

**FY2022/ Business Results for the Fiscal Year 2022**  
**(Ended March 31, 2023)**

May 18th, 2023

Toshio Matsuo

Representative Director & President  
The Japan Steel Works, Ltd.

Note;

The performance forecasts and other forward-looking statements included in this report are based on the information that was available to The Japan Steel Works, Ltd. (the “Company”) and certain assumptions deemed to be reasonable at the time this report was prepared, and the actual results may differ significantly from these forecasts due to a variety of reasons.

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### **Reference:**

Composition of the Business Segments and Main Products / Trends in Net Sales, Operating Income and Profit / Trends in Major Assets and Cash Flows / Corporate Code of Behavior of JSW (revised on April 1, 2018)

[PART I]

# Results for FY2022

## FY2022: Status of Orders Received, Net Sales and Profits

Orders received and net sales increased year on year, while profit decreased.

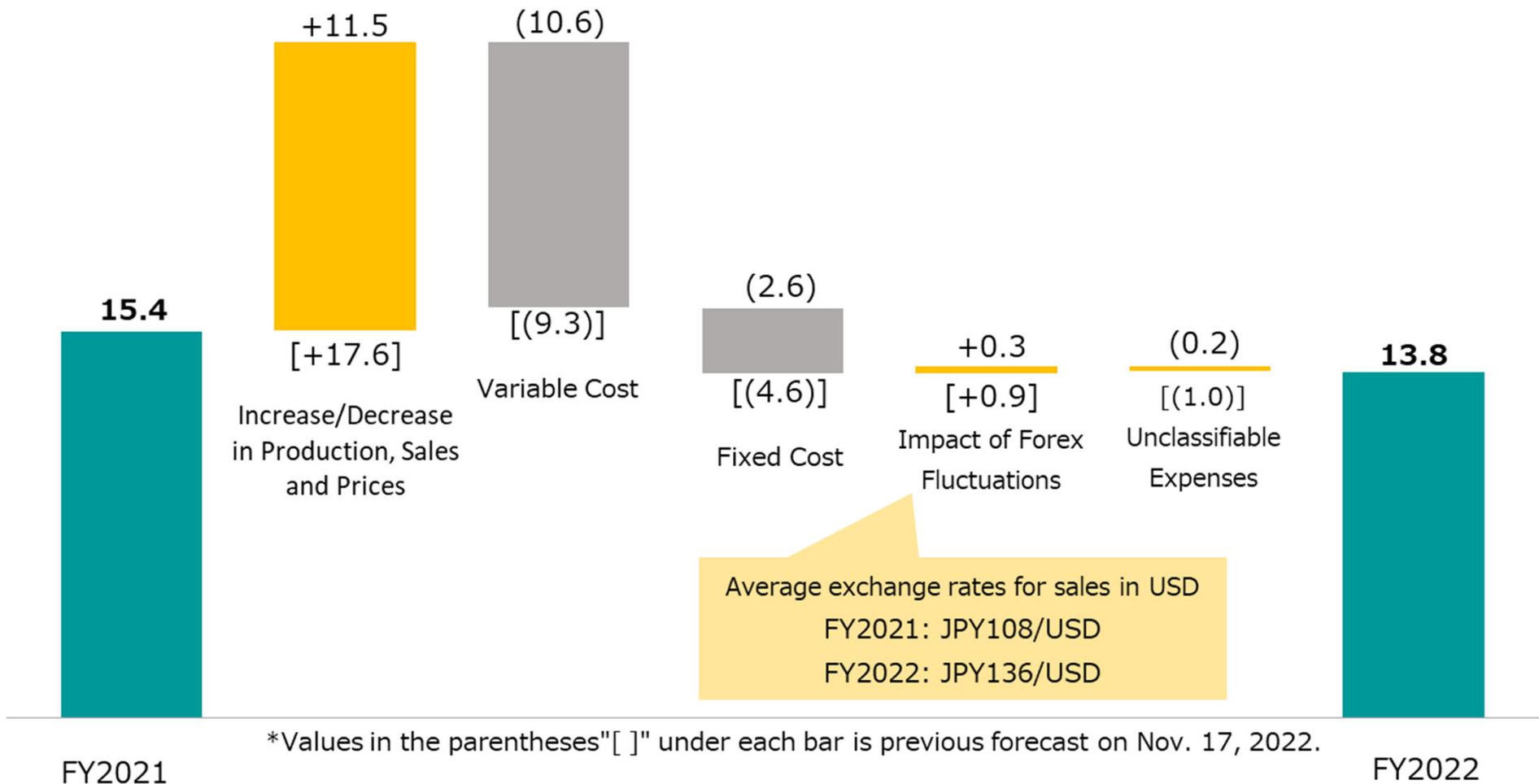
(Unit: Billion Yen)

	Results for FY2021 (A)	FY2022		Change from the previous year (C)-(A)	Change from the previous forecast (C)-(B)
		Previous forecast (as of Nov. 17, 2022) (B)	Results (C)		
Orders received	268.3	300.0	<b>276.0</b>	7.7	(24.0)
Net sales	213.7	263.0	<b>238.7</b>	25.0	(24.3)
Operating income (%)	15.4 7.2%	19.0 7.2%	<b>13.8 5.8%</b>	(1.6)	(5.2)
Ordinary income	16.7	20.0	<b>14.9</b>	(1.8)	(5.1)
Profit	13.9	14.0	<b>11.9</b>	(2.0)	(2.1)
Profit per share (Yen)	189.63	190.30	<b>162.75</b>	(26.88)	(27.55)
Divident per share (Yen)	57.0	58.0	<b>58.0</b>	1.0	0.0

# FY2022: Analysis on Changes in Operating Income

Operating income decreased by 1.6 billion yen due to the increase in variable cost.

(Unit: Billion Yen)



## FY2022: Results by Segment

Orders received, net sales and operating income increased YoY in industrial machinery products segment.

In material and engineering business, orders received increased while net sales and operating income decreased YoY.

### Industrial Machinery Products Business

(Unit: Billion Yen)

	Results for FY2021 (A)	FY2022		Change from the previous year (C)-(A)	Change from the previous forecast (C)-(B)
		Previous forecast (as of Nov.17, 2022) (B)	Results (C)		
Orders received	224.8	258.5	<b>233.1</b>	8.3	(25.4)
Net sales	171.1	224.5	<b>202.9</b>	31.8	(21.6)
Operating income (%)	17.7 10.3%	23.5 10.5%	<b>18.9 9.3%</b>	1.2	(4.6)

### Material and Engineering Business

(Unit: Billion Yen)

	Results for FY2021 (A)	FY2022		Change from the previous year (C)-(A)	Change from the previous forecast (C)-(B)
		Previous forecast (as of Nov.17, 2022) (B)	Results (C)		
Orders received	40.1	39.0	<b>41.1</b>	1.0	2.1
Net sales	40.0	36.0	<b>33.9</b>	(6.1)	(2.1)
Operating income (%)	1.3 3.3%	0.4 1.1%	<b>(0.8) -2.5%</b>	(2.1)	(1.2)

## FY2022: Industrial Machinery Products Business

Orders received for plastic production and processing machinery decreased in the reaction to the huge order for pelletizers in FY21.

Orders received for molding machines decreased due to the market slowdown in the later half of FY22.

### Net Sales / Operating Income

	(Unit: Billion Yen)				
	Results for FY2021 (A)	FY2022		Change from the previous year (C)-(A)	Change from the previous forecast (C)-(B)
		Previous forecast (as of Nov.17, 2022) (B)	Results (C)		
Plastic production and processing machinery	62.1	100.0	92.2	30.1	(7.8)
Molding machines	65.3	75.5	65.8	0.5	(9.7)
Others	43.7	49.0	44.9	1.2	(4.1)
Total	171.1	224.5	202.9	31.8	(21.6)
Operating income	17.7	23.5	18.9	1.2	(4.6)

### Orders Received

	(Unit: Billion Yen)				
	Results for FY2021 (D)	FY2022		Change from the previous year (F)-(D)	Change from the previous forecast (F)-(E)
		Previous forecast (as of Nov.17, 2022) (E)	Results (F)		
Plastic production and processing machinery	111.2	125.0	107.3	(3.9)	(17.7)
Molding machines	71.1	76.0	65.4	(5.7)	(10.6)
Others	42.5	57.5	60.4	17.9	2.9
Total	224.8	258.5	233.1	8.3	(25.4)

## FY2022: Material and Engineering Business

Orders received increased mainly driven by the increase in thermal and nuclear products.

### Net Sales / Operating Income

(Unit: Billion Yen)

	Results for FY2021	FY2022		Change from the previous year (C)-(A)	Change from the previous forecast (C)-(B)
	(A)	Previous forecast (as of Nov.17, 2022) (B)	Results (C)		
Steel castings and forgings	28.4	26.0	24.9	(3.5)	(1.1)
Engineering, etc.	11.6	10.0	9.0	(2.6)	(1.0)
Total	40.0	36.0	33.9	(6.1)	(2.1)
Operating income	1.3	0.4	(0.8)	(2.1)	(1.2)

### Orders Received

(Unit: Billion Yen)

	Results for FY2021	FY2022		Change from the previous year (F)-(D)	Change from the previous forecast (F)-(E)
	(D)	Previous forecast (as of Nov.17, 2022) (E)	Results (F)		
Steel castings and forgings	30.1	28.0	30.6	0.5	2.6
Engineering, etc.	10.0	11.0	10.5	0.5	(0.5)
Total	40.1	39.0	41.1	1.0	2.1

[PART II]

## Forecast for FY2023

## FY2023 : Forecasts for Orders, Net Sales and Profits

Orders received, net sales and profit, all are expected to increase year on year.

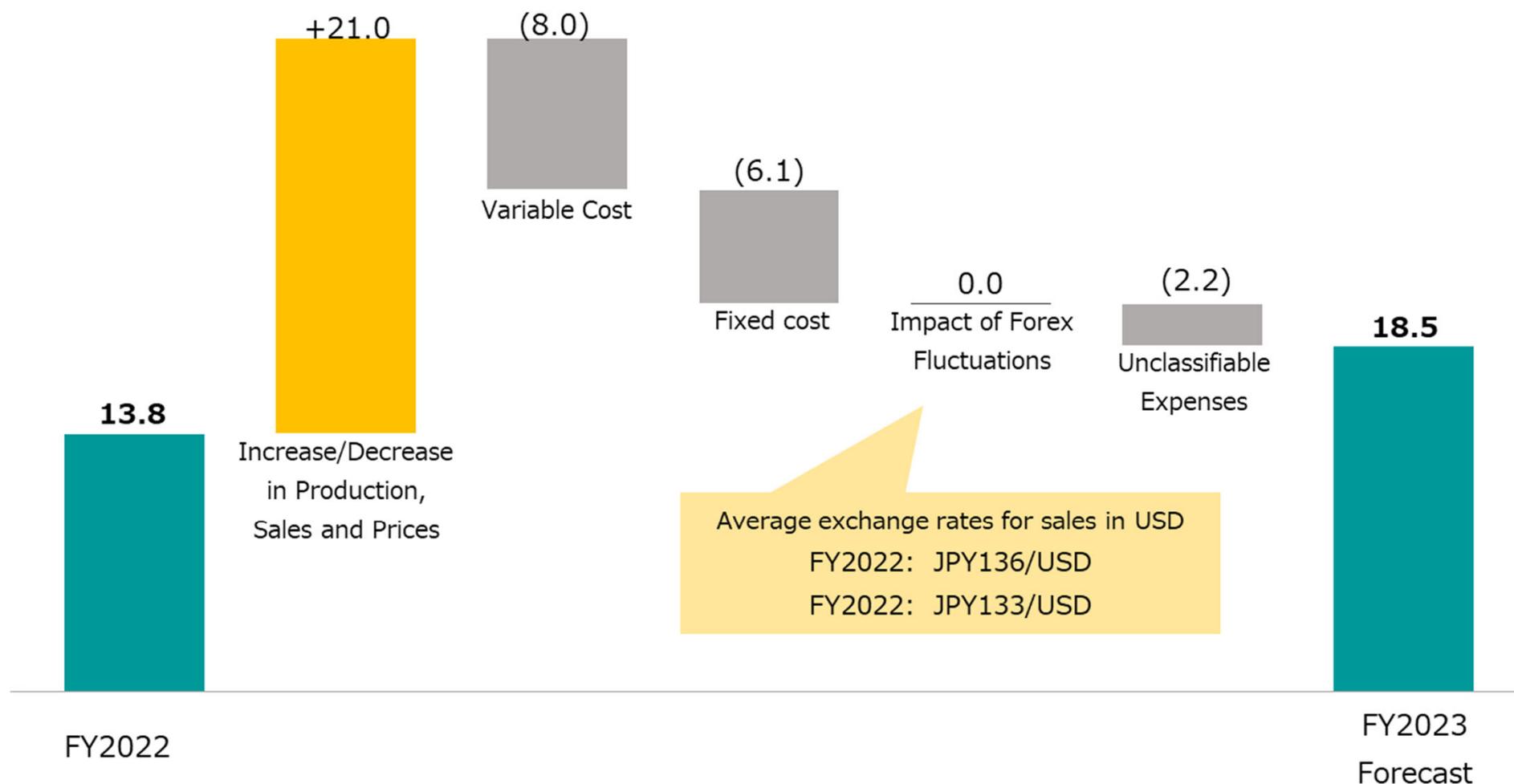
(Unit: Billion Yen)

	Results for FY2022 (A)	Forecast for FY2023 (B)	Change from the previous year (B)-(A)
Orders received	276.0	<b>330.0</b>	54.0
Net sales	238.7	<b>280.0</b>	41.3
Operating income (%)	13.8 5.8%	<b>18.5</b> <b>6.6%</b>	4.7
Ordinary income	14.9	<b>19.0</b>	4.1
Profit	11.9	<b>14</b>	2.1
Profit per share (yen)	162.75	<b>190.26</b>	27.51
Divident per share (yen)	58.0	<b>58.0</b>	0.0

## FY2023: Analysis on Changes in Operating Income

Operating income is expected to increase by 4.7 billion yen led by the increase in production, sales and prices.

(Unit: Billion Yen)



## FY2023: Forecast by Segment

Orders received, net sales and operating income are expected to increase in both segments YoY.

### Industrial Machinery Products Business

(Unit: Billion Yen)

	Results for FY2022 (A)	Forecast for FY2023 (B)	Change from the previous year (B)-(A)
Orders received	233.1	<b>284.0</b>	50.9
Net sales	202.9	<b>231.0</b>	28.1
Operating income (%)	18.9 9.3%	<b>23.0</b> <b>10.0%</b>	4.1

### Material and Engineering Business

(Unit: Billion Yen)

	Results for FY2022 (A)	Forecast for FY2023 (B)	Change from the previous year (B)-(A)
Orders received	41.1	<b>43.0</b>	1.9
Net sales	33.9	<b>46.0</b>	12.1
Operating income (%)	(0.8) -2.5%	<b>1.3</b> <b>2.8%</b>	2.1

## FY2023 : Industrial Machinery Products Business

Orders for plastic production and processing machinery is expected to increase driven by the increase in film & sheet manufacturing equipment for LiB separator films. Recovery in demand for molding machinery is expected in automobile market including EVs.

	Net Sales / Operating Income			Orders Received		
	Results for FY2022 (A)	Forecast for FY2023 (B)	Change from the previous year (B)-(A)	Results for FY2022 (C)	Forecast for FY2023 (D)	Change from the previous year (D)-(C)
	(Unit: Billion Yen)			(Unit: Billion Yen)		
Plastic production and processing machinery	92.2	106.0	13.8	107.3	131.5	24.2
Molding machines	65.8	74.0	8.2	65.4	78.0	12.6
Others	44.9	51.0	6.1	60.4	74.5	14.1
Total	202.9	231.0	28.1	233.1	284.0	50.9
Operating income	18.9	23.0	4.1			

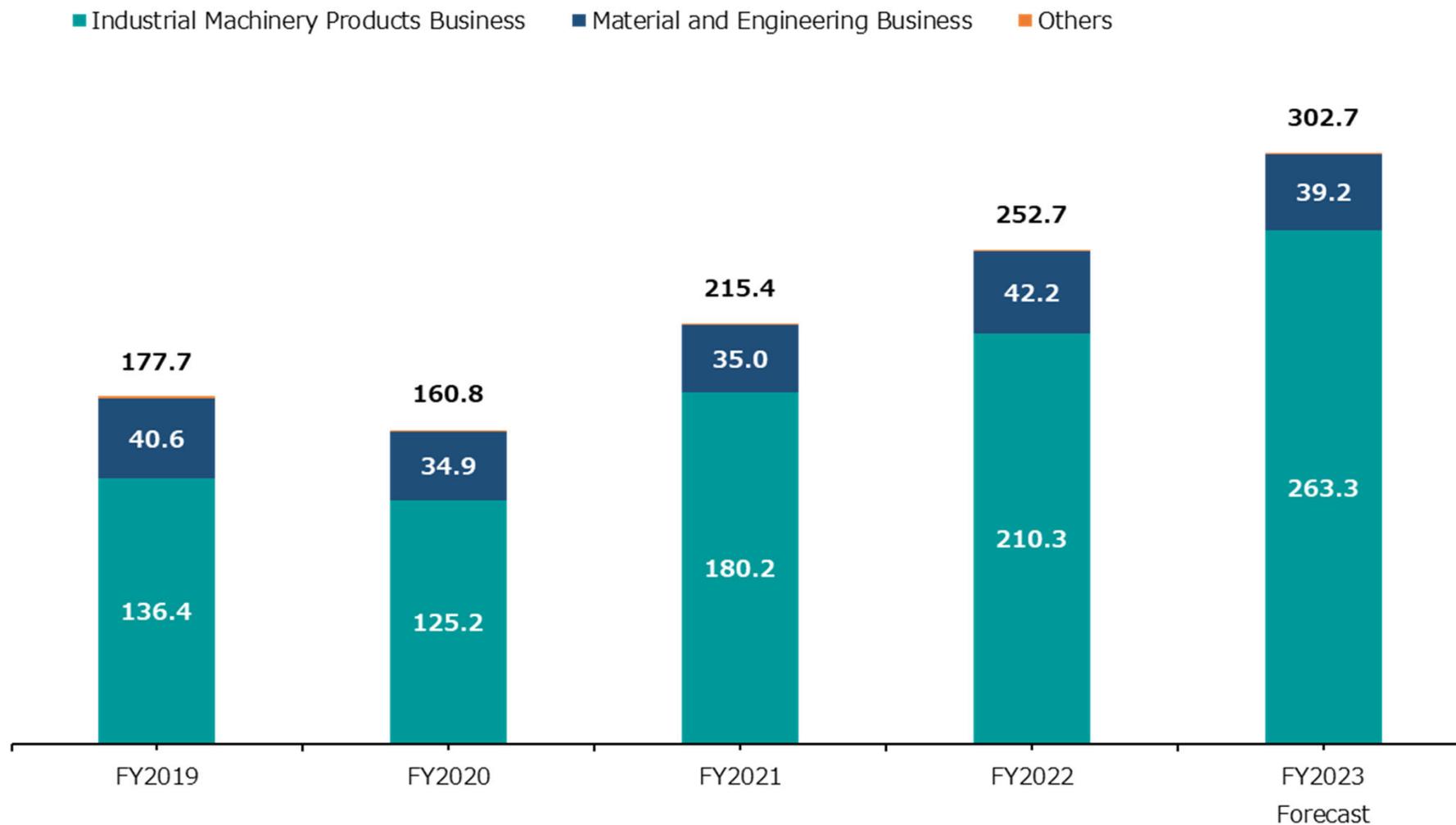
## FY2022 : Material and Engineering Business

Orders for steel castings and forgings is expected to grow for power equipment related demand.

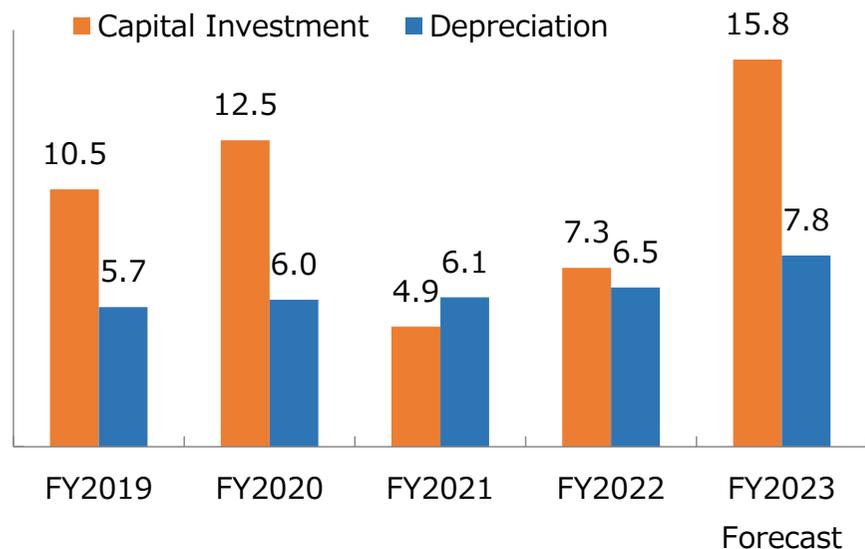
	Net Sales / Operating Income			Orders Received		
	Results for FY2022 (A)	Forecast for FY2023 (B)	Change from the previous year (B)-(A)	Results for FY2022 (C)	Forecast for FY2023 (D)	Change from the previous year (D)-(C)
	(Unit: Billion Yen)			(Unit: Billion Yen)		
Steel castings and forgings	24.9	34.0	9.1	30.6	36.0	5.4
Engineering, etc.	9.0	12.0	3.0	10.5	7.0	(3.5)
Total	33.9	46.0	12.1	41.1	43.0	1.9
Operating income	(0.8)	1.3	2.1			

# Tends in Order Backlog and the Forecast

(Unit: Billion Yen)

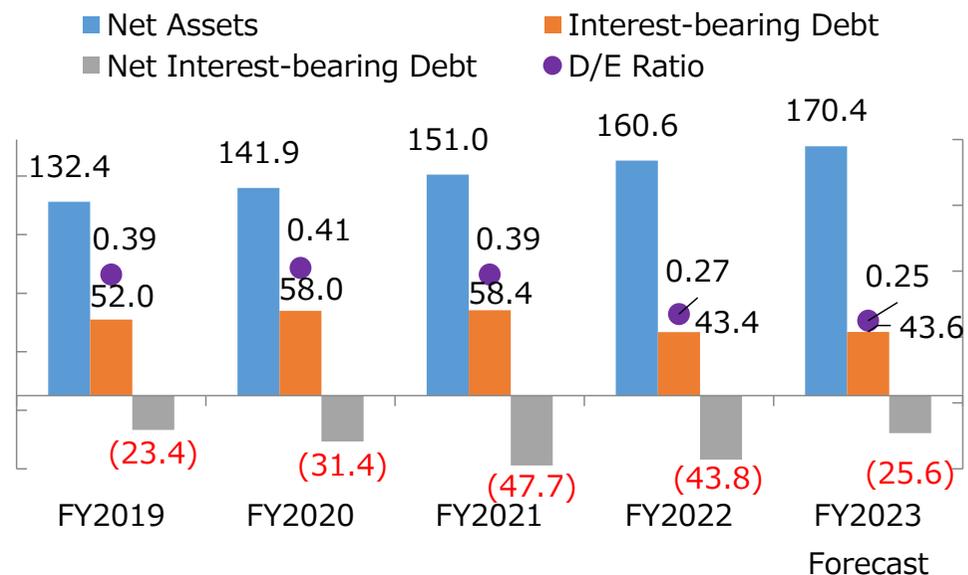


## Status of Capital Investment and Depreciation

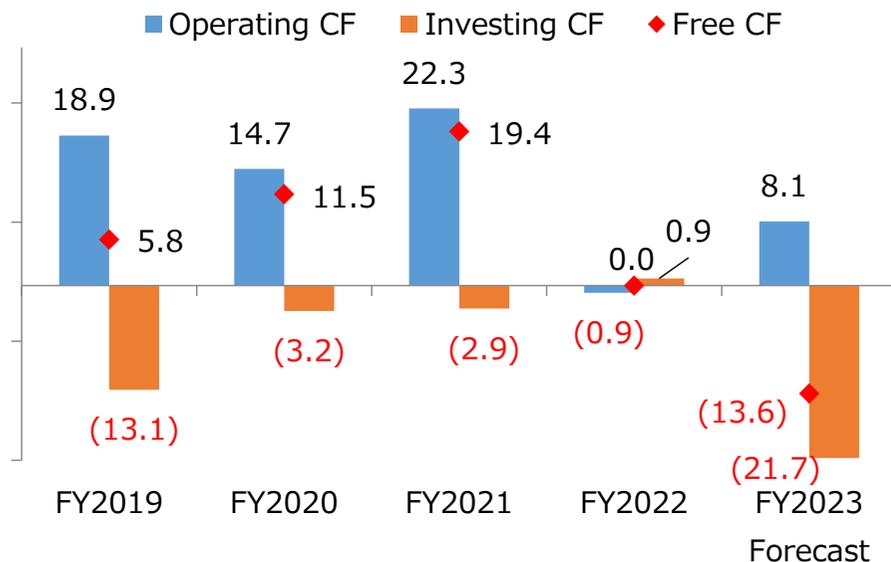


## Financial Position

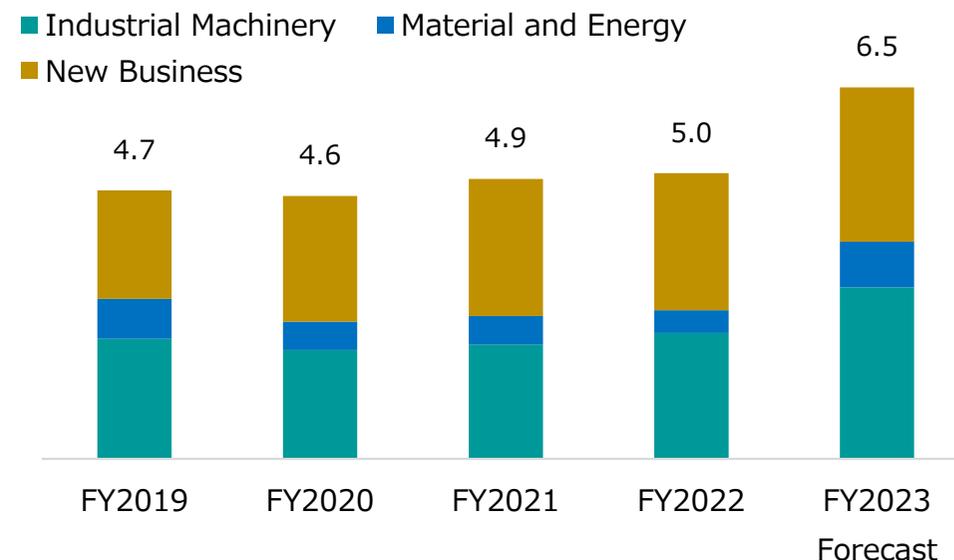
(Unit: Billion Yen)



## Status of Cash Flows



## Status of R&D Expenses

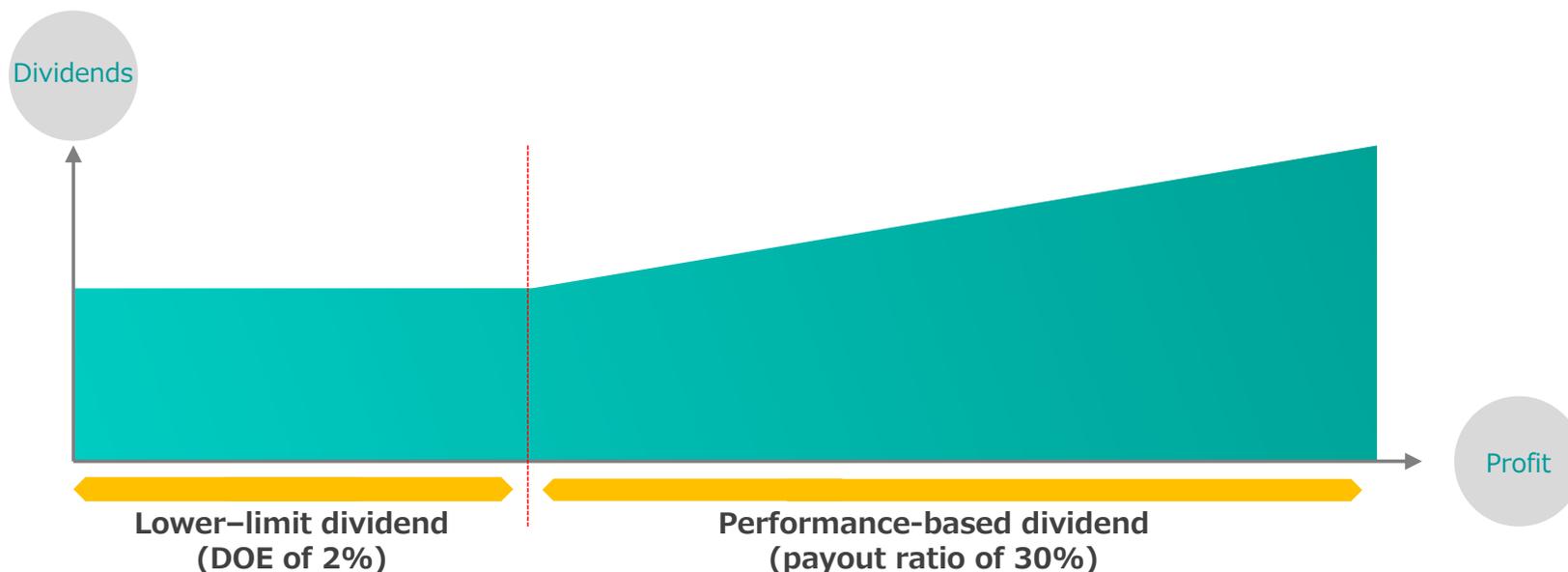


# Dividend Policy of JGP2025 and the Results

## Dividend Policy in the period of JGP2025, medium term management plan.

Paying dividends at a level that ensures dividend on equity (DOE) is 2% or higher while aiming for a consolidated dividend payout ratio of 30% or more.

### Schematic of dividend policy



## Results and forecast

	FY2021	FY2022	FY2023 Forecast
Dividend per share (Yen)	57.0	58.0	58.0
Payout Ratio (consolidated)	30.1%	35.6%	30.5%

[PART III]

# Business Overview

## Market Sentiment for the Main Product in the Industrial Machinery Products Business

Industrial Machinery Products Business	Business sentiment (Comparison with FY2022)	Economic conditions from the perspectives of order acquisition
Film and sheet manufacturing equipment		<ul style="list-style-type: none"> <li>● For LiB separators application, recovery is expected from the delay in investment decision, waiting for policies settled, occurred in FY22.</li> <li>● Demand for other industrial application is strong and stable.</li> </ul>
Pelletizers		<ul style="list-style-type: none"> <li>● Market condition continues strong mainly in China.</li> <li>● Solar PV related demand is increasing.</li> </ul>
Twin-screw extruders		<ul style="list-style-type: none"> <li>● Demand for engineering plastics is increasing mainly in China.</li> </ul>
Plastic Molding machines		<ul style="list-style-type: none"> <li>● Recovery in demand is expected from summer and after.</li> <li>● Trend of switching from hydraulic to electric machines continues in the European market.</li> </ul>
Magnesium molding machines		<ul style="list-style-type: none"> <li>● Demand for the large-sized molding machine, newly developed and released in the end of FY22, is strong for in-vehicle equipment.</li> </ul>
FPD equipment		<ul style="list-style-type: none"> <li>● Demand is strong for display panels application for automobile.</li> </ul>
After-sales services		<ul style="list-style-type: none"> <li>● Now in a transitional period due to restrained investment, recovery from the second half is expected.</li> </ul>

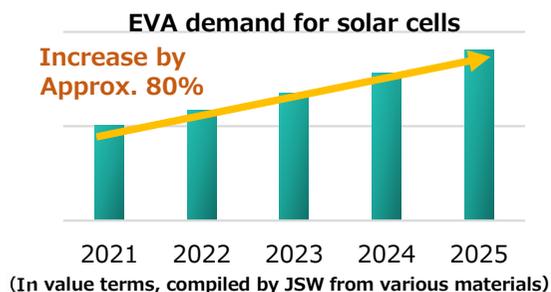
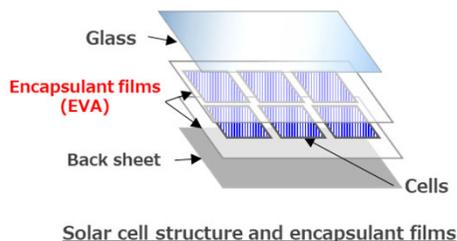
## Market Sentiment for the Main Product in the Material and Engineering Business

Material and Engineering Business	Business sentiment (Comparison with FY2022)	Economic conditions from the perspectives of order acquisition
Steel Casting and Forgings		<ul style="list-style-type: none"> <li>● Demand for power and nuclear continues strong.</li> </ul>
Engineering, etc.		<ul style="list-style-type: none"> <li>● Plant maintenance projects are expected.</li> </ul>

# Pelletizers: Continued Strong Demand and JSW Initiatives

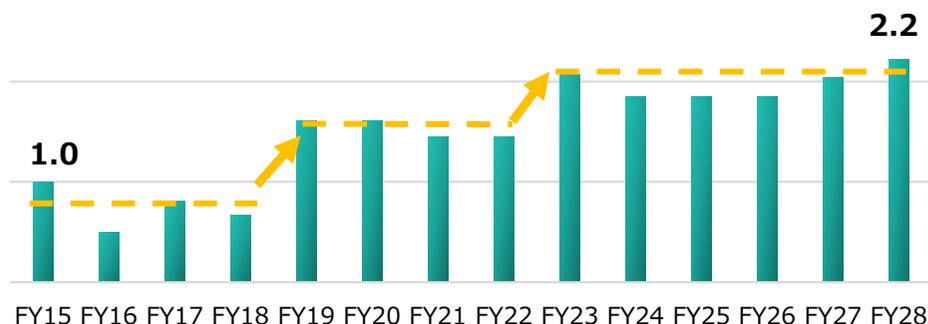
Demand for plastics is expected to continue to increase, supporting consistently high pelletizer sales

- Demand for plastic is likely to continue to rise in the face of economic and population growth.
- The wider introduction of renewable energy in various countries has significantly increased the demand for ethylene vinyl acetate resin (EVA) for solar cell encapsulants.



- Sales of pelletizers, which facilitate the mass production of various plastic raw materials, are expected to remain high from FY2023 onwards.
- We are progressing our Hiroshima Plant investment plan designed to boost plastic machinery production capacity and efficiency and improve our large-size machine assembly capabilities in order to steadily capture demand.

Pelletizer Sales Outlook (INDEX: FY15=1.0)



Investment progress at Hiroshima Plant and future outlook

	FY2023		FY2024		FY2025	
	1H	2H	1H	2H	1H	2H
No.9 Assembly Shop	Start of operation					
No.10 Assembly Shop	Construction, etc.					
New Machining Shop						



No.10 Assembly Shop (expected completion CG)

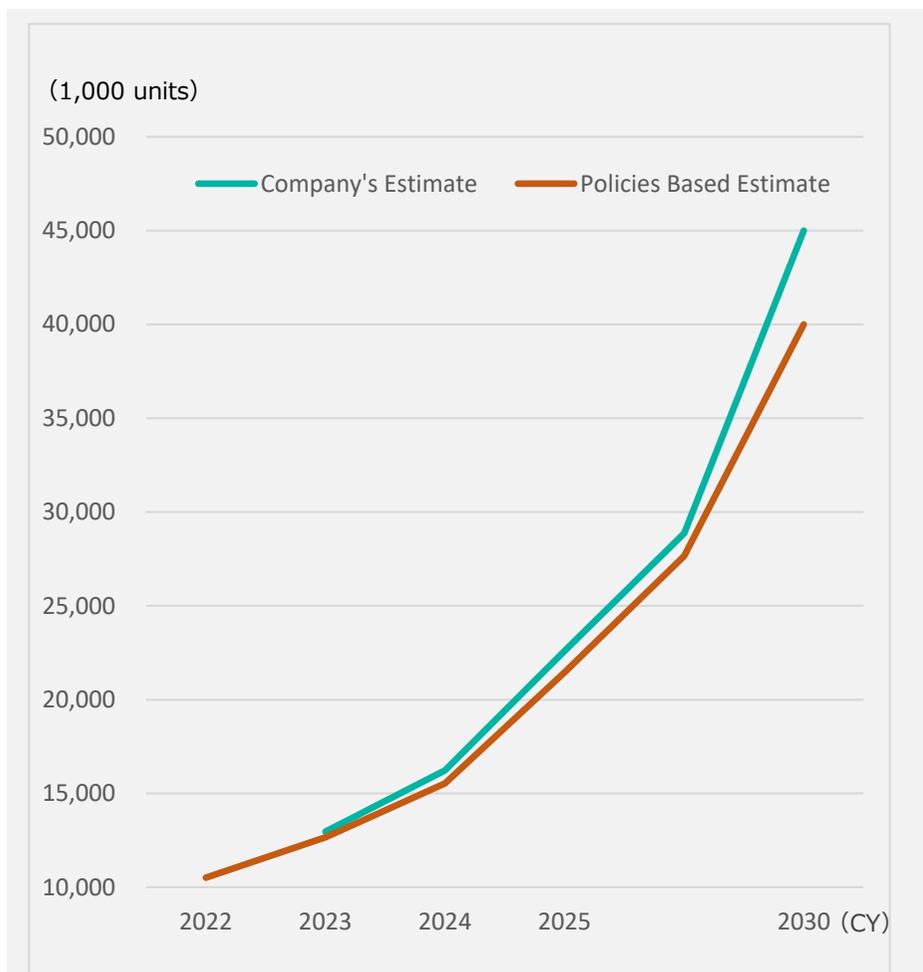


No.9 Assembly Shop

# Outlook for Film and Sheet Manufacturing Equipment

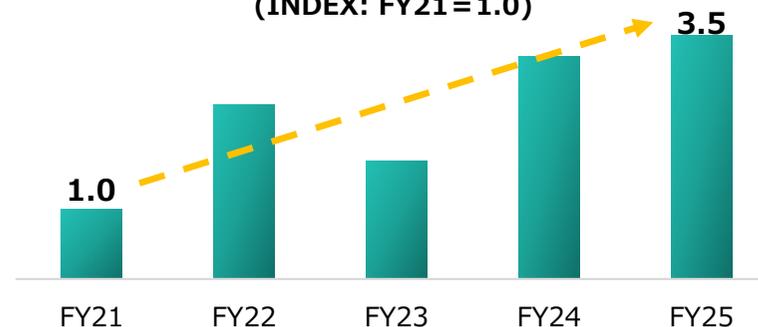
Demand for EV batteries is expected to rise in the medium to long term

## EV (PHEV+EV) production volume forecasts



(Prepared by Company from sources such as IEA "Global EV Outlook 2023" and others)

Trends in Sales of Film & Sheet Manufacturing Equipment (INDEX: FY21 = 1.0)



- FY2023 sales are expected to decline year on year due to delays in investment decisions resulting from policy assessments.
- Customer willingness to invest remains strong given the long-term demand growth. On a recovery track since April 2023.
- Progressing investment decisions in Europe and the United States as well as China. Plan to boost sales by approximately 3.5 times in FY2025 compared to FY2021.
- Successful extension of the width has improved the productivity of the equipment. Will also help strengthen customer competitiveness.
- Production line development at the Muroran and Meiki Plants also progressing as planned. Will complete building of 60-line/year system by March 2024.

# Molding machines: Establishing European Bases and Future Prospects

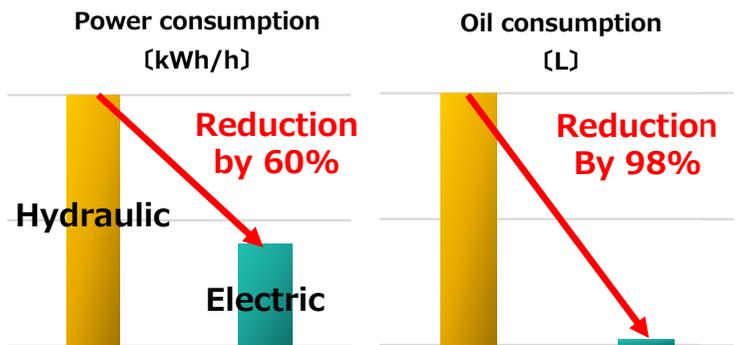
## Initiatives for expanding sales in European market

- Establishing the European production base as planned
  - Set up JSW Plastics Machinery Europe Sp. z.o.o in Poland in July 2022
  - Plant construction completed in March 2023

### 【Overview of the local subsidiary】

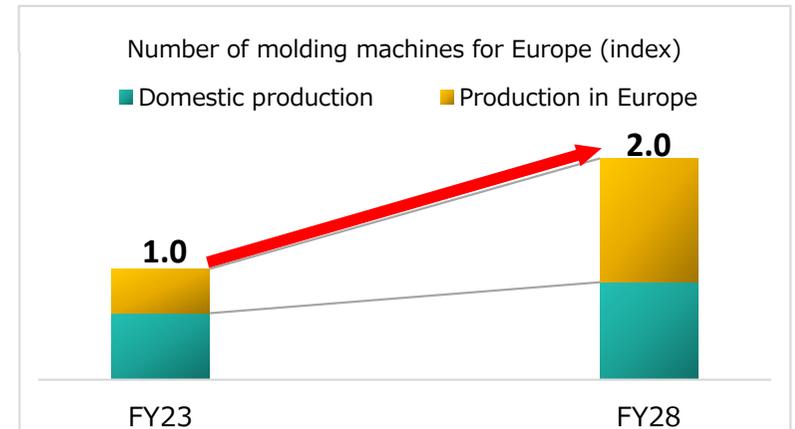
Type of business: Assembly, production, and sale of injection molding machines  
 Total area: 3,350 m<sup>2</sup>

- Demand for electric machines with excellent energy-saving performance is growing given underlying decarbonization and energy environment trends.
  - Electric machines can significantly reduce power consumption compared to hydraulic ones, which still dominate the European market.
  - The amount of operating oil used is also being significantly reduced, helping reduce environmental impact.
  - We intend to capture growing demand by shortening lead times through local production and responding to diverse needs.



(Calculated by JSW based on the assumption of large size injection molding machine (850t in clamping force).)

### Market Share in Europe



# Thermal and nuclear Power Products

## Policy trends in individual countries

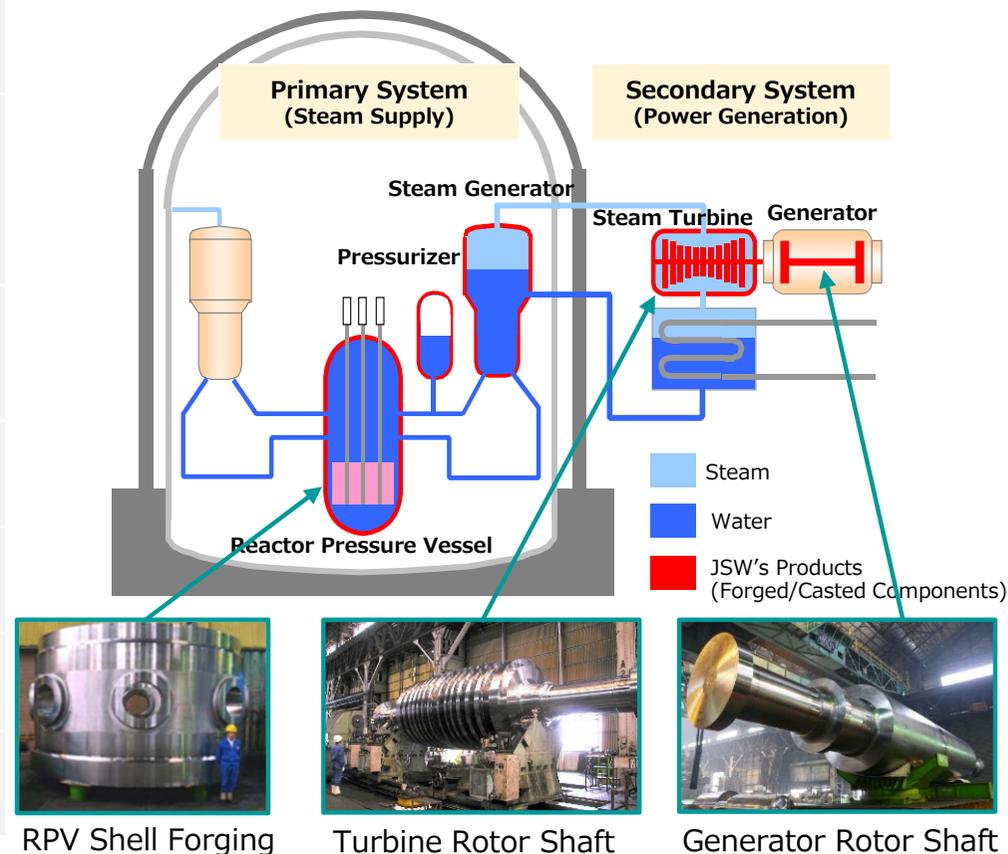
- Nuclear power generation capacity will grow over the medium to long term due to policy changes designed to promote energy security and decarbonization.

- We will use our wealth of development and manufacturing technologies of forgings & castings for thermal and nuclear power equipment along with our knowledge of nuclear related standards in each country. We expect demand for equipment renewal will also rise as operating periods are extended.

[Developments in major markets]

		New construction/replacement plans
Japan		Measures expected to be pursued under the GX Basic Policy (Cabinet approved on February 10, 2023): <ul style="list-style-type: none"> <li>- Promote relaunches</li> <li>- Extend the operation period for existing furnaces</li> <li>- Realize next-generation cutting-edge reactor construction (replacement)</li> </ul>
Europe	France	1 unit of EPR is under construction. In January 2023, the senate passed a bill that included the promotion of new construction. In March 2023, the parliament approved a plan to build 6 units of EPR-2 reactors from 2028 onwards. Also considering a plan to build 8 more units by 2050.
	UK	Planning to install eight large reactors and SMRs to help achieve 24GW of nuclear power generation capacity by 2050. 2 units of EPR are under construction and plans are underway to build 2 more units.
	Poland	Planning to build 6-9GW capacity from 2033 onwards. The first three reactors will be built by Westinghouse Electric Company LLC. of the United States.
	The Netherlands	In 2021, the government reviewed its policy to phase out nuclear power and is now aiming to build two new reactors (2-3GW) with commercial operation date of around 2035.
Asia	China	New construction is progressing based on the plan to develop 70GW nuclear power generation capacity by 2025.
	Korea	Extending the operating period of existing reactors, resuming the construction of two reactors. Seeking to promote the export of nuclear power plants (10 units by 2030).

## Power Generation System and JSW's Products



[PART IV]

Establishment of Corporate Philosophy, starting  
with Purpose, and  
Formulating Our New Medium-term  
Management Plan: JGP2028

**JSW Group**

## Purpose

What is the JSW Group's value?

**Material Revolution™**,  
Making the world sustainable and prosperous.

## Vision

What will JSW Group aim for?

Benefiting all stakeholders by developing and implementing industrial machinery and new materials that solve social issues.

## Value Creation Process

How can JSW Group provide value to realize the Vision?

JSW Group Core Competence

Melting, Mixing, and Solidifying + Machine Element and Precision Control

JSW Group will further refine its core competence, develop industrial machinery and new materials that solve social issues, and supply them to the world, thereby simultaneously creating social value and enhancing sustainable corporate value.

# Establishment of corporate philosophy, starting with purpose

## The history of our technologies and business and how they relate to society

Company founding - end of WWII

Post-war reconstruction – period of high economic growth

Responding to new social issues

Excellent steel

Founded in 1907 to develop and manufacture excellent steel to serve as the foundation for development of Japan as a modern nation.



Before the end of WWII, we manufactured artillery and other products as a civilian weapons manufacturer to meet society's needs.



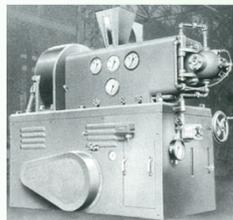
Responding to current social needs by providing technological development even after the war. Supporting social infrastructure around the world.



Today, we continue to contribute to Japan's national defense as the nation's only artillery manufacturer.

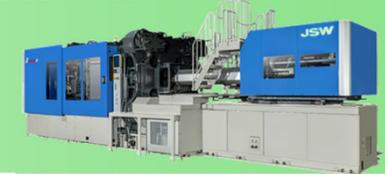
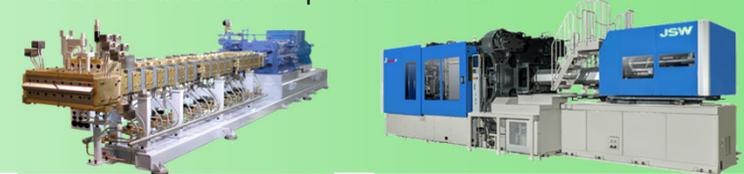
Plastics

Develop a processing machine for the new lightweight material plastic. Contributed to post-war reconstruction.



In 1950, developed extruders for plastic production in-house. Delivered to Japan's first petrochemical complex (1958).

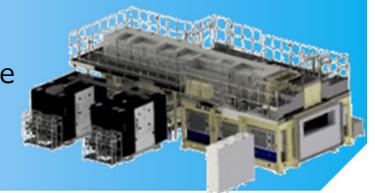
We continue to grow as a producer of unparalleled, world-leading plastic manufacturing and processing machinery. We help reduce the weight and increase the energy-saving features of various components in response to the dramatic increase in potential uses.



Electronic Devices

Supplying equipment for the manufacture of electronic devices that are vital for creating a super smart society.

The introduction of thin, high-definition smartphone displays for social use, made possible by surface modification devices such as the ELA system, helps create a convenient and prosperous society.



日本製鋼所  
Foundation (1907)

Melting, mixing and solidifying technologies + Machine element technology + Precision control technology  
= Creation of the Value Required to Solve Social Issues

**JSW** 日本製鋼所

Material Revolution™, making the world sustainable and prosperous.

## JSW Group Purpose →

### Back to Where JSW Group Started

#### ▷ Innovation in Steel

Steel plays a role in supporting social infrastructures around the world by responding to the various needs required through continuous technological development. For example, superior steel components, equipped with high reliability and excellent material properties, are used in power plants.

#### ▷ Innovation in Plastics

After World War II, we focused on the lightweight material plastic earlier than any other company, and have been developing and implementing various-purposes plastic processing machinery, which is expanding dramatically, contributing to weight reduction of components and energy conservation.

## Material Revolution,

making the world sustainable and prosperous.

JSW Group has been continuously striving for material innovation and solving social issues. We will hone our material innovation technology even further and continue to be a provider of solutions to social issues.

### Recent Initiatives

In recent years, we have been working on the improvement of mass production technology for gallium nitride (GaN) crystals, viewed as the next-generation semiconductor material, as well as the development of various bonded substrates. By supporting the social implementation of these crystal materials and various elements, we will contribute to the realization of a super-smart society.

# Establishment of corporate philosophy, starting with purpose

## JSW Group Vision →

### Needs of Society

Marine pollution caused by waste plastics has become a major social problem, and a global challenge is the realization of a resource-recycling society where waste plastics can be used.

The mobility field, which is undergoing a major shift in its business model toward a carbon-neutral society, including reduction of CO<sub>2</sub> emissions, requires the use of lightweight materials leading to improved fuel efficiency.

We have great expectations for the next generation of crystals as materials because everything around us will be connected to the network in a super-smart society where the real world and virtual space are merging together. As such, creating new power semiconductor materials that simultaneously satisfy high-speed, large-capacity communications and energy conservation must be essential.

## JSW Group Vision

**Benefiting all stakeholders by developing and implementing industrial machinery and new materials that solve social issues.**

**JSW Group will continue to meet the needs of society by using Material Innovation technology.**

### Industrial Machinery Products

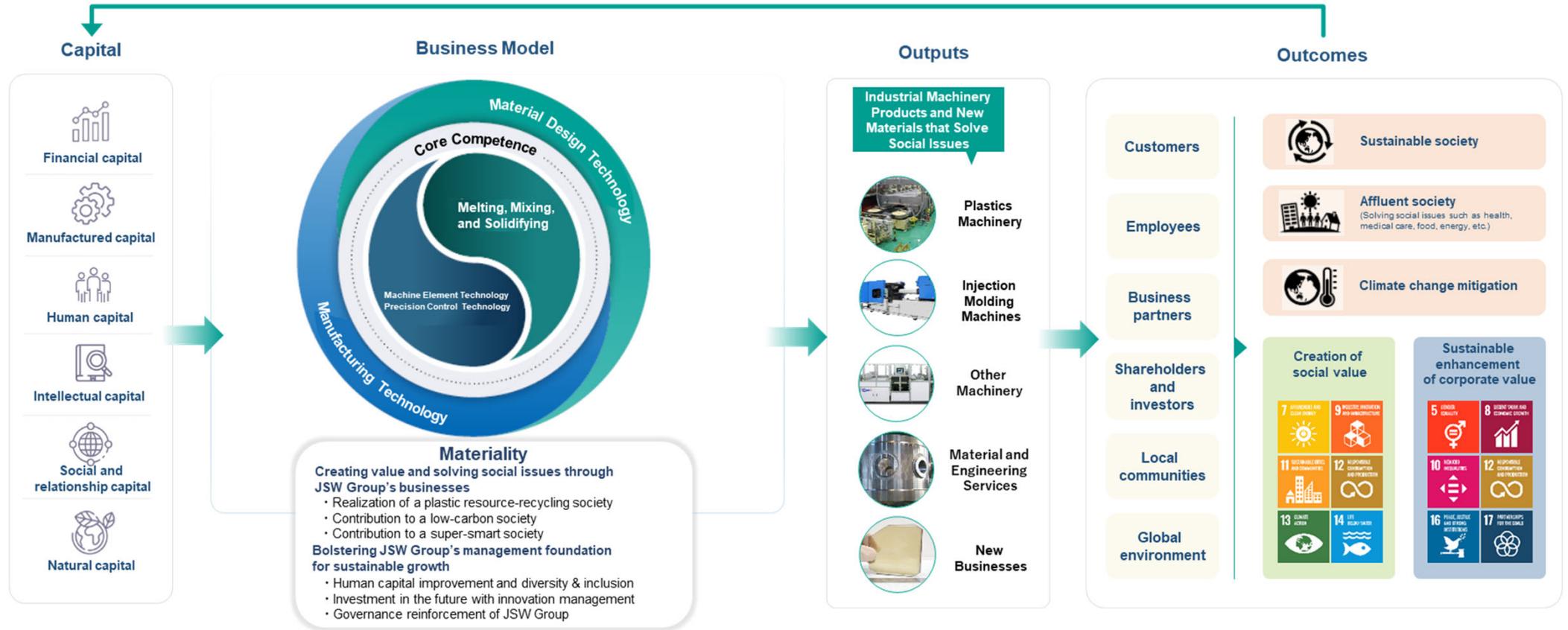
We will supply the world with equipment for manufacturing products made from waste plastics based on our established recycling technology, leveraging our knowledge of plastics cultivated up until now.

In addition to the magnesium injection molding machine, which has already been successfully put into practical use, globally we will develop and provide industrial machinery for social implementation of environmental-friendly, lightweight materials, such as cellulose nanofiber and plastics reinforced with carbon fiber.

### Materials

We make use of the technology to manufacture various crystals, including quartz crystals. We develop mass production technology for gallium nitride crystals, which are expected to be used as materials for laser diodes, high-frequency devices, and high-voltage power semiconductors, as well as materials for various bonded substrates. By doing so, we will support the social implementation of various energy-efficient elements.

# Establishment of corporate philosophy, starting with purpose



# Materiality (Important Issues)

Creating Value and Solving Social Issues through JSW Group's Businesses		Bolstering JSW Group's Management Foundation for Sustainable Growth	
Materiality	Reasons why considered to be of high importance	Materiality	Reasons why considered to be of high importance
<b>Realization of a Plastic-Resources-Recycling Society</b>	<p>It is quite important to supply society with all manner of plastics processing machinery that realizes 3Rs + Renewable.</p> <p>Since JSW Group can leverage its core competence to the maximum, it can demonstrate our strength in the development and creation of plastics processing machinery that meets the demands of society. This is also a high-priority business expansion opportunity for JSW Group.</p>	<b>Human Capital Improvement and Diversity and Inclusion</b>	<p>The diversification and expansion of our human capital, including the human resources capable of driving the Group's growth, generating innovation, and creating value, is a matter of the highest priority and importance for strengthening JSW Group's management foundation.</p>
<b>Contribution to a Low-Carbon Society</b>	<p>The realization of a low-carbon society is one of the most important challenges faced worldwide.</p> <p>JSW Group's products have contributed to the reduction of CO2 emissions, and the demand for such products is expected to increase further in the future.</p> <p>Reduction of energy consumption of industrial machinery products and curbing of CO2 emissions from the operations of manufacturing sites are also of JSW Group's responsibility.</p>	<b>Investment in the Future with Innovation Management</b>	<p>For JSW Group to continue contributing to society in the future, it is essential to maintain and strengthen its technological superiority by refining its core competence and expanding its business.</p> <p>Innovation is another essential factor for sustainable growth. It is important to promote digital transformation which supports data-based, quick decision-making, business model innovation, and the creation of new value.</p>
<b>Contribution to a Super-Smart Society</b>	<p>Building a 5G/6G-compatible digital infrastructure will be essential to realize a super-smart society.</p> <p>The industrial machinery &amp; new materials of JSW Group are incorporated into the key components of the devices that make up the infrastructure and could be indispensable for a super-smart society.</p> <p>This is considered to be a highly important business opportunity for the Group.</p>	<b>Governance Reinforcement of JSW Group</b>	<p>For the sustained growth of JSW Group, it is important not only to further strengthen compliance and governance, but also to engage in dialogue with all the stakeholders.</p> <p>In addition, supplying society with industrial machinery and new materials of high quality and superior reliability is the very foundation of JSW Group's business and important to the further strengthening of its quality assurance structure and system.</p>

# Formulating Our New Medium-term Management Plan: JGP2028

## Constructing a forward-looking plan that determines how we should be operating ten years from now

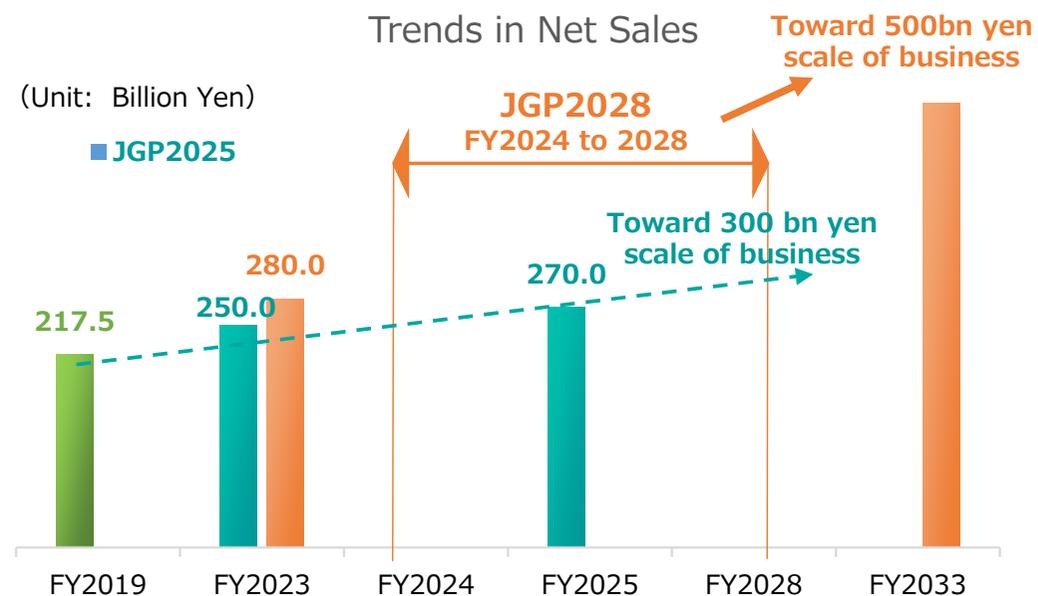
- Aim to grow into a 500 billion-yen business Group over the next decade
  - FY2023 sales are expected to exceed the target for the final fiscal year of the JGP2025.
  - FY2023 operating income is expected to come in below plan, prompting an urgent review of potential remedial measures.
  - Having declared the new goal of becoming a 500 billion-yen business in ten years, JSW will formulate quantitative targets for the mid-point of FY2028 and determine how we are going to achieve those targets by the end of FY2023.

- Formulate management strategies for solving material issues
  - Formulate strategies for solving identified material issues and promoting growth.

- Consider the further strengthening of shareholder returns

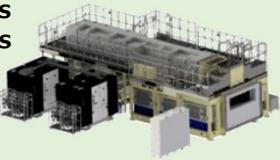
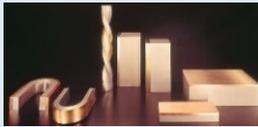
(Unit: Billion Yen)

	FY2022 Result	FY2023		FY2025 JGP2025
		JGP2025	Forecast	
Net sales	238.7	250.0	280.0	270.0
Operating income	13.8	20.0	18.5	27.0
%	5.8%	8.0%	6.6%	10.0%



# Reference Materials

# Composition of Business Segments and Major Products

<b>Business Segments</b>	<b>Industrial Machinery Products Business</b>	<b>Material and Engineering Business</b>	<b>Other Business Segments</b>
<b>Organizations</b>	Plastic Machinery B.D. / Injection Molding Machinery B.D. / Industrial Machinery B.D. / Ordnance Business H.Q.	Japan Steel Works M&E, Inc.	New Business Promotion H.Q.
<b>Production Bases</b>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Hiroshima</p>  </div> <div style="text-align: center;"> <p>Yokohama</p>  </div> <div style="text-align: center;"> <p>Nagoya(Meiki)</p>  </div> </div>	<div style="text-align: center;"> <p>Muroran</p>  </div>	
<b>Products</b>	<div style="display: flex;"> <div style="flex: 1;"> <p><b>Plastic production and processing machinery</b></p> <ul style="list-style-type: none"> <li>• Pelletizers</li> <li>• Film and sheet manufacturing equipment</li> <li>• Twin-screw extruders</li> <li>• After-sales services</li> </ul>  </div> <div style="flex: 1;"> <p><b>Molding machines</b></p> <ul style="list-style-type: none"> <li>• Plastic injection molding machines</li> <li>• Magnesium alloy injection molding machines</li> <li>• Blow molding machines</li> <li>• After-sales services</li> </ul>  </div> </div> <div style="display: flex; margin-top: 20px;"> <div style="flex: 1;"> <p><b>Other machinery</b></p> <ul style="list-style-type: none"> <li>• Excimer laser annealing (ELA) systems</li> <li>• Defense equipment</li> <li>• Railway products</li> <li>• Hot press devices</li> </ul>  </div> <div style="flex: 1;"> <p><b>Other machinery</b></p> <ul style="list-style-type: none"> <li>• Laminators</li> <li>• Deposition systems</li> <li>• After-sales services</li> </ul>  </div> </div>	<div style="display: flex;"> <div style="flex: 1;"> <p><b>Steel castings and forgings</b></p> <ul style="list-style-type: none"> <li>• Parts for Nuclear Reactor Pressure Vessels &amp; Steam Generators</li> </ul>  </div> <div style="flex: 1;"> <ul style="list-style-type: none"> <li>• Rotor shafts</li> <li>• Turbine casings</li> <li>• Die steel</li> <li>• Steel rolls for steel mills</li> </ul>  </div> </div> <div style="display: flex; margin-top: 20px;"> <div style="flex: 1;"> <p><b>Clad steel products</b></p> <ul style="list-style-type: none"> <li>• Clad steel plates</li> </ul>  </div> <div style="flex: 1;"> <p><b>Engineering services</b></p> <ul style="list-style-type: none"> <li>• Steel structure for plant and infrastructure</li> <li>• Non-destructive inspection and analytical inspection services</li> <li>• Steel pressure vessels for hydrogen storage and hydrogen storage tanks using hydrogen absorbing alloys</li> </ul>  </div> </div>	<p><b>New Business</b></p> <ul style="list-style-type: none"> <li>• Photonics</li> <li>• Composite materials</li> <li>• Metal materials</li> </ul>
<b>Markets</b>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #008000; color: white; padding: 5px;">Petrochemicals</div> <div style="background-color: #008000; color: white; padding: 5px;">Industrial Machinery</div> <div style="background-color: #008000; color: white; padding: 5px;">Automobiles</div> <div style="background-color: #000080; color: white; padding: 5px;">IT</div> <div style="background-color: #000080; color: white; padding: 5px;">Defense</div> </div>	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #800000; color: white; padding: 5px;">Electric Power and Steel</div> <div style="background-color: #800000; color: white; padding: 5px;">Oil and Natural Gas</div> <div style="background-color: #000080; color: white; padding: 5px;">Natural Energy</div> </div>	<div style="background-color: #FFD700; color: black; padding: 5px; text-align: center;">New Business</div>

# Trends in Net Sales, Operating Income and Profit

(Unit: Billion Yen)

	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Net Sales	212.9	220.1	217.5	198.0	213.7	238.7
Industrial Machinery Products Business	170.2	173.6	171.4	156.3	171.1	202.9
Plastic production and processing machinery	50.2	52.5	61.3	58.8	62.1	92.2
Molding machines	64.5	72.7	65.3	54.5	65.3	65.8
FPD equipment	-	16.4	-	-	-	-
Others	37.0	20.4	44.8	43.0	43.7	44.9
Consolidated subsidiaries, etc.	18.5	11.6	-	-	-	-
Material and Engineering Business	40.8	41.2	42.8	38.5	40.0	33.9
Steel castings and forgings	-	-	19.6	19.9	25.4	24.9
Electric and nuclear power	17.2	12.5	-	-	-	-
Pressure vessel for oil refineries	1.0	-	-	-	-	-
Clad steel plates and pipes	7.0	13.0	12.8	10.5	6.0	-
Engineering, etc.	-	-	10.4	8.1	8.6	9.0
Wind turbines	1.6	-	-	-	-	-
Others	5.5	9.5	-	-	-	-
Consolidated subsidiaries, etc.	8.5	6.2	-	-	-	-
Other Businesses	1.7	5.2	4.6	3.1	2.6	1.8
Operating Income	21.3	24.2	18.7	10.2	15.4	13.8
Industrial Machinery Products Business	23.8	23.5	19.2	13.9	17.7	18.9
Material and Engineering Business	(1.5)	2.6	2.7	1.8	1.3	(8)
Other Businesses	0.8	0.3	(0.4)	0.0	0.0	(4)
Profit	10.7	19.9	9.3	6.8	13.9	11.9

\*Sub-segment changed in FY2020; Figures from FY2019 have been restated to reflect this change.

• Three companies (GM Engineering CO., Ltd, Nichiyu Machinery Co., Ltd and SM Platek Co., Ltd.), which had been treated as consolidate subsidiaries, were reclassified as the Plastic production and processing machinery.

• FPD equipment, Other products and Consolidated subsidiaries, etc. were reclassified as Other products in the Industrial Machinery Products Business.

• Pressure vessels for oil refineries out of steel castings and forgings in the Material and Engineering Business and wind power maintenance services out of the Other Business were reclassified as Engineering, etc. in the Material and Engineering Business.

## Trends in Main Assets and Cash Flows

(Unit: Billion Yen)

	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Total Assets	297.4	305.5	297.1	316.2	339.7	348.3
Net Assets	118.6	129.8	132.4	141.9	151.0	160.6
Net Assets per Share (yen) * * Since FY2016, amounts are after reserve-->reverse split of stocks	1,592.47	1,746.91	1,778.94	1,908.76	2,031.29	2,162.18
Equity Ratio (%)	39.3	42.0	44.0	44.4	44.0	45.7
Return on Equity (%)	9.6	16.3	7.2	5.1	9.6	7.8
Operating Cash Flow	26.7	1.1	18.9	14.7	22.3	(0.9)
Investing Cash Flow	(5.0)	(1.3)	(13.1)	(3.2)	(2.9)	0.9
Financing Cash Flow	(2.4)	(3.7)	(6.1)	2.7	(2.8)	(20.1)
Cash and Cash Equivalents at End of the Period	77.8	73.8	74.4	88.7	105.7	86.4

# Corporate Code of Behavior of JSW (revised on April 1, 2018)

At The Japan Steel Works, Ltd., we will comply with all laws and international rules, both to the letter and in spirit, and fulfill our social responsibilities with a strong sense of ethics in Japan and overseas as a company that aims to realize a sustainable society based on the following ten principles.

1. To promote sustainable economic growth and the resolution of social issues, we will develop useful products, technologies and services that give consideration to safety through innovation and provide them to society.
2. We will conduct appropriate transactions and responsible procurement based on fair and free competition. We will also maintain sound relationships with political and government bodies.
3. To enhance our corporate value, we will make appropriate corporate information available to the public willingly and fairly and have constructive dialogues with a wide range of stakeholders.
4. We will respect the human rights of all people.
5. We will earn the trust and satisfaction of society and customers by responding promptly to inquiries from customers after reflecting the market and customer needs in our products, technologies and services.
6. We will provide a sound working environment by developing workstyles that respect the diversity, personality and individuality of employees.
7. We will take actions proactively, recognizing that addressing environmental issues is an important duty for us as a company.
8. We will participate in the community and contribute to its development as a corporate citizen.
9. We will conduct thorough and systematic crisis management against antisocial forces, terrorism, cyberattacks and natural disasters, etc. that will pose a threat to civil society and corporate activities.
10. Recognizing the realization of the spirit of this code of behavior as its own role, our management will make it fully known to the employees of the Company and its affiliates after establishing effective governance and encourage the chains to perform acts based on the spirit of this code of behavior  
If any situation that will lose the trust of society occurs in conflict with the spirit of this code of behavior, our management will take the initiative in solving the problem, investigating the cause and preventing recurrence to fulfill our responsibility.

**JSW 日本製鋼所**