production equipment manufacturers.

* A flat panel display refers to any display appliance that uses a thin panel design including liquid crystal displays, plasma displays, organic EL displays, FED (field emission displays) and electronic paper

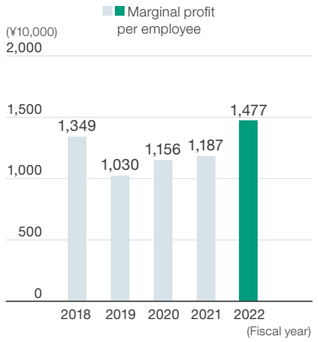
At a Glance



Market share in Japan

NO.1

Changes in Marginal Profit Per Employee

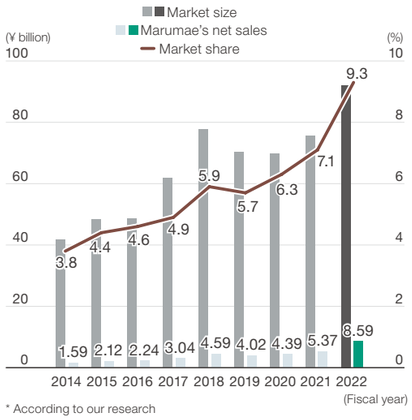


Location



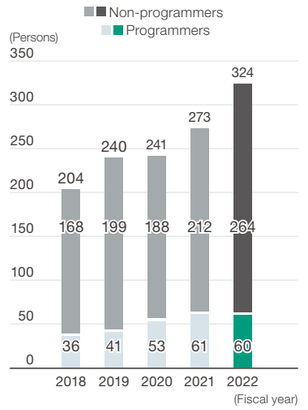
a leading manufacturer of vacuum with cutting-edge technologies capabilities

Market Size and Market Share

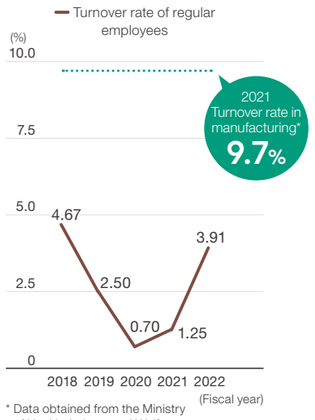


* According to our research

Changes in Number of Employees and Number of Programmers



Turnover rate of regular employees



* Data obtained from the Ministry of Health, Labour and Welfare

Growth Achieved by Continually Taking on Challenges, Learning, and Improving

There once was a time when we achieved growth by leveraging our strength in terms of plant and equipment to capture demand. However, the management crisis we experienced as a result of the 2008 Global Financial Crisis prompted us to change our business strategy, and we reverted to our policy at the time of our founding of carefully selecting business from the viewpoint of profitability and efficiency and not relying on expansion of plant, equipment and employees.
Believing that we will always have work provided we have technology, we sought business growth driven by technological capabilities.

Changes we have made

- Since going into business, we have become involved in a wide range of operating activities to keep pace with the times.
  1. Motorcycle parts
  2. Turbine blades for power plants
  3. Robotic parts
  4. FPD sector
  5. Semiconductor sector

What we have kept unchanged

- Since going into business, we have always kept in mind and held dear the following.
  1. Solutions to customers' problems
  2. Pursuit (further development) of technology
  3. Acquisition of new technologies
  4. Pursuit of the fundamental essences of things (approach)
  5. Differentiation based on technological capabilities

Lessons learned from crisis

When we started out in business, we harnessed our technological capabilities to win more orders; however, in the years before the Global Financial Crisis, we won orders that relied on equipment strength in terms of large-scale machinery and we neglected to improve our technological capabilities. After the Global Financial Crisis, technological capabilities were necessary, but we expanded the semiconductor business where less investment was required. We also endeavor to make investments that are commensurate to our capital strength and have also increased our on-hand liquidity in case of market fluctuation.

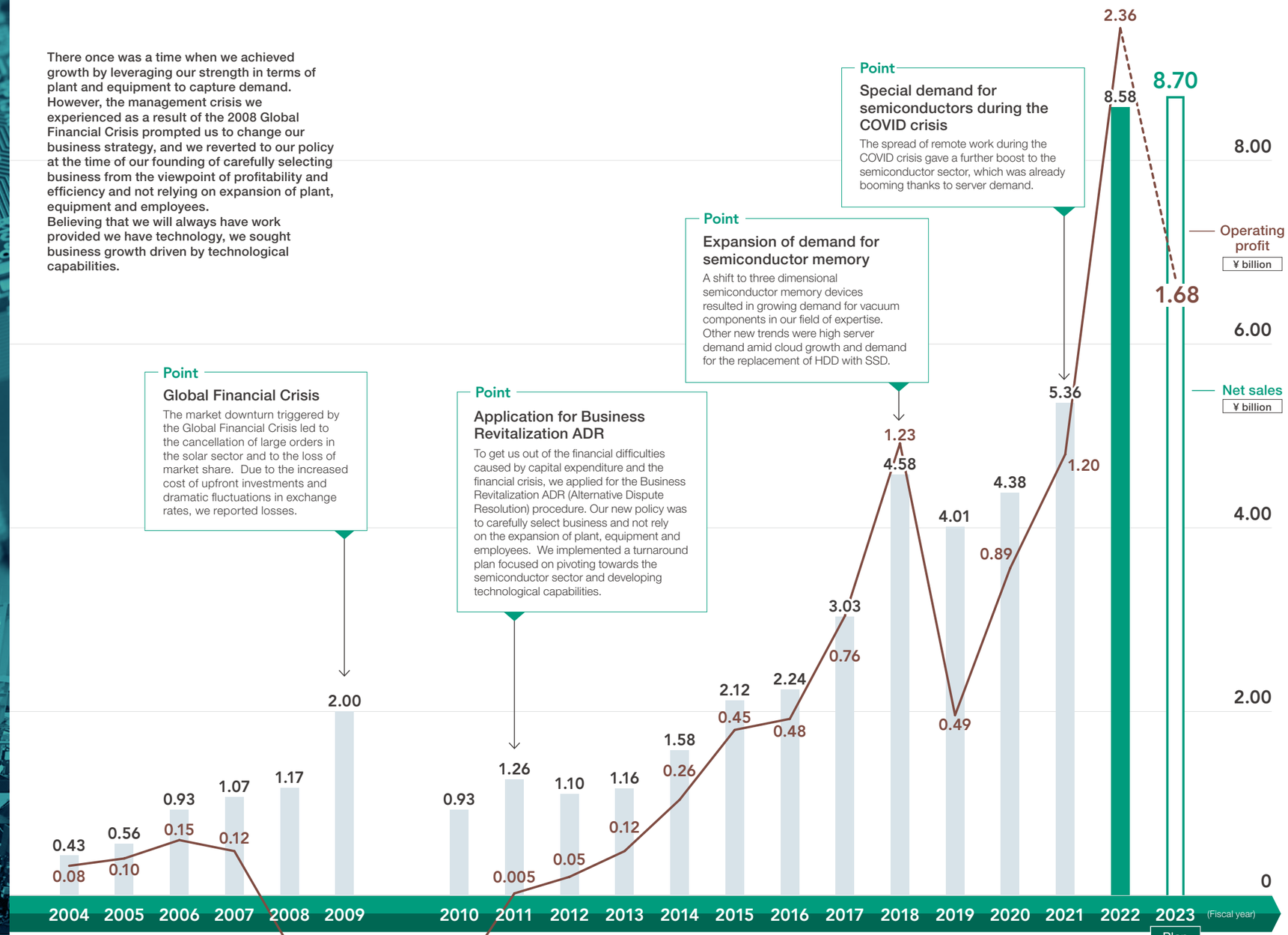


Point
Global Financial Crisis
The market downturn triggered by the Global Financial Crisis led to the cancellation of large orders in the solar sector and to the loss of market share. Due to the increased cost of upfront investments and dramatic fluctuations in exchange rates, we reported losses.

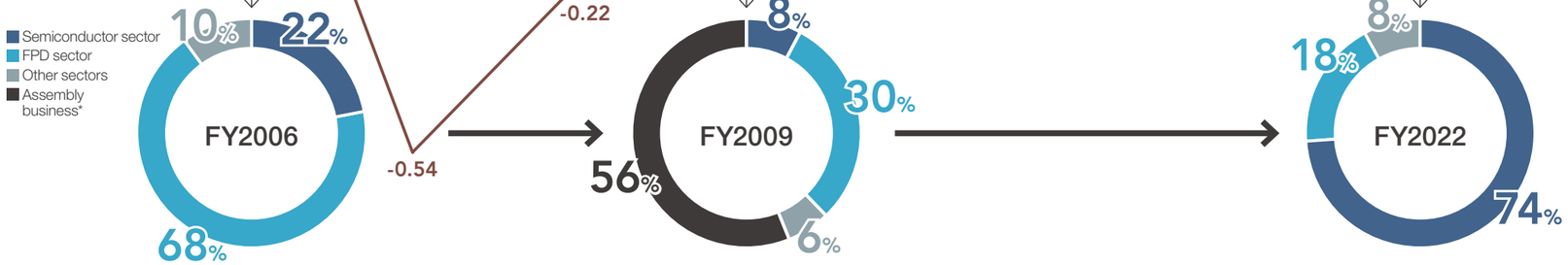
Point
Application for Business Revitalization ADR
To get us out of the financial difficulties caused by capital expenditure and the financial crisis, we applied for the Business Revitalization ADR (Alternative Dispute Resolution) procedure. Our new policy was to carefully select business and not rely on the expansion of plant, equipment and employees. We implemented a turnaround plan focused on pivoting towards the semiconductor sector and developing technological capabilities.

Point
Expansion of demand for semiconductor memory
A shift to three dimensional semiconductor memory devices resulted in growing demand for vacuum components in our field of expertise. Other new trends were high server demand amid cloud growth and demand for the replacement of HDD with SSD.

Point
Special demand for semiconductors during the COVID crisis
The spread of remote work during the COVID crisis gave a further boost to the semiconductor sector, which was already booming thanks to server demand.



Changes in Business Portfolio

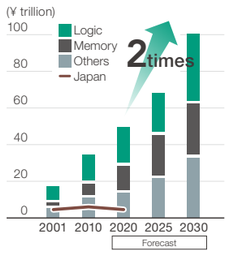


* The assembly business was discontinued with the closure of the Kumamoto Factory

1 Growth opportunities

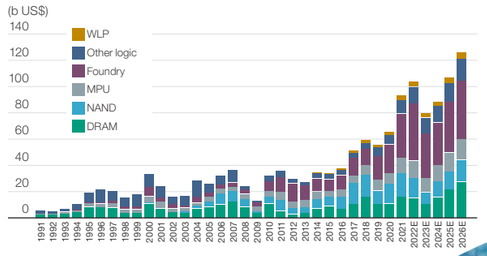
Semiconductor market to grow to ¥100 trillion by 2030

Global Semiconductor Market (Shipments)



Source: Prepared by Ministry of Economy, Trade and Industry based on data from Omdia

Outlook for WFE Market



Note: Forecasts are according to Mizuho Securities Co., Ltd
Source: Prepared by equity research division of Mizuho Securities Co., Ltd. based on data from SEMI and Gartner, Inc

1 Semiconductor demand set to double

The semiconductor market is expected to grow to ¥100 trillion by 2030, which is twice its size in 2020.

2 Equipment demand set to grow as much in the next 10 years as it has in the past 30 years

To satisfy twice as much semiconductor demand, the production capacity built up over the past 30 years will need to be doubled over the coming 10 years.



2 Market share

Largest share of Japanese market for vacuum components used in semiconductor production equipment

We boast the largest share of the Japanese market for vacuum components used in semiconductor production equipment. The main reason for this is our technical capabilities. Our customers ask us to deliver prototypes in a short time frame. It is our programmers who meet their needs. We employ 60 highly skilled programmers, giving us a competitive advantage. To further improve our prototyping skills, we are employing and training more programmers and promoting the development of prototyping environments. We will also aim to further expand our market share by developing new customers and establishing deeper ties with existing customers.

Industry share

	FY2020	FY2021	FY2022
Net sales	¥4.3 billion	¥5.3 billion	¥8.5 billion
Profit	¥0.69 billion	¥0.90 billion	¥1.81 billion
Market share by net sales	6.3%	7.1%	9.3%
Market share rank	3rd	2nd	1st

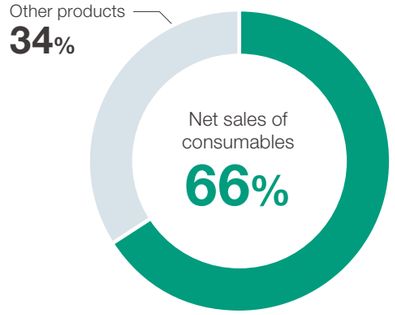
* According to our research

3 Growth strategy

Strategically winning orders for consumables to respond to the silicon cycle

The semiconductor production equipment market is significantly impacted by the semiconductor demand cycle. We have therefore taken strategic action to win orders for consumables. Consumables require advanced technologies to meet stringent customer requirements; however, since demand for replacement parts arises every 3-12 months, we can expect to receive orders in a stable manner, regardless of production equipment sales.

Sales weighting of consumables in semiconductor business (FY2022)



4 Manufacturing system

Integrated manufacturing system for solving customers' problems

Under our integrated manufacturing approach, Marumae single handedly carries out multiple individual production processes which were formerly shared out among different companies. We make products according to customer requirements and provide a service in the form of a factory system.

Four benefits of integrated manufacturing

1. Workers at each production process can understand each others' processes closely.
2. Saves the customers a great deal of trouble, as delivery adjustments among multiple processes are unnecessary
3. Shortens transportation lead times
4. Marumae also takes care of transportation where necessary, reducing the cost of transporting large components in particular

Why does Marumae acquire new technologies and adopt an integrated manufacturing approach?

Among our many processes, we aim to integrate the key technologies that influence product strength as much as possible. If we do not possess the key technologies, management is less stable: our customers may switch to another supplier, for example. Further, the acquisition of new technologies not only enables integrated manufacturing but also opens up new business areas and orders for new components. Naturally, the technologies involved in each process is highly specialized and it takes time to master them. Nonetheless, once technologies are deemed to be key technologies, we adopt a medium to long term perspective and commit to investing our management resources -funds, people and equipment into the technologies.

Our main products

explained in the semiconductor and FPD production processes

Semiconductors and liquid crystal screens are essential components of electronic devices. Our products play a very important part in their production process. Here, we highlight our main products, together with the production processes in which they are used.

Processes in which our main products are used

Semiconductor production process

Front-end process



Ingot production process

Production of the silicon single crystals (ingots) that form the basis of semiconductors



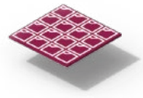
Circuit design

Design of a circuit pattern by combining various circuits together according to the required function



Ingot slicing

Slicing of the ingot using a special diamond blade to create wafers



Photomask process

Creation of a photomask on which the pattern of the circuit to be transferred to the wafer is drawn



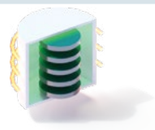
Wafer polishing

Polishing of the surface of the wafer after slicing to give it a mirror-like finish



Exposure/ development process

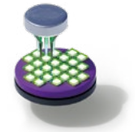
Transfer of the pattern of the circuit to the surface of the wafer by exposure to light using the photomask



Wafer oxidation

Production of an oxide layer on the surface of the wafer in a thermal diffusion furnace in order to transfer a circuit pattern to the wafer

Back-end process



B Wafer inspection

Testing of each chip on the wafer to determine if it is functional or not and marking of any defects



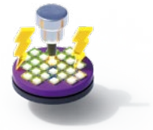
A B C Electrode formation

Formation of an aluminum metal layer for electrode wiring on the surface of the wafer with inert-gas plasmas



A B D E F Etching process

Removal of unwanted layer of oxides and unwanted resist by etching



A B D E F Oxidation/Diffusion/CVD/ Ion implantation

Ion implantation and/or thermal diffusion of the wafer, causing the silicon layer to act as a semiconductor



Resist coating

Coating of the surface of the wafer with a photoresist (a light-sensitive chemical) to make the wafer light sensitive



Planarization

Polishing of the surface of the wafer to make the pattern flat or planar

LCD manufacturing process

Array process



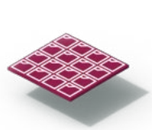
Circuit design

Design of a circuit diagram through the arrangement of pixels and surrounding circuits according to the required function



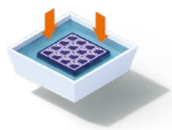
Photomask fabrication

Creation of a photomask on which the TFT circuit pattern or CF circuit pattern to be transferred to the glass substrate is drawn



Exposure

Transfer of the circuit pattern shape to the photoresist coated on the substrate by exposure to light using the photomask



Development

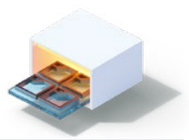
Development of the substrate after exposure to light to transfer the circuit pattern in the photoresist to the substrate



Pattern inspection

Inspection of the pattern formed on the substrate to measure open/short of the circuit pattern and detect any foreign matter or other defects

Back-end process



Annealing

Thermal treatment of thin films to bring the substrate properties into play and improve performance



Resist coating

Coating of the substrate thinly and evenly with a photoresist (a light-sensitive chemical)



A D E F Film formation

Sputter deposition of metallic films and deposition of insulating films through plasma-enhanced chemical vapor deposition (CVD), in order to form TFT



Substrate cleaning

Cleaning of the glass substrate with a brush and chemicals to remove any dirt and contaminants that might cause defects



Resist stripping

Removal of unwanted photoresist after dry etching



A D E Dry etching

Removal of film unmasked by resist with plasma etching

Main products

Core units of production equipment

A Vacuum chamber

A vacuum chamber is a container used to create a vacuum. A vacuum is created by using a vacuum pump fitted to the vacuum chamber to suck the air out of the vacuum chamber. Vacuum chambers are used in many semiconductor production processes, such as exposure, film formation, etching and sputtering.



Consumables

B Electrostatic chuck

An electrostatic chuck (ESC) is a chuck used in semiconductor production chambers when shaping, according to the design, the silicon wafers, which is to be used as semiconductor substrate materials. The ESC holds the wafers using an electrostatic force and is an important component that influences semiconductor production efficiency.



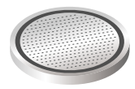
C Sputtering targets (for semiconductors and LCDs)

Sputtering or sputter deposition is a technique to deposit thin films on substrates by introducing an inert gas to a vacuum chamber, charging negative voltage into the target material to form a glow discharge, and causing the ejection of atoms from the surface of the target to form a film on the substrate. High purity aluminum and titanium are used as sputtering targets.



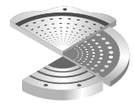
D Upper electrode

The upper electrode is directly above the wafer in semiconductor production equipment and directly above the glass substrate in FPD production equipment, and it is the electrode that discharges gas through the hole and generates plasma at high frequencies.



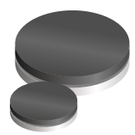
E Semiconductor showerhead

A showerhead is a component that evenly supplies gas to the wafer/glass substrate as needed in the semiconductor production process/FPD production process. It, therefore, has many high precision pores and a complex arrangement of gas channels inside it.



F Heater (for semiconductors and LCDs)

Diverse heaters are used in the semiconductor production process as the process requires strict temperature control. In the CVD process and etching process, film formation and oxide layer removal take place in high temperature environments and a stage heater is used to achieve high precision temperature control of wafers.



Our Vision P21

Leading innovation in cutting-edge technology.

We do not compromise when it comes to the precision machining technologies that are the very origins of Marumae.
We aim to harness our advanced technologies and supply capabilities to become a leading company in component machining that supports comprehensive manufacturers in a wide range of areas.



Photo: View of the inside of Izumi Factory seen from the second floor

Corporate Philosophy

1. Seek technological perfection
2. Respect competition and collaboration
3. Contribute to society as a company focused on technology

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Editorial Policy

The MARUMAE REPORT has been designed for shareholders, investors, and other stakeholders. Viewing it as a communication tool for engaging in dialogue with all of our stakeholders, we have prepared this report with the aim of presenting, in a clear and coherent manner, our initiatives for achieving sustainable growth in both financial and non-financial terms, such as our environmental, social, and governance initiatives. In accordance with these objectives, we referenced the approaches of the Ministry of Economy, Trade and Industry's Guidance for Collaborative Value Creation and the International Integrated Reporting Council's International Integrated Reporting Framework in the production of this report.

Forward-Looking Statements

The forecasts for Marumae's future business results within this report reflect the current analysis of the Company based on information available at the time of preparation. Readers are cautioned that actual business results and other outcomes may differ from these forecasts due to a variety of factors, including economic trends and the Company's operating environment. Period under Review: Fiscal 2022 (September 1, 2021 to August 31, 2022)

CEO Message

Toshikazu Maeda
President and Representative Director

Leveraging our advanced technological capabilities to become a leading company in component machining

Summary of the Previous Medium-term Business Plan

Although we achieved our numerical targets, “business innovation” is still a work in progress

In fiscal 2019, we launched our Medium-term Business Plan “Innovation 2022,” with “business innovation” as our goal. Originally, it was a three-year plan covering the period from fiscal 2019 through fiscal 2021; however, our business environment changed suddenly due to the dramatic slowdown of the semiconductor manufacturing equipment market. We decided to extend the plan period by one year and to revise our numerical targets at the same time (revising our net sales target from ¥8 billion to ¥7 billion and our operating profit target from ¥2.4 billion to ¥2.0 billion. In the end, our results for fiscal 2022 were net sales of ¥8.5 billion and operating profit of ¥2.3 billion, partly thanks to recovery of the business environment from fiscal 2021 through fiscal 2022. I think that, for the most part, we managed to achieve our numerical targets; however, this was largely down to favorable market conditions and there were still issues to be addressed when it came to our goal of business innovation.

We had a painful experience in the 2008 Global Financial Crisis. At the time, Marumae’s core products were components used in flat panel display manufacturing equipment; however, we had aggressively invested in plant and equipment for components used in solar cell manufacturing equipment in anticipation of future market expansion. The Global Financial Crisis happened just when, faced with a rapidly expanding solar cell market, we had made investment in plant and equipment which was very significant for us, given our capital and financial strength. The favorable market conditions changed overnight, preventing us from utilizing the plant and equipment we had actively invested in and putting us in a very tough management situation. In light of this experience, we came to strive for “management that does not rely on assets/equipment.” This means innovating business operations to win orders for new work by increasing our technological capabilities rather than relying solely on plant and equipment. Developing a corporate structure for keeping fixed costs low through technological advancement and initiatives such as manufacturing automation using robotics, whilst at the same time minimizing CAPEX and staff increases as much as possible, and becoming a truly self-directed, autonomous organization befitting of a listed company -this is the business innovation we are striving for. Unfortunately, as things stand, we are not there yet.

Launch of New Medium-term Business Plan “Innovation 2025”

Aiming to be a “robust company” capable of withstanding rapidly changing market conditions

We have now formulated the new Medium-term Business Plan “Innovation 2025” covering the three-year period from fiscal 2023 through fiscal 2025. The new plan also includes the issues which still need addressing from the previous plan. Our numerical targets under the new plan are net sales of ¥14.0 billion, operating profit of ¥4.2 billion, an OP margin of 30%, asset-based ROIC of 23%, and liability-based ROIC of 19%. The slogan is still “Innovation”; however, this reflects our determination to achieve the business innovation goal which was only half achieved under the previous Medium-term Business Plan. By realizing business innovation, we aim to become a “robust company” capable of withstanding dramatic changes in market conditions on the scale of the Global Financial Crisis. This is our first aim over the next three years.

Another aim over the coming three years is to acquire new “key technologies.” Currently, cutting technology is Marumae’s key technology; however, in order to move to the next stage, it is important to enhance our technological diversity by acquiring new technologies. Meanwhile, for our existing technologies also, we will increase the number of engineers and raise the skill level of individual engineers to increase the volume of technology across the company as a whole. I believe this will result in even greater productivity and help us to achieve our numerical targets and I think this will turn us into a company that is able to withstand dramatic market changes.

Key Numerical Targets under the Medium-term Business Plan

		Innovation 2022	Innovation 2025
Net sales		¥7 billion	¥14 billion
Operating profit		¥2 billion	¥4.2 billion
ROIC	Asset-based	18%	23%
	Liability-based	14%	19%
Shareholder returns	Payout ratio	30 %or above	35 %or above
	Minimum annual dividend		¥20*

* If the bottom line is a loss, the minimum annual dividend per share may be revised

Medium-term Outlook for Market Environment

Semiconductor market estimated at ¥100 trillion by 2030

Currently, Marumae’s main battleground is the market for semiconductor manufacturing equipment. Demand for semiconductors is expected to grow significantly in the medium to long term despite short-term swings in the supply and demand of semiconductors known as the silicon cycle. Especially between now and 2030, market forecasters estimate the market will grow to ¥100 trillion, which is around twice its size in 2020. This means that we are now in a phase when the production capacity of semiconductor manufacturing equipment that has been built up by the market over the past 30 years will be doubled in the space of 10 years. This presents us, as a manufacturer of components for semiconductor manufacturing equipment, with a great growth opportunity. The period between now and the middle of 2023 corresponds to a negative phase (when demand worsens) in the aforementioned silicon cycle; however, since we strategically handle consumable parts, which are less sensitive to market conditions, we expect the decline to be small compared with the slump in new equipment. Under the new Medium-term Business Plan, we will continue leveraging our strengths and endeavoring to strategically increase the consumable parts we handle.

Meanwhile, in the FPD market, too, we expect to see continued capital investment in OLED and organic EL panels for China and also for South Korea, Taiwan and Japan in the medium to long term. In fiscal 2020, demand hit a record high due to “stay-at-home demand;” however, in fiscal 2023, capital investment for FPDs in China is expected to slow, causing demand to stagnate temporarily as well.

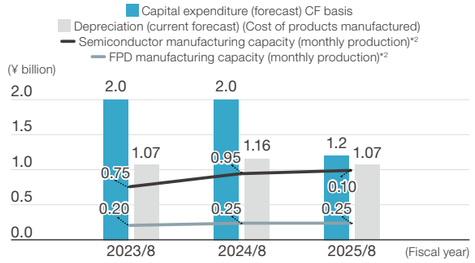
On the other hand, the recent surge in public demand for “sustainable energy” has led to growing demand for components for solar cell manufacturing equipment and inquiries have increased. This is a field to which we can divert our FPD production capacity; however, given the difficulty of projecting the outlook, we will take action based on an assessment of our spare FPD production capacity.

As regards capital expenditure, as long as demand is growing, we will continue making investment to meet such demand; however, our intention is to make the minimum investment necessary to achieve our net sales target for the final fiscal year (¥14 billion). Under “Innovation 2025,” we plan CAPEX of ¥2 billion in fiscal 2023, which is the first fiscal year of the plan, ¥2 billion in fiscal 2024, and ¥1.2 billion in fiscal 2025, which is the final fiscal year of the plan.



Turning to shareholder returns, our basic policy on dividends is to maintain a dividend payout ratio of 35% or above (compared with 30% under the previous Medium-term Business Plan) and to aim for a minimum annual dividend of ¥20 (compared with ¥10 under the previous Medium-term Business Plan). As a listed company, we place emphasis on ensuring profit through the achievement of business growth and returning profit to shareholders in the form of dividends. Our business is in a growth phase and this is a time to invest in plant and equipment accordingly; however, we have no intention of cutting dividends in order to accumulate capital. We will distribute cash in a way which balances these competing priorities.

Projections for Capital Expenditure and Production Capacity*1



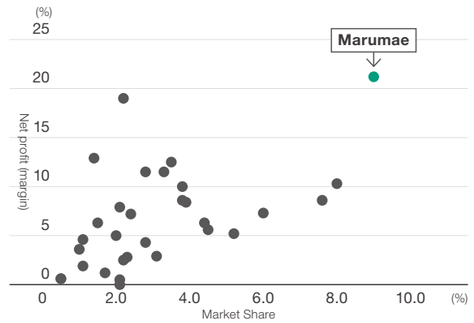
*1 Forecast as of the end of the fiscal year
*2 Production capacity is maximum capacity obtained by adding up the machine capacities and, therefore, differs from actual production. Human resources must also be secured and trained in order to expand capacity. This investment includes investments in solar panels and storage batteries for achieving carbon neutrality

Marumae’s Competitive Advantages

Marumae’s technological capabilities underpinning high productivity

Next, I would like to explain Marumae’s competitive advantages, which will be key to achieving the new Medium-term Business Plan. One of Marumae’s advantages is high productivity. Our operating profit margin is at least 10% higher than that of our competitors. This high productivity is underpinned by our technological capabilities. Differences in technological capabilities are difficult to explain in writing but I believe that our different experiences and conditions stemming from our history make our technological capabilities different from those of our competitors. We have experienced various types of business, having made motorbike components, turbine blades and robot components. Some of these have been mass produced items and some single items, giving us experience in various ways of making components. Many of our competitors on the other hand rely heavily on specific customers and many are specialists in semiconductor manufacturing equipment. Our diverse technologies and the manufacturing expertise we have gained through experience form the basis of Marumae today. We will pursue even greater productivity by further refining and developing these “technological capabilities.”

Our Position in Relation to Our Competitors



* According to our research in 2022



“Knowledge sharing” for the elimination of variations in productivity

Another important factor for increasing productivity is a “knowledge sharing framework.” Prior to the Global Financial Crisis, Marumae adopted the same approach as its competitors, putting individual engineers in charge of entire projects, from product planning to manufacturing programs, machine operation and product finishing. However, under this approach, productivity varies from person to person. This is because time to completion differs depending on the experience and ability of the engineer. Individuals who took longer to complete tasks also worked more overtime and were sometimes required to work through the night. Under this approach, individual engineers are also put under considerable strain and the development of human resources also takes an enormous amount of time. To remedy this situation, we decided to create a “knowledge sharing framework,” pooling the manufacturing expertise possessed by individuals in teams called R&D Group (now Technology Section). By ensuring that anyone can use the organization's knowledge in their production activities, we succeeded in establishing a more stable manufacturing approach without variations in productivity. We have also changed our sales approach to enable us to specialize in repeat purchase products (consumables) for semiconductor manufacturing equipment, which require a high level of technological expertise. By doing this, we will accumulate new knowledge about advanced technologies and can enhance the technological capabilities of the company as a whole. We have made concerted efforts for three or four years to change our sales approach and manufacturing approach, resulting in the high productivity seen today. There is still much room for improvement and we are ready to evolve further.

Capacity to respond to demand spikes essential for expansion of market share

Our final strength is our “capital strength.” The semiconductor market is characterized by demand spikes and manufacturers cannot increase their market share unless they have the equipment capacity to meet such demand. Many of our competitors are unlisted companies; however, Marumae has the credit standing and the various capital procurement options that come with being a listed company. We also have a great deal of space, taking advantage of our Kagoshima site and can, therefore, respond to demand spikes more flexibly than our competitors. Flexibility to meet demand is one of our advantages.

Human capital underpinning competitive advantage

Actively investing in people to secure engineers and improve employee satisfaction

Marumae’s competitive advantage is underpinned by “human capital.” Above all, the programmers who develop the manufacturing methods for products and write manufacturing programs are central to our technological capabilities. Mid-career recruitment of programmers with the high level of skills we require is difficult and we recruit graduates, as a general rule. We spend about five years training new graduates, having them take on a range of challenges whilst allowing failure. Since time for training tends to be limited when work is busy, we need to further develop a framework to allow people to grow even when they are busy.

To realize our new Medium-term Business Plan and become a corporate group which grows in a more sustainable manner, it is essential that we increase the skills level of individual employees and at the same time continuously increase the number of talented engineers. To this end, it is important to create a comfortable work environment where employees can energetically demonstrate their potential and to develop a performance evaluation system which is acceptable to our employees. The successful implementation of such measures should then also help us secure talented employees. In September 2022, we granted an additional 20 days holiday, increasing annual holiday from 101 days to 121, which in retrospect we somewhat think that we should have done sooner. As for the evaluation system, we already have performance-related pay, determining pay based on performance; however, in the future, we intend to raise the pay levels themselves. Since “human capital” is our most important form of capital, we are committed to properly investing in people. In addition to securing human resources, we intend to work on improving employee satisfaction by constantly evolving and making incremental improvements in areas such as the implementation of training plans, the development of work environments and personnel systems.



Striving for carbon neutrality

Aiming to develop our own power generation and power storage systems, without relying on other companies for renewable energy

In recent years, investors and other stakeholders have become more and more interested in the ESG performance of companies. Under such conditions, we feel we need to actively focus on evolving and improving to meet ESG criteria more than ever before. The ESG Committee is an organization for developing and advancing our ESG initiatives. To ensure the committee functions effectively and organically, it is chaired by an Outside Director and features members not only from administrative divisions but also from a wide range of other business units including production control divisions on the manufacturing frontline. The Board of Directors has the ESG Committee present the results of its activities at monthly board meetings and, even on themes which had previously proven difficult to tackle in the past such as the reduction of effluent discharged in our manufacturing processes, positive results have started to emerge thanks to the constructive ideas put forward by people on the frontline and their implementation.

Furthermore, we aim to achieve carbon neutrality by 2050 and our biggest challenge is how to achieve electricity supply sustainability in our manufacturing processes (electricity accounts for more than 99% of the energy used in our business). While one approach is to purchase renewable energy from other companies, our policy is to create the electricity we use ourselves, without relying on other companies where possible. By installing solar panels and power storage batteries at our factories, we will first reduce CO_2 emissions per marginal profit by 50% or more compared with fiscal 2021 by 2030.

Intention behind formulation of Long-term Vision

Aiming to be a corporate group which achieves sustainable growth, unaffected by the trends of specific markets

We recently formulated our first ever Long-term Vision, with 2030 as the time horizon. Currently, our business structure is such that our growth is being driven by the semiconductor market. The flip side of this is that we are severely affected by semiconductor market fluctuations. Significant growth of the semiconductor market between now and 2030 is regarded as a certainty; however, there is also no denying that the way semiconductor manufacturing equipment is made may change or that the vacuums for semiconductor equipment we specialize in may no longer be needed and, precisely because the market is growing now, these possibilities should, in our view, be regarded as risks. To some degree this is the sense of danger we developed as a result of experiencing tough times during the Global Financial Crisis. We concluded that, whilst striving to expand the semiconductor business area as much as possible, we must also prepare ourselves for a wide range of other business areas and new markets. This is another reason why we need to increase new “key technologies” and create a foothold in new business areas. The technologies we have today will all eventually become obsolete. The constant pursuit of advanced technologies and new technologies is key. We would like to leave behind a company which provides stable employment for younger generations not only 10 years from now but for years beyond that. Our Long-term Vision positioned the period between now and 2030 as a period for achieving strong growth driven by the semiconductor business while at the same time preparing for the years beyond that time horizon. Working together, we aim to harness our advanced technological capabilities to be a leading company in component machining that supports comprehensive manufacturers in a wide range of areas. Marumae has a promising future ahead of it.

Value Creation Process

Business Environment Analysis

Opportunities

- Semiconductor market estimated at ¥100 trillion by 2030
  - Construction of semiconductor plants worldwide
  - Support for semiconductor-related business as part of national policy
- Growing PV*1 demand alongside expansion in demand for renewable energy

Risks

- Equipment production lags due to parts shortages
- Demand fluctuations in semiconductor and FPD markets
- Supply chain decoupling
- Fierce competition to secure human resources

Long-Term Vision

Leading innovation in cutting-edge technology.

Strategies

Medium-term Business Plan **Innovation 2025** P23

Sustainable Strategy P33

Capital Allocation P26

Continuous and constructive dialogue
Stakeholder engagement P19

Input (Fiscal 2022) → Production process → Output → Outcome (Fiscal 2022)

Human Capital

- Number of employees: 324
- Programmers: 60
- Training Hours: 2,514 hours

Social Capital

- Relationships of trust with customers
- Business foundations in local communities
  Manufacturing industry in Kagoshima Prefecture listed on the Prime Market of the TSE

Intellectual Capital

- Marumae Manufacturing System-Achievement of both prototyping and mass production at a high level
- Programming knowhow-Unrivalled and unique manufacturing expertise based on business experience
- R&D expenditure: ¥137.15 million
- Number of registered patents: 4

Manu-facturing Capital

- Capital investment: ¥1,744.66 million
- Machine tools owned: 168 units (industry-leading)
- 24/7 automated production line
- Manufacturing staff: 260
  (plus 63 temporary employees)
- Number of Safety Committee meetings: 36

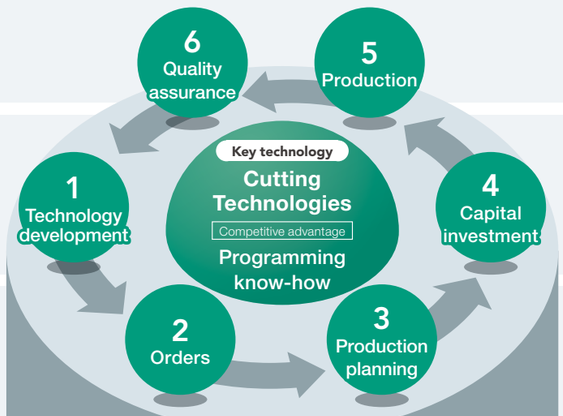
Natural Capital

- Raw materials (aluminum, stainless steel, etc.)
- Energy consumption: 8,147.4MW/h
  Of which, solar power generation: 658.5MW/h
- Investment in solar power generation: ¥41.14 million
- Water usage: 29,941t

Financial Capital

- Total assets: ¥12,552.94 million
- Shareholders' equity: ¥7,299.08 million
- Interest-bearing debt: ¥3,250.31 million

Refining the very best technologies to solve customers' problems



Marumae Manufacturing System

Our unique manufacturing system which realizes reproducible prototyping by performing highly complex prototyping and mass production of consistent high quality on the same production lines

Semiconductors components



- Preparation for establishment of HR divisions
- Establishment of HR Strategy Committee
- Additional 20 days of annual paid leave
- Average annual salary: ¥6,158 thousand
- Number of new hires: 73 (men: 60, women: 13)
- Number of regular employees who left their jobs: 7
- Turnover rate of regular employees: 3.91% (Average turnover rate in Japan: 13.9%)
- Ratio of women: 22.53%
- Ratio of women in managerial positions*2: 10.0%
- Employment ratio of people who have disabilities: 2.94%
- Wellbeing of employees and their families

Areas for improvement and goals

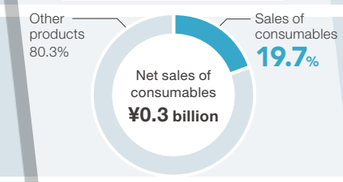
- Establishment of HR strategy linked to management strategy
- Companywide implementation of strategic HR development plan
- Development of programmers
- Continuous improvements to create pleasant work environments
- Continuous improvement of the evaluation system
- Provision of welfare benefits
- Diversity training

- Number of customers dealt with during the period: 38
- Tax: ¥369.91 million
- Subcontract expenses: ¥1,305.7 million
- Number of subcontractors: 59

Areas for improvement and goals

- Development and strengthening of relationships from a customer perspective
- Quality improvement measures to improve customer satisfaction
- Prevention of release of defective products through inspection

FPD components

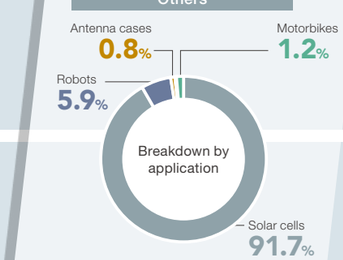


- Improvement of marginal profit per employee (¥14.77 million)*3
- Accumulation of know-how and experience
- Number of new prototypes: 254
- Rework ratio per marginal profit: 1.12%

Areas for improvement and goals

- Diversification of key technologies

Others



- Newly introduced manufacturing equipment: 38 units
- Monthly production capacity: ¥750 million
- Safety indicator - TRIFR: 13.07*4

Areas for improvement and goals

- Development of environment enabling concentration on prototyping
- Improvement of quality through strengthening of Quality Assurance Department
- Knowledge sharing through collaboration between factories
- Provision of effective safety training
- Work safety analysis and measures

⊖ By-products

Experience/Technology/ Production knowhow/Chips/Heat/ Mist/GHG (greenhouse gases)

- GHG emissions per marginal profit: 0.559 t-CO_2/¥ million *5
- Rate of reduction through renewable energy: 7.5%
- Waste fluid disposal ratio per marginal profit: 0.02%
- Rework ratio per marginal profit: 1.12%
- Recycling: 1,144t
- CDP score: D

Areas for improvement and goals

- Initiatives to achieve carbon neutrality
- Analysis of climate-related risks
- Improvement of CDP score though environmental-related disclosures and strengthening of environmental measures

⊖ Waste

Wastewater/Industrial waste

- Net sales: ¥8,585.02 million
- Operating profit: ¥2,361.6 million
- Marginal profit per employee: ¥14.77 million*3
- Operating margin: 27.5%
- EPS: 142.58 yen
- Asset-based ROIC: 17.9%
- Liability-based ROIC: 15.6%
- Total amount of dividends: ¥461.02 million

Areas for improvement and goals

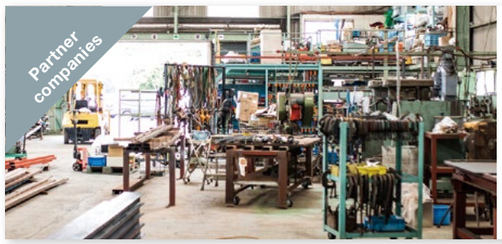
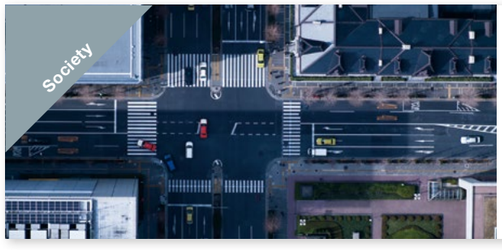
By FY2025

- Net sales: ¥14.0 billion/Operating profit: ¥4.2 billion
- Marginal profit per employee: ¥20.0 million
- Asset-based ROIC: 23% or above
- Liability-based ROIC: 19% or above

*1 PV stands for "Photovoltaics" and refers to solar power generation *2 Ratio in position of Group Manager or higher *3 Includes temporary employees
*4 TRIFR is the rate of recordable injuries that occur per million hours worked calculated as follows: total number of occupational accidents ÷ total actual working hours ×1,000,000
*5 Scope 1 and Scope 2 emissions

Stakeholder Engagement

**Our name “Marumae” conveys our desire to move forward (*mae* in Japanese) with business smoothly and peacefully (*maruku* in Japanese).
Our business has moved forward in the past thanks to the support of our various stakeholders. In the future, we intend to build win-win relationships with our stakeholders through continued dialogue and to collaborate with them as we continue advancing forward.**

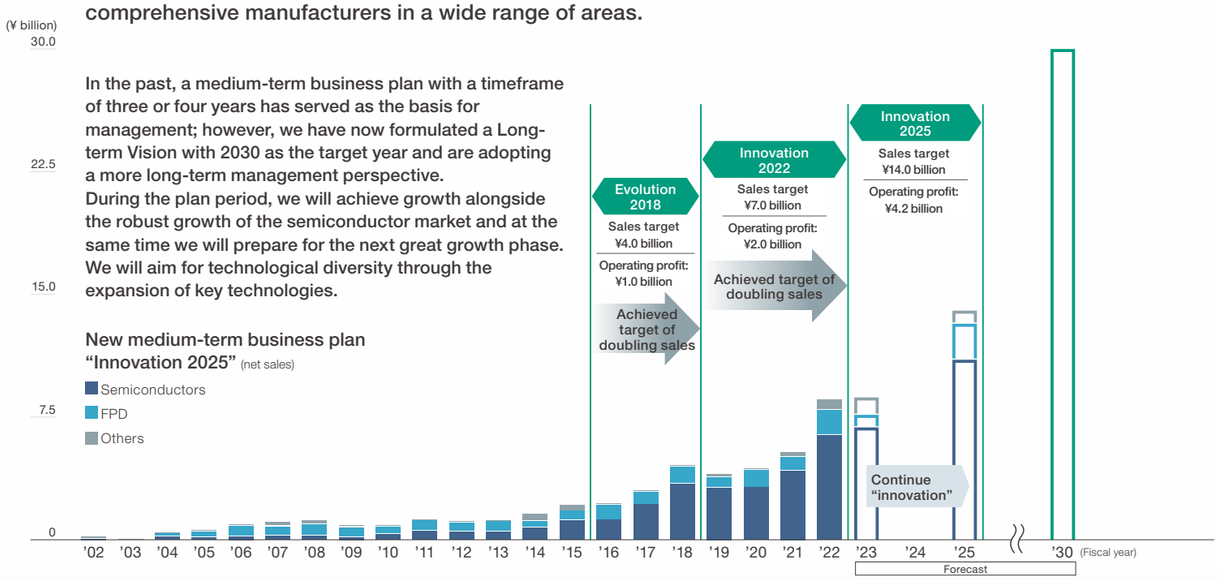
	Why we engage	Our stakeholders’ interests	How we respond
	Marumae has achieved growth by solving the problems faced by our customers, who are world-class equipment manufacturers. We always seek to communicate closely with customers so that we can quickly notice the challenges they face and propose solutions.	●High-precision machining of complex shapes ●Production capacity to meet spikes in demand ●System allowing integration of multiple processes ●Stable supply of high quality products at reasonable prices	●Communication with designers and proposals ●Flexible capital investment ●Development of new technology ●Continual improvement activities
	Our business is supported by capital from our shareholders and loans from financial institutions and, thanks to these funds, we can meet customer demand through flexible capital investment. We regularly engage in dialogue with our investors to ensure we live up to their expectations and we share information with financial institutions as appropriate to fulfil our responsibility to keep them informed.	●Stable growth, rising stock price, and dividends ●Sound financial structure ●ESG initiatives	●Preparation of medium-term business plans and other equity plans ●Information sharing with financial institutions ●Establishment and implementation of ESG plans
	We conduct our business activities in collaboration with partner companies. To achieve stable supply and high quality, we communicate closely with our partner companies. Furthermore, in the interests of maintaining sound corporate governance, we build equitable, fair and transparent partnerships with them.	●Stable orders ●Maintenance of financial soundness ●Maintenance of competitiveness ●Reasonable prices	●Expansion of repeat orders ●Maintenance of a certain equity ratio ●Improvement of technological capabilities ●Orders for high added value products
	Our business depends on our technological capabilities, in other words, the knowledge and skills of all our divisions. To steadily accumulate and improve such technological capabilities, we intend to improve our working environment and evaluation system to increase employee satisfaction, make it easier to recruit talent, and maintain and improve our retention rate. To this end, we are engaged in dialogue with employees and implementing improvements through the HR Strategy Committee.	●Better work-life balance ●Higher pay ●Job satisfaction ●Pleasant workplaces	●Additional holidays ●Pay increases and performance-based pay system ●Improvement of evaluation system ●Improvement of work environments
	Marumae is committed to fulfilling its corporate social responsibility by paying its taxes and contributing to cultural activities. We also recognize the importance of building relationships of trust with local communities and complying with laws and regulations. Consequently, we are focusing on social activities such as acquiring naming rights and providing compliance training.	●Creation of employment/Contribution to development of local economies ●Safe environment ●Reduction of environmental impact ●Compliance with laws and regulations	●Increased employment, payment of taxes, and naming rights ●Enhancement of safety training ●Reduction of consumables, and use of renewables ●Encouragement of acquisition of various licenses and permits, and compliance training

Long-Term Vision

Focus on our origins in high-precision machining technology and become a leading parts manufacturer by using our advanced technologies and supply capacity to support comprehensive manufacturers in a wide range of areas.

In the past, a medium-term business plan with a timeframe of three or four years has served as the basis for management; however, we have now formulated a Long-term Vision with 2030 as the target year and are adopting a more long-term management perspective.
During the plan period, we will achieve growth alongside the robust growth of the semiconductor market and at the same time we will prepare for the next great growth phase. We will aim for technological diversity through the expansion of key technologies.

New medium-term business plan
“Innovation 2025” (net sales)



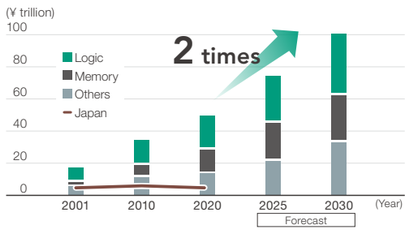
Reasoning behind Vision



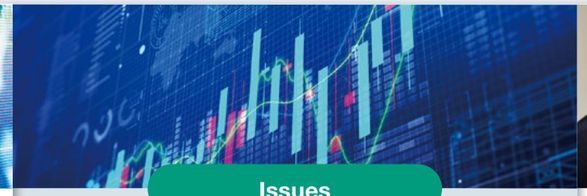
Market Situation

The global semiconductor market will most likely grow significantly between now and 2030. Forecasters predict it will double in size, growing from around ¥50 trillion in 2020 to ¥100 trillion by 2030. As a result, the market for semiconductor production equipment is also sure to grow considerably.

Global semiconductor market (shipments)



Source: Prepared by Ministry of Economy, Trade and Industry based on data from Omdia



Issues

Although market growth can be expected between now and 2030, due to changes in manufacturing methods, there is no guarantee that our vacuum components and cutting technologies, which are currently in strong demand, will continue being sought after. Since vacuum components in particular account for a large proportion of our sales, we need to recognize this as a risk.

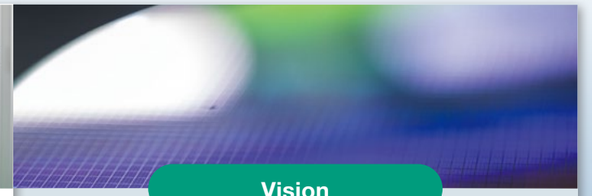
- Market fluctuations in the semiconductor business
- Development of semiconductor equipment without vacuum components
- Market fluctuations in the FPD business
- Development of FPD equipment without vacuum components
- Obsolescence of technologies owned



Solutions

To address this risk, we will enhance our technology and diversify our key technologies. Leveraging more diverse key technologies, we will seek to diversify our operations. We believe this means making more versatile technologies into our key technologies. Developing technological capabilities and systems which will be picked not only by the semiconductor market but by various markets is key.

- Diversity of operations
- Diversity of technologies
- Expansion of versatile technologies
- Enhancement of key technologies
- Diversity through M&A



Vision

By addressing risks, we will achieve our vision. Advanced technology will give rise to high added value and increase productivity. As a result, we will be capable of generating high profit and achieving stable growth. Between now and 2030, we will refine our technological capabilities for the next growth phase, whilst at the same time achieving growth in the semiconductor production equipment market.

- Component manufacturer with advanced technological capabilities
- High production capacity
- High productivity
- Manufacturer dealing with a wide range of business areas
- Stable growth

Our Vision 2030

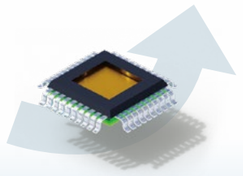
Net sales	Operating profit	Operating margin
¥30.0 billion	¥9.0 billion	30%

Simultaneous achievement of growth and preparation for next growth period

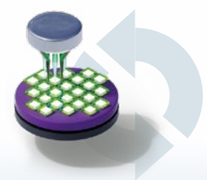
Leading innovation in cutting-edge technology.

POINT

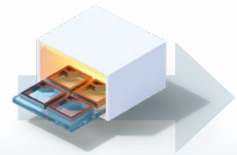
Between now and 2030, majority of sales will come from semiconductor business



Period for preparing for changes in semiconductor production methods from 2030 which will cause demand to dry up



Harnessing of key technologies owned to develop new business areas



New Medium-term Business Plan 2023-2025

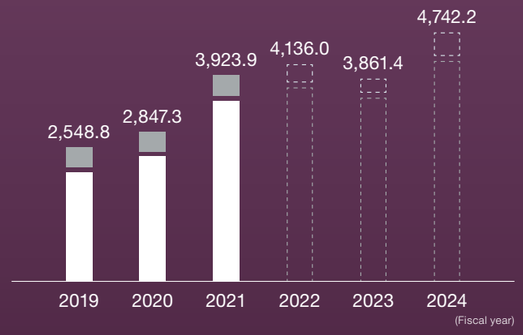
Innovation 2025

Innovation

Aiming to create a company that will last forever, we adopted “innovation” as the policy of our new medium-term business plan. To achieve growth in a fluctuating market environment, we will aim for high productivity while keeping assets and fixed costs to a minimum through companywide DX. Since the technological capabilities that underpin our strengths are the aggregation of skills of our employees, we will also focus on HR measures as a top priority.

Market Outlook

■ Japanese market for semiconductor production equipment (¥ billion)
■ Japanese market for FPD production equipment (¥ billion)



FPD growth rate (%)	3.7	-6.0	-20	50
Semiconductor growth rate (%)	44.4	7.0	-5.0	20

Source: Market Forecast Report Semiconductor and FPD Manufacturing (FY2022 - FY2024) Equipment Released in January 2023 by Semiconductor Equipment Association of Japan (SEAJ)

KGI → For achieving → **Investment plan** (Total over 3 years) → Investment as a basis for → **Key Measures** → Monitoring the progress of measures → **KPI**

Business growth

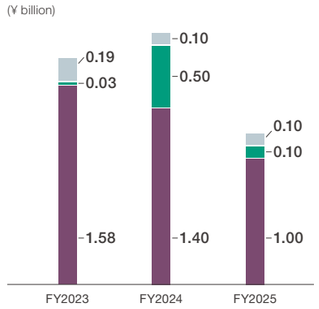
Evolution 2018 Innovation 2022 Innovation 2025

Net sales	¥4.5 billion	¥8.5 billion	¥14.0 billion
Operating profit	¥1.2 billion	¥2.3 billion	¥4.2 billion
ROIC (Asset-based)	16.3%	17.9%	23%
ROIC (Liability-based)	11.5%	15.6%	19%

Capital investment

(Expansion of manufacturing capacity)

■ Machinery and equipment (including equipment other than machine tools)
■ Factories ■ Auxiliary equipment



Business strategies



1. Expand manufacturing capacity
2. Aim to stabilize orders by strengthening consumables
3. Focus on processes where growth can be expected



1. Offer many processes as a one-stop-shop
2. Meet needs for large area organic EL panels
3. Increase market share in oligopoly created by withdrawal of competitors

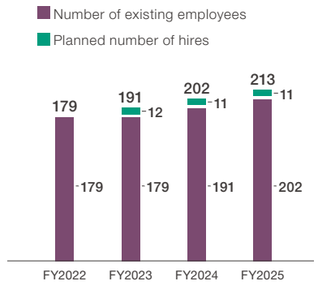


1. Expand orders for solar cell production equipment
2. Focus on new areas such as space industry, including satellites

Market share
Maintain No.1 share

Hiring plan

■ Number of existing employees
■ Planned number of hires



Human resources strategies

Improve work environments
Introduce new personnel systems
Develop engineers
Promote diversification

P41

Programmers
Develop 100 programmers

Turnover rate of regular employees
1% or less

Welfare expenditure per employee
¥120,000 per year

Ratio of female regular employees
20% or higher

Ratio of female managers
18% or higher

Employment ratio of people who have disabilities
3.0%

Sustainabilty

By 2030

50% reduction
(Compared to FY2021)

By 2050

Achievement of carbon neutrality

Sustainable investment

From August 2023 to August 2025
Solar power generation equipment
¥208 million

Sustainability strategies

Set aside budget of ¥640 million for the gradual installation of solar panels between now and FY2030

P42

Solar power generation at factories

Reduction of Scope 3 emissions

Financial Strategy

Basic approach

Our basic approach is to adopt financial strategies that will allow us to maintain an equity ratio of 50%. It is also our policy to ensure around ¥3.0 billion in readily convertible liquid assets (combined total of notes receivable, electronic receivables, accounts receivable and other operating receivables, and cash and deposits) in case of economic fluctuation or in readiness for agile M&A.

Our capital investment policy is to make investments that ensure we do not miss out on opportunities, provided such investments are financially safe. When making capital investments, one investment criteria is that the investment must contribute to improvement in ROIC.

If we borrow for capital investment, we make it a rule to align the borrowing period with the depreciation period and fund half of the capital investment ourselves and the other half with borrowing, thereby ensuring on-hand liquidity.

In addition, during recessionary periods, we actively consider M&A and use on-hand liquidity as funds. Our policy is to make a careful reassessment to balance our finances when considering M&A.

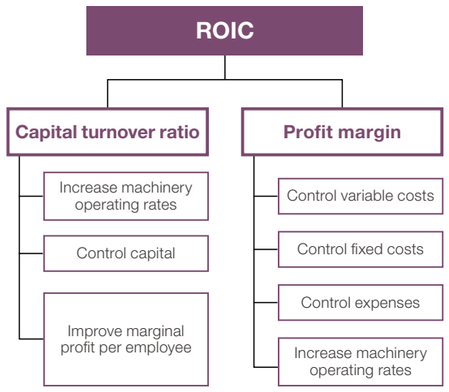
Management with emphasis on ROIC

Reason for emphasizing ROIC

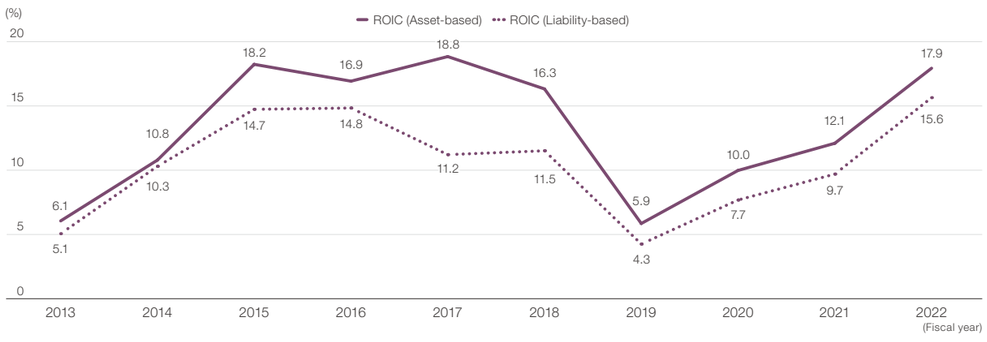
Aiming to increase capital utilization as much as possible and achieve greater production efficiency, we have adopted ROIC as our most important management indicator. Our policy is to achieve our ROIC target level not by reducing capital and liabilities but by realizing a high level of operating profit while controlling capital. Since ROIC is operating profit divided by invested capital (interest-bearing liabilities plus equity capital), it can be used to measure profitability relative to the costs of raising capital from shareholders and creditors and is a useful indicator for Marumae, which has a high capital investment to sales ratio.

Based on the assumption of a Weighted Average Cost of Capital (WACC) of 8%, our policy is to proactively implement capital investments that result in ROIC exceeding WACC (excluding ESG investments). Under our medium-term business plan “Innovation 2025,” we set a liability-based ROIC target of 19.0% and a asset-based ROIC target of 23.0%.

ROIC Tree



Trend of ROIC



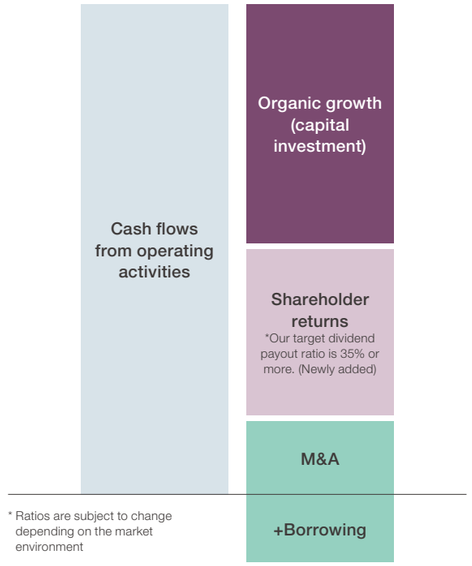
Cash Allocation

Cash allocation backed by cash generation capabilities

In addition to improving the profitability of business itself, we will also reliably implement measures to increase cash flow efficiency, including improving inventory efficiency and shortening lead times. Our policy when allocating cash flow from operations is to strike a balance between making capital investment and returning profits to shareholders. Since a lower shareholder return ratio leads to the build-up of too much capital and a lower ROIC, our policy is to increase capital efficiency by striking a balance between capital investment and shareholder returns. Based on this policy, in fiscal 2022, capital investment amounted to ¥1,740 million (78.3% of cash flow from operating activities) and total shareholder return was ¥860 million (38.7% of cash flow from operating activities).

Our capital investment policy is to actively make capital investments on condition that they will contribute to achievement of the ROIC target and, during recessionary periods, we actively consider M&A and use on-hand liquidity as funds.

Cash Allocation



* Ratios are subject to change depending on the market environment

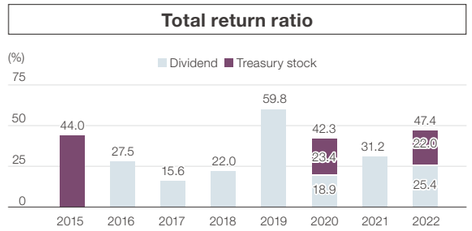
Shareholder returns

Target dividend payout ratio of 35% or more

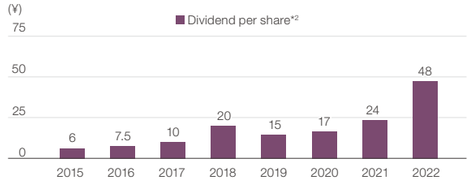
Our profit distribution policy is to make investments from a long-term perspective and to aim for profit distribution based on profitability, taking operating results and financial conditions into consideration. We consider the dividend payout ratio when calculating dividends. Our medium-term business plan “Innovation 2025” states that if the bottom line is a loss, the minimum annual dividend per share may be revised; however, we have set a target dividend payout ratio of 35% or more and a minimum annual dividend of ¥20.

We also implement share buybacks flexibly and in the event of sudden share price fluctuations that are not based on fundamentals, we implement share buybacks for the signaling effect*1. Most recently, we implemented share buybacks of ¥161 million in FY2020 and ¥400 million in FY2022. Share buybacks improve ROE (Return on Equity), and improve earnings per share and net assets per share.

Total return ratio



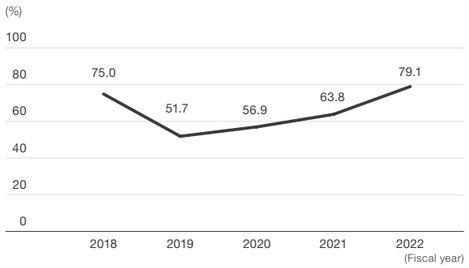
Trends in dividends



*1 The signaling effect is when investors perceive dividend measures, etc. as a signal and try to infer from them the information held by management and management's true intentions
*2 Dividend per share has been calculated as if stock splits conducted on March 1, 2014 (100-for-1 split), September 1, 2015 (3-for-1 split), and March 1, 2017 (2-for-1 split) had taken place at the beginning of fiscal 2013

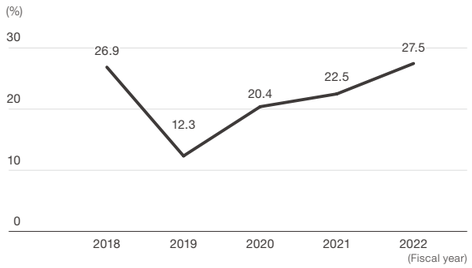
Financial KPIs

Machine operating rates



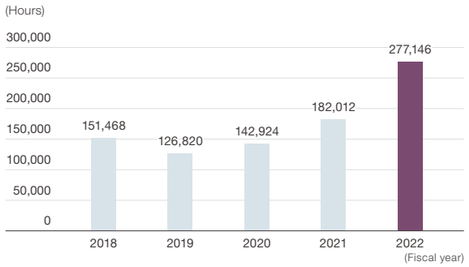
We monitor and analyze machine operating rates as a KPI every week and use these results to achieve efficient operations in subsequent weeks. Machine operating rates indicate cutting time per week as a percentage of target cutting time per week and are used as a lead indicator for the profit margin.

Profit margin



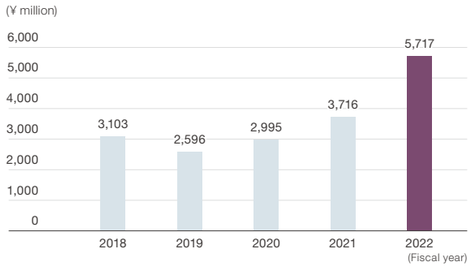
The profit margin, which is our KGI, is operating profit from our main business as a percentage of sales. Depreciation of equipment is a fixed cost and the higher the operating time, the lower the cost per machine, which means the product cost is lower and the profit margin is higher.

Total operating time



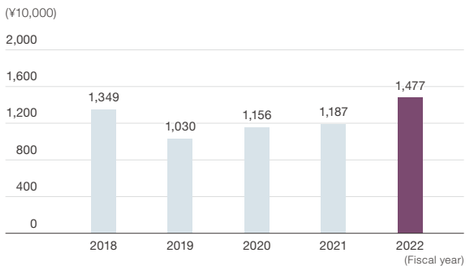
Total operating time is the total cutting time of all machines. The added value of our products comes from cutting and this cutting time is, therefore, the source of added value, and total operating time has a similar relationship with added value (= marginal profit).

Marginal profit



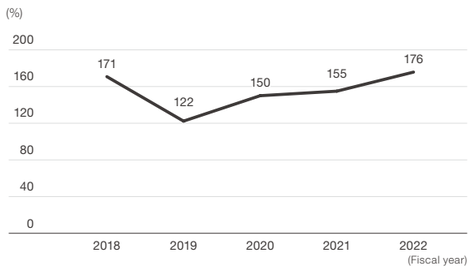
Marginal profit is sales less variable costs (costs that fluctuate when sales go up and down: material costs, subcontract costs, consumable costs, etc.) and is similar to the sum of internally generated added value. We use total operating time as a leading indicator for marginal profit.

Labor productivity



We define labor productivity as marginal profit per employee, calculated based on all employees including temporary employees. Since our inception, we have used this marginal profit per employee as our KPI, and our 2025 target is annual marginal profit per employee of ¥20 million.

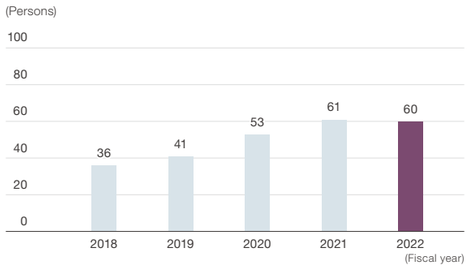
Equipment productivity



We define equipment productivity as marginal profit per item of property, plant and equipment excluding land and buildings. We verify the ratio of marginal profit generated by property, plant and equipment and reflect this in our medium-term capital investment plan.

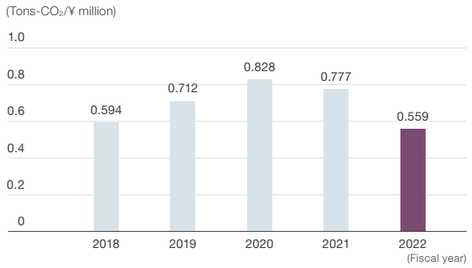
Non-financial KPIs

Number of programmers



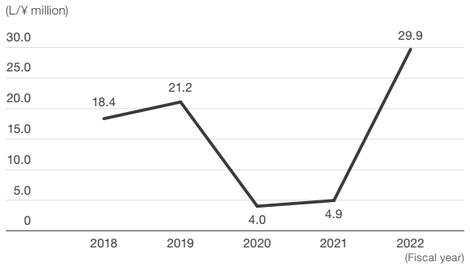
We set the number of programmers as an indicator for strengthening our future business because programmers win new orders by thinking about how to make products and providing customers with prototypes.

Scope 1 and 2 emissions intensity (per marginal profit)



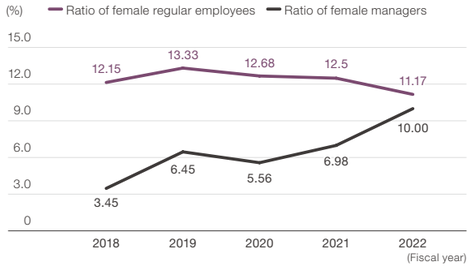
Due to society's growing awareness of climate change, action on climate change has emerged as a risk factor, prompting us to monitor our monthly CO_2 emissions, with the aim of achieving carbon neutrality by 2050.

Wastewater treatment volume/Marginal profit



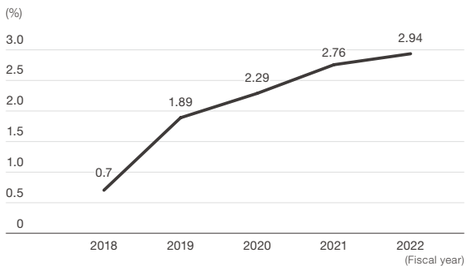
By reducing the volume of waste water we generate through promotion of the recycling of cutting fluid used in cutting and cleaning fluid, we aim to mitigate our environmental impact and cut costs by purchasing less.*1

Ratio of female employees



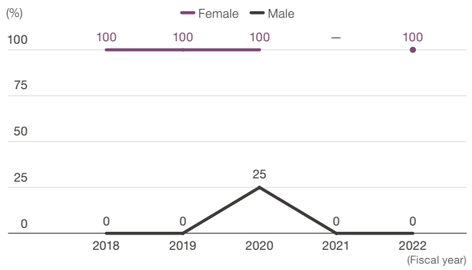
Believing that a workplace which encourages diversity is beneficial for everyone, we adopted the ratio of female employees, who are the biggest minority group, as an indicator and aim to increase the ratio of female regular employees to 20% or more and the ratio of female managers*2 to 18% or more by fiscal 2030.

Employment ratio of people who have disabilities



We encourage the employment of persons with disabilities, utilizing the specific skills of individuals and establishing ways in which they can effectively contribute to our business activities.

Rate of childcare leave taken



We began monitoring the rate of childcare leave taken to develop a more worker-friendly environment. The rate of childcare leave taken by men has remained at a low level in the past; however, we are implementing initiatives to make it easier for those eligible to take leave by considering how they feel.

*1 In fiscal 2022, our wastewater emissions increased due to wastewater accumulated for reuse; however, wastewater emissions are expected to decrease in the future
*2 The number in managerial positions means the number in the position of group leader or higher, excluding chief technician, technician and assistant technician



Medium-term Business Plan **Innovation 2025**

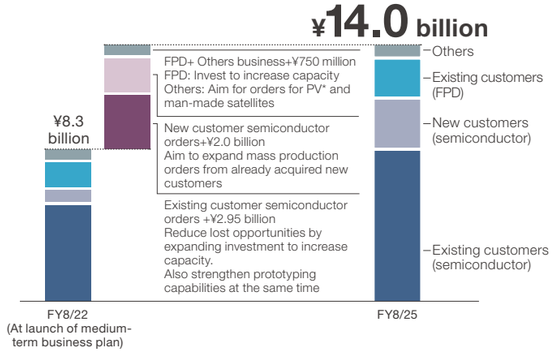
Business strategies

Semiconductor sector

Demand for semiconductors is growing globally, and we manufacture the vacuum components of the semiconductor production equipment used in the part of the semiconductor chip production process known as semiconductor wafer processing (the “pre-process”), which includes CVD, etching, coating and cleaning.

Sales plan

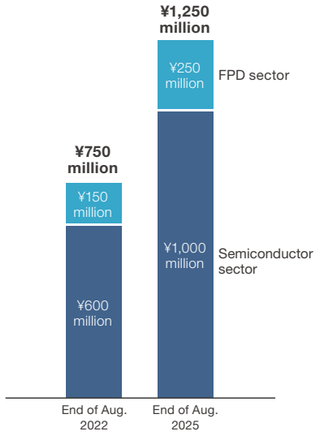
In the semiconductor business, we aim for share expansion exceeding market growth by expanding orders from existing customers and winning mass production orders from new customers. In terms of capital investment, we will expand investment to increase capacity and reduce lost opportunities, while in terms of equipment operation, we will seek to improve operating rates through automation. In addition, as measures to strengthen our prototyping capabilities, which will lead to growth of orders in the long term, we will focus on achieving the systematic development of programmers and on continuously winning prototyping orders.



* PV is the abbreviation for photovoltaics. It refers to solar power generation

Key Measures ❶ Expand manufacturing capacity

Comparison of manufacturing capacity



Izumi Factory and site of planned construction (Izumi City, Kagoshima Prefecture)



To meet the increasing requirements of customers, we draw up an investment plan every fiscal year and make investment based on an assessment of the market environment. As the empty space at Izumi Factory gets filled up, we plan to establish a new factory.

When making capital investments, we take equipment efficiency and our target ROIC level into consideration to ensure that each piece of machinery is operating at the optimum level.

Envisaged risks and measures to mitigate them

The semiconductor market is prone to sudden fluctuations in supply and demand. We aim to reduce fixed costs and make losses less likely in the event of fluctuations in supply and demand. At the same time, we will strategically increase orders of consumables which are always in demand. In addition, we plan to master new high added value key technologies to increase the scope of orders received and we will offer more added value and strengthen our price competitiveness.

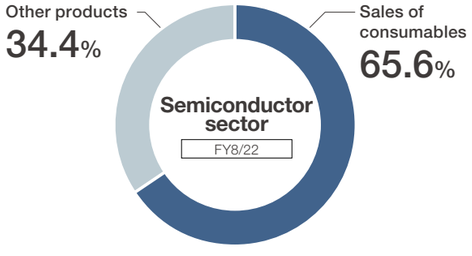
To strengthen our prototyping capabilities in line with customer numbers, we will provide training and increase employees, aiming to form prototyping groups for different customers and teams capable of getting multiple products off the ground at the same time.

In measures to secure human resources, we will strengthen our recruitment capabilities by establishing HR divisions and we will also focus on developing the work environment, including increasing the number of holidays, enhancing employee welfare benefits, and encouraging diversity.

Envisaged risks	Measures to mitigate risks
Fluctuations in the market environment	Increase orders for consumables Develop new business Control fixed costs
Falling prices for orders	Enhanced added value by acquiring new technologies Reduce costs through DX and greater productivity
Insufficient prototyping capabilities for the number of customers	Increase personnel through the development of programmers Establish production system specializing in prototyping
Fierce competition to secure human resources	Establish HR divisions Improve employee satisfaction

Key Measures ❷ Seek to stabilize orders by strengthening consumables

Ratio of consumable components

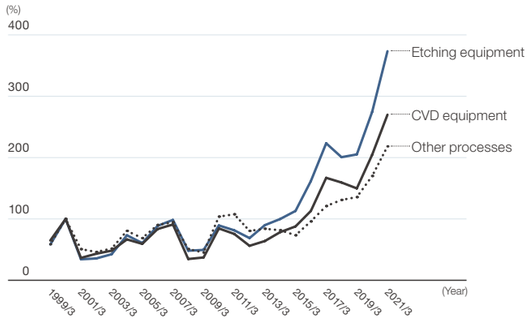


Source: https://www.marumae.com/en/pdf/ir/presentation_material_for_financial_results_for_the_fiscal_year_ended_august_31_2022.pdf

We will aim to stabilize business by maintaining and expanding orders for the consumable components of semiconductor production equipment, which are replaced regularly every 3~12 months. Consumables currently account for around 70% of sales. The ratio of consumables is relatively low when market conditions are favorable and orders for new equipment are strong, and rises when market conditions deteriorate.

Key Measures ❸ Focus on processes where growth can be expected

Growth rate



Source: Global Semiconductor Manufacturing Equipment Sales Statistics 2000~2022 compiled by Semiconductor Equipment Association of Japan (SEAJ)

Out of the semiconductor production processes, we focus on the etching and CVD processes in particular. This is because the growth potential for these processes is greater than for other processes due to a structural increase in the number of equipment units, reflecting increased demand for 3D NAND and the popularity of double patterning.



Medium-term Business Plan **Innovation 2025**

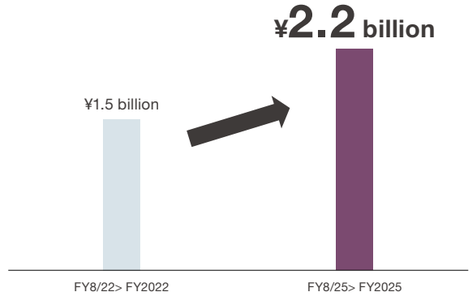
Business strategies

FPD business

In products related to FPD production equipment, we manufacture mainly vacuum components used in processes for manufacturing LCD and organic EL panels such as CVD, sputtering, etching, ashing, coating and bonding.

Sales plan

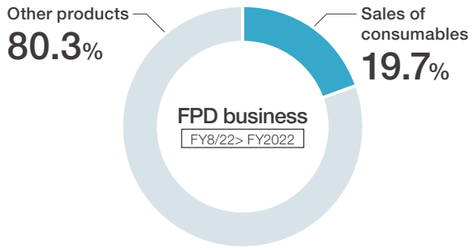
In 2023, the market as a whole is expected to stagnate, with sluggish investment in LCD panels due to weak demand, mainly reflecting the end of stay-at-home demand, and with demand for organic EL (OLED) also falling to half the level a year earlier. Looking ahead, demand is likely to expand again from 2024, on expectation of a resumption of investment in G10.5 LCD panels in some areas, in addition to the start of investment in G8 OLED. Despite the current market slump, we will harness our unique technologies and seek to expand our market share.



Key Measures 1

Offer many processes as a one-stop-shop

Ratio of consumable components



Focusing on metal cutting technologies, we will acquire key technologies such as electronic beam welding (EBW) and other welding technologies, surface treatment technologies, and gun drilling technologies, differentiating ourselves from our competitors which specialize in a particular technology. In this way, we will promote the development of a system that allows us to offer many processes in a one-stop-shop service, and by shortening delivery times and reducing transportation costs, we will expand our market share.

Key Measures 2

Meet needs for large area organic EL panels



From 2023, demand for glass substrates for organic EL devices is expected to swing away from the G5.5 size (1300×1500mm) used mainly for smartphone applications towards the larger G8 size (2200×2400mm), and we will look to acquire orders for the larger panels.

Key Measures 3

Increase market share in oligopoly created by withdrawal of competitors

Some competitors that manufacture components for FPD production equipment, are withdrawing from the market, and we will increase our share of the FPD market by winning all their orders. Utilizing our large-scale machining equipment, which is among the largest in Japan, we will strive to increase orders.



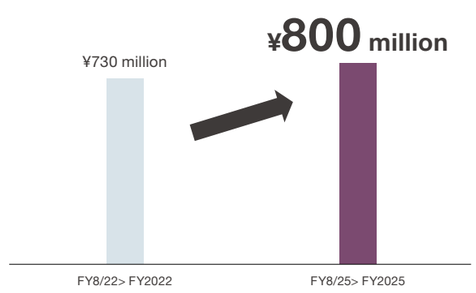
Business strategies

Other sectors

In the Others Business segment, renewable energy is attracting increasing attention and the market is expanding once again. Meanwhile, the space industry, including satellites, is also expected to grow. We plan to leverage our versatile technologies in growing markets to expand sales of various components.

Sales plan

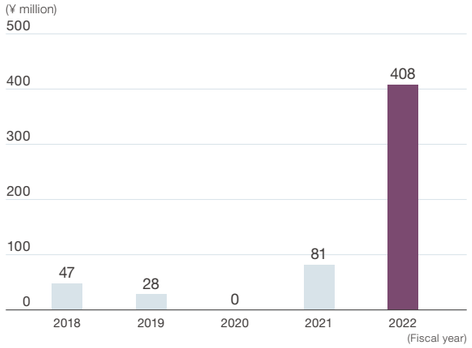
Orders for components used in solar cell (PV) production equipment is increasing, reflecting growing demand in China. Utilizing the production lines that have surplus capacity due to weaker demand in the FPD market for PV components will also have the effect of improving operating rates at our factories. In addition, we aim to develop new business, targeting areas such as the space industry, including man-made satellites, where civilian space flights have begun.



Key Measures 1

Expand orders for solar cell production equipment

Trend of sales of components for solar cell production equipment



Especially in the solar cell production equipment segment of the renewable energy market, there have been significant technological innovations in thin-film solar cells for large-scale solar power generation plants. Thin-film solar cells are compatible with our business and will help improve productivity because the configuration of their production equipment is similar to that of FPD production equipment.

Key Measures 2

Focus on new areas such as space industry, including satellites

Development of new technologies and expansion into new businesses



We have started developing multiple new technologies which we can use in the semiconductor business and other different businesses between now and 2030. We plan to use these new technologies as key technologies to create added value in our existing businesses and expand into new businesses such as satellites and the space industry.



Marumae's Approach to Sustainability

A sustainable society is indispensable for ensuring business continuity and establishing a foundation for growth Marumae has identified environmental, social, and governance (ESG) issues in relation to its business and is promoting initiatives pertaining to these issues with a view to improving its corporate value over the medium to long term. When identifying ESG issues, we continuously assess whether our actions are leading to corporate value improvement, giving considerable thought to how these issues affect our corporate value.

SUSTAINABLE DEVELOPMENT GOALS

1	Contribute to our information-driven society by supplying parts for sustainable semiconductor and flat panel display production equipment.	3	Build on and improve the workplace environment to enable everyone to actively participate.
2	Aim to realize a sustainable society.	4	Establish a robust management foundation.



The ESG Committee (System for Promoting Sustainability)

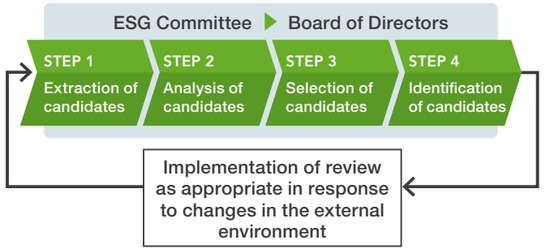
Identifying material issues (materiality) in relation to ESG matters from a long-term perspective, the ESG Committee drafts key performance indicators (KPIs) and plans for solving these issues while serving as a body for monitoring initiatives.

Following consultation from the Board of Directors, the committee was established as a subcommittee of the Board of Directors in September 2021. The committee's role is to oversee whether initiatives for addressing ESG issues are leading to an improvement in corporate value and to report to the Board of Directors as necessary.

Comprising the president and representative director, one inside and one outside director, and nine employees, the committee has in place a system that facilitates the deep involvement of directors.

Process for Identifying Key ESG Issues

When identifying material issues (materiality), the ESG Committee classified "issues (materiality candidates)" based on consideration of industry-specific issues, impact on sustainable business growth, and financial impact, referencing the SASB standards and ESG evaluation criteria. The extracted issues were given scores from the perspectives of "impact on our value creation" and "impact for five main stakeholder groups" to identify material issues (materiality). The committee established countermeasures and targets for each materiality, which were then deliberated and approved by the Board of Directors.



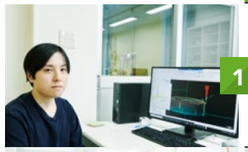
Material Issues (Materiality)

The ESG Committee and the Board of Directors play central roles in relation to material issues (materiality). The ESG Committee is responsible for identifying material issues (materiality), establishing countermeasures, and monitoring progress on targets. In the process of identifying material issues (materiality), the committee prioritizes issues based on an evaluation of their importance in terms of risks and opportunities. The content of all discussions at ESG Committee meetings is reported to the Board of Directors, which provides feedback.

Discussions about materiality (material issues) began in 2020 and a CSR Plan was established. Subsequently, the need to integrate ESG considerations was discussed and we established the ESG Committee to ensure the effectiveness of ESG activities. The ESG Committee then took the lead role in reviewing the CSR Plan and transforming it into an ESG Plan. Material issues (materiality) and the ESG targets are reviewed once a year in light of changes in the external environment and our performance, as well as progress made. The revisions made in 2022 were based on a review from the perspectives of the financial impact on us and sustainable improvement in corporate value, taking stakeholder needs into consideration. We also tried to set more effective numerical targets for our ESG targets. The next two pages show some of the latest revisions, focusing on critical material issues (materiality).



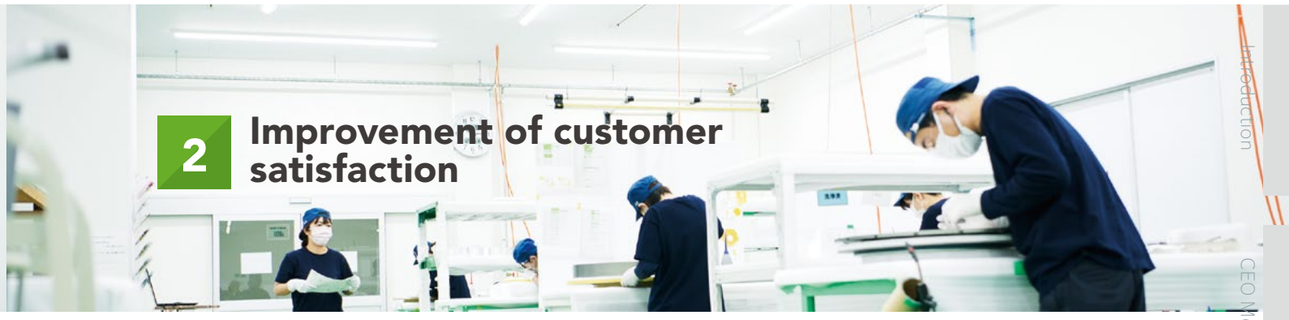
Material Issues (Materiality)

Material Issues	Themes of Initiatives	Targets	Timing of achievement	Opportunities if achieved	Risks if not achieved	Progress
 1 **Increase in productivity**	● Strengthening of prototyping capabilities	● Train 100 programmers	FY2030	● Improvement of technological capabilities ● Increase in orders ● Gain of customer trust	● Decline in technological capabilities ● Decrease in new orders	● Launched programmer development project ● Began training
	● Capital investment	● Achieve asset-based ROIC of 23% ● Achieve liability-based ROIC of 19% ● Achieve marginal profit per employee of ¥20.0 million	FY2025	● Expansion of orders	● Loss of opportunities to expand orders	● Achieved asset-based ROIC of 17.9% ● Achieved liability-based ROIC of 15.6% ● Achieved marginal profit per employee of ¥14.77 million[*1]
 2 **Improvement of customer satisfaction**	● Quality, cost, delivery (QCD) improvements	● Achieve customer satisfaction (overall) score of more than 4.57 out of 5	Every year	● Building of customer trust ● Increased orders and increased sales	● Loss of customer trust ● Decreased orders and decreased sales	● New target
 3 **Human resources strategies**	● Hiring and management of human resources ● Human resources development	● Establish a team dedicated to developing human resources (create a personnel section) ● Prepare and implement a human resource development plan and increase investment in training per employee	FY2025	● Securing and retention of human resources ● Improvement in technological capabilities	● Labor shortages ● Decline in technological capabilities	● Launched team dedicated to developing human resources
	● Development of work environments	● Achieve rate of parental leave by female employees of more than 75% ● Achieve rate of parental leave and parental-related annual paid leave by male employees of more than 30% ● Reduce turnover rate, achieving a regular employee turnover rate or less than 1% ● Achieve welfare expenditure per employee of ¥120,000/year	FY2025	● Reduction in employee stress/strain ● Improvement of commitment ● Enhancement of motivation and performance	● Decline in motivation and performance ● Drain of human resources	● Achieved rate of parental leave taken by female employees of 100% ● Rate of parental leave taken by male employees was 0% ● Engaged in dialogue through HR Strategy Committee ● Granted an additional 20 days of annual paid leave ● Launched company canteen project ● Engaged in activities to encourage employees to take parental leave
	● Realization of diversity and equal opportunity	● Achieve a ratio of female regular employees of more than 20% ● Achieve a ratio of female managers[*2] of more than 18% ● Achieve a 3% employment ratio of people who have disabilities ● Hold meetings for female employees and promote diversity at manufacturing sites	FY2030 (Ratio of female employees) FY2023 (Employment of persons with disabilities) FY2023 (Meetings for female employees)	● Demonstration of the skills of individuals through equal opportunity ● Creation of innovation ● Elimination of discrimination and exclusion	● Decline in international competitiveness ● Loss of reputation	● Achieved ratio of female regular employees of 11.2% ● Achieved ratio of female managers of 10.0% ● Employment ratio of people who have disabilities 2.94%
	● Analysis of human rights risks and protection of human rights	● Implement human rights due diligence, take action on human rights, and make human rights disclosures	FY2025	● Avoidance of the risk of human rights violations ● Peace of mind stemming from visualization of human rights risks ● Anticipatory compliance with regulations	● Risks associated with human rights violations ● Loss of public trust	● Specified human rights policy in code of conduct for us and for our partner companies
 4 **Action on climate change**	● Reduction of GHG emissions ● Understanding of total energy consumption	● Aim for carbon neutrality ● Reduce CO_2 emissions per marginal profit by 50% or more compared with fiscal 2021 by 2030	FY2050	● Fundraising advantages ● Ability to cope with rising energy prices	● Risk of incurring carbon taxes ● Risk of decline in business with business partners ● Business risks stemming from tighter regulation	● Rate of reduction through renewable energy: 7.5%
 5 **Minimization of environmental impact**	● Reduction of consumables	● Reduce the volume of cutting fluid waste by 40% compared with fiscal 2021 (target level of not more than 11,160L) ● Reduce the percentage of the marginal profit ratio accounted for by packaging materials by 10% compared with fiscal 2021(target level of 0.394%) ● Reduce the percentage of the marginal profit ratio accounted for by costs arising from remanufacturing due to defects by 40% compared with fiscal 2021 (target level of 0.98%)	FY2030	● Reduction of costs ● Mitigation of environmental impact	● Increased waste disposal costs ● Delayed compliance with regulations ● Environmental impacts	● Volume of waste fluid was 171,050L ● The percentage of the marginal profit ratio accounted for by packaging materials was 0.84% ● The percentage of the marginal profit ratio accounted for by costs arising from remanufacturing due to defects was 1.12%
	● Assessment of water risk and water stress ● Effective use of water	● Conduct water risk and water stress assessments, take action on water risk and water stress, and make water risk and water stress disclosures	FY2026	● Proposal of countermeasures in the event of drought	● Decreased production volume in the event of drought	● New target ● Began monthly monitoring of water usage
 6 **Safe and secure work environment**	● Reduction of occupational accidents ● Appropriate management of chemical substances ● Effective safety education	● Ensure a 100% participation rate in safety training	FY2023	● Safe and secure work environment ● Compliance with regulations	● Damage to employees' health ● Loss of reputation ● Incurrence of penalties due to infringements and costs for corrective measures	Achieved a 100% participation rate in safety training[*3]
 7 **Supply chain management**	● Stable procurement and supply	● Identify supply chain risks and take measures to address them	FY2026	● Stable supply	● Production difficulties ● Reputational risks	● Explained code of conduct to partner companies
 8 **Utilization of digital technologies**	● Improvement of business efficiency	● Implement complete operation of schedulers ● Make 12 DX business improvements	FY2023	● Cost reductions through business streamlining	● Decline in competitiveness	● Integrated scheduling in fiscal > December, 2022 ● Made 19 DX business improvements
 9 **Robust corporate governance systems**	● Development of effective risk management system	● Develop an effective enterprise risk management system	FY2025	● Preparation for a crisis ● Improvement of resilience	● Vulnerability stemming from changes in the environment	● New target
	● Information security measures	● Establish an Information Security Committee and take effective measures to address risks	FY2024	● Stable operation ● Avoidance of financial losses and loss of trust	● Stoppage of operations due to the suspension of systems ● Leakage of information	● Established Information Security Committee directly under Board of Directors

*1 Includes temporary employees
*2 Refers to position of Group Manager or higher
*3 The safety training participation rate is the rate of participation as of February 2023 in safety training with April 2022 content. Employees taking a leave of absence are excluded from the calculation.



1 Increase in productivity



2 Improvement of customer satisfaction

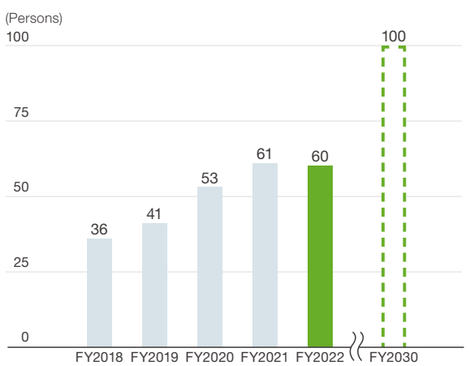
Strengthening of prototyping capabilities

To win new orders, we need to provide many prototypes to customers in a short timeframe. Since programmers design and develop the programs used to make prototypes, programmers play a central role in our manufacturing activities. Consequently, business expansion requires both improvement in the technological capabilities of programmers and an increase in the number of programmers and these are the two most important challenges for our business continuity and for our business growth.

Long-term targets/indicators

Increase the number of programmers to 100 by FY2030

Number of programmers



Impact of prototyping capabilities on business

Our prototyping capabilities impact our business earnings. Prototypes are necessary to win new orders and prototypes which do not meet customer needs will not help us win orders. It follows, therefore, that to expand our earnings we must improve our programming capabilities and secure the number of programmers needed to do the volume of work required.

Business Strategy

It takes between five and ten years to train a programmer because programming requires a great deal of knowledge and production experience. This means we must plan from a long-term perspective and, in FY2022, we put together a team in charge of programmer training, began training up programmers and are developing a curriculum.

Progress and outlook

In FY2022, we established the Technology Section, which is in charge of technology training and prototyping, and launched the programmer training project through collaboration between personnel staff and engineering staff. Experienced engineers are playing a central role in preparing the training content and are developing a curriculum which combines both lecture-based and practical training. Training has already begun in some operations and we are developing a curriculum which caters for different levels.

Capital investment

We added capital investment to themes of initiatives this time because it is extremely important in order to continue meeting customer needs and has an enormous impact on our sustainable business growth. In the growing semiconductor market, we need to quickly supply products in response to sudden market fluctuations and this requires us to make capital investment in response to surges in demand. Moreover, the selection of equipment is key to the sustainable generation of profit. We predict the manufacturing processes which are expected to increase in the medium to long term and make investment decisions from the viewpoint of optimizing machine operations. Then, to measure investment efficiency, we use ROIC as a management indicator and monitor ROIC in monthly management meetings. (Please refer to the financial strategy section for further details of ROIC.)

Financial Strategy P25

Quality, cost, delivery (QCD) improvements

Reason for selection as new theme

Our business starts with the receipt of a customer order and our business model consists of providing technological solutions encompassing QCD (quality, cost, delivery) and delivering products which meet customer requirements. By making continuous improvements that solve customer problems, we aim to improve customer satisfaction.

We have adopted the average customer score for overall satisfaction in the customer satisfaction survey we conduct every year as an indicator for measuring customer satisfaction and have selected this as a new material issue (materiality).

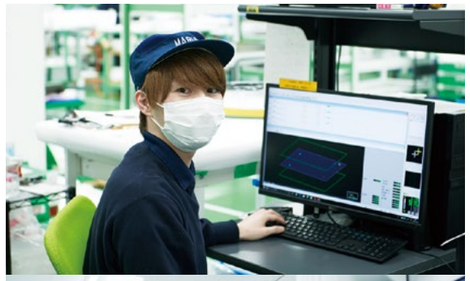
Measures to improve customer satisfaction

In fiscal 2022, our customer satisfaction score was 4.20, which was low compared with our record high of 4.57. According to our analysis, this was mainly because we had failed to increase our production capacity in response to sudden expansion in customer demand and could not meet customers' delivery requirements.

In accordance with our medium-term business plan and fiscal year policy, we are implementing the following improvement measures.

Quality improvement measures

1	Improve production capacity to meet surges in demand
2	Train highly skilled programmers to enable prototyping for multiple products at the same time
3	Reduce transportation through integrated production in house, shortening lead times and lowering costs
4	Further develop work standards (manuals) to ensure stable quality that does not rely on high level of skill











3 Human resources strategies

Recognition of Issues

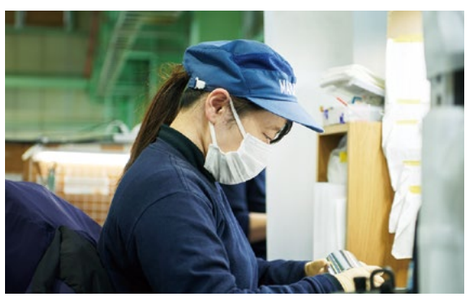
Since the technological capabilities that underpin Marumae's strengths are the aggregation of skills of our employees, we will focus on HR measures as a top priority.

Issues to be Addressed

1	Hiring and management of human resources
2	Human resources development
3	Development of work environments
4	Realization of diversity and equal opportunity
5	Analysis of human rights risks and protection of human rights

Strengthening dialogue with employees through the launch of the HR Strategy Committee

In fiscal 2022, we established the HR Strategy Committee on the basis that an opportunity for regular dialogue was required to improve our employees' working environment. Meetings are held at least once a month. The committee is composed on an employee representative from each factory, the President and Representative Director, internal Directors, Executive Officers and department General Managers. In fiscal 2022, talks were held to create a framework for increasing the number of holidays whilst maintaining productivity.



Hiring and management of human resources

In the interests of stable business continuity, we must strategically hire and train up human resources and put the right people in the right places.

The programmers responsible for our core business operations require both knowledge and experience and are, therefore, trained from a comparatively long-term perspective. Since programmers will support our growth around five years after joining the company, we will steadily hire new graduates every year to lay the foundations for future business growth. The operators who contribute to production, on the other hand, become involved in manufacturing activities on the production frontlines in a short space of time and we will, therefore, hire operators flexibly according the market supply and demand.

1	**Establishment of personnel divisions** We will create specialist business units to specialize in hiring and enhancing hiring capabilities.
2	**Improvement of employee satisfaction** To become the company of choice for employees, we will focus on improving the work environment and enhancing the evaluation system.
3	**Promotion of diversity** By developing an environment which allows diverse human resources to actively participate, we will develop a pleasant, comfortable environment for everyone.



Human resources development

This year we will lay the foundations for the development of human resources. Going forward, we aim to strengthen our management capabilities and provide company-wide training

As in the previous year, the development of human resources is still positioned as a top priority issue and we will continue taking action to address it.

Over the past year, we established a business unit in charge of HR, drew up training plans for the development of engineers and laid the foundations for developing a curriculum. We also provided training to all employees on how to approach and manage their duties.

We are committed to continuing to train engineers as well as to strengthening training for all employees in the future. Further expansion in business scale will increase the need for managerial skills across the company and we will, therefore, also put effort into strengthening the management skills of those in managerial positions.

Development of work environments

The work environment significantly impacts the outcomes of employees' day-to-day work, our retention rate and our hiring capabilities. After a few years, our employees become experienced in the technologies we own and we accumulate more technologies and the development of a stable environment in which employees can work for many years is, therefore, also important for maintaining and passing on technological capabilities. We have now added a turnover rate of less than 1% and welfare expenditure per employee of ¥120,000 /year as indicators of improvement in the work environment.

Measures

1	Conduct dialogue with employees through HR Strategy Committee
2	Improve work environment through hearings on areas for improvement
3	Reduce workload by increasing business efficiency

Realization of diversity and equal opportunity

Over the past year, in conjunction with study groups and site visits, we have discussed at great length why diversity is necessary for us. As a result of these discussions, we reached the conclusion that an environment in which female employees feel comfortable working is a comfortable environment for everyone. We concluded that developing an inclusive environment to fully draw out the potential of diverse individuals will help strengthen our business in the future. We have, therefore, added a target ratio of female employees to our target employment ratio for persons with disabilities.

By FY2030	Ratio of female full-time employees	more than **20%**
	Ratio of female managers*	more than **18%**
By FY2023	Employment ratio of people who have disabilities	**3.0%**

*Refers to position of Group Manager or higher

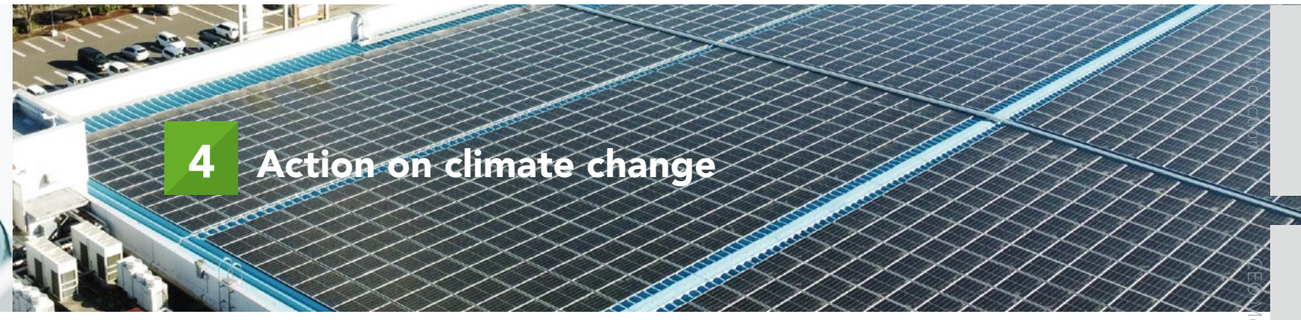
In fiscal 2023, with the aim of developing a comfortable and pleasant work environment for diverse human resources, we will hold meetings for female employees to improve the work environment at manufacturing sites. Meetings for female employees are opportunities for female employees at manufacturing sites to propose improvements to the work environment. Through hearings, we will implement measures which will not only make it easier for female employees to work but will also held reduce the workload of male employees.





3 Human resources strategies





4 Action on climate change

Interview

Making Marumae more inclusive

My parents' house was a printers and as a child I used to play in the workshop surrounded by the smells of ink and oil and the noise of machinery. When I grew up and joined the company, I was told "women don't work in manufacturing because it's the "3Ks" (Kitsui, Kitanai, Kiken), which mean "Difficult, Dirty, and Dangerous." Surely it would be better to make factories where women also want to work. To keep them clean instead of dirty. To make them safe instead of dangerous. To come up with innovations which will make it easy to work there instead of difficult. Surely the 3Ks are a gold mine for innovation?

Marumae's policy is to try to support sustainable development through investment in people based on the theme of "Innovation." Human capital is priceless. Precisely because the future is chaotic, the collective strength of individuals each bringing diverse skills with them constitutes our capital.

There is nothing to fear about workplaces which give opportunities to all individuals, regardless of their gender, age, disability, nationality or other characteristics, provided they have the ambition and ability to master skills and contribute to the workplace.



Akiko Kadota
Chair of ESG Committee and Outside Director

Analysis of human rights risks and protection of human rights

Marumae respects the human rights of its own workers and supply chain workers and prohibits any kind of activity which violates human rights. Our policy on human rights and our suppliers' code of conduct clearly set out standards based on the Responsible Business Alliance (RBA) Code of Conduct. RBA is a non-profit coalition of electronics companies dedicated to corporate social responsibility (CSR) in global supply chains. It has established standards covering the labor safety, human rights of workers and ethics at RBA members and in their supply chains.

We believe that in addition to continuing to respect human rights, we need to increase transparency by fulfilling our responsibility to explain action taken on human rights. To this end, we will conduct an analysis of human rights risks, implement measures to address them, and make human rights-related disclosures.

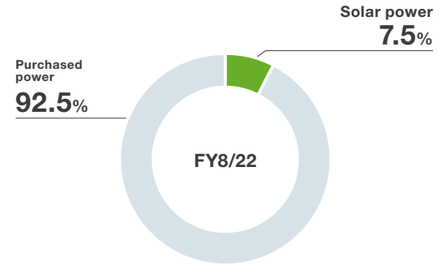
Reduction of GHG emissions

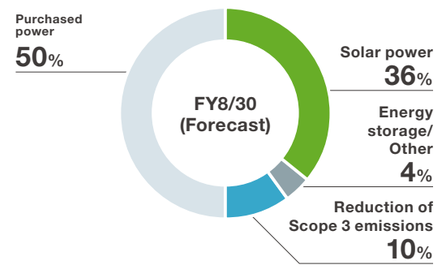
Climate change is a material issue, both in terms of the risk it poses to Marumae and the costs involved

Climate change is now a high priority for investors, the government and business partners, giving rise to fund procurement risks and legal risks, and the action we take on climate change is now under scrutiny when it comes to continuing to business with business partners. Moreover, given the energy situation in recent years, the development of an environment for generating our own energy is also one measure to address energy procurement risk and the risk of fluctuation in energy prices. Accordingly, we will use solar panels and power storage batteries to generate our own electricity and aim to achieve carbon neutrality by 2050.

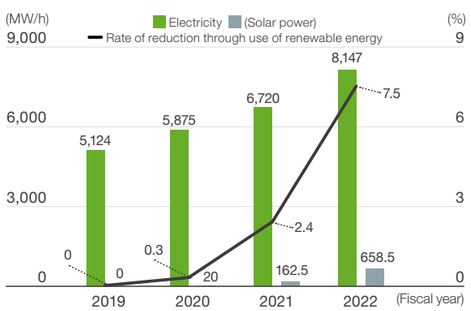
For details of carbon neutrality plan:
https://www.marumae.com/sus_5.html (only Japanese)

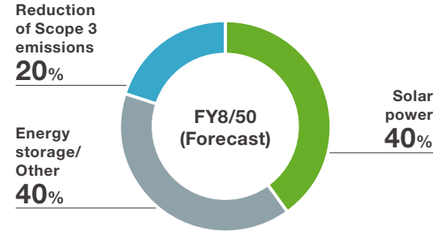
Ratio of renewable energy used across all factories





Rate of reduction through use of renewable energy







5 Minimization of environmental impact



Reduction of consumables

We believe that reducing consumables is important both in terms of mitigating the environmental impact and reducing costs.

To tackle this issue, we manage budget versus actual expenditure on consumables each month and check for unnecessary purchases and we also call on employees to reduce consumables where appropriate. We also expect to make further reductions by reviewing our reduction methods.



Reducing the volume of cutting fluid waste by 40% compared with fiscal 2021

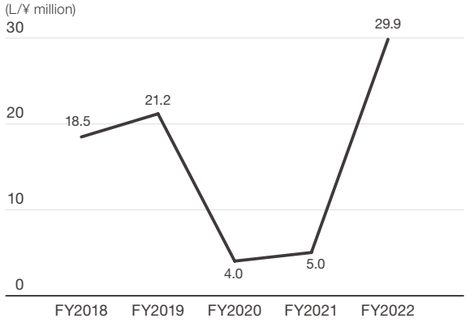
Over the past year, we stepped up measures to reduce fluid waste. We established the Equipment Engineering Section, which is responsible for installing and maintaining equipment, and are working to increase the lifetime of cutting fluid through the inhouse production of equipment such as a cutting fluid filter and floating oil collection system. We will also minimize cutting fluid corrosion and reduce use of cutting fluid by teaching machine operators how to use cutting fluid properly.

Reducing the percentage of the marginal profit ratio accounted for by packaging materials by 10% compared with fiscal 2021

We will aim for reduction in packaging materials mainly through three measures. Through the adoption of these measures, we will seek not only to reduce the amount of packaging materials but also to omit certain operations. However, since changes to packaging materials need to be approved by customers, we will tackle this issue from a long-term perspective.

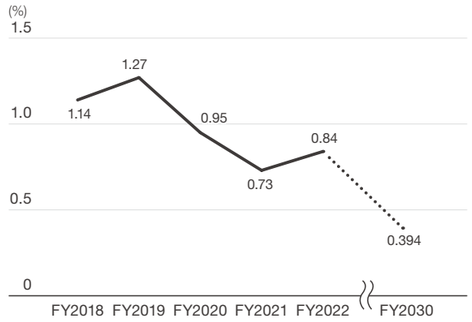
Measures to reduce packaging materials	
	1 Changes to materials
	2 Reuse of materials
	3 Use of returnable containers

Wastewater treatment volume/Marginal profit



*In fiscal 2022, our wastewater emissions were higher than usual due to the disposal of wastewater accumulated for reuse; however, wastewater emissions are expected to decrease in the future

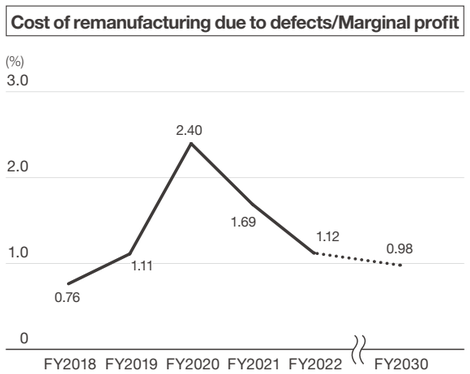
Cost of packaging materials/Marginal profit



Reducing the percentage of the marginal profit ratio accounted for by costs arising from remanufacturing due to defects by 40% compared with fiscal 2021

Since our products are mainly machined aluminum components, we can reduce the amount of aluminum used by reducing defects. We will do this primarily by increasing the skills of machine operators, reviewing procedures, and maintaining equipment.

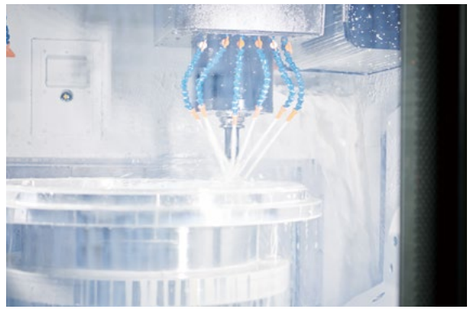
Cost of remanufacturing due to defects/Marginal profit





Assessment of water risk and water stress

Recognizing the high level of interest in our water risks among stakeholders because we belong to the semiconductor market, we will implement and disclose our analysis of water risks and water stress to fulfill our responsibility of explaining to stakeholders. We use water mainly for cutting fluid and cleaning and we dilute the original cutting fluid around 10 to 20 times with water. Cutting fluid is used to reduce the heat generated during cutting and as lubrication.



Cutting fluid being applied all around the tool during cutting



6 Safe and secure work environment

Safety first in everything that we do

Marumae manages safety through monthly Safety Committee meetings. We take action whenever a hazardous situation is detected during a patrol. In addition, any occupational accidents and measures taken to address them are shared with all employees during safety training. In fiscal 2022, the number of occupational accidents was the highest in 5 years and our response to all occupational accidents was discussed. As a result of analysis, we identified that the primary cause of accidents was a lack of experience due to an increase in personnel. We will respond to these findings by strengthening induction training on joining the company and regular safety training. We will then monitor progress and verify the effectiveness of action taken.

Breakdown	Units	FY8/18	FY8/19	FY8/20	FY8/21	FY8/22
TRIFR*1		2.24	10.10	12.77	5.28	13.07
LTIFR*2		0.00	2.02	2.13	0.00	1.63
Hours worked	Hours	446,441	494,976	469,889	567,944	611,982
Number of workplace injuries *3	Accidents	1	5	6	3	8
Number of casualties due to industrial accidents requiring leave of absence of one day or more	Person(s)	0	1	1	0	1
Number of work-related fatalities (Internal)	Person(s)	0	0	0	0	0
Number of work-related fatalities (Suppliers)	Person(s)	0	0	0	0	0

*1 Total number of occupational accidents ÷ total actual working hours ×1,000,000

*2 Number of casualties due to industrial accidents requiring leave of absence ÷ actual total number of hours worked × 1,000,000.

*3 In fiscal 2018, there was one accident not resulting in lost work days. The cause of the accident not resulting in lost work days was cut/abrasion (one accident).
In fiscal 2019, there was one accident requiring a leave of absence and four accidents not resulting in lost work days. The cause of the accident requiring a leave of absence was a fall on the same level (one accident), while the causes of the accidents not resulting in lost work days were cut/abrasion (three accidents) and fall from height (one accident).
In fiscal 2020, there was one accident requiring a leave of absence and five accidents not resulting in lost work days. The cause of the accident requiring a leave of absence was cut/abrasion (one accident), while the causes of the accidents not resulting in lost work days were cut/abrasion (four accidents) and flying or falling object (one accident).
In fiscal 2021, there were three accidents not resulting in lost work days. The causes of the accidents not resulting in lost work days were cut/abrasion (three accidents).
In fiscal 2022, there was one accident requiring a leave of absence and seven accidents not resulting in lost work days. The cause of the accident requiring a leave of absence was being caught in a machine (one accident), while the causes of the accidents not resulting in lost work days were cut/abrasion (three accidents), fall from height (two accidents), being caught in a machine (one accident) and fall on the same level (one accident)



7 Supply chain management

Outsourcing business processes to suppliers means that we are also responsible for suppliers' deliverables. We believe we must, therefore, have a management system for maintaining quality and preventing the occurrence of environmental and social costs. Moreover, any delays in the supply chain have knock-on effects for our manufacturing activities and so we must also put in place measures to prevent or mitigate risks. To this end, we will put in place a supply chain risk management system, analyze risks and take measures to address them.



Production management for controlling the supply chain



8 Utilization of digital technologies

Embracing DX in production operations and advancing toward overall optimization

Utilizing technologies is essential to improve the efficiency of business processes and strengthen competitiveness. We have our own in-house system development operations and develop and modify information systems to help improve efficiency on the factory floor.

In fiscal 2022, we began using a scheduler for process planning. Real-time production data imported on smartphones is reflected in the scheduler, allowing actual progress to be monitored in the system.

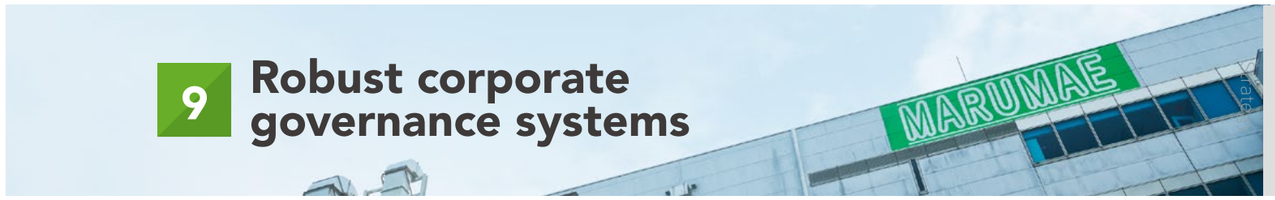
Performance in FY8/22

Introduced scheduler

We began using a scheduler for more efficient process planning based on information stored in the core system.

Made 19 DX business improvements

We used technology such as RPA to automate production frontline management processes.



9 Robust corporate governance systems

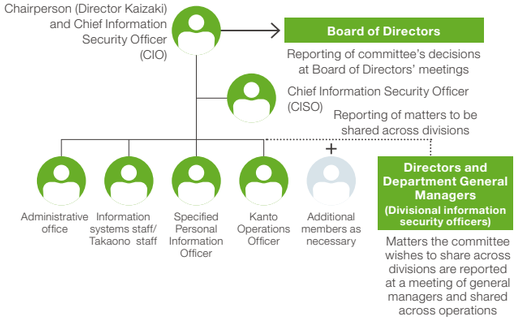
Developing an effective enterprise risk management system

Since risks may prevent the attainment of organizational goals and affect business continuity, we will rebuild our corporate management systems to make them more effective. Given that risks are interrelated, we will build a system for properly managing and addressing as an organization the material risks that threaten our activities and for optimizing decision making on how to address risks.

Information security measures

The information systems we use to conduct business are connected to networks and any network damage or disruption would be enormously detrimental to our business. Information security incidents would likely significantly impact our management, including the risk of reputational damage, the risk of losing customers and financial losses, and we consider information security measures to be a high priority for management. We have therefore established an Information Security Committee directly under the Board of Directors to strengthen oversight. Starting from fiscal 2023, we will identify and assess information security and cyber security-related risks and implement measures to address them.

Information Security Committee



Directors (as of November 28, 2022)

Out side Outside Director　New Newly appointed





Name	Toshikazu Maeda	Kota Kaizaki	Hiroto Ando	Akiko Kadota Out side	Kumiko Seko New Out side	Keiji Hokanishi	Satoshi Momokino Out side	Takaaki Yamamoto Out side	Hirotsugu Miyakawa Out side
Position	President and Representative Director (Responsible for overall coordination/ Administration Headquarters) Advisory Committee member	Director General Manager, Sales Headquarters (Responsible for Sales Headquarters)	Director General Manager, Manufacturing & Technology Headquarters (Responsible for Manufacturing and Technology Headquarters)	Outside Director Outside Director (Part-time) Representative, Go! Kagoshima Corporation Independent (Outside)	Outside Director Outside Director (Part-time) Independent (Outside)	Director Audit and Supervisory Committee Member (Full-time) Audit and Supervisory Committee Member	Outside Director Audit and Supervisory Committee Member (Part-time) Lawyer (Momokino Law Office) Independent (Outside) Advisory Committee member Audit and Supervisory Committee Member	Outside Director Audit and Supervisory Committee Member (Part-time) Advisor, Seiko Solutions Inc. Independent (Outside) Advisory Committee member Audit and Supervisory Committee Member	Outside Director Audit and Supervisory Committee Member (Part-time) Certified Public Accountant (Miyakawa Certified Public Accountant Office) Independent (Outside) Advisory Committee member Audit and Supervisory Committee Member
Career profile	Mr. Toshikazu Maeda founded the Company's business, mastered our core business technologies, and handed them down to employees. Moreover, as a manager, he steered the company's management, strategically changing our business portfolio according to the market environment, and also overcoming a financial crisis to achieve growth. He was elected as Representative Director because, in view of his track record, he is necessary for the Company's growth.	Mr. Kota Kaizaki has been involved in the semiconductor production equipment market for many years and knowledgeable about the industry. In his role in charge of sales, he built strong relationships of trust with our business partners and made a huge contribution to our entry to the semiconductor business and the expansion of orders. He was, therefore, elected as Director because he is essential for the Company's future growth in the semiconductor business.	Mr. Hiroto Ando is experienced in the machining business and very knowledgeable about testing and product finishing. Additionally, due to his many years of production management experience gained through involvement in quality assurance operations, Mr. Ando is also currently serving as General Manager of Manufacturing & Technology Headquarters, overseeing all our manufacturing operations. He was elected as Director because he is essential for execution of the Company's production operations.	Ms. Akiko Kadota has profound insights regarding the promotion of diversity, including the active participation of women in the workforce, in addition to her extensive career and profound insights as a manager. The Company expects her to use this experience to play a role in supervising the execution of business operations.	Ms. Kumiko Seko has a wealth of experience and broad insights gained through her involvement in national politics as a member of the Diet and Parliamentary Vice -Minister of Education, Culture, Sports, Science and Technology, as well as profound insights regarding the promotion of diversity, including the active participation of women in the workforce. The Company expects her to use this experience to play a role in supervising the execution of business operations.	Mr. Keiji Hokanishi has professional financial expertise, and the Company believes this knowledge will be useful for accounting audits and cooperation with the audit firm and internal audits. He also has management experience, having worked as branch manager at a financial institution, and was elected as Audit and Supervisory Committee member because he has the ability to bring the Outside Directors together and the ability to make appropriate judgements on matters such as the exercise of voting rights.	Mr. Satoshi Momokino has professional expertise and broad experience as a lawyer, and the Company expects him to provide objective opinions regarding the operations of business companies, and to contribute to strengthening the corporate governance of the Company.	Mr. Takaaki Yamamoto has abundant experience and broad insight serving as a manager for many years. He has contributed to enhancing the corporate value of the Company, by providing appropriate advice on the Company's management and supervising the execution of business operation as an Outside Director. The Company expects him to continue playing such roles.	Mr. Hirotsugu Miyakawa has professional expertise and broad experience as a certified public accountant. The Company expects him to supervise the execution of duties by the Directors, and to provide advice from a professional perspective.

Specific knowledge and experience that we expect



Corporate Governance

Basic Stance

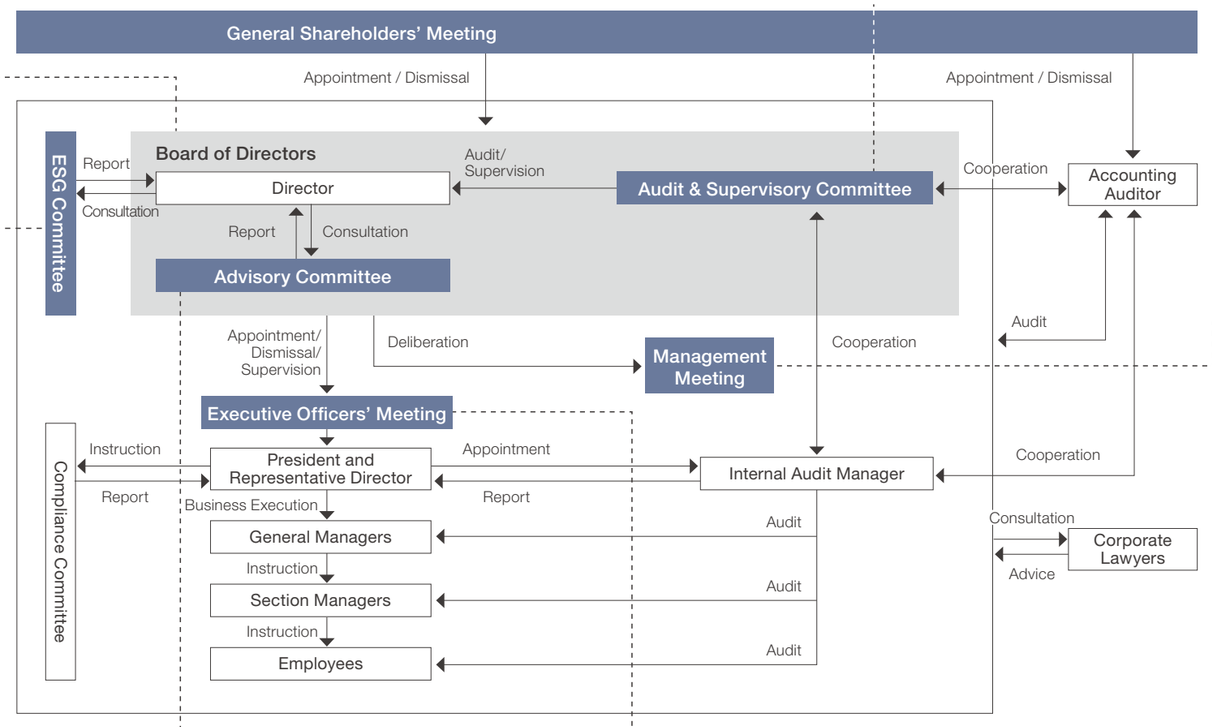
In order to increase management transparency and make corporate governance work effectively based on compliance with laws and regulations, the Company acknowledges the importance of establishing and maintaining not only an organizational structure that responds quickly and accurately to major changes in the business environment but also a sound management system that places importance on shareholders.

For details of internal control systems, please see our Corporate Governance Report.
https://www.marumae.com/en/ir/pdf/cg_20230105.pdf

Organizational Form	Company with an Audit and Supervisory Committee
Maximum Number of Directors Stipulated in the Articles of Incorporation	12
Term of Office of Directors Stipulated in the Articles of Incorporation	1 year
Chairperson of the Board	President and Representative Director

Number of Directors	9
Appointment Status of Outside Directors	Appointed
Number of Outside Directors	5
Number of Independent Outside Directors	5

Corporate Governance System



Board of Directors

Chairperson



Toshikazu Maeda
President and Representative Director

Number of meetings held in FY2022: 22

The Board of Directors comprises nine directors, including four directors who are Audit and Supervisory Committee members, and five of whom are outside directors. The Company holds regular monthly meetings of the Board of Directors and strives to further enhance the corporate governance system by including directors who are Audit and Supervisory Committee members with voting rights.

Major deliberation themes
- Medium to long term company policies
- Capital investment of more than ¥300 million
- Discussion of important personnel affairs

ESG Committee

Chairperson



Akiko Kadota
Outside Director

Number of meetings held in FY2022: 12

The ESG Committee comprises the President and Representative Director, two directors, and nine employees. The committee identifies material issues (materiality), sets KPIs, checks the status of achievement, reviews plans, and reports the status of these to the Board of Directors in order to deal with the various challenges related to ESG in corporate management from a long-term perspective.

Major deliberation themes
- Identification of materiality and setting of KPIs
- Monitoring of ESG targets
- Deliberation of ESG issues

Advisory Committee

Chairperson



Satoshi Momokino
Outside Director

Number of meetings held in FY2022: 5

The Advisory Committee comprises the President and Representative Director and three Independent Outside Directors who are Audit and Supervisory Committee members. The committee is convened when necessary and reports as an advisory body to the Board of Directors on matters such as the nomination of directors, policies for determining the remuneration of directors and the appropriateness of remuneration levels from an independent and objective perspective.

Major deliberation themes
- Candidates for Directors (proposal)
- Amount or remuneration of individual Directors
- Policies, etc. for determining officers' remuneration

Audit & Supervisory Committee

Chairperson



Keiji Hokanishi
Audit and Supervisory Committee Member (Full-time)

Number of meetings held in FY2022: 14

The Audit and Supervisory Committee is comprised of four members, including three outside directors. It meets once a week, in principle, and extraordinary meetings are held as necessary. The Committee exchanges information with internal audit staff and accounting auditors as needed to enhance the effectiveness and efficiency of audits.

Major deliberation themes
- Discussion of audit reports
- Appointment and dismissal of accounting auditors
- Internal audit reports

Management Meeting

Chairperson



Toshikazu Maeda
President and Representative Director

Number of meetings held in FY2022: 12

The management meeting consists of the 33 members who are at the deputy manager position or above. It is held monthly in principle to share perceptions and exchange opinions on business strategy and business operation. Among the matters discussed and resolved at the Board of Directors, those that are particularly necessary are also discussed at this meeting to enhance the deliberations at the Board of Directors. Directors who are Audit and Supervisory Committee members also attend various critical internal meetings, including this management meeting, and express their opinions.

Major deliberation themes
- Reporting on the status of management and countermeasures to address any issues
- Reporting on KPIs and countermeasures to address any issues
- Reporting by each arm of operations and countermeasures to address any issues

Executive Officers' Meeting

Chairperson



Takeshi Shimomai
General Manager of the Administration Headquarters

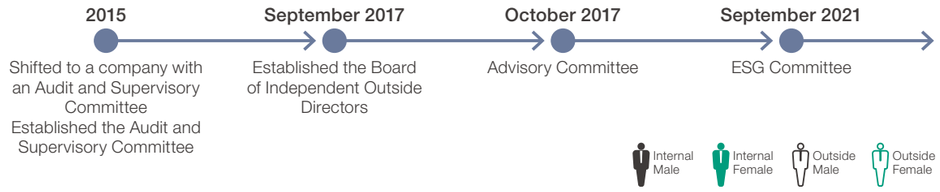
Number of meetings held in FY2022: 18

The Executive Officers' Meeting comprises the President and Representative Director, Executive Directors, Executive Officers, General Managers of Headquarters and the standing Audit and Supervisory Committee member (who does not have voting rights). Meetings are held on Mondays directly before regular meetings of the Board of Directors, in principle, to assist the President and Representative Director and the Board of Directors by deliberating and resolving important management-related matters in accordance with basic management policies determined by the Board of Directors.

Major deliberation themes
- Deliberation of agenda items to be submitted to the Board of Directors
- Deliberation of important capital investment and other matters based on approving authority thresholds
- Deliberation of revisions to the fiscal year budget
- Determination of internal regulations

Evolution of Governance

Marumae shifted to a company with an Audit and Supervisory Committee in 2015 with a view to enhancing corporate governance. With the establishment of the Audit and Supervisory Committee, meetings of the Board of Directors became more effective because Directors who are Audit and Supervisory Committee members also have voting rights at Board of Directors' meetings and deliberate agenda items with a sense of responsibility. The Board of Independent Outside Directors was established in September 2017, for the exchange of information and shared recognition necessary for Independent Outside Directors to actively contribute to discussions at meetings of the Board of Directors and for the free discussion of matters related to the Company's business and corporate governance. In October 2017, we established the Advisory Committee for the purpose of strengthening the independence and objectivity of functions and accountability of the Board of Directors regarding the nomination, remuneration, etc. of Directors. Our first female director was appointed in November 2020 and we increased the number of female Directors to two in November 2022, thereby increasing the diversity of the Board not only in terms of knowledge, experience and skills but also in terms of gender and breathing new life into discussions. Moreover, in September 2021, we established the ESG Committee and sought to further enhance our corporate value by identifying material issues from a medium to long term perspective, setting targets and implementing measures to achieve them.



Internal Male / Internal Female / Outside Male / Outside Female

	FY2019	FY2020	FY2021	FY2022	FY2023 Nov.
Directors (persons) The numbers in parentheses indicate Outside Directors	10(5)	7(3)	9(4)	8(4)	9(5)
Ratio of female employees (%)			11.1%	12.5%	22.2%
Ratio of Outside Directors (%)	50.0%	42.9%	44.4%	50.0%	55.6%
Number of Board of Directors' meetings held (times)	25	23	20	22	—

Main Matters Deliberated at Board of Directors' Meetings and Executive Officers' Meetings

Roles of Board of Directors and Executive Officers' Meeting

We aim for a supervisory Board of Directors, with Outside Directors accounting for almost half of the Board. The Board delegates some authority to the Executive Officers' Meeting, which hold discussions on matters related to business execution.

Matters resolved by the Board of Directors	Matters concerning the General Shareholders' Meeting
	Matters concerning Directors
	Matters concerning shares and corporate bonds
	Matters concerning financial results
	Important matters concerning business operations
	Important matters concerning affiliated companies
	Matters concerning the Executive Officers' Meeting
	Other important matters

Matters to be resolved by the Executive Officers' Meeting	Acquisition or forfeiture of assets (including lease agreements)
	Establishment of credit limit
	Processing of overdue receivables
	Testing, research and development
	Revision of fiscal year budget
	Borrowing (including deposit of collateral)
	Utilization of securities
	Change of accounting policy

Evaluation of Effectiveness

To make the Board of Directors function more effectively, we analyze and evaluate the effectiveness of the Board of Directors every year in accordance with the principles of the Corporate Governance Code set out by the Tokyo Stock Exchange. Our Board of Independent Outside Directors conducts a confidential and anonymous survey of all Directors and carries out a fair and transparent analysis and evaluation, with reference to Directors' self evaluations. The survey results are reported to the Board of Directors by the lead Independent Outside Director to strengthen Directors' monitoring and supervision of each other. Once every three years, we ask an outside specialist to conduct a survey and carry out interviews and analyze and evaluate the results.

Initiatives FY8/22	● Establish the ESG Committee following Board of Directors' consultation request. Actively hold discussions on sustainability initiatives for the purpose of target setting, data disclosure and other improvements and step up sustainability initiatives for the enhancement of corporate value. ● Fully discuss medium-term management policies and strategies for formulation of the medium-term business plan to be launched in fiscal 2023. ● Fully discuss and consider increasing the number of female directors from the viewpoint of increasing diversity.
Results of evaluation FY8/22	● This year, we asked an outside specialist (Mori Hamada & Matsumoto law firm) to carry out an analysis and evaluation. ● We were highly rated on all evaluation criteria including the composition and operation of the Board of Directors, meeting agendas and the systems supporting the Board of Directors, and our Board of Directors is well-balanced and effective. The Board of Directors is comprised of a majority of Outside Directors, putting emphasis on keeping executive directors in check and the Board is also well-balanced in terms of the knowledge, experience and skills of the Outside Directors who play a central role in supervision.
Initiatives FY8/22 onward	● Establish the ESG Committee following Board of Directors' consultation request. Actively hold discussions on sustainability initiatives for the purpose of target setting, data disclosure and other improvements and step up sustainability initiatives for the enhancement of corporate value. ● Seek to enhance corporate value by further stepping up ESG initiatives. ● Properly monitor risk management initiatives and strengthen Directors' monitoring and supervision of each other. ● Focus on more strategic discussions such as medium to long term management strategies, management targets and sustainability, we properly put the monitoring into practise.

Remuneration for Directors

As basic Company policy, the remuneration of the Company's directors is linked to shareholders' profit in order to function as an incentive for the sustainable improvement of corporate value, and the Company sets an appropriate level of remuneration for each director based on the responsibilities of each position. More specifically, the remuneration for executive directors consists of a basic, fixed remuneration, performance-linked remuneration, and stock-based compensation, while only basic remuneration is paid, in consideration of their duties, to directors who are Audit and Supervisory Committee members responsible for supervisory functions and outside directors who are not Audit and Supervisory Committee members.

Remuneration type	Details	Maximum amount
Base remuneration	Basic remuneration for the Company's directors is a fixed monthly payment determined according to their position, responsibilities, and years of service and is set in a comprehensive manner in consideration of remuneration amounts found at other companies, the Company's business performance, employee salaries, and other factors.	—
Performance-linked remuneration	For performance-linked remuneration, (1) the bonus per employee, (2) the ratio of ordinary profit to total assets, and (3) the ratio of ordinary profit to net assets are converted at a predetermined ratio, and the calculation results are reflected in the monthly remuneration. These indicators are used with the goal of (1) improving employee satisfaction, (2) increasing return on assets (ROA), and (3) improving return on equity (ROE).	—
Restricted stock	Non-monetary remuneration is restricted stocks, which are paid to directors (excluding outside directors and directors who are Audit and Supervisory Committee members; hereinafter referred to as "Subject Directors"). With each fiscal year of the Company being the evaluation period, the amount obtained by multiplying the amount determined based on the position of the Subject Director by the performance payment rate is granted as a monetary remuneration claim. The Company issues or disposes of the Company's common shares for the Subject Directors and has them hold such shares by having them contribute all of such monetary remuneration claims to the Company as contributed assets.	The total monetary remuneration claims shall not exceed 60 million yen per year. The total number of common shares to be issued or disposed of by the Company shall not exceed 60,000 shares per year.

Policy on Determining the Ratio of the Amount of Monetary Remuneration, Performance-linked Remuneration, or Non-monetary Remuneration to the Amount of Individual Remuneration for Each Director

The Advisory Committee reviews the ratio of remuneration for each type of executive director based on the benchmark remuneration levels of companies of a similar business scale and operating in related industries and business categories as the Company, with the weight of performance-linked remuneration increasing for higher positions. The Board of Directors respects the Advisory Committee report and decides the individual remuneration of directors within the percentage range of remuneration types indicated in said report.

The approximate ratio of each type of remuneration is as follows: (if the Company achieves a consolidated operating profit ratio of 20%)

Position	Base remuneration	Performance-linked remuneration	Non-monetary remuneration, etc.
Representative Director	40%	40%	20%
Director	50%	30%	20%

Matters concerning Decisions on the Details of Remuneration Paid to Individual Directors

Regarding the amount of a director's individual remuneration, the Advisory Committee receives an explanation from the President and Representative Director on the status of business performance and the degree of target achievement. The Committee also hears the President's remuneration proposal, discusses it, makes any necessary adjustments to the content, and reports the results to the Board of Directors, which then passes a resolution. Furthermore, for stock-based compensation, the Board of Directors determines the number of shares allocated to each director based on the report from the Advisory Committee.



Chairperson of the Audit and Supervisory Committee

Keiji Hokanishi

Message

Message from Chairperson of the Audit and Supervisory Committee

Investing intensively in Marumae's growth strategies and human capital

Aiming to strengthen the supervisory function of the Board of Directors, Marumae Co., Ltd. transitioned to a company with an Audit and Supervisory Committee and established an Audit and Supervisory Committee in 2015. Since then, the company's internal controls have been strengthened and its corporate governance has evolved further, with the establishment of a Board of Independent Directors in September 2017 and the establishment of an Advisory Committee in October 2017. As a result of stronger corporate governance, the Board of Directors has shifted towards the monitoring model, concentrating on decisions about company management policy and strategic matters and supervision of managers' business execution. It is my understanding that this evolution of corporate governance will facilitate growth and enhancement of corporate value in the medium to long term.

In the periods covered by medium-term business plan "Innovation 2022" and "Innovation 2025," the Company has relentlessly implemented growth strategies and optimized capital efficiency and stepped up ESG initiatives. Especially since the previous medium-term plan, the company has dedicated itself to socially responsible management as a global company and increased its contribution to protection of the environment. The importance of ESG management is frequently discussed as a matter routine and I welcome the fact that the company is focusing on ESG and has incorporated ESG targets into its new management strategy. Moving forward, I believe it is important to focus on actively promoting women and appointing foreign nationals as Directors in order to go even further and incorporate diverse perspectives into management.

The company's highest priority going forward is to intensively invest in the human capital that supports business growth and is crucial for business continuity. Marumae doubled its net sales over the past two years, employees in managerial positions also increased as a result, and the company has its sights set on growth in the medium to long term. As its business grows in size, Marumae will need to increase both the number and quality of its employees. The company will need to review the training methods and the nature of dialogue which worked when it was smaller and find appropriate ways of doing things which will work with a larger workforce. As for the content of training, instead of a one-size-fits-all approach, the company must take differences in the standpoints and work of managers, regular employees and programmers into consideration. Companywide training and a programmer training project are already underway but will continue to be kept under scrutiny to see whether they are functioning as efficient and effective initiatives from a companywide perspective. As indicated in Marumae's management philosophy, the company wants to seek technological perfection by nurturing in its employees the ability to investigate and consider the fundamental essences of things rather than simply learning from others.

Marumae is expected to continue growing in the future and is committed to continually reviewing, improving and strengthening its corporate governance. For my part, as the full-time Audit and Supervisory Committee member, I will continue to exercise supervision to ensure sound corporate governance that keeps pace with future growth. I will also offer my full support to help the company achieve its targets and enhance its corporate value.

Financial statements for 11 years

(¥ million)

	2012/8	2013/8	2014/8	2015/8	2016/8	2017/8	2018/8	2019/8	2020/8	2021/8	2022/8
Net sales	1,103	1,162	1,585	2,124	2,242	3,035	4,588	4,019	4,388	5,369	8,585
Operating profit	50	126	267	450	488	764	1,234	495	896	1,207	2,361
Ordinary profit	21	128	255	435	458	737	1,211	477	834	1,200	2,366
Profit	(62)	81	302	559	363	538	866	436	690	902	1,817
Total assets	1,775	1,660	1,765	2,188	2,569	5,418	8,088	8,329	8,894	9,742	12,552
Total liabilities	1,764	1,566	1,369	1,473	1,590	2,281	2,955	3,021	3,188	3,415	5,253
Net assets	11	93	396	715	978	3,137	5,132	5,307	5,706	6,327	7,299
Cash flows from operating activities	256	164	88	626	556	626	829	1,052	1,190	1,062	2,227
Cash flows from investing activities	323	(30)	(14)	(185)	(296)	(681)	(2,458)	(1,496)	(337)	(809)	(1,744)
Cash flows from financing activities	(340)	(206)	(239)	(206)	(141)	1,966	1,814	96	(575)	(291)	8
Cash and cash equivalents at end of period	384	326	162	397	513	2,425	2,612	2,263	2,540	2,505	3,011
Earnings per share (¥)	(6.0)	7.8	28.9	53.2	34.5	50.7	72.0	33.5	53.3	70.5	142.5
Net assets per share (¥)	(22.4)	(14.6)	14.3	67.9	92.9	263.4	393.2	406.7	445.7	494.2	578.0
Annual dividends per share (¥)	—	—	—	6.0	7.5	10.0	20.0	15.0	17.0	24.0	48.0
Operating profit to net sales (%)	4.6	10.9	16.9	21.2	21.8	25.2	26.9	12.3	20.4	22.5	27.5
Ordinary profit to total assets (%)	1.1	7.5	14.9	22.0	19.3	18.5	17.9	5.8	9.7	12.9	21.2
Return on equity (%)	(145.7)	155.5	123.6	100.7	42.9	26.2	20.9	8.4	12.5	15.0	26.7
Asset-based ROIC (%)	2.4	6.1	10.8	18.2	16.9	18.8	16.3	5.9	10.0	12.1	17.9
Liability-based ROIC (%)	1.9	5.1	10.3	14.7	14.8	11.2	11.5	4.3	7.7	9.7	15.6
Equity ratio (%)	0.7	5.6	22.4	32.7	38.1	57.9	63.5	63.7	64.2	64.9	58.1
Payout ratio (%)	—	—	—	11.3	21.7	19.7	27.8	44.8	31.9	34.0	33.7

Notes 1. Figures are rounded down to the nearest million yen.
2. Per share data has been calculated as if stock splits conducted on March 1, 2014 (100-for-1 split), September 1, 2015 (3-for-1 split), and March 1, 2017 (2-for-1 split) had taken place at the beginning of fiscal 2011.

ESG data

Please refer to our website for the latest ESG data.
https://www.marumae.com/sus_3.html (only Japanese)

	2012/8	2013/8	2014/8	2015/8	2016/8	2017/8	2018/8	2019/8	2020/8	2021/8	2022/8
Marginal profit (¥ million)	—	—	—	—	—	—	3,103	2,596	2,995	3,716	5,717
Total number of employees (including temporary employees)	—	—	—	—	—	—	230	252	259	313	387
Marginal profit per employee (productivity indicator) (¥ ten thousand)	—	—	—	—	—	—	1,349	1,030	1,156	1,187	1,477
Scope 1 and 2 emissions Intensity (per marginal profit) (t-CO_2/¥ million)	—	—	—	—	—	—	0.594	0.712	0.828	0.777	0.559
Number of programmers (person)	—	—	—	—	—	—	36	41	53	61	60
Ratio of female regular employees (%)	—	—	—	—	—	—	12.15	13.33	12.68	12.5	11.17
Turnover rate of regular employees (%)	—	—	—	—	—	—	4.67	2.50	0.70	1.25	3.91
Ratio of Female Directors of the Board of Directors (%)	—	—	—	—	—	—	0.0	0.0	0.0	11.1	12.5
Ratio of Outside Directors of the Board of Directors (%)	—	—	—	—	—	—	44.4	40.0	42.9	44.4	50.0

Notes 1. The figure for fiscal 2022 is calculated based on the figure for fiscal 2021 as the emission factor since it has yet to be determined.
2. ESG data is limited to published data.

DATA

Balance Sheet

(¥ thousands)

	Previous fiscal year 2021/8	Fiscal year under review 2022/8
Assets		
Current assets		
Cash and deposits	2,505,018	3,011,795
Notes receivable - trade	15,807	8,001
Accounts receivable - trade	729,829	1,284,632
Electronically recorded monetary claims - operating	940,160	1,200,815
Finished goods	15,410	16,152
Work in process	570,241	1,027,314
Raw materials and supplies	12,226	19,256
Prepaid expenses	24,025	17,074
Others	4,342	12,102
Allowance for doubtful accounts	(3,537)	(5,241)
Total current assets	4,813,526	6,591,903
Non-current assets		
Property, plant and equipment		
Buildings	2,150,367	2,417,374
Accumulated depreciation	(558,679)	(666,652)
Buildings, net	1,591,688	1,750,722
Structures	147,582	163,992
Accumulated depreciation	(69,430)	(78,082)
Structures, net	78,152	85,910
Machinery and equipment	5,629,322	6,986,945
Accumulated depreciation	(3,355,730)	(4,015,360)
Machinery and equipment, net	2,273,591	2,971,585
Vehicles	104,453	108,606
Accumulated depreciation	(88,536)	(97,597)
Vehicles, net	15,916	11,008
Tools, furniture and fixtures	56,974	66,177
Accumulated depreciation	(44,199)	(47,184)
Tools, furniture and fixtures, net	12,775	18,993
Land	766,549	766,549
Leased assets	4,075	30,006
Accumulated depreciation	(1,018)	(3,496)
Lease assets, net	3,056	26,510
Construction in progress	14,922	126,137
Total property, plant and equipment	4,756,653	5,757,418
Intangible assets		
Software	51,776	38,814
Others	26	7
Total intangible assets	51,803	38,822
Investments and other assets		
Investment securities	7,000	7,000
Investment in capital	111	111
Long-term prepaid expenses	2,309	1,155
Deferred tax assets	110,535	155,845
Others	690	690
Total investments and other assets	120,646	164,801
Total non-current assets	4,929,102	5,961,042
Total assets	9,742,628	12,552,945
Liabilities		
Current liabilities		
Accounts payable - trade	249,270	331,972
Current portion of long-term borrowings	427,012	559,512
Lease liabilities	679	4,276
Accounts payable - other	278,632	353,964
Accrued expenses	164,489	226,957
Income taxes payable	219,853	527,417
Advances received	48,067	328,035
Deposits received	8,462	10,954
Unearned revenue	143	245
Provision for loss on order received	36,046	32,200
Provision for share-based compensation	16,000	16,000
Others	3,715	113,161
Total current liabilities	1,452,372	2,504,697
Non-current liabilities		
Long-term borrowings	1,923,694	2,664,182
Long-term lease liabilities	2,377	22,342
Provision for retirement benefits	25,251	48,179
Asset retirement obligations	1,069	1,069
Guarantee deposits received	2,700	2,700
Others	8,029	10,685
Total non-current liabilities	1,963,121	2,749,158
Total liabilities	3,415,494	5,253,856
Net assets		
Shareholders' equity		
Share capital	1,241,157	1,241,157
Capital surplus		
Legal capital surplus	1,125,157	1,125,157
Other capital surplus		
Gain on disposal of treasury shares	813,184	825,530
Total capital surplus	1,938,342	1,950,687
Retained earnings		
Legal retained earnings	14,112	14,112
Other retained earnings		
Reserve for tax purpose reduction entry	11,885	7,923
Retained earnings brought forward	3,283,609	4,643,567
Total retained earnings	3,309,607	4,665,603
Treasury shares	(161,971)	(558,359)
Total shareholders' equity	6,327,134	7,299,089
Total net assets	6,327,134	7,299,089
Total liabilities and net assets	9,742,628	12,552,945

Statements of Income

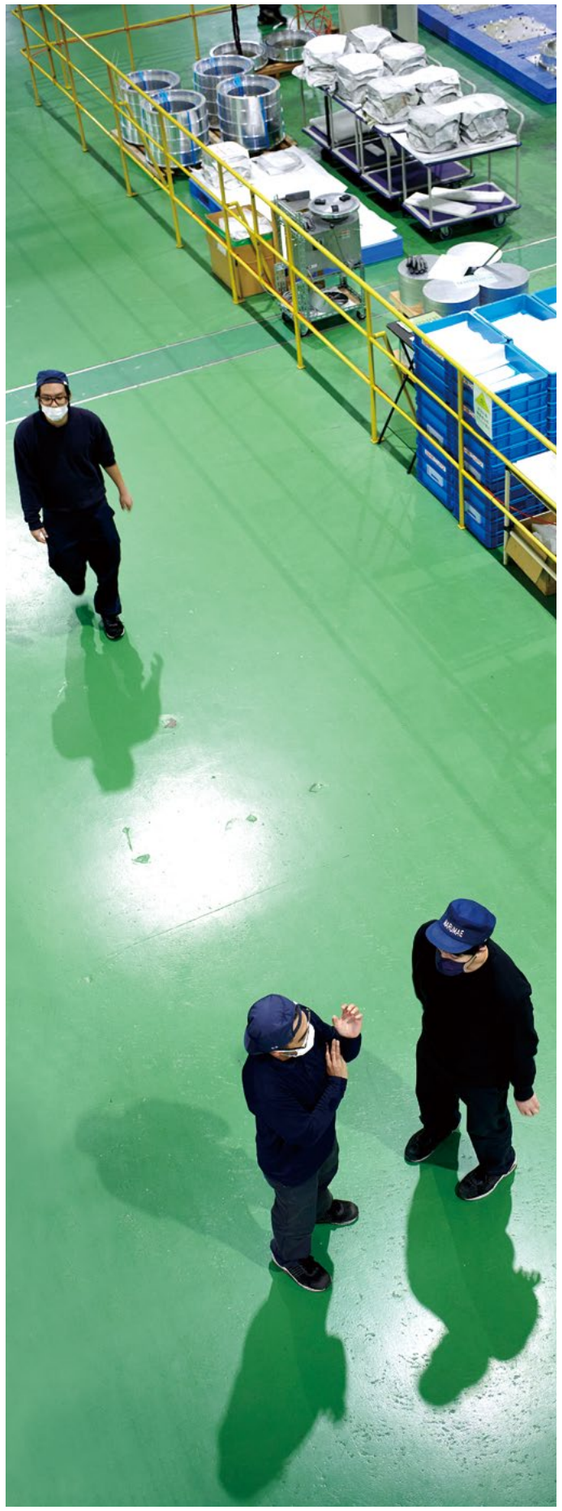
(¥ thousands)

	Previous fiscal year (from Sep. 1, 2020 to Aug. 31, 2021)	Fiscal year under review (from Sep. 1, 2021 to Aug. 31, 2022)
Net sales	5,369,639	8,585,027
Cost of sales		
Beginning finished goods inventory	6,402	15,410
Cost of products manufactured	3,562,461	5,445,023
Total	3,568,864	5,460,433
Transfer to other account	23,895	37,363
Cost of lease revenue	22,721	19,954
Ending finished goods inventory	15,410	16,152
Cost of sales	3,552,280	5,426,871
Gross profit	1,817,358	3,158,156
Selling, general and administrative expenses		
Remuneration for directors (and other officers)	98,785	116,340
Salaries and allowances	167,057	200,470
Retirement benefit expenses	1,704	5,865
Share-based payment expenses	16,000	15,991
Depreciation	28,610	25,346
Taxes and dues	29,599	56,888
Provision of allowance for doubtful accounts	649	1,704
Research and development expenses	62,238	137,156
Others	205,368	236,785
Total selling, general and administrative expenses	610,012	796,548
Operating profit	1,207,345	2,361,607
Non-operating income		
Interest income	32	49
Dividends income	2	1
Foreign exchange gains	3,746	22,090
Outsourcing service income	—	4,151
Others	7,081	6,961
Total non-operating income	10,862	33,252
Non-operating expenses		
Interest expenses	16,232	19,755
Compensation expenses	1,825	4,394
Others	1	3,941
Total non-operating expenses	18,058	28,091
Ordinary profit	1,200,149	2,366,768
Extraordinary income		
Gain on sale of non-current assets	3,635	—
Subsidy income	18,814	66,546
Total extraordinary income	22,449	66,546
Extraordinary losses		
Loss on retirement of non-current assets	158	418
Total extraordinary losses	158	418
Profit before income taxes	1,222,441	2,432,896
Income taxes - current	339,845	661,186
Income taxes - deferred	(20,106)	(45,309)
Total income taxes	319,738	615,876
Profit	902,702	1,817,019

DATA Statements of Cash Flows

(¥ thousands)

	Previous fiscal year (from Sep. 1, 2020 to Aug. 31, 2021)	Fiscal year under review (from Sep. 1, 2021 to Aug. 31, 2022)
Cash flows from operating activities		
Profit before income taxes	1,222,441	2,432,896
Depreciation	640,248	823,698
Increase (decrease) in allowance for doubtful accounts	649	1,704
Increase (decrease) in provision for losses on orders received	16,546	(3,846)
Increase (decrease) in provision for share-based compensation	16,000	15,991
Increase (decrease) in provision for retirement benefits	6,298	22,927
Interest and dividends income	(34)	(50)
Insurance claim income	(4,392)	(1,969)
Interest expenses	16,232	19,755
Foreign exchange losses (gains)	(3,746)	(15,400)
Gain on sale of non-current assets	(3,635)	—
Loss on retirement of non-current assets	158	418
Decrease (increase) in trade receivables	(309,464)	(812,218)
Decrease (increase) in inventories	(159,404)	(464,845)
Increase (decrease) in trade payables	133,572	82,701
Decrease (increase) in consumption taxes refund receivable	(253)	253
Increase (decrease) in accrued consumption taxes	(183,303)	111,814
Decrease (increase) in other current assets	(10,677)	4,290
Increase (decrease) in other current liabilities	51,914	404,445
Others	9,578	(6,235)
Subtotal	1,438,728	2,616,332
Interest and dividend income received	34	50
Interest paid	(16,291)	(20,471)
Proceeds from insurance income	4,392	1,969
Income taxes paid	(364,685)	(369,914)
Net cash provided by (used in) operating activities	1,062,178	2,227,966
Cash flows from investing activities		
Purchase of property, plant and equipment	(805,878)	(1,735,722)
Proceeds from sale of property, plant and equipment	3,635	—
Purchase of intangible assets	(7,644)	(8,942)
Net cash provided by (used in) investing activities	(809,886)	(1,744,664)
Cash flows from financing activities		
Proceeds from short-term borrowings	100,000	—
Repayments of short-term borrowings	(100,000)	—
Proceeds from long-term borrowings	400,000	1,400,000
Repayments of long-term borrowings	(409,512)	(527,012)
Purchase of treasury shares	—	(400,033)
Dividends paid	(281,209)	(462,510)
Repayments of finance lease liabilities	(679)	(2,369)
Net cash provided by (used in) financing activities	(291,400)	8,074
Effect of exchange rate change on cash and cash equivalents	3,746	15,400
Net increase (decrease) in cash and cash equivalents	(35,363)	506,776
Cash and cash equivalents at beginning of period	2,540,381	2,505,018
Cash and cash equivalents at end of period	2,505,018	3,011,795



Company Overview (as of August 31, 2022)

Company Name	Marumae Co., Ltd.
Representative	Toshikazu Maeda
Headquarters	2141 Onohara, Izumi, Kagoshima 899-0216, Japan
Established	October 1988
Fiscal Year-End	August 31
Share capital	¥1,241,150,000
Number of Employees	324 (including 145 contingent workers and 63 temporary employees)
Scope of Business	Design, manufacture, and processing of high-precision machinery Design and manufacture of high-precision machine parts Design, manufacture, and sale of industrial and medical equipment Development and sale of software Plate working Plumbing Transportation Real estate leasing

Stock Information (as of August 31, 2022)

Securities Code	6264
Stock Exchange Listing	Prime Market of the Tokyo Stock Exchange
Annual Shareholders' Meeting	November
Total Number of Shares Authorized	52,212,000
Total Number of Shares Outstanding	13,053,000 (of which 426,051 are shares of treasury stock)
Number of Shareholders	12,777
Shareholder Registry Administrator	JAPAN SECURITIES AGENTS, LTD. 1-2-4 Kayabacho, Nihombashi, Chuo-ku, Tokyo

Major Shareholders

Name	Number of Shares Held	Shareholding Ratio (%)
Toshikazu Maeda	4,822,015	38.2
The Master Trust Bank of Japan, Ltd. (Trust Account)	772,500	6.1
Misako Maeda	504,000	4.0
Tadao Kawamoto	212,900	1.7
Yoshiko Maeda	180,000	1.4
Koei Igarashi	168,000	1.3
Marumae Kyoeikai	124,700	1.0
STATE STREET BANK AND TRUST COMPANY 505019	120,200	1.0
STATE STREET BANK AND TRUST COMPANY FOR STATE STREET BANK INTERNATIONAL GMBH, LUXEMBOURG BRANCH ON BEHALF OF ITS CLIENTS: CLIENT OMNI OM25	98,215	0.8
Nomura Securities Co., Ltd.	78,500	0.6

Notes 1. Although the Company holds 426,051 shares of treasury stock, it is excluded from the above list of major shareholders.
2. The shareholding ratio is calculated by subtracting treasury stock.