

# Taking on the challenge of a new future with a focus on "the next generation"

Smaller, thinner, higher density...

Semiconductors, already necessities of contemporary society, continue to evolve at light speed toward the IoT (Internet of Things) society.

In the field of semiconductors, where technological innovations are always in demand, we at TOWA Corporation have been working with our customers as their technical partner by developing cutting-edge technologies based on our world-leading technologies for ultra-precision molds.

Moving forward, we will continue to work in "the next generation" as a field for creating a new future by operating a "quarter-lead" ahead of customer needs.

#### **Corporate Mission**

Our corporate mission is to contribute to the growth of the world's industries by developing and providing key enabling technologies for each successive generation of products.

Through our "quarter-lead" policy, we will respond to the needs of our customers and the industry at large by boldly taking on the challenge of developing innovative technologies and novel products, producing results, and contributing to the development of global industry.

#### **Basic Management Policy**

We believe that our core competence lies in our high-precision molding-related technologies, which have enabled us to develop ultra-precision molds.

By returning to this origin, we will focus on domains where we can take advantage of our core competence and optimize quality, cost and delivery (QCD) to establish a profitable structure.

In addition, we will look to the future of semiconductor packaging technologies, which continue to advance under the theme of "slimmer dimensions, miniaturization, and multi-stage configuration," and we are developing solution-based strategies in development, production, and marketing to meet market needs ahead of the competition.

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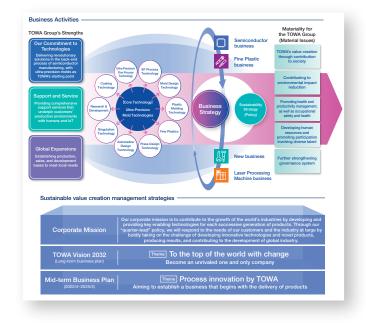
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#### **Editorial Policies**

During the preceding fiscal year, the TOWA Group published a report to provide a comprehensive overview of its financial performance and non-financial initiatives. Beginning with this fiscal year, the Group has renamed the report *TOWA Integrated Report 2023*. This edition is intended to provide stakeholders with an easy-to-understand introduction to materiality (material issues) related to the Group and its business model, as well as the strategies comprising the Group's management mission of "relentlessly improving technological standards."

In May 2023, the TOWA Group identified material issues related to its operations. Looking ahead to the Group's vision of its standing 10 years hence, as clarified in the long-term vision "TOWA Vision 2032" formulated in March 2022, these issues are focused on improving the sustainability of society by providing value while also ensuring the long-term and sustainable earning power of the Group in order to continue generating value.

Maintaining a dialogue with stakeholders is essential to ensuring the sustainable growth of the TOWA Group. We invite the reader to delve into this report and offer a candid opinion of its content.

# CHAPTER O

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# CHAPTER O

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#### Reporting Period

This report covers the company's 2022 fiscal year (April 1, 2022–March 31, 2023). Some of the information provided address events occurring outside this reporting period.

#### Scope of Report

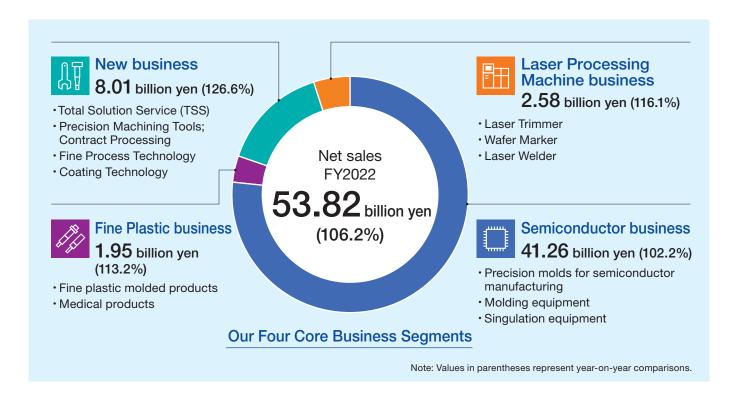
This report encompasses TOWA Corporation and the corporate members of the TOWA Group.

#### Forward-Looking Statements

Earnings forecasts and other forward-looking statements presented in this report are based on information available at the time of preparation as well as certain assumptions that we judge to be reasonable. Such statements necessarily entail uncertainties. Please note that actual results may differ significantly from these forecasts due to a variety of factors.

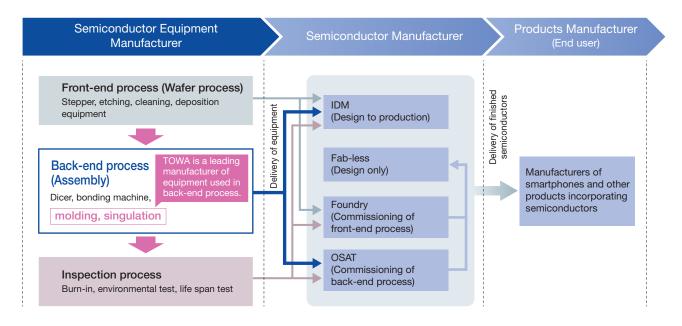
#### Overview of the TOWA Group's Business

Since its founding, TOWA Corporation has excelled as a technology developer that develops de facto standards through its deep understanding of the needs of the manufacturing sector. We continue to expand our business globally across four business segments centered on the semiconductor industry.



#### **TOWA Group's Position in Semiconductor Manufacturing**

Semiconductor equipment manufacturers can be classified as those producing specialized equipment for wafer (front-end) process, assembly (back-end) process, or inspection process, which they provide to semiconductor manufacturers. The semiconductors these manufacturers produce with this equipment are further supplied to downstream manufacturers who incorporate these semiconductors into their own products. The TOWA Group is a manufacturer of semiconductor equipment used in the back-end process.



#### **Introducing Our Business Segments**

Nature of Business

Net Sales

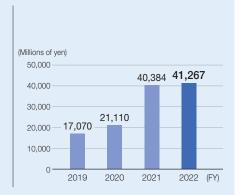


#### Semiconductor business



This is the core business of our Group. We manufacture molding equipment that encapsulates semiconductors with resin to protect the chips and molds as well as singulation equipment for wafer dicing.

See page 33 for details.



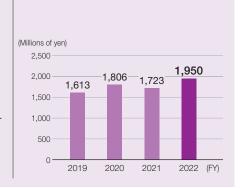


#### Fine Plastic business



We utilize the ultra-precision fine process technology we have refined through mold manufacturing to perform integrated molding and assembly of plastic products. Our main focus is the manufacture of medical products.

See page 36 for details.



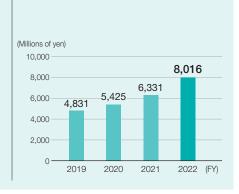


#### **New business**



We provide comprehensive support services and value-added solutions. These services include the sales of tools that benefit from the core technologies we have cultivated in ultra-precision mold manufacturing, contract processing services, parts supply, repair, and modifications.

See page 35 for details. <



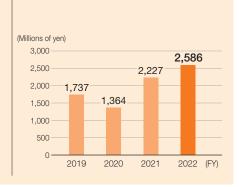


#### **Laser Processing Machine business**



We manufacture laser trimming equipment to adjust resistance values and wafer marking equipment to mark control numbers on wafers.

See page 36 for details.





We will maintain sustainable growth by using our overwhelming competitive advantage to develop advanced technologies.

## Leveraging our industry-leading technologies to develop high-value-added businesses

At TOWA, we take pride in manufacturing equipment for back-end processes in the semiconductor manufacturing sector. One of these processes is "molding" where semiconductor chips are encapsulated with a protective resin. Our company is a world leader after becoming the first in the industry to commercialize fully automatic equipment for this process. Moreover, we manufacture products used in the singulation process, in which multiple semiconductor chips protected with resin are separated into individual chips. We remain committed to utilizing our proprietary technology to expand this market.

Looking back at the history of the development of the semiconductor industry, it is evident that this sector has not grown

consistently, as it has been at the mercy of boom-and-bust periods that comprise what is known as the "silicon cycle." Because market demand for semiconductors (pronounced handoutai in Japanese) has varied greatly in times past, some have derided it as a hendoutai ("market in flux") in a Japanese play on words. Consequently, we have had to overcome challenges throughout these market cycles that have also affected our business performance. For this reason, our company has not rested on its laurels; instead, we have developed a competitive advantage through the process of striving to improve productivity and quality in semiconductor manufacturing, aiming for an even higher rate of growth.

In recent years, however, what was known as a "market in flux"

has undergone significant change. Clearly, due to the decline in demand for PCs and smartphones over the past year, inventories of NAND flash memory and similar semiconductors grew and prices have fallen sharply. As a result, capital investment plans have continued to be curtailed. Despite these trends, the semiconductor market has not completely collapsed, and demand remains strong for automotive semiconductors and power semiconductors designed to enhance energy efficiency.

TOWA continues to leverage its industry-leading technology in the development of high-value-added businesses while responding with agility to changing markets. We have succeeded in expanding our profit opportunities while remaining largely unaffected by market conditions. During the fiscal year ended March 31, 2023, we steadily fulfilled the substantial order backlog accumulated in the previous fiscal year through consistent production that contributed to a new sales record.

## Helping our customers realize improvements in quality and productivity is the focus of our manufacturing expertise.

In the semiconductor industry, which is marked by rapidly changing market conditions, our company's record of sustained growth can be attributed to our eagerness to take on the challenge of developing unique technologies, including our unrivaled ultraprecision mold machining technology. As stated in our management policy, we intend to respond to the needs of our customers and the industry at large by boldly taking on the challenge of developing innovative technologies and novel products, producing results, and contributing to the development of global industry through our "quarter-lead" attitude. Under this policy, we have made a clear effort to differentiate ourselves from our competitors by developing equipment that helps our customers stabilize or improve their quality and productivity.

In each era of our long corporate history since our company was founded, we have introduced timely technological innovations and have offered customer solutions through a number of innovative manufacturing technologies. We call this series of technological innovations the "molding revolutions." In the 1980s

the "first molding revolution" dramatically improved the quality and production efficiency of semiconductor packages. This was followed by the "second molding revolution" in the 1990s and the "third molding revolution" in the 2000s. By introducing this series of technological innovations in the semiconductor industry, we have contributed to the development of the industry while achieving sustainable growth.

At the same time, we contribute to stable equipment operation and build long-term relationships with our customers by providing "total solution services," which include detailed support services following equipment delivery. Even during the COVID-19 pandemic, we strived to provide support services with a commitment to not stopping our customers' production at any time. This included assigning Japanese technical staff with our customers outside Japan. This greatly contributed to the stability of our customers' manufacturing operations, which is also one of the reasons we have received such strong support from many of our customers.

## Remaining close to our customers to provide prompt and appropriate responses to a variety of requests

A major strength of the TOWA Group is our extensive network of sales offices and production bases in major regional hubs of semiconductor production both inside and outside Japan. This global network is characterized by wide-ranging support services and efficient production systems. We work closely with our customers to improve customer satisfaction by responding rapidly to a wide variety of requests in an appropriate manner. We now maintain locations in China, Southeast Asia, Taiwan, South Korea, North America, and Europe.

In 2021, we established a development base in Suzhou as part of our effort to strengthen our semiconductor manufacturing equipment business in China, the world's largest market for semiconductor manufacturing equipment. By establishing a development base close to our customers that is furnished with well-equipped laboratory, we have instituted a system capable of responding comprehensively to customer issues. This includes supporting prototyping and evaluation for customers in the development phase. We are pleased to have received high praise from many customers in China for our quick response during the difficult months of the COVID-19 pandemic.

Regarding our investments in the various regions of the world, we carefully assess medium- and long-term market trends while

also emphasizing the need to listen closely to the opinions of our local customers directly. When making investment decisions, it is essential that we get a sense of our customers' expectations for our company and the future potential of the semiconductor market through candid discussions with our customers on a daily basis. In the past, when global semiconductor market conditions became difficult and competitors retreated or curtailed investment, we have made the management decision to increase investment in anticipation of future prospects. We believe this bold approach has contributed to the current growth our business is enjoying.

In recent years, while keeping an eye on our next growth phase, we have been investing steadily in projects such as the construction of our Nantong Plant in China, the establishment of a development base in Suzhou, China, and the acquisition of a mold manufacturing factory in Malaysia. Although temporary market slumps in the semiconductor sector are unavoidable due to the economic cycle, we believe it is important to assess the future with a medium- and long-term perspective and invest proactively, and we will continue to do so in the years ahead. We remain committed to expanding opportunities for increased profitability through active investment.

## Developing the expertise to respond capably to 3D stacking technology, chiplets, and other next-generation semiconductor technologies

In addition to investing in global expansion and increasing our production capacity, we are actively developing cutting-edge technologies to fuel our next-generation growth. Our customers, who are major semiconductor manufacturers around the world, have submitted many inquiries regarding next-generation semiconductor technologies such as 3D stacking technology and projects aimed at mass production of chiplets. Our molding technology for the backend process is even more important, not only the front-end process, to 3D stacking of semiconductors than before, so customers have high expectations that our company can deliver in this area. In particular, our unique technology, compression molding in the molding process, will be key to differentiating us from our competitors as we

move toward mass production using 3D stacking technology. In this regard, we are taking on the challenge of developing advanced technologies that will enable us to demonstrate overwhelming competitiveness in the years ahead.

At ECTC 2023, the conference of the Institute of Electrical and Electronics Engineers (IEEE) held in the United States in May 2023, our development team earned high praise for their lecture on the results of our joint development project with Intel. Although the development concept of next-generation semiconductor technologies in this field is very challenging, we intend to leverage our strengths to meet market expectations with dependable results while contributing to the development of next-generation semiconductors.

## Increasing our profitability by commercializing the added value inherent in our technology, product quality, and processes

As I mentioned at the beginning, I believe TOWA Vision 2032 and our Mid-term Business Plan I are progressing smoothly, despite some effects from the temporary slump in the semiconductor market. We will steadily move forward with our plan, aiming for our original targets of 60 billion yen in net sales and 12.6 billion yen in operating profit in the fiscal year ending March 31, 2025, the final year of our Mid-term Business Plan I.

Although it is important to increase net sales, the most important aspect is to secure operating profit. While avoiding the accumulation of net sales that is not feasible, we are working to ensure gross profit on orders received in all regions both inside and outside Japan. As a result, thanks to our commitment to a high gross margin, we have secured an operating margin of 18.6% for the fiscal year ended March 31, 2023. Although it expected to decline slightly in the fiscal year ending March 31, 2024, we anticipate our operating margin will reach 21.0% for the fiscal year ending March 31, 2025.

We remain dedicated to increasing our profitability while providing our customers with added value accruing from the technology, quality, and processes we provide through commercialization.

One of the new products we are counting on from fiscal 2023 onward is our next-generation singulation equipment. This equipment incorporates the first technology in the industry that contributes to improved productivity, reduced labor, and resource conservation. In terms of productivity improvements, we are the first in the industry to automate a series of tasks from blade replacement to dressing, with the expectation of a 10% improvement in operating rates. In terms of reduced labor, automation can eliminate the need for workers, prevent errors and work inconsistencies, and stabilize quality. Furthermore, in terms of resource and energy conservation, we have reviewed the internal mechanisms of the equipment in order to reduce water usage by 40% and electricity consumption by 15% during operation compared to our current equipment.

Going forward, we will continue to develop new products that offer added value as we continue to introduce innovations to the semiconductor industry, with the aim of contributing to the sector as a whole and expanding profit opportunities.

## Committed to expanding our production system in anticipation of further business expansion

As our semiconductor business continues to grow, we believe it is important to expand our production system with an eye to accommodating our future growth. We are targeting net sales of 100 billion yen under our TOWA Vision 2032, so we must consider securing a production system and sufficient personnel with this in mind. We believe we have secured production space for sales of up to 70 billion yen. We intend to secure production space to accommodate an additional 30 billion yen in sales within the next four to five years.

As part of our effort to strengthen our production system, as mentioned above, we established a manufacturing subsidiary in Malaysia in April 2023, which took over a mold manufacturing business. This measure was intended to strengthen our business in Southeast Asia, which enjoys vibrant investment in automotive semiconductors and power semiconductors. Continued investment is expected from a

geopolitical risk perspective. In Southeast Asia, we already operate production bases as well as sales and service offices for semiconductor manufacturing equipment. By linking existing locations with our mold manufacturing business, we are constructing an integrated system for designing, manufacturing, and selling equipment and molds. We believe this will enable us to develop our Process Business (which provides customer value from the packaging process) and further strengthen our customer relationships with semiconductor manufacturers. In terms of human resources, we welcomed about 60 new recruits with knowledge of advanced mold manufacturing technology and wide-ranging expertise in the state of Penang, where we maintain a production base for semiconductor manufacturing equipment. We intend to continue training and hiring personnel who can be entrusted with our business in Southeast Asia.

## Developing a series of new businesses that will contribute to our medium- and long-term growth

In addition to pursuing steady growth in our primary semiconductor business, we plan to develop our other three businesses so that they become pillars of our operations in the years ahead. In terms of new businesses in particular, sales of parts and after-sales services under our Total Solution Service are doing well, and sales continue to expand. Among these, our modification business, which is centered in South Korea, and sales of singulation blades are doing particularly well. The modification business has a very high operating margin and is highly profitable; moreover, because it is associated with the sustainable development goals (SDGs) and the concept of the circular economy, we intend to actively expand it into other regions, mainly in Asia.

Furthermore, in March of last year, we built a new plant at our Kyoto East Plant to strengthen manufacturing and sales of end mills used in ultra-precision mold machining. We are now able to secure stable orders as we aim for further growth. We also have high expectations for the coatings business. We have developed

the BANCERA-OPT series of new coating (trademark and patent pending) that combines hardness and anti-reflection properties. It is also attracting attention for application around sensors related to driving support technologies in motor vehicles. In the future, we intend to develop this as a new business with a view to mediumand long-term growth by moving forward with the application to not only plastic forming molds but also business-to-consumer products, including super water-repellent products.

Beyond this, we are leveraging our expertise in customer production to develop new businesses with a view to business models such as electronics manufacturing service (EMS) and subscriptions. We are eager to expand profit opportunities over the short, medium, and long terms.

#### Addressing sustainability management issues in anticipation of the future

Regarding the implementation of sustainability management, we are addressing a variety of issues with a proactive approach.

In working toward carbon neutrality, the TOWA Group aims to reduce its  $CO_2$  emissions by 42% by fiscal 2030 relative to fiscal 2020 levels and to achieve net zero by fiscal 2050. Our main initiative is to install solar power generation systems at our locations around the globe. To date, we have installed solar power generation systems at four locations of our Kyoto East Plant, Suzhou and Nantong, China, and Malaysia. These installations have reduced our  $CO_2$  emissions by about 2,400 metric tons in fiscal 2022.

Furthermore, our molding equipment and singulation equipment all contribute to greater efficiency in terms of energy, resources, and labor, and we believe that our products also help reduce our environmental impacts. By continuing to pursue manufacturing with an emphasis on sustainability, we intend to reduce the environmental impacts of the operations of those who use our equipment.

With regard to management of our human capital, we will continue to steadily advance health and productivity management; invest in human resources through base pay increases and special bonuses; strengthen the education and training system, which includes passing on core technologies and our corporate culture. In short, we will create a workplace environment in which each and every employee is motivated to do their best. Regarding corporate governance, we have appointed a new female outside director in June of last year, bringing the number of female directors to two. We will continue to strengthen the effectiveness of our governance in accordance with the Corporate Governance Code.

In 2014, when our net sales exceeded 17 billion yen, I announced that we would aim for 50 billion yen, which surprised

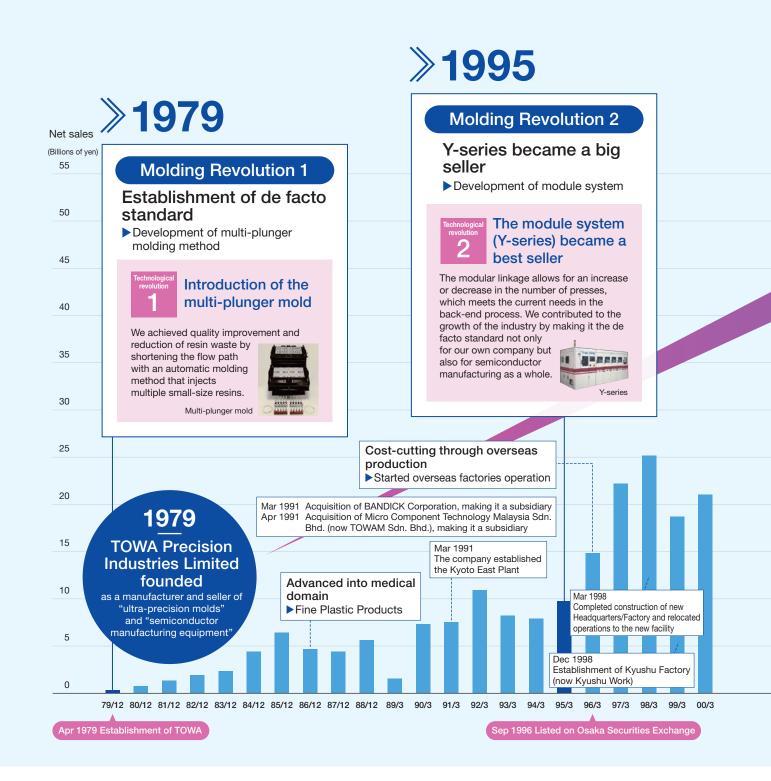
our employees. However, strangely enough, the figure of 50 billion yen took hold within the company, and our employees worked together to achieve this goal. I believe that this kind of organizational unity is also one of TOWA's strengths. Going forward, we will dedicate ourselves to achieving net sales of 60 billion yen and even 100 billion yen. As we pursue these new levels of sales growth, we will continue to focus on increasing corporate value. We look forward to the continued support of all our stakeholders as we pursue these targets.

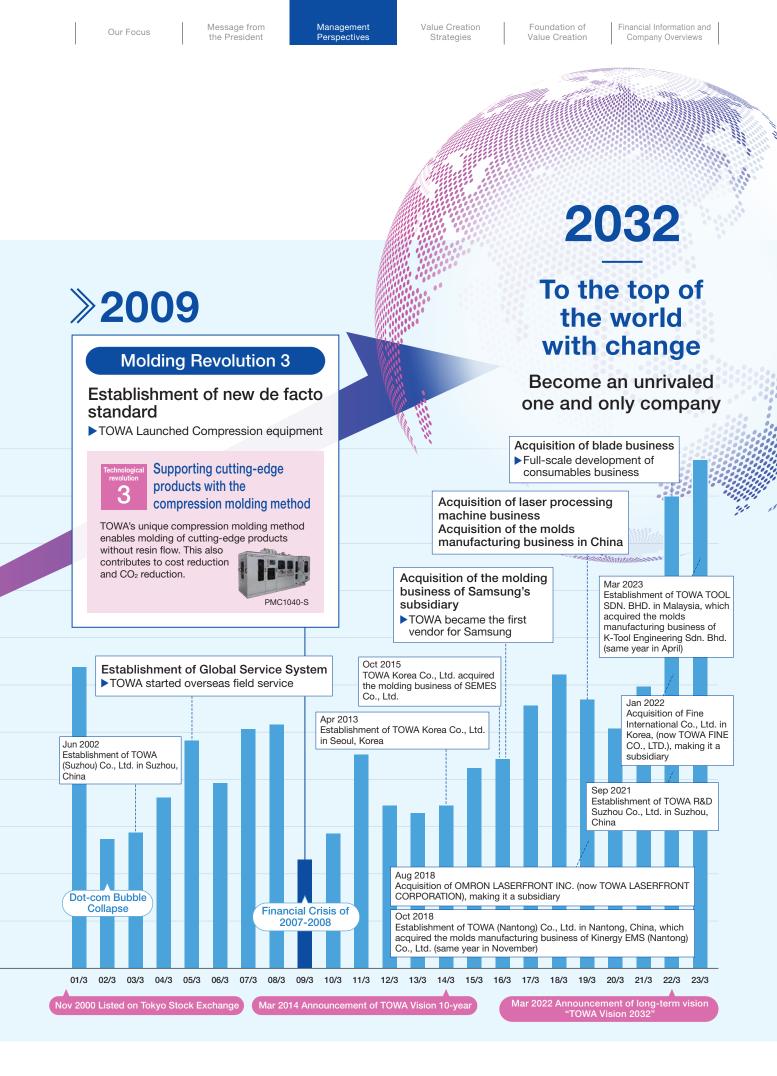




#### History of the TOWA Group

TOWA has continued to walk hand in hand with the semiconductor industry during its period of rapid growth. Our history is one of technological revolutions, and since our founding in 1979, we have continued to grow through epoch-making technological revolutions. The development of the multiplunger marked the beginning of this trend. Since then, we have always been at the forefront of this industry, creating new technologies and products.

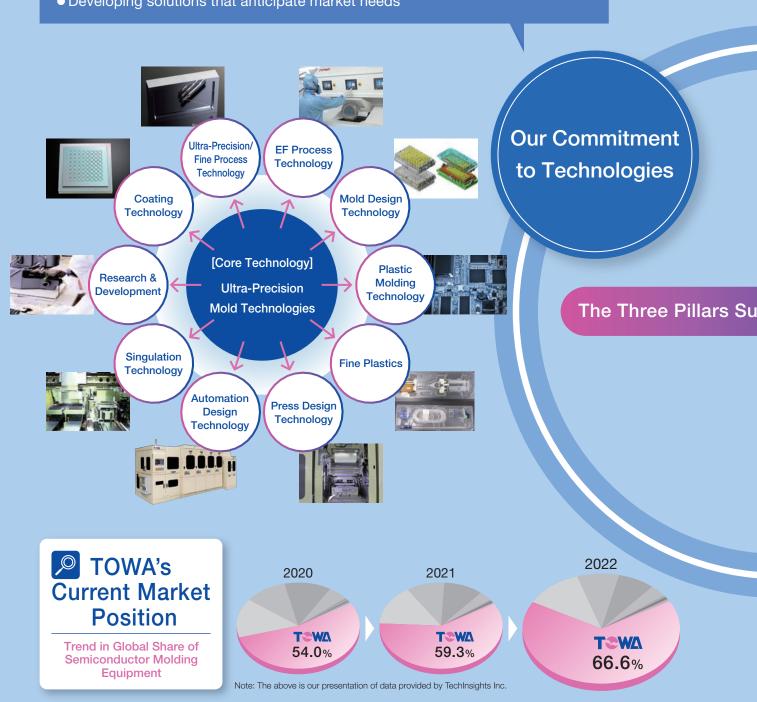




#### Strengths of the TOWA Group

TOWA's technological foundation was established over many years by our predecessors, who demonstrated their passion for manufacturing through a commitment to research and development. This approach, which includes after-sales support, represents our greatest strength and serves as an asset we use to grow our total solution services. We have expanded our development, production, and sales hubs around the world to position ourselves close to our customers. This enables us to respond quickly and appropriately to customer demand in terms of development, manufacturing, and supply.

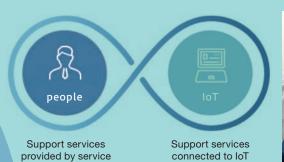
- Core competence: mold manufacturing technologies used for our ultra-precision
- Developing solutions that anticipate market needs



Total Solution Service (TSS)
 Support Services
 Parts Supply Services
 TEN-System Support System
 Productivity Improvement Services
 Proposals for Adding Value

- Training Center
- Laboratory

Support and Service



engineers



pporting TOWA's Growth

• Establishing sales and production bases in major semiconductor-producing regions Constructing a service system to respond flexibly to market changes Global Europe North America Expansions China South Korea Taiwan Southeast Asia Production Base Sales Office Expansion in North America, Service Facility Europe, China, South Korea, Training Center and Southeast Asia Laboratory

#### Products and Technologies of the TOWA Group

The TOWA Group's greatest strength is its technological expertise. We have continued to share our cutting-edge technologies with the world, especially our advances in the back-end process of semiconductor manufacturing. Our starting point was the development of a module system for ultra-precision molds. The ultra-precision fine process technology we cultivated as a result furnished us with a stepping stone to the fine plastic business and other new businesses. A variety of technologies, including our unrivaled compression molding, are contributing to further technological development around the globe.

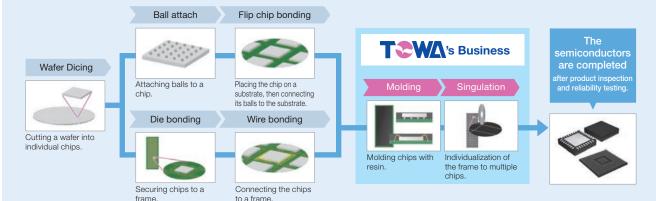


Semiconductor

## Revolutionary solutions for the back-end process of semiconductor manufacturing

Front-end and back-end processes The manufacture of semiconductors involves both front-end and back-end processes, and TOWA is a manufacturer of equipment used in the back-end process.

The back-end process includes lining up the semiconductor chips on a substrate, connecting the gold wires, covering the chips with resin to protect them, cutting them into pieces, and testing their operation. The process of covering (molding) chips with resin is called molding and the process of cutting is called singulation, and we at TOWA have been thoroughly pursuing the performance of these devices.

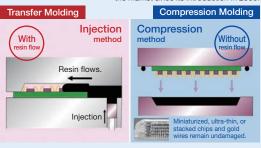


## Our compression equipment demonstrating overwhelming superiority in molding processes

Transfer molding has been used for many decades to inject resin into the recesses of enclosed molds. This approach creates an issue whereby the gold wires are distorted by the flow of resin during injection, damaging the delicate chips. Our unique compression equipment provides a solution to this problem. The compression molding method, which removes the influence of flow by simply immersing the product in resin, has made it possible to seal advanced products and significantly reduce costs.

Compression molding is ideal for next-generation packages such as 2.5D and 3D packages. They represent our technological advantage because these new packages are expected to grow in anticipation of accelerating demand for semiconductors associated with next-generation technologies such as autonomous driving, 5G communications, AI, and IoT.





Substituting compression molding for transfer molding is a packaging solution. Compression molding has become the indispensable technique for high-end products such as memory chips.

## Expanding our market share with singulation equipment demonstrating industry-first features

Our singulation equipment cuts semiconductor panels, which have been sealed in the molding process, into individual pieces. Our equipment is capable of cutting pieces as small as 1 mm  $\times$  1 mm, the smallest dimensions in the industry.

Our company was the first in the industry to begin manufacturing singulation equipment. This segment has recently shown remarkable growth and has come to occupy an important position in our semiconductor business alongside our molding equipment. This fiscal year, we plan to start selling new labor-saving models in an effort to acquire new customers.





Fine Plastic

## Contributing to medical care with plastic molding processes utilizing nanotechnology





Cleanroom Molding of fine plastics for medical use

Medical products make up the core of the fine plastic business, with the main lineup being fine plastic molded products for medical use, such as medical syringes, intravenous drip components, and anti-adhesion spray kits. Our original ultraprecision and fine process technologies enable high-precision mass-production molding, and our core technology of "injection molding to assembly" in clean room facilities is characterized by one-stop production from inspection to shipping.

For example, our anti-adhesion sprays are a medical innovation that prevents adhesion between internal organs and minimizes post-surgical complications. The need for these products has increased alongside the progress of medical technology.



New business

#### Developing new businesses by applying TOWA's core technologies

We are developing our TSS business, which offers total solutions, including sales of our proprietary end mills (tools) that support our ultra-precision machining technology for dies and molds, contract processing business that applies our ultra-precision machining and coating technologies, after-sales service, modification and repair of our semiconductor manufacturing equipment, and sales of used equipment.





CBN End Mill Series

High-hardness anti-reflective ceramic coating

#### Value Creation Process of the TOWA Group

As demand for semiconductors increases rapidly for various applications, customers have growing expectations for the TOWA Group. With an eye on contributing to the resolution of social issues such as how to achieve sustainability, we will continue to pursue further growth and increase corporate value through a business model that only we can create, aiming to become an unrivaled one and only company.



#### **BUSINESS MODEL**

#### **Financial Capital**

Total Assets
73,468
million yen

Total Net Assets 47,623 million yen

#### **Manufacturing Capital**

Capital Expenditure

2,570

million yen

Production Base
Japan: 5 bases
Overseas: 6 bases
(As of April 2023)

#### Intellectual Capital

Research and Development Expenses Number of patents held

Japan: 42

914 million yen Japan: 425 Overseas: 817

#### **HR** Capital

Consolidated number of employees 1,876

#### **Social Capital**

Global Network (Number of consolidated subsidiaries)

18

(Japan: 3; Overseas: 15)

#### **Natural Capital**

Total energy consumption (electricity)
39,792 MWh

Total water consumption 89.33 thousand m<sup>3</sup>

Figures represent FY2022 full-year amounts or those as of the end of FY2022, excluding production bases of manufacturing capital.

#### **Business Activities**

#### **TOWA Group's Strengths**

#### Our Commitment to Technologies

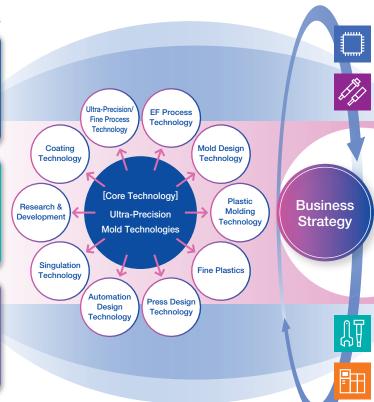
Delivering revolutionary solutions in the back-end process of semiconductor manufacturing, with ultra-precision molds as TOWA's starting point

#### **Support and Service**

Providing comprehensive support services that underpin customers' production environments with humans and IoT

#### **Global Expansions**

Establishing production, sales, and development bases to meet local needs



#### Sustainable value creation management strategies

#### Corporate Mission

Our corporate mission is to contribute to the growth providing key enabling technologies for each succe "quarter-lead" policy, we will respond to the needs of boldly taking on the challenge of developing inno producing results, and contributing to the

TOWA Vision 2032

(Long-term business plan)

Theme To the top of the war Become an unrivaled one a

Mid-term Business Plan (2022/4-2025/3) Theme Process innova Aiming to establish a business that begin

#### **OUTPUT / OUTCOME**

Materiality for the TOWA Group Semiconductor (Material Issues)

> TOWA's value creation through contribution to society

> > Contributing to environmental impact

Promoting health and productivity management, as well as occupational safety and health

**Developing human** resources and promoting participation involving diverse talent

**New business** 

Sustainability

Strategy

(Policy)

business

business

Fine Plastic

governance system

**Laser Processing** Machine business

of the world's industries by developing and ssive generation of products. Through our our customers and the industry at large by vative technologies and novel products, development of global industry.

orld with change and only company

tion by TOWA ns with the delivery of products

reduction

**Further strengthening** 

#### (TSS) • Precision Machining Tools; Contract Processing · Laser Trimmer Wafer Marker · Laser Welder Fine Process Technology Coating Technology Net sales 53.82 billion yen

Economic value

Strengthening the foundations to reach

"the top of the world"

2022/4-2025/3

FY2022 Results

60.0 billion yen

12.6 billion yen

Laser Processing

Machine business

2.58 billion yen

21.0%

#### Fine Plastic business

Net sales

Operating income

Operating margin

New business

8.01 billion yen

· Total Solution Service

- 1.95 billion yen · Fine plastic molded
- Medical products

#### Semiconductor business 41.26 billion yen

- Precision molds for semiconductor manufacturing
- Molding equipment
   Singulation equipment





Fine Plastic Molded



#### Long-term business plan **TOWA Vision 2032**

#### Achievement target

Achieve sales of 100 billion yen and high profit margin

Target figures for the fiscal year ending March 31, 2032

100.0 billion yen Net sales

25.0%

- Operating income 25.0 billion yen
- Operating margin

#### TOWA wants to be

- The world's leading company that continues to create customer value through packaging process proposals
- A company that realizes sustainable society with TOWA's technology
- A well-known company realized by proactive information dissemination
- A company where employees can work with a smile, where corporate culture is passed on and diverse values are respected

#### Materiality for the TOWA Group

#### Identification of materiality (material issues)

We have identified the materiality (material issues) for the TOWA Group. Toward what TOWA wants to be 10 years hence, as clarified in the "TOWA Vision 2032," or our long-term vision, we will strive to improve the sustainability of society through the provision of value to society, while at the same time enhancing long-term and sustainable "earning power" of the Group and encouraging further value creation.

#### Identification process

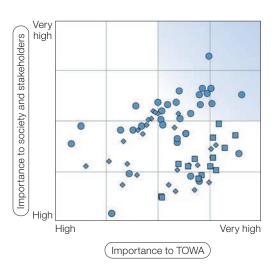


**Analysis** 

(STEP3)

Identification

- Comprehensively identify social issues on the basis of ESG and CSR guidelines set forth in the GRI Standards and the UN Global Compact, as well as evaluation items that ESG evaluation organizations consider important.
- Identify internal issues by referring to materials used when examining the Long-Term Vision and Mid-Term Business Plan, as well as risk study materials used by the Group and each department.
- Outline the identified issues and distribute a questionnaire targeting each department at our company.
- Analyze the importance of the issues from the viewpoints of society, stakeholders, and the Group, and prepare a proposal for material issues through internal discussions by reviewing and utilizing the materiality matrix.
- Bring together and finalize the proposals.
- Determine material issues after discussions with the management and deliberation and approval by the Board of Directors.



Items with high importance were analyzed using a graph plotting importance to society and stakeholders on the vertical axis and importance to TOWA on the horizontal axis.

#### Connection with "what TOWA wants to be" in "TOWA Vision 2032"

We have identified, put together, and finalized materiality as issues that we must work on in pursuit of what TOWA wants to be 10 years hence as a top international company, which will increase corporate value by being addressed and achieved.

# TOWA wants to be Long-Term Vision "TOWA Vision 2032" The world's leading company that continues to create customer value through packaging process proposals A company that realizes sustainable society with TOWA's technology A well-known company realized by proactive information dissemination A company where employees can work with a smile, where corporate culture is passed on and diverse values are respected



#### Materiality for the TOWA Group

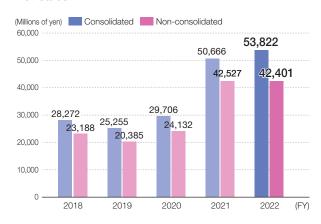
Message from the President

Materiality	Initiatives	Related SDGs
TOWA's value creation through contribution to society	<ul> <li>As stated in our management policy, we intend to respond to the needs of our customers and the industry at large by boldly taking on the challenge of developing innovative technologies and novel products, producing results, and contributing to the development of global industry through our "quarter-lead" attitude. Under this policy, we aim to become a world-leading company that continues to create value, as we strive to enhance customer trust and satisfaction.</li> <li>We will contribute to the realization of a sustainable society by utilizing technologies based on TOWA's core competence and by taking initiatives with our eyes set on social issues.</li> <li>We will actively disseminate information about our initiatives to increase our name recognition.</li> </ul>	9 March American  9 March Newtoners  12 American  American  13 (Linux)  17 American  American  To march March  To ma
Contributing to environmental impact reduction	<ul> <li>We will work to reduce CO<sub>2</sub> emissions in our business operations and promote the introduction of renewable energy sources, aiming to achieve carbon neutrality throughout the Group.</li> <li>We will move ahead with eco-friendly development for our own products, and provide eco-friendly products and services to contribute to our customers' decarbonization and environmental measures. We will also pursue a circular economy (economic activities that reduce waste generation and recycle products while maintaining high value) through our modification business, sales of used equipment, and TSS (Total Solution Service).</li> <li>We will promote environmental preservation efforts through our environmental management system, reduce waste, and strictly control environmentally hazardous chemical substances.</li> </ul>	7 distribution of the control of the
Promoting health and productivity management, as well as occupational safety and health	<ul> <li>We will put into practice our belief: "when employees are healthy and full of energy, both physically and mentally, the company's business will flourish." By maintaining and promoting health; improving the work environment and occupational safety; and enhancing employee engagement we will create an environment in which our employees can work with joy and satisfaction.</li> <li>We will promote workstyle reforms by improving operational efficiency through DX.</li> </ul>	3 MOR HALLING  A POLITY  HOSCATION  B SECON MORE AND  COMMON CHIEFT  B COMMON CHIEFT  A POLITY  HOSCATION  HOSC
Developing human resources and promoting participation involving diverse talent	(risk).  • We will respect diversity and create an environment in which diverse human resources can play a more active role.	
Further strengthening governance system	We will proceed with corporate governance and compliance initiatives to strengthen our governance structure.     Strengthening of risk management     Strengthening of BCP system     Strengthening of intellectual property strategy     Strengthening of information security     Initiatives for personal information protection	5 GAMEN BY THE PROPERTY OF T

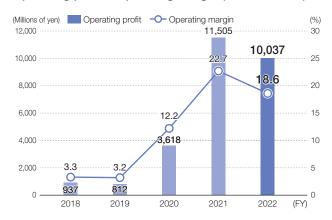
#### Financial and Non-financial Highlights

#### **Financial Highlights**

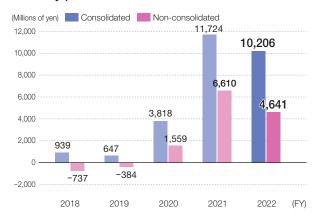
#### Net sales



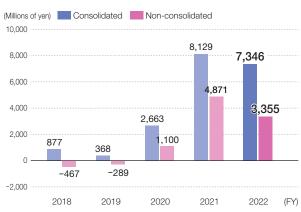
#### Operating profit / Operating margin (Consolidated)



#### Ordinary profit

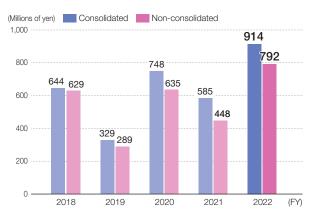


#### Net profit

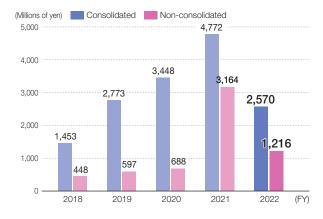


\*Consolidated figures represent net profit attributable to owners of parent.

#### Research and development expenses

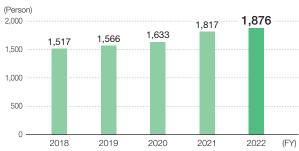


#### Capital expenditure



#### Non-financial Highlights

#### Number of consolidated employees



Message from

the President

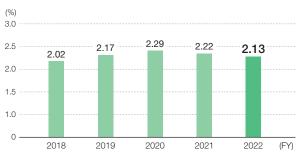
\*Calculated the total number of permanent employees and fixed-term contract employees as of the end of each fiscal year.

#### Education/training hours and number of participants



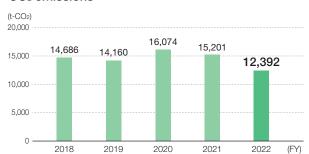
\*Totaled only the common training hours of the TOWA employees

#### Percentage of employees with disabilities



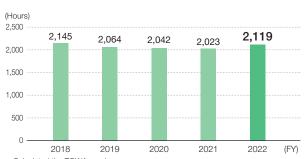
\*Calculated the actual employment rate throughout the year \*Calculated the TOWA employees

#### CO<sub>2</sub> emissions



Figures represent the total of five production bases, including group companies in Japan, and four production bases of overseas group companies. For the CO2 emission factor, the Ministry of the Environment's list of emission factors by electric company is used for Japan, the published value of the Korea Electric Power Corporation for South Korea region, and the Emissions Factors issued by the IEA for other regions. For the CO<sub>2</sub> emission factor of fuel, the values published by domestic gas companies and the calculation method and emission factor list by the Ministry of the Environment are used.

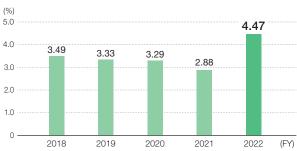
#### Total annual working hours per employee



\*Calculated the TOWA employees

\* Excluding retired employees, employees on leave, and seconded employees

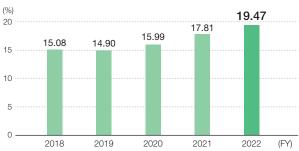
#### Turnover rate of regular employees



\*Calculated by the formula: the number of retired employees by the end of each fiscal year ÷ the number of employees at the beginning of the year × 100. (not including employees who retired at the mandatory retirement age)

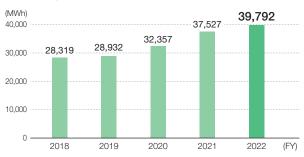
\* Calculated the TOWA employees.

#### Percentage of female employees



\*Calculated at the end of each fiscal year \*Calculated the TOWA employees

#### **Electricity consumption**



Figures represent the total of five production bases, including group companies in Japan, and four production bases of overseas group companies



#### Long-Term Vision "TOWA Vision 2032"

In March 2022, TOWA formulated its long-term vision "TOWA Vision 2032," a new challenging theme for the next 10 years to create a paradigm shift and move to a completely different and higher stage, thereby becoming an unrivaled one and only company in the world.

#### Long-Term Vision -

#### "TOWA Vision 2032"

#### Theme "To the top of the world with change"

The top of the world means to be literally at the top ranking worldwide and to become an unrivaled one and only company. To this end, we have set goals to be achieved in steps, reexamined what kind of company TOWA should be in the future, and defined "what TOWA wants to be" 10 years hence, which is summarized in four points that we should aim for.

#### Mid-term Business Plan I

#### Strenathenina the foundations to reach "the top of the world"

#### 2022/4-2025/3

Target figures for the fiscal year ending March 31, 2025

60.0 billion yen Net sales 12.6 billion yen Operating profit 21.0% Operating margin

#### Challenges and leap to

Mid-term Business Plan II

#### the new tasks

#### 2025/4-2028/3

Target figures for the fiscal year ending March 31, 2028

76.0 billion yen Net sales Operating profit 16.7 billion yen 22.0% Operating margin

#### Mid-term Business Plan Ⅲ

Achieving sales of 100 billion yen and high profit margin

#### 2028/4-2032/3

Target figures for the fiscal year ending March 31, 2032

100.0 billion yen Net sales 25.0 billion yen Operating profit 25.0% Operating margin

Our previous long-term vision (from April 2014 to March 2022) started with net sales of 17.1 billion yen in fiscal 2014, and had the major goals of net sales of 50 billion yen, operating profit of 8 billion yen, and an operating margin of 16% in 10 years. To achieve these goals, we made aggressive capital investments in anticipation of market trends. As a result, we achieved these

goals two years ahead of schedule in the fiscal year ended March

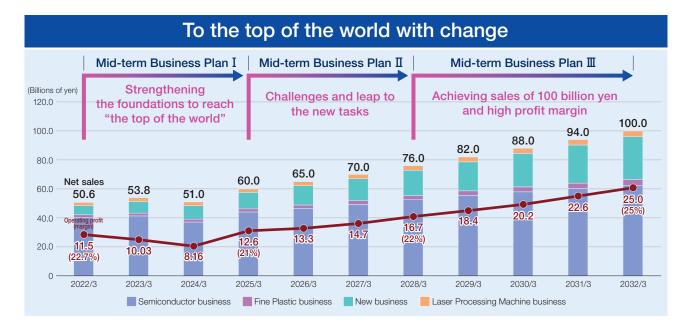
Under the theme of "To the top of the world with change," TOWA Vision 2032 aims to achieve net sales of 100 billion yen, operating profit of 25 billion yen, and a high operating margin of 25.0% in the fiscal year ending March 31, 2032.

We will seek to achieve the performance targets of TOWA Vision 2032 with the 10 years through fiscal year ending March 31, 2032 divided into three phases: Mid-term Business Plans I,  $\mathbb{I}$ , and  $\mathbb{I}$ .

31, 2022.

Positioning the first three years as the period for "strengthening the foundations to reach 'the top of the world,'" we will actively make investments in the development of new technologies and production facilities, foster human resources to pass on TOWA's technologies to the next generation, and acquire human

resources to expand our operations. As we will also invest in Digital Transformation (DX) to improve efficiency, margins will temporarily decline in the Mid-term Business Plans I. However, operating margins are expected to improve from the Mid-term Business Plan II onward due to the effects of these investments.



#### What TOWA wants to be 10 years hence (2032)

We reexamined what kind of company TOWA should be in the future, and defined what TOWA wants to be 10 years hence as follows.

The world's leading company that continues to create customer value through packaging process proposals	We will create value that our customers can obtain from our technology and knowledge related to the packaging process TOWA is proud of.		
A company that realizes sustainable society with TOWA's technology	We will contribute to the realization of a sustainable society by utilizing TOWA's technologies in various fields.		
A well-known company realized by proactive information dissemination	In our expansion into new businesses with securing human resources and BtoC in mind, we will strive to actively engage in PR activities because we believe it is necessary to raise our name recognition in society at large.		
A company where employees can work with a smile, where corporate culture is passed on and diverse values are respected	We will pass on the DNA we cultivate even over the next ten years. At the same time, we aim to be a company that respects diverse values that change with the times and cares about its employees by responding to them flexibly.		

#### Materiality for the TOWA Group

TOWA's value creation through contribution to society

Contributing to environmental impact reduction

Promoting health and productivity management, as well as occupational safety and health

Developing human resources and promoting participation involving diverse talent

Further strengthening governance system

For 2023, we have identified the materiality for the TOWA Group as issues that must be addressed in order to achieve what TOWA wants to be and that will increase our corporate value by addressing and resolving them. We will aim to be at the top of the world by continuously improving our "earning power" and creating further value.

#### Progress with the Mid-term Business Plan I (from April 2022 to March 2025)

TOWA aims to establish a "business that starts after the product is delivered" by transforming its business from a conventional format that views completion as after delivery of "equipment and molds" and receiving payment from the customer. Specifically, TOWA will create a business model where it brings innovation to the semiconductor packaging process and provides more efficient production processes and services to customers, thereby making profits.

## Under the theme of "Process innovation by TOWA," we will solidify the foundation to reach the top of the world.

The Mid-term Business Plan I is a three-year plan covering the period from April 2022 to March 2025. We aim to achieve net sales of 60 billion yen and operating profit of 12.6 billion yen in three years. We intend to make these three years a period for solidifying the foundation to achieve our long-term vision.

## Numerical targets for the Mid-term Business Plan I — Solidifying the foundations to achieve our long-term vision

Mid-term Business Plan I Strengthening the foundations to reach "the top of the world"	(	Billions of yen)	2023/3 Results	2024/3 Forecasts	2025/3
2022/4-2025/3		Net sales	53.82	51.00	60.0
Target figures for the fiscal year ending March 31, 2025		Semiconductor business	41.26	37.06	44.0
Net sales 60.0 billion yen	Breakdown	Fine Plastic business	1.95	2.00	2.2
Operating profit 12.6 billion yen		New business	8.01	9.34	11.2
Operating margin 21.0%		Laser Processing Machine business	2.58	2.60	2.6

#### Five Basic Polices for the Mid-term Business Plan I

By creating a shift in mindset, we will go beyond "selling products" and develop a business that sells TOWA's added value.		
We will thoroughly work to increase sales, reduce inventories, accelerate collection of accounts receivable, shorten lead time and development periods, and lower material costs, outsourcing and other expenses.		
We will continue to leverage TOWA's core technologies, including ultra-precision, fine process, and coating technologies.		
Regarding the development of "human resources," which served as a major factor in achieving our previous 10-year vision, we will produce more human resources who are willing to take on challenges and who are suitable for a 100-billion-yen company.		
In accordance with our Basic Sustainability Policy, we will conduct activities with consideration for their impact on the global environment, connection with local and international communities, and the safety and health of all stakeholders.		

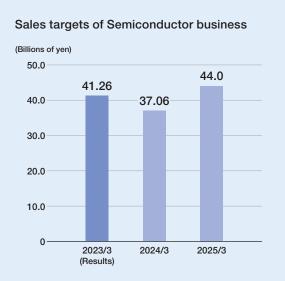
#### **Business Strategies**



#### Semiconductor business

We will take advantage of TOWA's proprietary technologies, such as compression technology, as well as knowledge and experiences accumulated as a leading molding equipment manufacturer, and apply this added-value in the operation of our business.

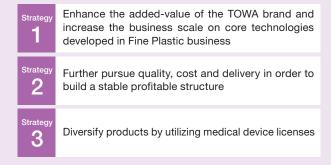


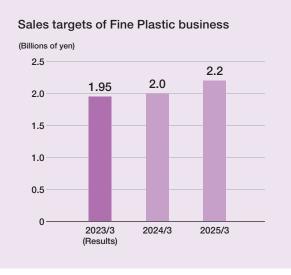




#### Fine Plastic business

Based on the core technologies we have developed, we will enhance added-value of our brand and diversify our product lineup by leveraging our medical device licenses. Since this business is deeply involved in the medical field and requires high standards in terms of quality, cost and delivery, we will pursue these standards in quality, cost and delivery more than ever to build a stable profitable structure.





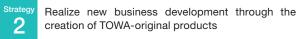
#### **Business Strategies**

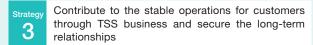


#### **New business**

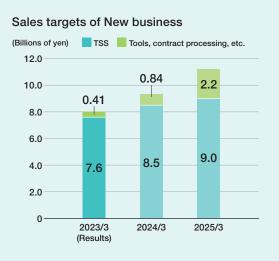
We aim to create TOWA-original products by applying our core technologies such as ultra-precision, fine process, and coating technologies. At the same time, we will expand our TSS (Total Solution Service) business. We will also utilize our global production bases to increase our competitiveness in terms of both technology and cost.









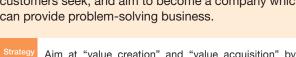


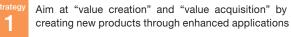


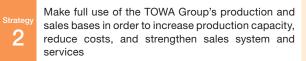
#### **Laser Processing Machine business**

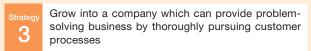
For a manufacturer, it is natural to create products like never before or that are better than ever before, but if these products fail to gain value (profit), they will greatly diminish the significance of our corporate activities. Based on the technology and knowledge of our laser business, we will strengthen applications and create new products while also achieving "value creation" and "value acquisition."

Furthermore, we will thoroughly pursue our customer processes, deepen our understanding of the value that customers seek, and aim to become a company which can provide problem-solving business.

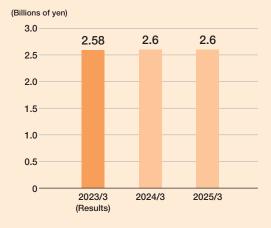








#### Sales targets of Laser Processing Machine business



#### Strategies by Function

#### Sales strategies

Message from

the President

- 1 Enhance process support and build business models that can be produced only with our technology, thereby expanding sales and improving profitability
- 2 Expand the range of utilization of our proprietary compression devices
- Build a global sales, management system and service system in order to increase customer satisfaction



#### **Development strategies**

- 1 Develop new products that meet the needs of our customer through paradigm shift
- 2 Establish de facto standards through mold process development and the next-generation molding innovation
- 3 Promote the environment-friendly development that considers SDGs and ESG



#### **Production strategies**

- 1 Optimize our global production and purchasing system in order to reduce costs and shorten lead times
- 2 Improve production technologies in order to increase confidence in quality
- 3 Work to make high-value-added products with DX
- 4 Nourish human resources and build a business structure that can respond to changes in the environment (risks)



#### Human resources/organizational strategies

- 1 Global expansion of TOWA bases for wide-ranging business support from process development to solution proposals
- 2 Nourish global human resources who lead the next generation
- Promote work style reform by improving operational efficiency with DX
- 4 Found "TOWA Academy" for passing down TOWA's technologies and culture





Many automotive electronics products are essential for CASE that revolutionizes today's motor vehicles.

The next generation of technological innovations being adopted in the automotive sector has progressed dramatically in recent years due to trends in connectivity, autonomous driving, service sharing, and electrification, abbreviated collectively as CASE. As a result, the type and number of electronic products installed in automobiles have increased significantly. The various types of automotive electronics being adopted include image sensors, millimeter-wave radar sensors, and other devices used in advanced driving assistance systems (ADAS) that improve safety and reliability while enabling advanced autonomous driving. Other devices include the electronic control units (ECUs) used to control these electronic devices. ECUs are used in many ways, and several types exist, such as those that control engines and drive systems and those that control electrical equipment such as lights and air conditioners. What's more, power semiconductors, which control the large



A number of resin molding processes are used for automotive electronics products.

amounts of power supplied from the battery to the motor, are used in electric, hybrid, and other environment-friendly vehicles. Demand is increasing for this core device that is responsible for improved environmental performance.

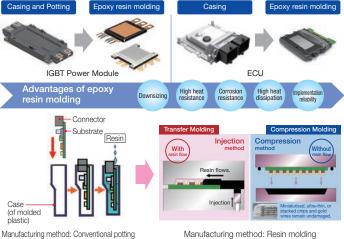
Today, as the adoption of these automotive electronics products continues to grow, the need for resin molding process, which is our specialty, increases as well.

#### Resin molding of automotive electronics products

The requirements of automotive electronics products are stringent: they must be compact, lightweight, low cost, highly reliable, and highly functional. Moreover, engines and electric motors must operate in harsh environments typified by exposure to heat, oil, dust, and vibration. If ECUs and power semiconductors, typically connected to the drive system with electrical wiring and installed away from engine/motor rooms, could be integrated with motors and reduction gears through electromechanical integration, the result would be smaller, lighter, and simpler assemblies manufactured with improved productivity.

In order to overcome these issues and reap the benefits, growing demand and high expectations are prompting a shift from conventional manufacturing methods such as casing and potting to manufacturing methods employing resin molding, which is our core technology.

Batch molding with epoxy resin results in downsizing and weight reduction through modularization.



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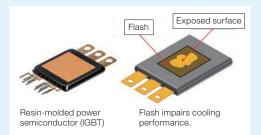
#### TOWA's sealing technology and solutions that enhance reliability of automobiles

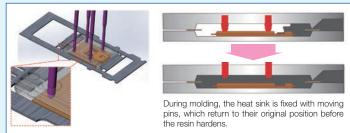
For automotive electronics products, ensuring reliability is a critical issue in order to achieve the goals of compact design, low weight, and high efficiency.

We provide resin molding solutions for automotive electronics products that can be used in harsh environments. Thanks to our innovations, we are improving the safety and reliability of automobiles, supporting highly automated driving, and popularizing next-generation environment-friendly vehicles.

#### Exposed molding of heat sinks and sensors

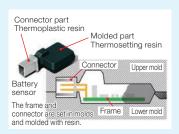
Power semiconductors are typically provided with a heat sink attached to the surface. In order to ensure a stable operating temperature during use, the heat sink is connected to a surrounding cooler to dissipate heat effectively. For next-generation power semiconductors made of silicon carbide (SiC) and gallium nitride (GaN), sufficient heat dissipation is particularly important because these devices are often used to control large amounts of power and operate at high temperatures. To prevent flash from forming on the exposed heat sink on the surface of the product, we use moving pin molding technology that temporarily fixes the heat sink with moving pins during resin molding. Film-assisted molding technology is also used that takes advantage of the elastic properties of the film; for example, camera and sensor parts that support autonomous driving and driving assistance are made with delicate molding technology that secures the sensor through a film so that the sensor itself is not covered with resin.





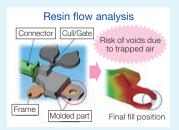
#### Batch molding of a connector

With this technology, a connector and a frame on which a chip is mounted are set in molds and molded together as a sensor module.



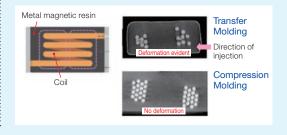
#### Vacuum molding

Eliminating air from molds before resin injection improves resin filling of complex shaped parts, contributing to higher quality.



#### Applying compression molding to power inductors

Power inductors (coils) used in various devices such as automobiles and smartphones are required to be compact and thin. Compression molding without resin flow can prevent any deformation of the delicate coils.





Transfer molding equipment can handle exposed heat sinks, as well as automotive and power semiconductors of various shapes and thicknesses.



Compression molding equipment prevents the stresses caused by resin flow. This molding method is ideal for communication devices, sensors, and high-capacity storage devices.

Value Creation Strategies

Research and Development

Special Feature

Strategic
Technologies

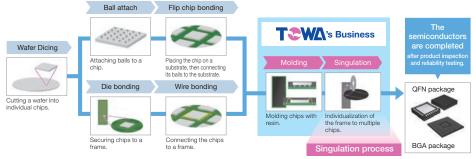
Contributing to higher quality and increased productivity with singulation technology that meets market needs

Developing singulation equipment that improves productivity while reducing labor requirements

## The growing importance of semiconductor packages produced with singulation technology

The singulation process involves cutting the semiconductor panels molded during the molding process into individual pieces. The semiconductor packages produced through the singulation process are used in a variety of applications. These semiconductor packages have no leads extending from their sides and are available in BGA and QFN configurations, which are advantageous for miniaturization and contribute to increased productivity. A type of semiconductor package called BGA can have many solder ball terminals on their back side. These are used in microprocessors, DRAM (memory), and other devices. In addition, the QFN type, which features electrode pads arranged on the back and four sides, can be mounted directly on the substrate. Because these packages also provide effective heat dissipation, they

are used in power semiconductors for automobiles and other applications and in sensors. This approach takes advantage of their compact design and low profile, both of which are becoming increasingly important in semiconductor packages that are becoming more sophisticated and compact.



#### Technologies incorporated in singulation equipment

We combine high-speed transfer and image analysis technology with the dicing technology that we have refined since the 1990s to provide high-quality singulation equipment.

### Dicing technology

We manufacture in-house jig dicers having the mechanisms that separate encapsulated semiconductors. These dicers can handle all kinds of workpieces, including thin and thick packages and substrates before molding.

#### Offload technology

The separated semiconductor products are transferred and stored using methods suitable for the next process. This approach contributes to improved productivity when used with high-speed transfer and high-precision removal and storage technology for small packages.

#### Image analysis technology

By analyzing images taken during production and operation, we can correct warpage and deformation of molded products. Optimal alignment is performed to achieve high-precision cuts.

#### Offload technology

High accuracy transferring technology

High-speed,

High-speed,

High-speed,

Dicing technology



In-house cutting engine/jig dicer



Image analysis technology

Offloading methods



High-precision vision analysis







Inspection of package size, non-use symbols, terminals, etc.

#### TOWA FINE — Accruing synergies by developing and manufacturing our own cutting blades

In the process of cutting to separate molded semiconductors into individual pieces, thin ring-shaped blades incorporating diamond abrasive grit are used.

Resin molded semiconductor products comprise resins, metal frames, ceramics and other materials of different hardness, ductility, and brittleness. It is therefore important to select blades that offer high cutting quality, long blade life, and low cost, depending on the products with different material characteristics. TOWA FINE, which became a consolidated subsidiary in January 2022, develops and manufactures blades for cutting semiconductor packages and various elements. The TOWA Group is able to quickly respond to specific customer requests for cutting quality, life span, and cost.



TOWA FINE resin blades (RH series) minimize the formation of copper burrs during cutting and provide

#### Introducing our new FMS4040 equipment that contributes to increased productivity and reduced labor requirements



Our innovative singulation equipment contributes to automated hubless blade replacement, reduced labor requirements, and improved quality.

Although cut quality is a major focus of singulation technology, the need to reduce labor requirements and improve productivity is also extremely important considerations.

In May 2023, we completed the development of the FMS4040 next-generation singulation equipment. We initiated sales of this product to solve specific production issues while meeting the evolving needs of semiconductor packaging technologies.

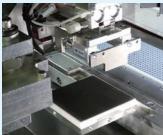
The FMS4040 is the first system in the industry to automate a series of tasks, from hubless blade replacement to dressing work (use of grinding boards to maintain blade sharpness) to kerf checking (evaluating sawblade grooves). This innovative system contributes to improved customers' productivity while also providing significant advantages in terms of water conservation and energy efficiency.

#### Extensively automated, from blade replacement to kerf checking = Automated process





Automatic blade change



Dress board setting (with a grinding board for blade dressing)

We offer the industry's first automated series of tasks from blade change to kerf checking (evaluating the position and width of the blade groove). This innovation improves productivity by about 10%. In addition to reducing the hours of labor required, this system eliminates variations in manual work and prevents errors, leading to stabilization of quality.

Significant water and energy savings contribute to the reduction of running costs borne by customers and CO2 emissions

Annual reduction in water consumption:

40% reduction

Annual reduction in electricity consumption:

8,400 tonnes/unit

15% reduction

13,160 kWh/unit

Equivalent to a 5.7-tonne reduction in CO<sub>2</sub> emissions

Assuming the system operates for 7,000 hours annually with an actual average CO2 emissions factor in Japan equivalent to 0.435 (kg-CO<sub>2</sub>/kWh) as announced on January 24, 2023, by the Ministry of the Environment and the Ministry of Economy, Trade and Industry

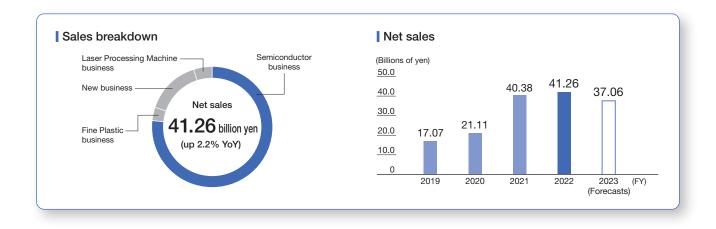
Thanks to our redesign of the mechanisms inside the system, we have reduced water consumption during operation by 40% and electricity consumption by 15% compared to our previous system.



#### **Semiconductor Business**

As consistent technological innovation is essential in the semiconductor industry, we are committed to providing cutting-edge technology to customers worldwide, evolving as a leading molding equipment manufacturer.





#### **Business Summary**

The Semiconductor business, the core of our business portfolio, focuses on development and manufacturing of molding equipment (resin molding equipment), singulation equipment and ultraprecision molds.

Molding technology, where semiconductor chips are protected from external factors (dust, moisture, shock, etc.) by resin molding, is key to improving the reliability of semiconductors.

To this end, we manufacture two types of equipment: transfer molding equipment, in which thermosetting resin is supplied around the chip through a gate (supply port) and then hardened, and compression molding equipment, in which thermosetting resin supplied in granule form is preheated and melted on a mold, immersing semiconductor chips in the resin and then hardening the resin.

Compression molding equipment, designed to mold semiconductors in advanced products for memory and 5G devices, meets the diversified needs of the future market.

Singulation equipment, designed to singulate molded products, includes proprietary equipment for cutting and storing products molded by transfer/compression methods.

Our line of ultra-precision molds for resin molding are highly evaluated by customers worldwide, and originate from a module system developed at the time of our founding.



Compression molding equipment PMC2030-D

#### **Business Conditions in Fiscal 2022**

The sales of our Semiconductor business have increased dramatically, especially in Southeast Asia, driven by sales of automotive and power semiconductors. Moreover, we steadily fulfilled the substantial order backlog accumulated in the previous fiscal year through consistent production. This contributed to net sales of 41,269 million yen (up 884 million yen, or 2.2% year-on-year).

#### The competitive edge of our semiconductor equipment business

Ever since we pioneered the development of fully automated semiconductor resin molding equipment with multi-plungers and established the industry standard, we have been a leading company in the semiconductor molding market. We also place a premium on in-house manufacturing, with a system in place to meet a variety of customer needs.

Our proprietary compression technology is best suited for 3D packaging technology, an advanced semiconductor process technology (back-end process). For that matter, prototype evaluation and joint development with customers are underway at our global network of laboratories, which are located in the same geographic region as our customers. In addition to meeting cutting-edge needs, we respond to a wide range of customer demands through a more efficient system that can provide products promptly.



Providing prototype evaluation solutions for product development, from evaluation processes to sample inspections

#### **Business Strategies**

#### Key strategies in the Semiconductor business

- Strengthen profitability of Semiconductor business by using added-value to expand process business
- Reinforce our production system and financial base by practicing MIP (Minimal Inventory & Period) designed to shorten lead time and reduce inventories
- Anticipate customer needs and develop products meet SDGs and ESG investment promptly by proactively investing resources in development
- Aim to acquire a market share through collaboration between singulation and blade

## MIP Project

#### (Minimal Inventory & Period)

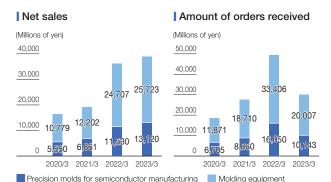
- ▶ Shorten lead times
- Inventory optimization (Review of production system)
- ▶ Prior production ⇔ make-to-order

Precision molds for semiconductor manufacturing



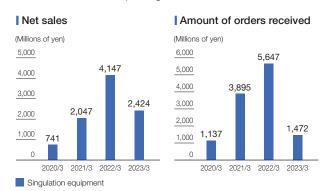
Molding equipment

Sales in the Semiconductor business have increased dramatically, especially in Southeast Asia, driven by sales of automotive and power semiconductors, with substantial order backlog contributing to boosting production and overall sales.



#### Singulation equipment

Net sales declined, with customers significantly adjusting capital investment, while the market share remained unchanged. The focus will be on developing new equipment and collaborating with blade businesses to acquire a greater market share.



#### lopics

#### Participating in the exhibition SEMICON JAPAN 2022

We participated in the exhibition SEMICON JAPAN\* 2022, which was held at Tokyo Big Sight from December 14 to 16, 2022. We also took part in another exhibition held concurrently – Advanced Packaging and Chiplet Summit, which specializes in back-end process technology – to showcase our molding technology optimized for advanced packaging, singulation technology, laser processing technology, manufacturing supporting systems, and TTS (Total Solution Service).

Our booth attracted a total of 374 visitors, significantly exceeding the previous year's attendance. The exhibition provided us with excellent opportunities that could lead to new orders. On the strength of this success, we will continue to expand sales worldwide.

\* An electronics manufacturing supply chain exhibition that encompasses semiconductor manufacturing technology, equipment, materials, and SMART applications to automobiles and IoT devices.





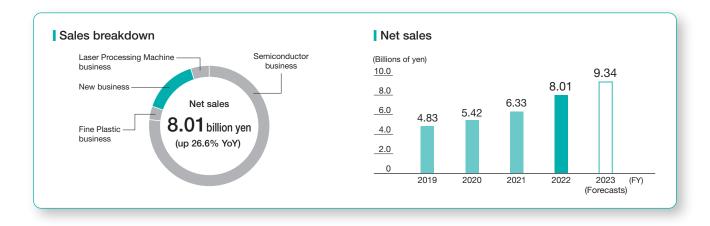
TOWA booth (left) and the key business showcasing zone set up in the center of the booth (right)



#### **New Business**

We are developing new markets and creating new businesses by leveraging our core technologies.





#### **Business Summary**

We are developing New business and creating new values in the market by leveraging our accumulated mold manufacturing technology for semiconductors.

- TSS Business (Total Solution Service)
  - We offer total solutions, ranging from after-sales service for and modification/repair of our semiconductor manufacturing equipment to sales of used equipment.
- Tooling Business
- We sell proprietary tools, the manifestation of our expertise in mold manufacturing.
- Contract Business

Our contract processing business provides coating processing based on TOWA's proprietary mold surface treatment technology, and ultra-precision/fine process and EF (electroforming) technologies we have cultivated in ultra-precision mold manufacturing, all of which can be applied or integrated into medical devices, optical components, household articles, etc.

#### **Business Strategies**

#### Key strategies for New business

- Develop applications of our core technologies in order to create new core business that will help reshape our business portfolio
- Realize new business development through the creation of TOWA-original products
- Contribute to the stable operations for customers through TSS business and secure the long-term relationships
- Improve competitiveness and increase market share by utilizing our global production bases to reduce costs

#### **Business Conditions in Fiscal 2022**

New business is on a growth path, posting net sales of 8,016 million yen (up 1,685 million yen, or 26.6% year-on-year). Major contributors include the well-performing blade marketing business, which we recently acquired, and the TSS business (distribution of parts and components for semiconductor manufacturing equipment, coupled with after-sales service), with sales increasing primarily in China, Taiwan, and areas in Southeast Asia.

#### The strength of our New business

The strength of our New business lies in our human resources specializing in ultra-precision mold manufacturing, with each member possessing professional expertise and capabilities. We are developing and upgrading an environment and facilities required for coating, nanomanufacturing, and tooling technologies, which are expected to find their way into wide-ranging strategies, given their diversified applications.

Our proprietary cutting tools provide solutions to customers according to the nature of workpieces and cutting processes they use. Our coating technology developed in-house, for example, is improved with new properties such as anti-reflection and super water-repellency for applications other than molds. Our contract processing business continues to help various customers find solutions by leveraging TOWA's core technologies.



Facilities and an environment enabling nano-processing, one of our strengths (fine process facilities)



# Fine Plastic Business

We contribute to a better future with fine plastics, which are used in medicine and a variety of other industries.





#### **Business Summary**

The Fine Plastic business involves molding of fine plastics for use in medical devices, telecommunication equipment, information appliances, optical devices, etc., with focus on injection molding and assembly of medical device parts and components. Specifically, BANDICK Corporation, a group company established in 1983, manufactures and assembles fine plastic products in cleanrooms to ensure their reliability and quality.

#### **Business Conditions in Fiscal 2022**

Operating results in the Fine plastic business were net sales of 1,950 million yen (up 227 million yen, or 13.2% year-on-year) and operating profit of 387 million yen (up 75 million yen, or 24.1% year-on-year).

#### **Business Strategies**

#### Key strategies in the Fine Plastic business

- Enhance the added-value of the TOWA brand and increase the business scale on core technologies developed in Fine Plastic business
- Further pursue quality, cost and delivery in order to build a stable profitable structure
- Diversify products by utilizing medical device licenses



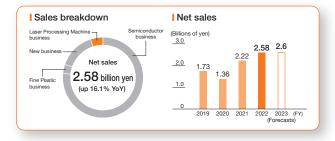
Fine plastic products are all manufactured in cleanrooms, with more than 40 electric injection molding machines in place.



## **Laser Processing Machine Business**

We seek to create new markets, with laser processing technology integrated into back-end process technology.





#### **Business Summary**

TOWA LASERFRONT manufactures laser trimmers, wafer markers, and laser welders. We aim to create new markets, with laser processing technology integrated into semiconductor manufacturing.

Wafer marker for laser marking on wafers with product names, lot numbers, and other control numbers

# **Business Conditions in Fiscal 2022**

In the Laser Processing Machine business, net sales were 2,586 million yen (up 358 million yen, or 16.1% year-on-year) and operating profit was 246 million yen (up 62 million yen, or 33.7% year-on-year). This was due to an increase in sales of wafer markers to semiconductor manufacturers.

### **Business Strategies**

#### Key strategies in the Laser Processing Machine business

- Aim at "value creation" and "value acquisition" by creating new products through enhanced applications
- Make full use of the TOWA Group's production and sales bases in order to increase production capacity, reduce costs, and strengthen sales system and services
- Grow into a company which can provide problem-solving business by thoroughly pursuing customer processes



# Sustainability of the TOWA Group

### Our Basic Policy for Sustainability

To enhance our corporate value and realize sustainable society, we (TOWA Group) contribute to the development of industries through our management philosophy "Quarter Lead" and our Corporate Mission, Code of Conduct and Environmental Policy, and we also build firm relationships of trust with all of our stakeholders including customers, shareholders, investors, suppliers, employees and their families, and communities.

#### TOWA's Response to the SDGs

TOWA shall focus on the following seven goals of the 17 Sustainable Development Goals identified by the United Nations, particularly those with relevance to our business.

















TOWA's		Relevant SDGs	Relationship		
Materiality	Activi	ties	Descriptions	Relevant SDGS	with ESG
TOWA's value creation through contribution to	Development, manufacture and sale of products	Development of resin-efficient equipment	Soon after our foundation, we developed the multi-plunger system, which increases the efficiency of resin use. As a result, the amount of waste resin decreased dramatically. In 2009, moreover, a proprietary compression method was created, resulting in a resin efficiency of 100% (zero waste).	8 ************************************	
	incorporating proprietary technologies	ZERO DEFECT initiative	Our product development focuses on zero defects by preventing defects from being sent down the line, working to eliminate defects in the first place, and identifying potential sources of defects.	12 SEMENT 13 CHENT 13 CHENT CONTROL CO	Е
society  Contributing to environmental impact reduction	Contributing to human health and a healthy environment	Global environmental conservation initiatives	Consumption of resources such as electricity and paper is monitored for reduction purposes.  "Green Procurement Guidelines" and "Green Design Initiatives" are in place to conserve the environment, with focus on material procurement, design, and manufacturing.  "Chemical Control Regulations" are in place to strictly control chemical substances used in our products, according to the Safety Data Sheet format.  The domestic semiconductor manufacturing equipment business switched entirely to electricity from renewable energy sources to reduce CO <sub>2</sub> emissions.  Consolidated shipments have been underway since 2019 to reduce fuel consumption, exhaust gas emissions, and driver burden (with improved work environments).	7 minoration 12 monetal management of the control o	S Social

Message from the President

TOWA's			Relationship			
Materiality	Activi	ties	Descriptions	Relevant SDGs	with ESG	
TOWA's value creation through contribution to	Contributing to	Used equipment sales	TOWATEC Co., Ltd. provides a total service ranging from the purchase, refurbishment through resale to servicing of used semiconductor manufacturing equipment. TOWATEC contributes to meeting the customer needs and helping customers utilize their resources effectively.	8 (1000 REAL SOLD) 9 (METHY ASSOCIATION ) 12 (1000 REAL SOLD) 13 (2015) 14 (2015) 15 (2015) 16 (2015) 17 (2015) 18 (2015) 19 (2015) 19 (2015) 19 (2015) 10 (	Е	
society  Contributing to environmental impact reduction	human health and a healthy environment	Good health and well-being	BANDICK Corporation manufactures plastic molded products for medical devices and specially regulated medical devices approved by Japan's Ministry of Health, Labour and Welfare.     Support is provided to muscular dystrophy patients and juvenile facilities through the "3-9 Yano Fund," established by Akihiro Yano, the ex-manager of the Hanshin Tigers baseball club.     Employees participate in a blood donation program.	3 and	S Social	
Promoting health and productivity management, as well as		Health and productivity management	"TOWA Health Declaration," represented by the motto "when people are healthy, full of energy, both physically and mentally, and the company's business will flourish," is in place to maintain and improve the health of all employees.      TOWA Club activities and company events are held to encourage communication among employees and help them improve their health, knowledge, and engagement in hobbies, as well as season mind and body.      Stress check programs have been in place since December 1, 2015, for all workplaces with over 50 employees.	3 100 100 100 100 100 100 100 100 100 10		
occupational safety and health	Human resource management	Work style	"TOWA Work Style Reform Policy" was adopted on April 1, 2020, where a premium is placed on each employee's health and career satisfaction, one of our key business challenges.     Programs are in place to help employees return to work after maternity and childcare leave.     Employees are encouraged to achieve a work-life balance, with a "creative holiday" system in place to help employees take paid leave.	3 annual 5 mar	S Social	
Developing human resources and promoting participation involving diverse talent		Human resource development	Personal development, qualification acquisition, and award systems    • All employees are encouraged to take correspondence courses twice a year, with subsidies provided for personal development purposes.  • All employees are encouraged to take the TOEIC IP, with awards provided according to their scores.  • The "Challenge Award" and the "Global TOWA Award" are in place in addition to awards provided to employees according to their length of service and contributions to the company.	4 and 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Further	Fulfilling our duties as a global citizen Corp gove	Fulfilling our	Regulatory compliance	<ul> <li>Employees are trained and educated on compliance issues, export management, harassment, and environmental awareness in addition to participating in in-house training programs.</li> <li>A whistleblowing system is in place, with dedicated mail addresses (one of which is exclusively for female employees) provided for survey by an investigation committee.</li> <li>The "Human Rights Policy" and the "Anti-corruption Policy" are in place to ensure appropriate business activities.</li> </ul>	5 man  8 man  10 man  10 man  16 Actual  16 min  16 mi	
strengthening governance system		Corporate governance	Our management is in line with the Corporate Governance Code, with other companies' conditions considered in addition to policies of proxy-advisory firms, to opt for a more practical governance system.	8 (1000) PARK NO 116 (PARK LIPSTH MINISTER) PARK NO 1100 (PARK LIP	G Governance	
		Risk management	We have established a Risk Management Committee, chaired by the president, as the company's highest risk management body. Its purpose is to undertake, on a regular basis, the identification and evaluation of risks that should be addressed.			



### **Environmental Initiatives of the TOWA Group**

#### **Fundamental Policy**

At TOWA Group, to contribute to the achievement of a sustainable, recycling-oriented society, we have established the Environment Management System at each plant and office and make effort to minimize the environmental impact of our business activities.

We also strive to improve the environmental performance of our products by designing and developing them with a focus on the reduction of the environmental impact as the primary goal.

#### **Environmental Policy**

TOWA Corporation recognizes that protection of the global environment is an important issue shared by the entire human race. Through all of our business activities, we provide the market with "new products, new merchandise and services" by means of environmentally friendly technological development and contribute to reducing the global environmental impact.

- 1. Fully understanding the global environmental aspects of our business activities, products and services, we will make every effort to prevent global environmental pollution and counter global warming.
- 2. We will comply with environmental laws and regulations related to our business activities, products and services.
- 3. We engage in the following as the key tasks for our business activities, products, and services:
  - (1) Promotion of green design taking into account life cycle, with low environmental impact.
  - (2) Promotion of green procurement encouraging the supply chain for low environmental impact.
  - (3) Reduction and control in the use of environmentally hazardous chemical substances
  - (4) Continuous efforts to save energy and resources in our business activities
- 4. To achieve this Environmental Policy, we set strategic targets, formulate specific steps for realizing them, set indexes for measuring the results quantitatively, and make efforts to ensure continuous improvements.

April 1, 2017 Hirokazu Okada President & CEO, TOWA Corporation

### Climate Change Measures - Initiatives for CO<sub>2</sub> Reduction

The TOWA Group has set a series of  $CO_2$  emissions reduction targets to achieve carbon neutrality, emphasizing the reduction of greenhouse gas emissions, a key factor in climate change. The fiscal 2030 target, meanwhile, focuses on a reduction of total emissions, with an ambitious sales growth plan incorporated.

In fiscal 2022, solar panels introduced in the previous fiscal year swung into full operation and programs for Scope 1 emissions reduction were put into practice, which resulted in a reduction of 22.9% from 2020 levels. TOWA Corporation alone achieved a reduction of about 98% (Scope 1 and 2 emissions) from 2020 levels.

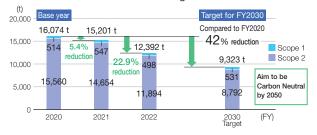
TOWA Group's CO<sub>2</sub> emissions reduction targets

- In FY2030, we will reduce CO<sub>2</sub> emissions (Scope 1+2) from our Group by 42% from FY2020.
- We aim to achieve net-zero emissions (Carbon Neutrality) by 2050.

Scope 1: Direct greenhouse gas emissions from our Group

Scope 2: Indirect emissions from the use of electricity, heat and steam supplied by other companies

#### CO<sub>2</sub> Emissions Performance and Targets



#### Information Disclosure in Line with TCFD Recommendations

The TOWA Group recognizes "climate change" as one of its key business challenges and announced its support for the TCFD\* recommendations in May 2022. Climate change-related governance, strategy, risk management, and metrics & targets are all disclosed according to the recommendations. For example, an environmental management promotion system is in place for governance purposes, while the Board of Directors reviews and determines basic climate change policies and performs risk management.

In setting up climate change strategies, moreover, potential risks and opportunities for our business are reviewed and summarized, with a focus on the entire supply chain, including semiconductor-related products. At the same time, qualitative/quantitative analyses of the 1.5°C scenario, etc. are performed to evaluate risks and opportunities involved. Scenario analyses will be periodically reviewed, taking into account future environmental changes.

Regarding risk management, the Risk Management Subcommittee, chaired by the president, periodically identifies and evaluates risks to be addressed. In addition, metrics & targets are set to achieve one environmental target ( $CO_2$  emissions reduction) while Scope 1 and 2  $CO_2$  emissions are quantified to disclose our environmental performance.

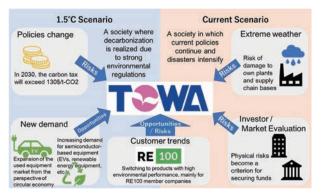
We are committed to minimizing climate change-related risks, strengthening governance, identifying risks and opportunities, keeping track of financial impacts, and promoting information disclosure in line with TCFD recommendations.

For details, please refer to the website: Disclosure in line with TCFD recommendations.





\*TCFD stands for "Task Force on Climate-related Financial Disclosures," which recommends companies, etc. to disclose climate change-related information.



World view of each scenario drawn by TOWA

#### Overview of the set scenario

	Set so	cenario
	1.5°C scenario	Current scenario
Forecast business environment	Risks  Toward the realization of a world of 1.5°C, the introduction of carbon tax is progressing all over the world, and in 2030, the carbon tax will exceed 130\$/t-CO₂ in developed countries.  Customers' environmental awareness will increase, and energy saving and CO₂ saving of manufacturing equipment will be strictly required. However, the development of energy-saving technology will make great progress.  Opportunities  Demand for semiconductor manufacturing equipment will expand significantly from the current level due to the growth in EV sales, the spread of renewable energy equipment, and the growing needs of customers to achieve international initiatives (RE100, SBT, etc.).  With the spread of the concept of circular economy in addition to economic efficiency, the used market for manufacturing equipment will expand significantly from the current level.	Risks  As the frequency of severe disasters such as typhoons and floods grows, the risk of damage to our own plants and supply chain bases increases.  Opportunities  With the growth of EV sales, the spread of renewable energy equipment, and the growing needs of customers to achieve international initiatives (RE100, SBT, etc.), the demand for semiconductor manufacturing equipment is increasing, but the growth will be slower than in the 1.5°C scenario.  From an economic point of view, the used market for manufacturing equipment is expanding, but the growth will be slower than in the 1.5°C scenario.
Reference scenario	IEA: WEO2021 NZE and SDS     IPCC Sixth Assessment Report / Working Group I Report: SSP1-1.9, SSP1-2.6	IEA: WEO2021 STEPS     IPCC Sixth Assessment Report / Working Group I Report: SSP3-7.0, SSP5-8



#### **Environmental Initiatives of the TOWA Group**

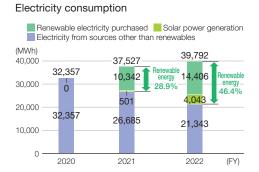
#### Typical Activities and Initiatives

# Solar panels were installed in existing buildings at the Kyoto East Plant and at the Nantong Plant in China.

# Expanding use of renewable energy with solar panels swinging into full operation (Scope 2 initiatives)

The TOWA Group's use of electricity (Scope 2) is increasingly dependent on renewable energy; solar panels introduced in January 2022 continued to fully operate throughout fiscal 2022, supplying electricity to the Group's plants.

Solar panels were installed in existing buildings at the Kyoto East Plant (installation already completed at a new building) in June 2022 and at the Nantong



Plant in China in February 2023. These solar panels, operating in four locations, contributed to the reduction of  $CO_2$  emissions by about 2,400 tonnes in fiscal 2022. In addition, major plants in Japan (Headquarters/Factory, Kyoto East Plant, and Kyushu Work) have been switching to electricity from renewable energy sources since July 2021. As a result, electricity from renewable energy sources accounted for 46.4% (percentage of renewable energy) of our plants' electricity consumption in fiscal 2022. We are committed to expanding renewable energy use at all our plants.



Solar panels installed in an existing building at the Kyoto East Plant (the front building)



Solar panels installed at the Nantong Plant

# Simultaneously promoting initiatives to reduce Scope 1 emissions

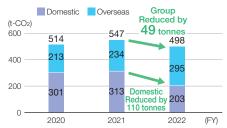
In fiscal 2022, a significant reduction in Scope 2 (electricity consumption) emissions was achieved through initiatives such as switching to electricity from renewable sources. Scope 1 emissions, on the other hand, account for only 4.0% (498 tonnes) of total emissions, but we are also working to reduce fuel consumption and promote efforts toward carbon neutrality.

The Headquarters/Factory's air-conditioning system, originally powered by gas, was electrified in April 2022. Now that the Headquarters/Factory has switched entirely to electricity from renewable energy sources, all electricity use contributes to reducing CO<sub>2</sub> emissions.

Electrification is also underway in our fleet of company cars, being replaced by hybrid and electric cars; the second electric car was introduced to the Headquarters/Factory in December 2022. Estimates based on the performance of company cars show that each car reduces up to 1.4 tonnes of  $CO_2$  emissions per year.

We are committed to further reducing Scope 1 emissions.

#### Scope 1 CO<sub>2</sub> emissions



Although a 144-tonne reduction was originally expected by electrifying the Headquarters/Factory's gas-powered airconditioning system, increased use of company cars due to the change in countermeasures against COVID-19 resulted in a 110-tonne reduction in Japan and a 49-tonne reduction groupwide.



Introducing the second EV to the Headquarters/Factory

#### Green procurement, design, and purchasing

As part of our Environmental Management System (EMS), the Green Procurement Guidelines and the Green Design Regulations are established for material procurement, design, and manufacturing to comply with the RoHS Directive and reduce emissions of environmentally hazardous substances. In addition, our Environmental Policy and handling procedures along with the Green Procurement Guidelines are provided for material and parts suppliers and outsourcees deeply involved in environmental aspects in accordance with the significance of their environmental implications, i.e., environmental conservation efforts throughout the supply chain.

Environmentally hazardous substances, meanwhile, are controlled by our Chemical Control Regulations, while chemical substances used in our business activities and products are strictly controlled according to the Safety Data Sheet (SDS).

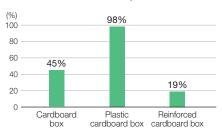
We remain committed to designing and developing environmentally friendly products.

# Distribution and logistics — consolidated shipments and environment-friendly packaging materials

Shipments to group companies abroad are being consolidated to reduce transportation burden, which in turn reduces costs and  $CO_2$  emissions. In fiscal 2022, 11.4% of requests were consolidated and thus reducing the number of shipments.

At the same time, we are promoting the replacement of conventional packaging materials (crates) with lightweight, durable, easily reusable and recyclable reinforced cardboard boxes when transporting parts, components, and equipment. Being lighter than metal and wood, cardboard boxes make packaging easier, and reduce transportation

Reuse rates at all domestic plants in fiscal 2022



costs as well as  $CO_2$  emissions. In addition, packaging materials used for articles shipped from suppliers and subcontractors are segregated and stored by type for reuse purposes, and cushioning materials are being switched to variations made primarily from corn that are environmentally friendly and biodegradable in soil (eco-packaging). We are committed to promoting consolidated shipments and reducing waste.

#### Funding through sustainability-linked loans

We signed a sustainability-linked loan agreement with Bank of Kyoto, Ltd. in August 2022 to raise a fund of 1.2 billion yen. A sustainability-linked loan is designed to promote environmentally and socially sustainable business activities and growth, where borrowers are encouraged to achieve their sustainability performance targets (SPTs) compatible with ESG strategies and provided with incentives such as lower interest rates according to their achievements.

In line with our Basic Policy for Sustainability, factors such as global environmental conservation, partnerships with local and international communities, and business activities that ensure the security and health of stakeholders are key to our continuous operation and growth. In particular, we are focused on climate change strategies, setting reduction targets of  $CO_2$  emissions resulting from business activities to contribute to creating a decarbonized society. Accordingly, the  $CO_2$  emissions intensity ( $CO_2$  emissions per unit of net sales) is set as an SPT element in the sustainability-linked loan framework.

The fund raised is channeled into investments in the growth strategy of the long-term vision "TOWA VISION 2032," with a focus on sustainability-related activities such as reinforcing resources for environmentally friendly development programs, meeting customer needs in advance, and developing products consistent with SDGs and ESG investment requirements.

Overview of the Sustainability-linked loan

Contract date	August 31, 2022		
Amount	1,200 million yen		
Term	Five years		
Use of funds	Business funds		
SPT	Reduction of TOWA Group's Scope 1+2 CO <sub>2</sub> emissions intensity (CO <sub>2</sub> emissions per unit of net sales) from FY2022 to FY2025		
Note	We have obtained a third-party opinion from Rating and Investment Information, Inc. (R&I) regarding the suitability as a sustainability-linked loan and the rationality of SPT.		



# Social Initiatives of the TOWA Group

#### **Fundamental Policy**

We promote work styles that respect diverse personalities, not only to improve quality and safety and security in manufacturing and product development, but also to pursue the health and happiness of all employees and their families. In addition, we will fulfill our social responsibility to improve the safety, health, and vitality of the community based on the SDGs concept.

#### **Human Capital Initiatives**

We regard our employees as our most valuable asset, and are trying to develop human resources and promote health and productivity management. Above all, we place the highest priority on the health and job satisfaction of all employees.

#### Basic Policy on Human Resource Development

TOWA believes that the source of corporate development is to pass on to the next generation a corporate culture of "bringing about innovation" through "continuous challenge" actions. TOWA believes that the support for a variety of challenges of each employee will lead to corporate growth, foster a culture in which employees learn by themselves, and achieve an organization capable of autonomous growth.

In this way, TOWA aims to produce "talent" to inherit the founder ideology, to keep challenging themselves, and to try to bring about innovation.

#### Internal Environmental Policy

TOWA is committed to maintaining and improving the health of all employees and creating a workplace environment that is full of smiles, based on the belief that when people are healthy, full of energy, both physically and mentally, and the company's business will flourish.

TOWA also believes that creating an environment, in which TOWA employees can work in good mental and physical health, will bring wellbeing and happiness to them and their families, and brighter society.

#### Health and Productivity Management Promotion Organization

Under the slogan "-Let's grow our healthy tree-", we are promoting our health promotion activities based on the image of "the tree of health" that is gradually bearing fruit and growing up.



#### **Basic Policy Indicators and Targets**

Indicators	Targets	Results (current consolidated fiscal year)
Percentage of mid-career hires in management positions	35.0% by 2032	35.0%
Percentage of non-Japanese managers	10.0% by 2032	6.3%
Percentage of female managers	10.0% by 2032	3.8%
Health checkup participation rate	Maintain 100.0%	100.0%
BMI (18.5 to <25)	80.0%	67.7%
Smoking rate	10.0%	19.3%
Stress check participation rate	Maintain 100.0%	100.0%
Overall health risk (Note 1)	90	91
Lively scale (Note 2)	110	105

Figures in the table represent indicators, targets, and actual results for TOWA on a non-consolidated basis.

#### (Notes)

- 1. This score indicates the impact of workplace stress on individual health calculated based on survey data conducted by the Ministry of Health, Labour and Welfare. It is shown as a deviation from the national average (100), and a lower score indicates a preferable result.
- This score gauges workplace and individual activity calculated based on survey data conducted by the Ministry of Health, Labour and Welfare. It is shown as a deviation from the national average (100), and a higher score indicates a preferable result.

#### Initiatives for Human Resource Development

As the basic policy in our Mid-Term Business Plan I states that we will "nourish human resources who have various challenging minds and lead the next generation," we are working on the themes set as strategies by function. In addition, we will continue to promote initiatives that we have worked on to date.

# Strategies by Function for the Mid-Term Business Plan I – Human Resources and Organizational Strategies

- Global expansion of TOWA bases for wide-ranging business support from process development to solution proposals
- Nourish global human resources who lead the next generation
- 3 Promote work style reform by improving operational efficiency with DX
- 4 Found "TOWA Academy" for passing down TOWA's technologies and culture

### ■ Establishment of TOWA Academy Preparation Department

Moving ahead with the coordination and development of the educational curriculums, we will systematize the mindset, techniques, and skills suitable for TOWA employees.

#### Training and education

Various types of educational sessions on compliance, export control, harassment, mental health, information security, environmental issues, and other themes are provided using e-learning.

#### Improvement proposal system

We have put in place an improvement proposal system that invites employees to propose and create ideas for improvements in management and business operations as a whole for the purpose of raising employees' awareness of participation in management, motivating them to engage in research and development.

#### In-house awards and commendations

Awards are given to recognize employees' long years of service and contributions to our business performance. We have also created the "Challenge Award" to honor ambition and the "Global TOWA Award" given to our affiliates around the world.

#### Post-retirement reemployment system

Since March 2022 we have a reemployment system in place under which retired employees get paid the same level of salary as before retirement. This is expected to help employees maintain an independent lifestyle after retirement, increase opportunities for self-expression and growth through participation in work, and accelerate the transfer of knowledge and corporate culture to younger employees.

(For details regarding the system, please see the Column below.)

# Column

# About the post-retirement reemployment system

In principle, this system provides the same treatment as provided to regular employees. Basic salary is determined based on qualifications at the time of rehiring, and employment conditions (qualifications and salary) are updated and determined every six months based on an evaluation system. Bonuses are also paid at the same level as regular employees based on the company's results and employee performance review. As labor shortage grows acute, we believe that this system facilitates relationships that are beneficial to both employees and the company.





### Social Initiatives of the TOWA Group

#### **Activities and Initiatives**

**Promoting Smart Work Styles** 

#### **TOWA Work Style Reform Policy**

Our TOWA Work Style Reform Policy aims to respect and support the values and lifestyles of our employees. We regard our employees as our most valuable asset, and place the highest importance on the health and career satisfaction of every employee. We therefore regard work style reform as a priority management issue. This policy, formulated to demonstrate appreciation of employee independence, encourages employees to think about their own work style and those of others in order to improve our work environment. It also supports them to seize opportunities for personal growth and development by encouraging motivation for self-improvement.

#### System for employees' returning to work after maternity and childcare leave according to their lifestyle

We understand that employee health and career satisfaction are closely tied to the ability of our employees to continue working actively when they bear and raise children. We have therefore instituted a system that is flexible enough to accommodate various lifestyles so that we can provide a supportive workplace environment.

Going forward, we will continue to promote the development of a welcoming environment in which more employees can take maternity leave and childcare leave with peace of mind and can feel comfortable and confident when they return to the workplace.

Support for work-life balance					
Childcare leave Nursing care leave					
Caregiving	Returning to work				
	etc.				

#### Promotion of health and productivity management

#### ■ TOWA Health Declaration

TOWA is committed to maintaining and improving the health of all employees based on the belief that when people are healthy, full of energy, both physically and mentally, and the company's business will flourish. We promote the creation of a workplace full of smiles and rich in spirit and aim to create wellbeing for employees and their families as well as brighter society.

#### ■ TOWA club activities and various company events

Many employees participate in athletic and cultural club activities started by employees. We also subsidize a portion of the activity expenses to reduce the burden on individuals and to support their activities. at our Kyoto East Plant's We also hold other events in which employees' families can participate.





On November 5, 2022, a sports festival was held for the first time in three years multipurpose ground. Over 300 participants in total. including employees and their families, gathered to deepen exchange through

#### Health Promotion Committee meetings

The Health and Safety Committee holds a "Health Promotion Committee" meeting every three months to ensure that the physical and mental health of employees is taken care of.

#### Establishment of a Health Care Room

In order to promote employee health and welfare, we have introduced "Health Keepers (in-house therapists)." They are nationally certified in physical therapy and provide physical therapy, self-care guidance, and health advice. The Health

Room provides Care information to employees and is focused on creating an environment that is easy for them to use.



Treatment and self-care guidance

#### Implementation of stress checks

To prevent mental health problems before they occur, we provide mental health education through e-learning and conduct stress checks as stipulated by the Industrial Safety and Health Act.

#### Implementation of lifestyle-related disease prevention medical checkups

Regular checkups for prevention of lifestyle-related diseases (half-day physical examinations) are offered to regular and fixed-term contract employees over the age of 40 who wish to receive such checkups.

Learn more about our health and productivity management initiatives here.



https://www.towajapan.co.jp/en/company/health/

#### Formulation of TOWA action plans for supporting work-life balance

According to the Act on Advancement of Measures to Support Raising Next-Generation Children and the Act on Promotion of Women's Participation and Advancement in the Workplace, we have formulated action plans to support work-life balance. In May 2022, we announced our action plans, etc. on the Ministry of Health, Labour and Welfare's website "Support the balance between work and family life" and "The Database on Promotion of Women's Participation and Advancement in the Workplace." With each plan, we will promote measures by providing information to employees, examining issues in implementation, and providing training to managers.

General Employer Action Plan in Accordance with the Act on Advancement of Measures to Support Raising Next-Generation Children (excerpt from the announced action plans)

TOWA Corporation has established the following action plan that enables all employees to fully demonstrate their abilities by creating a comfortable working environment in which they can balance work and childrearing.

- 1. Period ····· 3 years from April 1, 2022 to March 31, 2025
- 2. Goal······ Implementing awareness-raising activities and initiatives to foster a workplace culture that facilitates balancing work and childrearing for employees, regardless of gender
- Action Plan in Accordance with the Act on Promotion of Female Participation and Career Advancement in the Workplace (excerpt from the announced action plans)

For the purpose of creating an environment in which women can play an active role, TOWA Corporation has established the following action plan.

- 1. Period ····· 3 years from April 1, 2022 to March 31, 2025
- 2. Goal ······ (1) The percentage of female workers in management positions shall be 3.0% or higher, to exceed the industry average.
  - (2) The annual paid leave utilization rate shall be 70% or higher.

#### **Diversity & Inclusion**

#### Aiming to grow into a diversity-oriented company

In addition to diversity in terms of classifications such as age, nationality, gender, and disabilities, we respect diversity in "perspectives and thoughts" coming from values and experiences that may be difficult to see, and are creating a groupwide structure and culture that transforms diversity into our strength.

On October 20, 2022, we held a seminar on "Health Literacy Necessary for Women's Empowerment" intended for managers to improve performance across the organization. Participants learned about the impact of women-specific issues on individuals and organizations, as well as menopause which is increasingly seen among men. We will strive to create a workplace where employees can understand each other correctly to continue to work in good health regardless of gender.

#### Creating a diverse workforce

Respect for diverse values

Employment of more people with disabilities

Promotion of the active participation of women



Training for managers to improve performance throughout the entire organization



#### Health and Productivity Management evaluation by an external organization

We have been certified as a "Health and Productivity Management Organization 2023 (Large Enterprise Category)," "Sports Yell Company 2023," and "Kyoto Health Promotion Company."







We will continue to promote health and productivity management by maintaining and enhancing the health of each employee and to improve work-life balance.



### Social Initiatives of the TOWA Group

#### Manufacturing and Delivering Safe and Secure Products

# Pursuing the best possible quality for customer trust and satisfaction

As a company with a core business of manufacturing, we are working to establish and improve processes that ensure consistent quality in every step through design, manufacturing, inspections, and post-delivery services. At the same time, we are working to improve the quality of our services and operations with the introduction of the latest systems and Al.

In addition, we have developed a quality policy and to achieve it, we set strategic targets, formulate specific steps for realizing them, set indicators for measuring the results quantitatively, and make efforts to ensure continuous improvement.

As a leading supplier to the global semiconductor industry, we at TOWA Corporation were among the first to establish robust quality assurance systems. To engage in quality assurance activities at international technical standards as part of our globalization, we have also acquired certification of registration with ISO 9001, the international standard for quality management systems. In fiscal 2022, we underwent surveillance in December and received approval for registration (continuation).



Equipment and environment in which the latest technology and high-quality products are produced







ISO 9001 certification (Quality)

ISO 14001 certification (Environment)

(Excluding the Bandoh Memorial Research Laboratory and INNOMS Promotion Dept.)

#### Respect for Human Rights

#### **Human Rights Policy**

TOWA Group, in its own business activities, will deepen its understanding that the human rights of all concerned parties must be respected and will conduct appropriate activities based on this policy.

#### Scope

This policy applies to all officers and employees of TOWA Group (all employees including officers, permanent employees, and contract employees).

We expect our business partners to support this policy and our suppliers to support and comply with this policy.

#### Respecting Human Rights in Practice

We promise to respect the human rights stipulated in the International Bill of Human Rights and the International Labor Organization's (ILO) Declaration on Fundamental Principles and Rights at Work, and we support the UN Guiding Principles on Business and Human Rights and work toward practice.

We practice prohibition of all discrimination based on race, ethnicity, nationality, social status, family origin, gender, disability, health condition, thought / belief, sexual orientation / gender recognition, and differences in occupation and employment form; and also practice prohibition of harassment. And we practice providing a safe working environment, ensuring minimum wages, responsible working practices including proper working hours management, freedom of association and respect for collective bargaining rights. We do not allow slave labor, forced labor or child labor of any kind, including human trafficking.

In addition, we will comply with the laws and regulations of each country in our business activities. If the international human rights policy differs from the laws and regulations of the country concerned, we will follow stricter standards, and in the case of conflict, we will respect the internationally recognized human rights policy to the utmost.

February 28, 2022 Hirokazu Okada President & CEO, TOWA Corporation

#### **Activities Involving Social Contribution**

#### In-house blood drive

Each year in the spring and summer, in cooperation with the Japanese Red Cross Society, we continue to hold a blood drive for our employees. In recognition of our support for their blood drives over the years, the Japanese Red Cross Society graciously presented TOWA with the Silver Merit Award and the Golden Merit Award. We remain committed to collaborating with the Japanese Red Cross Society to promote blood donations and raise awareness of their need as part of our effort to support people around the world who require blood transfusions.

#### Supporting the "3-9 Yano Fund"

Akihiro Yano, former manager of the Hanshin Tigers baseball club, established the "3-9 Yano Fund" (the Japanese pronunciation of 3-9 being a homonym for "thank you") to support individuals with muscular dystrophy as well as foster homes in Japan. This foundation raises funds through its own vending machines, and we have installed the fund's vending machine in our company. The vending machine we installed in 2015 was the first such machine installed in Kyoto.



The Japanese Red Cross Society's Gold Merit



Vending machine installed at Headquarters/ Factory to support the Fund

#### Information Dissemination and Sponsorship for Communities and Events

#### Aiming to contribute to communities and toward becoming a well-known company

TOWA participates in and sponsors communities and events, disseminating information in an effort to become "a well-known company realized by proactive information dissemination" as stated in our long-term vision "TOWA Vision 2032." Here are some of our initiatives made in fiscal 2022.

#### Hankei 500m

An interview report with our president, Hirokazu Okada, "The Story of Hirokazu Okada" (a series of 10 reports in total; the 9th and 10th reports are to be published in September and November 2023, respectively) was published in "Hankei 500m," a free magazine distributed in Kyoto.

# Kyoto Student Theater Festival We sponsor a portal site to support

We sponsor a portal site to support student theater in Kyoto. It held the "TOWA Student Theater Awards" from January to March 2023.



#### Kyoto Philharmonic

On September 18, 2022, TOWA became the sole sponsor of "Honnoji Rhapsody," a special performance by the Kyoto Philharmonic Chamber Orchestra to commemorate its 50th anniversary.



#### ■ Kyoto Student Festival

TOWA has been sponsoring the Kyoto Student Festival since 2022. On October 9, 2022, the Festival was held for the first time in three years in front of Heian Shrine, the area of the Okazaki Promenade.



# **Corporate Governance of the TOWA Group**

#### For a Higher Level of Corporate Governance

We make continuous efforts to enhance our corporate governance system, aiming for the sustainable growth of the TOWA Group and the medium- and long-term improvement of our corporate value.

We are striving to further strengthen and practice our corporate governance, based on the following fundamentals:

- 1. Ensuring that the actions of the TOWA Group are legal and socially responsible
- 2. Ensuring and maintaining the transparency and objectivity of our business management
- 3. Building an organization and system that is able to respond rapidly to changes in the environment
- 4. Ensuring fair business administration with importance attached to shareholders, by protecting the rights of our shareholders and being open and candid with them, for example
- 5. Creating corporate value and employment by building strong relationships with our stakeholders

#### Corporate Governance System

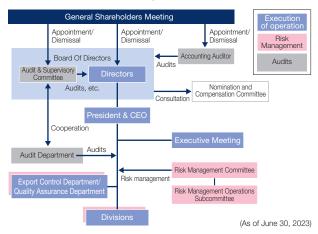
Our main approaches are as follows.

# Strengthening the function of the Board of Directors

In June 2016, we adopted the Audit and Supervisory Committee to strengthen the function of the Board of Directors and to exert corporate governance more effectively, as well as to enhance the effectiveness of management by making decision and execution more rapidly.

The Audit and Supervisory Committee consists of four members (Male 2, Female 2): one director who is a full-time member of the Committee and three outside directors who are members of the Committee. The Committee works closely with the Audit Department and the Accounting Auditor to share necessary information.

#### Our Corporate Governance System



#### Nomination and Compensation Committee (non-obligatory organization)

On April 1, 2021, we established the Nomination and Compensation Committee as an advisory board of the Board of Directors. The purpose is to enhance the fairness, transparency and objectivity of the decision process in directors' nomination, promotion or demotion and their rewards. The committee is composed of three independent outside directors, one chief executive officer and one director who is in charge of administration division (in total, five persons). Chairman is independent outside director.

#### Member of the Nomination and Compensation Committee

ĺ	Chairman	Outside Director, Audit and Supervisory Committee Member	Daisuke Wake
		President & CEO	Hirokazu Okada
	Committee	Director, Senior Executive Officer (Chief Operating Officer, Corporate Planning Division and Administration Division)	Nobutaka Shibahara
	Member	Outside Director, Audit and Supervisory Committee Member	Miho Goto
		Outside Director, Audit and Supervisory Committee Member	Motoko Tanaka



#### Risk management

We have established a Risk Management Committee, chaired by the president, as the company's highest risk management body. Its purpose is to undertake, on a regular basis, the identification and evaluation of risks that should be addressed. This committee has established multiple risk management subcommittees to monitor risks in each area of concern every month in the realms of internal management, export management, quality assurance, and other areas. The activities of these subcommittees are reported quarterly to the Board of Directors and the content of their activities is reviewed by outside directors as well.

#### Reduction of shares for investment held for any purpose other than pure investment

We may hold other companies' shares as one of our strategies such as business alliance, funding and expanding transaction to achieve our continuous growth and middle / long term growth. We assess such shares periodically to see if the risk or benefit of holding share are commensurate with the cost of capital. Based on the assessment, the Board of Directors will decide whether we should continue holding the shares or not. The number of shares, that have little significance, will be sold in consideration of market trends or important conditions.

Voting rights are exercised appropriately based on a comprehensive assessment of whether they contribute to improving the middle to long-term corporate value of the investee company and the impact on the company.

For more details, please refer to our Corporate Governance website, as shown below.

https://www.towajapan.co.jp/en/company/governance/

#### **Regulatory Compliance**

#### Internal reporting system

Our General Affairs Department has set up a dedicated email address as a consultation point for employees and has established a mechanism for employees to submit reports and arrange consultations directly. We have also created an email address exclusively for the use of female employees that serves as a direct means of contacting the female employee supervisor. (Personal interviews can also be arranged.) When necessary, the Investigation Committee will conduct an inquiry and consult with outside experts. Moreover, we are implementing a set of internal rules to prevent whistleblowers from suffering any consequences for their reporting.

# lopics

#### TOWA was featured on the Japanese TV show "Kenja no Sentaku (The Choices of Gifted Leaders) FUSION"

On December 5, 2022, Hirokazu Okada, President & CEO, appeared on the TV program "Kenja no Sentaku (The Choices of Gifted Leaders) FUSION," which introduces companies contributing to society and industry with their unique services and products, based on the concept that an individual's thoughts can change the world. President Okada talks about the background of the company's establishment, our strengths, and much more. The program is available on the official YouTube channel and the official website for the program. Please check it out.

Official YouTube channel for the program







Official website for the program

https://kenja.jp/12267\_20221206/





### **Corporate Governance of the TOWA Group**

#### **Initiatives for Enhancing Corporate Governance**

#### Main actions implemented to enhance corporate governance

# For strengthening the function of the Board of Directors

For the purpose of strengthening the functions of and improving diversity in the Board of Directors, we have increased the number of female directors by one to two, effective June 2022. This resulted in a female executive percentage of 22%.

# Promoting sustainability information disclosure in securities reports

We are promoting the disclosure of sustainability information in accordance with amendments to the Cabinet Office Ordinance on Disclosure of Corporate Affairs, etc. We will further improve our sustainability-related systems and move forward with initiatives to enhance information disclosure.

#### Endorsement of TCFD recommendations and disclosure of climate change-related risks and profit opportunities

In May 2022, TOWA declared its support for the TCFD (Task Force on Climate-related Financial Disclosures) Recommendations. We will strengthen our governance, proactively respond by identifying risks and opportunities and by understanding financial impacts, while also further enhancing information disclosure.

#### Identification of materiality (material issues)

We identified the materiality (material issues) for the TOWA Group through deliberation and approval by the Board of Directors in May 2023. Toward what TOWA want to be 10 years hence, as clarified in the long-term vision "TOWA Vision 2032," we will strive to improve the sustainability of society through the provision of value to society, while at the same time enhancing long-term and sustainable "earning power" of the Group and encouraging further value creation.

#### Restricted stock compensation plan adopted

Following a resolution passed at our 44th Ordinary General Meeting of Shareholders held on June 29, 2022, we have adopted a restricted stock compensation plan for our directors (excluding directors and outside directors who are both members of the Audit and Supervisory Committee) to provide them with incentives to continuously improve our corporate value and to further promote value sharing with our shareholders.

#### Prevention of corruption

In accordance with our "Anti-corruption Policy," the TOWA Group strives to thoroughly prevent corruption, which could involve the abuse of professional power through one's own position or the power of a third party. This may involve bribery, embezzlement, coercion in providing benefits, and fraudulent bidding, as well as obstruction of justice, money laundering, or other acts complicit in such abuses.

#### **Anti-corruption Policy**

TOWA Group strives to thoroughly prevent bribery and corruption.

#### Scope

This policy applies to all officers and employees of TOWA Group (all employees including officers, permanent employees, and contract employees).

We expect our business partners to support this policy and our suppliers to support and comply with this policy.

#### **Prevention of Corruption**

We will not engage in acts, which could abuse professional powers and positions of one's own power or that of a third party, such as bribery, embezzlement, and coercion in providing benefits, and also fraudulent bidding, nor we engage in obstruction of justice, money laundering, or other acts which are complicit in such abuses.

#### Prevention of Bribery

With regard to bribery, TOWA Group will not accept any form of money, gifts, entertainment or other benefits from civil servants and private business partners, directly or indirectly, for the purpose of influencing improperly to the acquisition and maintenance of business or to securing business advantage. In addition, we will not accept money, gifts, entertainment or other benefits that may have an impact on making our decision.

February 25, 2022 Hirokazu Okada President & CEO, TOWA Corporation



#### **Intellectual Property Initiatives**

The TOWA Group, as a technology developer that sees technological development as the foundation of its business and the source of growth, is working toward continuous development, as well as appropriate protection and utilization of intellectual property rights resulting from our efforts, and also respects the rights of other companies in the TOWA Group's appropriate business operation.

The TOWA Group established its "Intellectual Property Policy" on June 21, 2023, for further strengthening domestic and overseas intellectual property and for use as its basic policy regarding countermeasures against risks such as infringement of other companies' rights. The TOWA Group will expand its scope of activities to all companies in the TOWA Group to strengthen and control its intellectual property and establish an appropriate intellectual property management system while stimulating invention and creation.

#### Intellectual Property Policy

TOWA will do business globally through the development of "new products and new goods" based on "technological development," which is most in demand in industrial society, in order to fulfill its social responsibility (contribution to industrial development and sustainability). TOWA will establish an Intellectual Property Policy for "Intellectual Property Rights" to implement these initiatives.

#### 1. Divisions to Which Intellectual Property Policy Is Applicable

The "intellectual property" stipulated in this policy relates to all divisions, not just those involved in technological development. This policy shall therefore be observed by our "executives, employees, and temporary workers" involved in intellectual property, as well as by "contractors and their employees" who deal with our intellectual property.

#### 2. Creation of Intellectual Property

TOWA will proactively create a variety of intellectual property derived from its technological development as a technology developer that stays ahead of its competitors, a leading company in the industry, in order to contribute to sustainability.

#### 3. Compliance with Laws and Regulations

TOWA will respect and comply with intellectual property-related laws and regulations and the norms of each ministry and agency, and will manage intellectual property rights in accordance with international standards, treaties, etc.

#### 4. Protection of Intellectual Property Rights

TOWA will establish a system for creating intellectual property, actively protect the intellectual property it has created, increase corporate value, and proactively acquire rights. TOWA will utilize the intellectual property rights it has acquired as a source of product competitiveness, and at the same time to enhance customer confidence in TOWA products. TOWA will also exercise its rights appropriately and justifiably against any infringement of its rights.

#### 5. Respect for Intellectual Property Rights of Other Companies

TOWA will respect the intellectual property rights of other companies, as well as its own intellectual property, to minimize business risks. In order to prevent infringement on other companies' patents and other intellectual property rights, TOWA will appropriately conduct preliminary investigations at the stages of product development, manufacturing, sales, and related steps. Moreover, TOWA will respect right holders by obtaining licenses and licensing technology from them as necessary, and will strive to ensure fair competition.

#### 6. Implementation of Intellectual Property Education

TOWA will make sure that its employees recognize the importance of intellectual property, offer education regarding intellectual property on an ongoing basis, and build a solid awareness among employees of the proper handling of intellectual property rights in order to create and protect intellectual property and respect the intellectual property rights of other companies.

#### 7. Control of Intellectual Property Rights Throughout the TOWA Group

TOWA will consider the intellectual property created by all companies in the TOWA Group in a comprehensive manner, acquire and protect rights appropriately, and engage in activities to further create intellectual property rights.

June 21, 2023 Hirokazu Okada President & CEO, TOWA Corporation

## **Directors and Senior Management**

#### **Director**



Hirokazu Okada
President & CEO



Koichi Ishida Director, Managing Executive Officer

Chief Operating Officer, Core Technology Business Division & Development Division & Singulation Development Division



Nobutaka Shibahara
Director, Senior Executive Officer

Chief Operating Officer, Corporate Planning Division & Administration Division



Kazuhiro Nishimura Director, Executive Officer

Chief Operating Officer, Production Division



Muneo Miura

Director, Executive Officer

Chief Operating Officer, Marketing and Sales Division



Kiyoshige Gamo
Director, Full-time Audit & Supervisory
Committee Member



Daisuke Wake

Outside Director, Audit & Supervisory Committee Member

Representative of Wake Certified Public Accountant Office · Audit & Supervisory Committee Member (Part-time) of Shirai Electronics Industrial Co., Ltd.



Miho Goto

Outside Director, Audit & Supervisory Committee Member

Lawyer of Goto Law Office



Motoko Tanaka

Outside Director, Audit & Supervisory Committee Member

Representative of Tanaka Certified Public Accountant Office · Outside Audit & Supervisory Board Member of Wacoal Holdings Corp.

#### **Executive Officer**

#### Noboru Hayasaka

Fellow and Senior Executive Officer

TOWA LASERFRONT Corporation President & CEO

### Fangshun Niu

Senior Executive Officer

TOWA (Shanghai) Co., Ltd. Chairman & General Manager

### Sangyoun Han

Senior Executive Officer

TOWA Korea Co., Ltd. Representative Director TOWA FINE CO., LTD. Representative Director

#### Hidenori Sasada

**Executive Officer** 

TOWATEC Co., Ltd. President & CEO

#### Kazuhiko Nakanishi

**Executive Officer** 

Corporate Planning Division Manager & Secretary Manager & INNOMS Promotion Department Manager

#### Skills matrix

Skills ma	uix			I	1			I		
	Position/title	Outside	Independent	Nomination and Compensation Committee	Corporate management	Production, engineering development	Expatriate experience	Sales and marketing	Accounting	Legal and compliance
Hirokazu Okada	President & CEO			0	•	•	•	•		
Koichi Ishida	Director, Managing Executive Officer					•		•		
Nobutaka Shibahara	Director, Senior Executive Officer			0	•		•			•
Kazuhiro Nishimura	Director, Executive Officer				•	•	•			
Muneo Miura	Director, Executive Officer						•	•		
Kiyoshige Gamo	Director, Full-time Audit and Supervisory Committee Member				•		•			
Daisuke Wake	Director, Audit and Supervisory Committee Member	0	0	0					•	
Miho Goto	Director, Audit and Supervisory Committee Member	0	0	0						•
Motoko Tanaka	Director, Audit and Supervisory Committee Member	0	0	0					•	

O Chairman

# **Consolidated Balance Sheet**

(Unit: Thousands of yen)

Assets	FYE March 31, 2022	FYE March 31, 202
Current assets		
Cash and deposits	12,407,734	16,547,017
Notes receivable-trade	433,869	73,070
Electronically recorded monetary claims-operating	287,488	1,201,865
Accounts receivable-trade	11,109,984	11,693,703
Merchandise and finished goods	5,611,677	3,872,313
Work in process	12,073,269	10,004,429
Raw materials and supplies	887,111	1,530,325
Other	1,410,287	1,040,268
Allowance for doubtful accounts	(1,824)	(2,781
Current assets	44,219,598	45,960,213
Non-current assets		
Property, plant and equipment		
Buildings and structures	20,530,183	20,972,307
Accumulated depreciation- buildings and structures	(11,743,840)	(12,280,703
Buildings and structures, net	8,786,342	8,691,604
Machinery, equipment and vehicles	14,821,934	16,075,149
Accumulated depreciation- machinery, equipment and vehicles	(10,061,540)	(10,707,731
Machinery, equipment and vehicles, net	4,760,394	5,367,418
Land	5,189,580	5,205,569
Leased assets	1,143,187	1,303,520
Accumulated depreciation	(214,619)	(295,608
Leased assets, net	928,567	1,007,912
Construction in progress	609,744	240,647
Other	4,159,290	4,490,065
Accumulated depreciation	(3,407,026)	(3,643,421
Other, net	752,264	846,644
Property, plant and equipment	21,026,894	21,359,797
Intangible assets		
Other	1,306,830	1,162,199
Intangible assets	1,306,830	1,162,199
Investments and other assets		
Investment securities	3,856,319	3,929,663
Deferred tax assets	261,653	373,528
Retirement benefit asset	397,596	381,509
Other	264,172	301,641
Investments and other assets	4,779,741	4,986,343
Non-current assets	27,113,466	27,508,339
Assets	71,333,064	73,468,553

Liabilities and Net Assets	FYE March 31, 2022	FYE March 31, 2023
Current liabilities		
Notes and accounts payable-trade	5,110,149	2,411,521
Electronically recorded obligations	2,888,655	46,368
Short-term borrowings	5,300,000	9,400,000
Current portion of long-term borrowings	1,340,000	1,930,000
Lease liabilities	131,512	133,150
Income taxes payable	2,417,288	740,224
Advances received	4,725,212	1,882,461
Provision for bonuses	896,122	983,530
Provision for bonuses for directors	78,943	98,219
Provision for product warranties	368,956	314,644
Other	2,269,111	1,807,644
Current liabilities	25,525,952	19,747,763
Non-current liabilities		
Long-term borrowings	3,270,000	3,950,000
Lease liabilities	377,495	460,387
Deferred tax liabilities	227,071	848,444
Retirement benefit liability	778,820	810,914
Other	32,398	27,788
Non-current liabilities	4,685,785	6,097,535
Liabilities	30,211,738	25,845,298
Shareholders' equity		
Share capital	8,932,627	8,942,950
Capital surplus	462,236	472,558
Retained earnings	26,820,078	32,916,324
Treasury shares	(12,732)	(13,436)
Shareholders' equity	36,202,210	42,318,396
Valuation and translation adjustments		
Valuation difference on available- for-sale securities	2,261,645	2,312,590
Foreign currency translation adjustment	2,169,889	2,570,638
Remeasurements of defined benefit plans	94,940	20,003
Valuation and translation adjustments	4,526,476	4,903,232
Non-controlling interests	392,639	401,624
Net assets	41,121,326	47,623,254
Liabilities and net assets	71,333,064	73,468,553

# Consolidated Income Statements and Consolidated Statement of Comprehensive Income

(Unit: Thousands of yen)

Consolidated Income Statements	FYE March 31, 2022	FYE March 31, 2023
Net sales	50,666,728	53,822,668
Cost of sales	32,013,150	35,014,116
Gross profit (loss)	18,653,577	18,808,551
Selling, general and administrative expenses	7,148,443	8,771,449
Operating profit (loss)	11,505,133	10,037,101
Non-operating income	· · · · · · · · · · · · · · · · · · ·	, ,
Interest income	27,689	42,429
Dividend income	49,858	87,377
Rental income from non-current assets	43,849	54,546
Foreign exchange gains	34,648	_
Subsidy income	43,986	51,092
Incentive income	29,023	_
Miscellaneous income	96,891	114,076
Non-operating income	325,948	349,522
Non-operating expenses		
Interest expenses	52,358	70,188
Depreciation of assets for rent	26,402	29,694
Foreign exchange losses	_	55,257
Miscellaneous losses	28,017	25,430
Non-operating expenses	106,778	180,569
Ordinary profit (loss)	11,724,303	10,206,054
Extraordinary income		
Gain on sale of non-current assets	11,136	389
Gain on sale of investment securities	34,227	-
Extraordinary income	45,364	389
Extraordinary losses		
Loss on sale of non-current assets	42	5,062
Loss on retirement of non-current assets	26,357	17,944
Impairment losses	47,838	_
Extraordinary losses	74,238	23,006
Profit (loss) before income taxes	11,695,429	10,183,438
Income taxes-current	3,167,658	2,314,284
Income taxes-deferred	376,623	516,675
Income taxes	3,544,282	2,830,959
Profit (loss)	8,151,146	7,352,478
Profit (loss) attributable to non-controlling interests	21,318	5,801
Profit (loss) attributable to owners of parent	8,129,827	7,346,676

(Unit: Thousands of yen)

	·	
Consolidated Statement of Comprehensive Income	FYE March 31, 2022	FYE March 31, 2023
Profit (loss)	8,151,146	7,352,478
Other comprehensive income		
Valuation difference on available-for-sale securities, net of tax	66,578	50,944
Foreign currency translation adjustment, net of tax	1,806,862	403,931
Remeasurements of defined benefit plans, net of tax	(5,806)	(74,936)
Other comprehensive income	1,867,634	379,939
Comprehensive income	10,018,780	7,732,418
(breakdown)		
Comprehensive income attributable to owners of parent	9,948,725	7,723,433
Comprehensive income attributable to non-controlling interests	70,055	8,984

# Consolidated Statement of Cash Flows

(Unit: Thousands of yen)

	( -	,
Consolidated Statement of Cash Flows	FYE March 31, 2022	FYE March 31, 2023
Cash flows from operating activities		
Profit (loss) before income taxes	11,695,429	10,183,438
Depreciation	1,949,994	2,498,249
Amortization of goodwill	14,263	116,704
Increase (decrease) in allowance for doubtful accounts	(15)	932
Increase (decrease) in provision for bonuses	187,445	82,554
Increase (decrease) in provision for bonuses for directors (and other officers)	29,805	18,692
Increase (decrease) in retirement benefit liability	(72,162)	(67,820)
Increase (decrease) in provision for product warranties	149,902	(54,774)
Interest and dividend income	(77,548)	(129,806)
Interest expenses	52,358	70,188
Foreign exchange losses (gains)	52,120	(86,015)
Decrease (increase) in trade		, , ,
receivables	527,869	(3,918,031)
Decrease (increase) in inventories	(8,494,949)	3,373,923
Decrease (increase) in other current assets	(59,697)	89,009
Increase (decrease) in trade payables	1,417,706	(5,356,803)
Increase (decrease) in other current liabilities	533,783	(322,444)
Other, net	161,140	305,321
Subtotal	8,067,446	6,803,317
Interest and dividends received	77,914	128,981
Interest paid	(53,027)	(69,393)
Income taxes paid	(1,704,345)	(4,044,163)
Income taxes refund	15,895	12,486
Net cash provided by (used in) operating activities	6,403,884	2,831,227
Cash flows from investing activities		
Payments into time deposits	(1,543,989)	(248,012)
Proceeds from withdrawal of time	, , , , , ,	, ,
deposits	1,837,012	290,637
Proceeds from sale of investment securities	141,924	-
Payments of other investments	(33,231)	(4,588)
Purchase of property, plant and equipment and intangible assets	(5,272,134)	(2,731,421)
Proceeds from sale of property, plant and equipment and intangible assets	1,344	14,050
Purchase of shares of subsidiaries		
resulting in change in scope of consolidation	(1,727,490)	_
Other, net	(3,705)	(66,677)
Net cash provided by (used in) investing activities	(6,600,269)	(2,746,012)
Cash flows from financing activities		
Net increase (decrease) in short-term borrowings	3,800,000	4,100,000
Proceeds from long-term borrowings	-	3,000,000
Repayments of long-term borrowings	(1,340,000)	(1,730,000)
Purchase of treasury shares	(1,067)	(704)
Dividends paid	(400,144)	(1,250,430)
Other, net	(133,475)	(156,650)
Net cash provided by (used in) financing activities	1,925,312	3,962,214
Effect of exchange rate change on cash and cash equivalents	253,104	132,607
Net increase (decrease) in cash and cash equivalents	1,982,032	4,180,037
Cash and cash equivalents at beginning period	10,268,427	12,250,459
Cash and cash equivalents at end of period	12,250,459	16,430,497
	-	

### **Global Network**

#### **TOWA Corporation**

- ②Kyoto East Plant
- 3 Kyushu Work







①Headquarters/Factory

②Kyoto East Plant



**5 BANDICK Corporation** 

#### TOWATEC Co., Ltd.

- ①Headquarters 🔼 💸
- ③Kyushu Service 
  ♠
- ⑥Tohoku Service 
  ♠

#### **TOWA LASERFRONT Corporation**

- 7 Headquarters/Factory P 1
- Sales Office 

   Sale



③Kyushu Work



11) TOWA Europe GmbH (Germany)



**12TOWA USA Corporation** (United States)





TOWA Korea Co., Ltd.



14 TOWA FINE CO., LTD. (Korea) 



**(4) TOWA FINE CO., LTD.** 



TOWA (Nantong) Co., Ltd.





22TOWA TOOL SDN. BHD.

- ⓑTOWA (Suzhou) Co., Ltd. (China) 🔼 🚮 💝
- (6) TOWA (Shanghai) Co., Ltd. (China)
- TOWA (Nantong) Co., Ltd. (China)
- ®TOWA R&D Suzhou Co., Ltd. (China) 🚏
- 19 TOWA Taiwan Co., Ltd. (Taiwan) [2] [3]
- 20 TOWA Asia-Pacific Pte. Ltd. (Singapore) [ ]
- 21)TOWAM Sdn. Bhd. (Malaysia)
- 22TOWA TOOL SDN. BHD. (Malaysia)
- **23TOWA Semiconductor Equipment** Philippines Corp. (Philippines) [3] [3]
- **24TOWA THAI COMPANY LIMITED (Thailand)**





# Company Overviews (As of March 31, 2023)

#### **Company Information**

TOWA CORPORATION Company name Established April 17, 1979 Paid-in capital 8,942,950,207 yen Address of 5 Kamichoshi-cho, Kamitoba, headquarters Minami-ku, Kyoto-shi, Kyoto Japan

TEL (+81)75-692-0250

Number of TOWA Corporation: 597 employees TOWA Group (consolidated): 1,876

Website https://www.towajapan.co.jp/en/ Stock listings Prime Market of Tokyo Stock

Exchange

#### **TOWA Group**

#### Japan

**TOWA Corporation** Headquarters/Factory Kyoto East Plant Kyushu Work **BANDICK Corporation** TOWATEC Co., Ltd.

TOWA LASERFRONT Corporation

#### **Overseas**

TOWA Asia-Pacific Pte. Ltd. (Singapore)

TOWAM Sdn. Bhd. (Malaysia)

TOWA TOOL SDN. BHD. (Malaysia)

**TOWA Semiconductor Equipment** Philippines Corp. (Philippines)

TOWA THAI COMPANY LIMITED (Thailand)

TOWA USA Corporation (United States)

TOWA Europe B.V. (The Netherlands)

TOWA Europe GmbH (Germany)

TOWA (Suzhou) Co., Ltd. (China) TOWA (Shanghai) Co., Ltd. (China)

TOWA (Nantong) Co., Ltd. (China)

TOWA R&D Suzhou Co., Ltd. (China)

TOWA Taiwan Co., Ltd. (Taiwan)

TOWA Korea Co., Ltd. (Korea)

TOWA FINE CO., LTD. (Korea)

#### Stock Information

Number of shares authorized 80,000,000 25,033,238 Number of shares issued Number of shareholders 18,565

Fiscal year One year from April 1 to March 31 of the following

Ordinary general meeting of

shareholders Record date

Every year in June

Exercise of rights at the general meeting of shareholders and year-end dividend: March 31

Interim dividend: September 30

Number of shares per unit

Shareholder registry administrator

1-3-3 Marunouchi, Chiyoda-ku, Tokyo Mizuho Trust & Banking Co., Ltd.

Method of public notice

Public notices of the company shall be given by electronic public notice; provided that in case it is impossible to place electronic public notice due to accident or any other unavoidable events, they shall be given in the Nihon Keizai Shimbun. Public notice website: https://www.towajapan.co.jp

#### Principal Shareholders

Name	Number of shares held (thousands of shares)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd.	2,923	11.68
Custody Bank of Japan, Ltd.	2,195	8.77
K.B. Kousan Co., Ltd.	2,000	7.99
N.regalo Co., Ltd.	1,400	5.60
NORTHERN TRUST GLOBAL SERVICES SE, LUXEMBOURG RE LUDU RE:UCITS CLIENTS 15.315 PCT NON TREATY ACCOUNT	721	2.88
The Bank of Kyoto, Ltd.	699	2.80
KIA FUND 136	488	1.95
TOWA Employee Shareholding Association	378	1.51
GOVERNMENT OF NORWAY	361	1.44
The Kyoto Chuo Shinkin Bank	300	1.20

(Note 1) Shareholdings in The Master Trust Bank of Japan, Ltd. and Custody Bank of Japan, Ltd. are related to the trust business

(Note 2) Shareholding ratio is calculated excluding treasury shares (13,597 shares).

#### Number of shareholders by sector



#### Number of shares by sector (thousands of shares)





#### **TOWA CORPORATION**