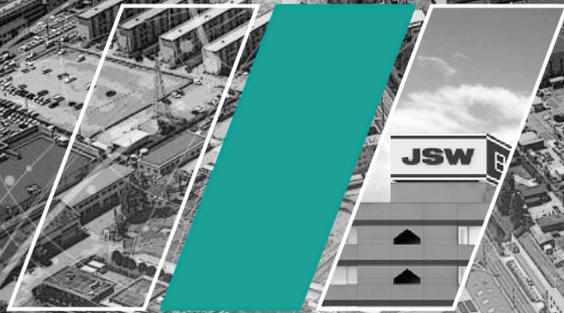


New Medium-Term Management Plan JGP2025

From FY2021 to FY2025



May 18, 2021

The Japan Steel Works, Ltd.

Naotaka Miyauchi, Representative Director & President

Disclaimer

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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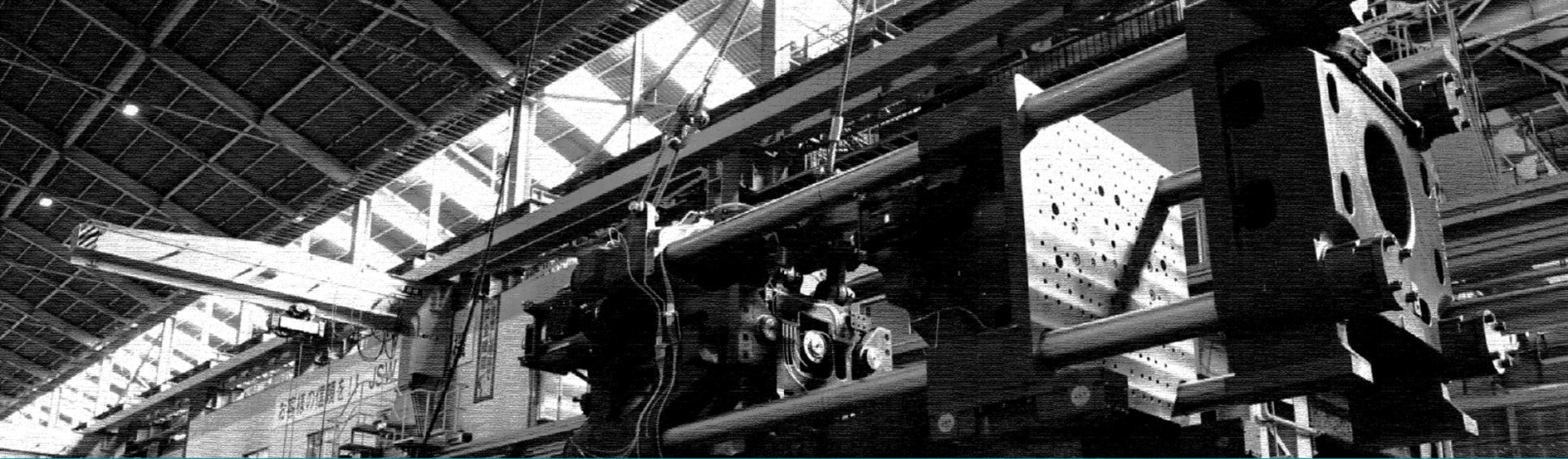
PART IV

Implementation
of ESG
management

30

Composition of Business Segments and Major Products

Business Segments	<h2 style="text-align: center;">Industrial Machinery Products Business</h2>	<h2 style="text-align: center;">Material and Engineering Business</h2>	<h2 style="text-align: center;">Other Businesses</h2>
Organizations	<p style="text-align: center;">Plastic Machinery B.D. / Injection Molding Machinery B.D. / Industrial Machinery B.D. / Ordnance Business H.Q.</p>	<p style="text-align: center;">Japan Steel Works M&E, Inc.</p>	<p style="text-align: center;">New Business Promotion H.Q.</p>
Production Bases	<div style="display: flex; justify-content: space-around; text-align: center;"> <div style="width: 30%;"> <p>Hiroshima</p>  </div> <div style="width: 30%;"> <p>Yokohama</p>  </div> <div style="width: 30%;"> <p>Nagoya</p>  </div> </div>	<div style="text-align: center;"> <p>Muroran</p>  </div>	
Products	<div style="display: flex;"> <div style="flex: 1;"> <p>Plastic production and processing machinery</p> <ul style="list-style-type: none"> • Pelletizers • Film and sheet manufacturing equipment • Twin-screw extruders • After-sales services  </div> <div style="flex: 1;"> <p>Molding machines</p> <ul style="list-style-type: none"> • Plastic injection molding machines • Magnesium alloy injection molding machines • Blow molding machines • After-sales services  </div> </div> <div style="display: flex; margin-top: 20px;"> <div style="flex: 1;"> <p>Other machinery</p> <ul style="list-style-type: none"> • Excimer laser annealing (ELA) systems • Defense equipment • Railway products • Hot press devices  </div> <div style="flex: 1;"> <ul style="list-style-type: none"> • Laminators • Deposition systems • After-sales services  </div> </div>	<p>Steel castings and forgings</p> <ul style="list-style-type: none"> • Parts for reactors (shell, head etc.) • Parts for steam generators  <p>Clad Steel Products</p> <ul style="list-style-type: none"> • Clad steel plates • Clad steel pipes  <p>Engineering Services</p> <ul style="list-style-type: none"> • Steel structure for plant and infrastructure • Non-destructive inspection and analytical inspection services, etc. • Steel pressure vessels for hydrogen storage  	<p>New Business</p> <ul style="list-style-type: none"> • Photonics • Composite Materials • Metallic Materials
Markets	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #008000; color: white; padding: 5px;">Petro-chemicals</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: #008000; color: white; padding: 5px;">Information Technology</div> <div style="background-color: #008000; 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: #008080; color: white; padding: 5px;">Natural Energy</div> </div>	<div style="background-color: #FFD700; color: black; padding: 5px; text-align: center;">New Business</div>



Review on JGP2020 and recognition of business circumstances

PART I



JGP2020: 3 Basic Policies (priority issues)

1

Optimization of Management Resources and Strengthening of Alliances

Achievements

- Expanded the plastic processing machine complex
 - Acquisition of GM Engineering Co., Ltd.
 - Absorption-type mergers with Nichiyu Machinery Co., Ltd. and Meiki Co., Ltd.
- Spun off the material and engineering business (into Japan Steel Works M&E, Inc.)
- Started collaboration with Tsukishima Kikai Co., Ltd.
- Set up a joint venture with JX Nippon Mining & Metals Corporation

2

Strengthening of After-Sales services (Stock-Based Business)

Achievements

- Launched parts centers in Japan and in Europe
- Built a factory dedicated to services
- Commenced operation of remote maintenance

3

Acceleration in Exploration and Development of New Businesses

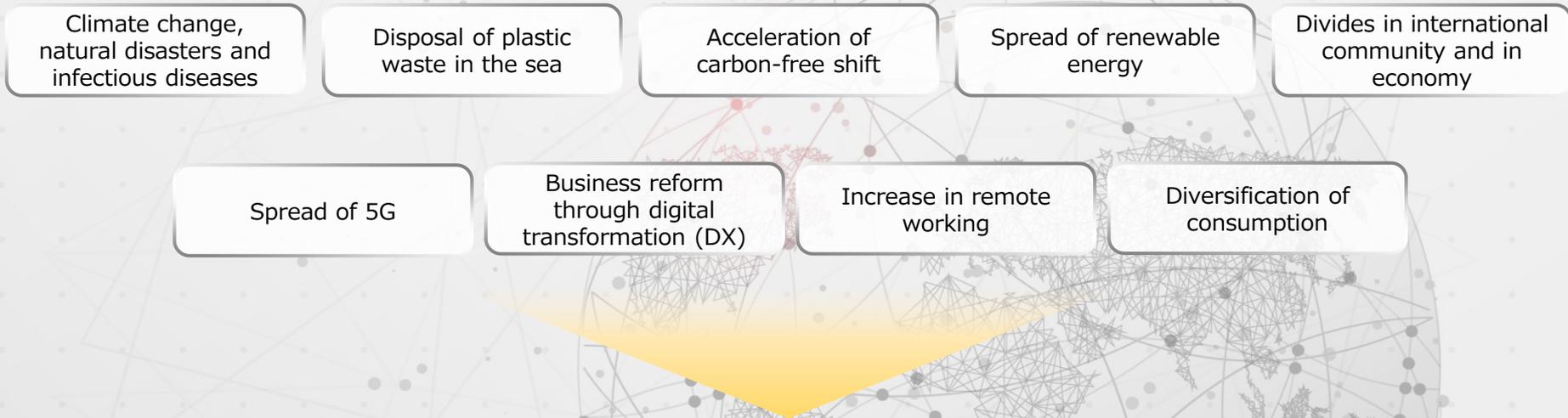
Achievements

- Attained profitability in hydrogen-related products business and transferred it to Japan Steel Works M&E, Inc.
- Decided on focus on three business domains of photonics, composite materials and metallic materials.

Issues still to be addressed

- Press further ahead with the expansion of plastic processing machine complex
- Increase competitiveness of existing products
- Create new core businesses that will follow plastic processing machinery
- Generate constant profit in the Material and Engineering Business
- Swiftly attain profitability in new businesses

Recognition of Business Circumstances and the Company's Business Opportunities and Risks



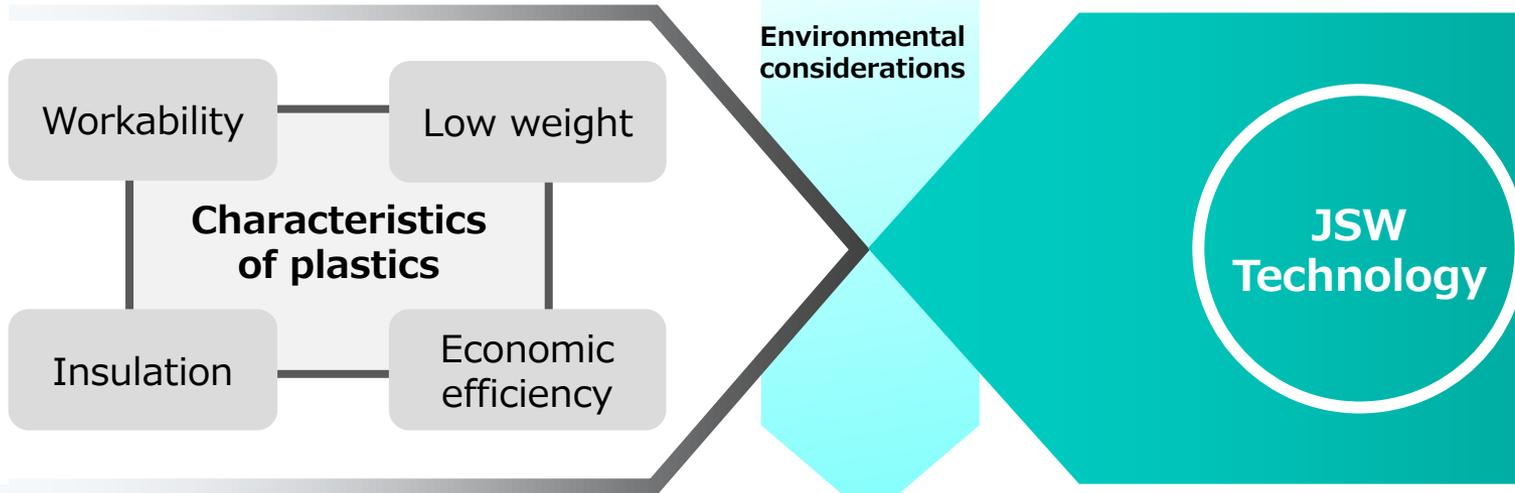
Opportunities

- Electric vehicle (EV) market expansion
- Emergence of biodegradable plastics
- Full-scale investment in 5G infrastructure
- Advancement of artificial intelligence (AI) and Internet of Things (IoT) technologies
- Expansion of consumption chiefly in emerging economies

Risks

- Demand shrinkage for plastic processing machines amid a trend towards reducing plastic consumption
- Reduction in investment in thermal power generation and exploitation of oil and gas amid a trend towards decarbonization
- Contraction of demand for separator films after widespread use of solid-state batteries

Environmental Actions Taken as Manufacturer of General Plastic Processing Machinery



Advancing technological capabilities cultivated as a manufacturer of general plastic processing machinery to address environmental issues
Continuously supporting manufacturing essential to all parts of society

* For environmental actions, see pages 32 and 33.



IT



Home electric appliances



Automobile-related products



Food packages



Healthcare-related products

JSW's Strengths

A manufacturer's long-retained values of making good and resilient products

Technology

Establishing new technologies on the basis of advanced technological strength and expertise to open new markets

Innovation

Continuously creating new customer needs with unaltered strengths at any time

Prescience

Precisely foreseeing the trends of the times to boldly address untapped areas

THE FIRST ENGINEER

Always trying for cutting edge



New medium-term management plan JGP2025

PART II

Corporate Vision and Mission

JSW Vision

Contribute to social development by creating innovations with original technologies

JSW Philosophy

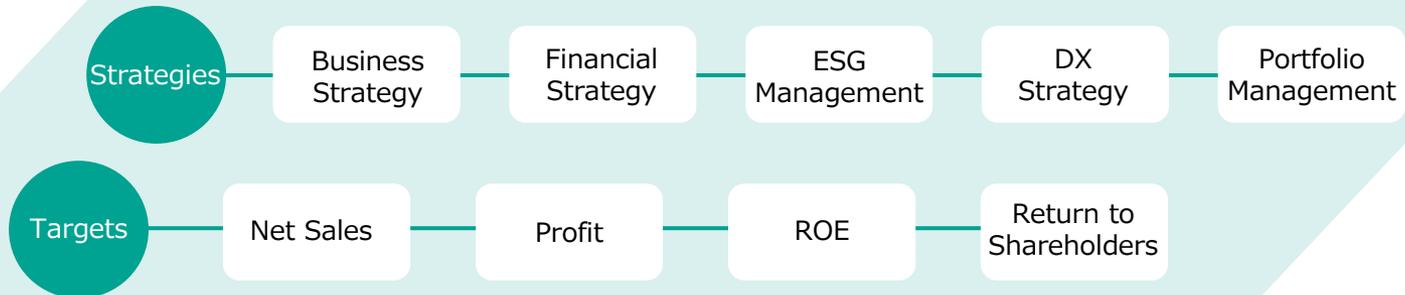
1. Make our customers amazed and impressed
2. Coexist with society and achieve sustainable profitability
3. Keep the spirit of continuous innovation

Mission

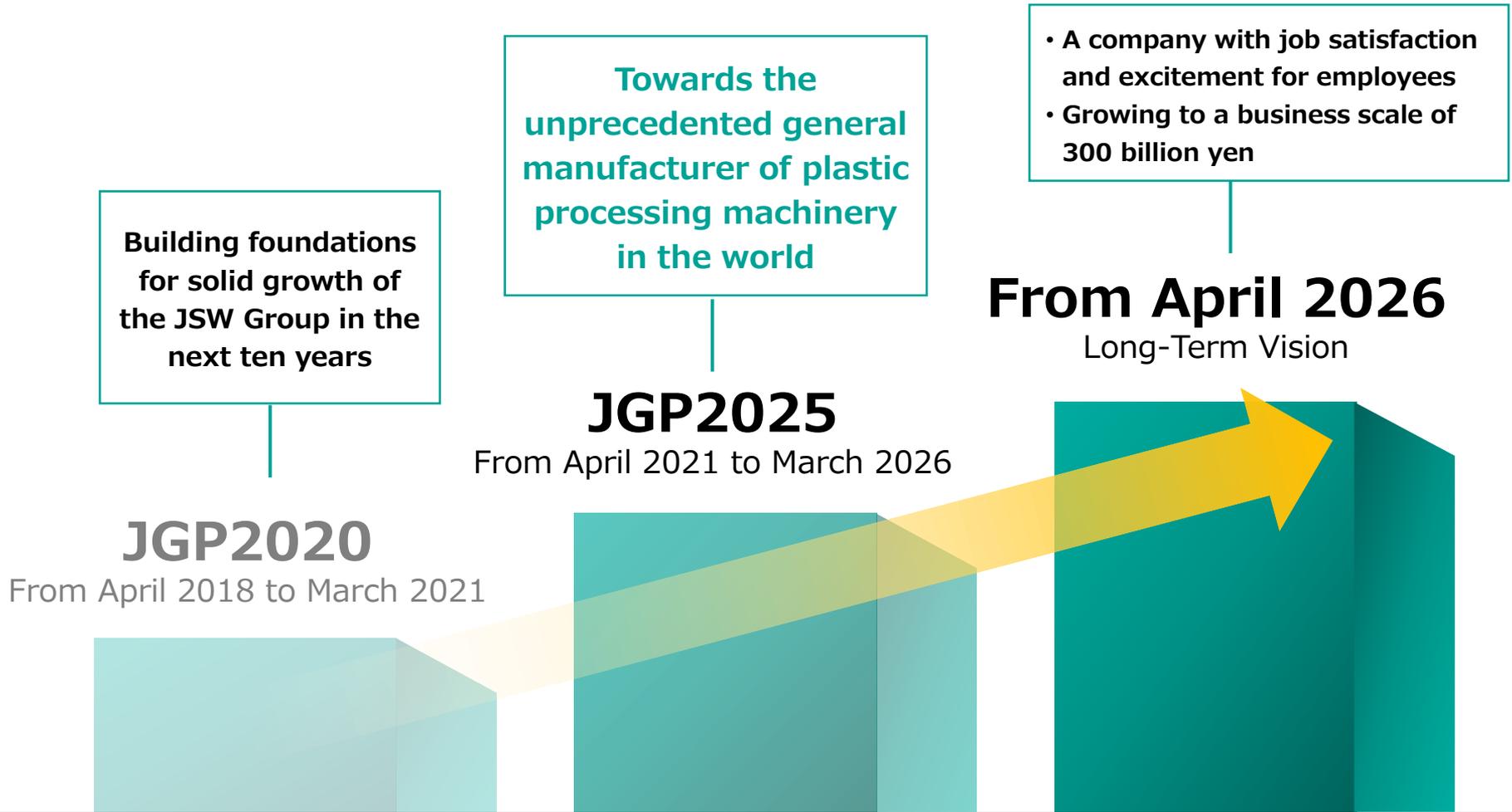
Aim for sustainable growth through manufacturing and value creation and contribute to society with the spirit of *Yompo-Yoshi* (benefits in four stakeholders)

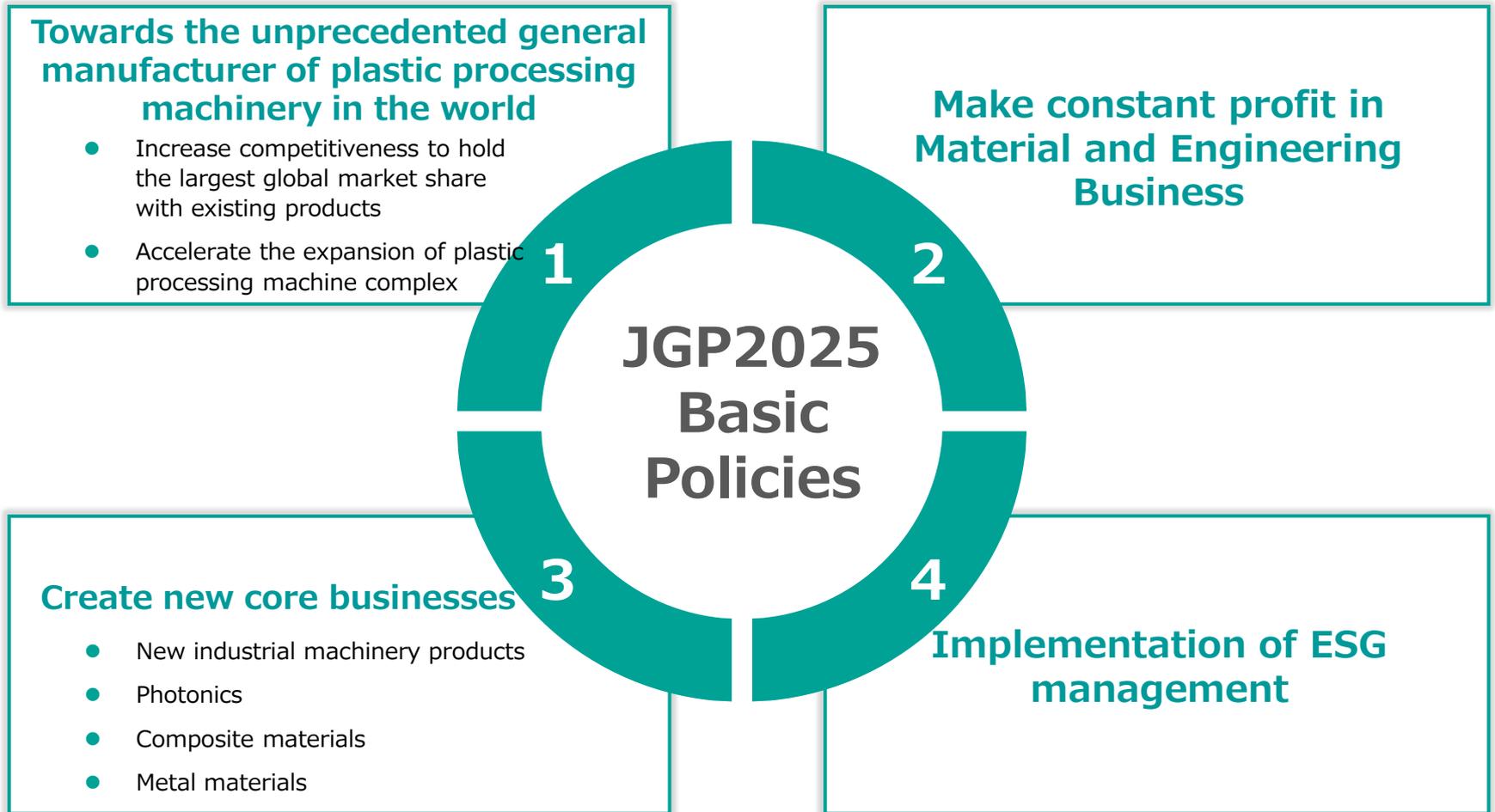


Medium-Term Management Plan JGP2025



Position of New Medium-Term Management Plan JGP2025





JGP2025 Target Values (consolidated)

FY2025
Ending Mar. 2026

Net Sales
270 billion yen

Operating income
27 billion yen

ROE
10%

	FY2019 Results	FY2020 Results	FY2023 Plan	FY2025 Plan	Change from FY2019
Net Sales	217.5 billion yen	198.0 billion yen	250.0 billion yen	270.0 billion yen	+ 24%
Operating income	18.7 billion yen	10.2 billion yen	20.0 billion yen	27.0 billion yen	+ 44%
Operating income ratio	8.6%	5.2%	8.0%	10.0%	+ 1.4PP
ROE	7.2%	5.1%	8.5%	10.0%	+ 2.8PP

JGP2025 Target Values (by segment)

Industrial Machinery Products Business

Plastic production and processing machinery

Molding machines

Other machinery

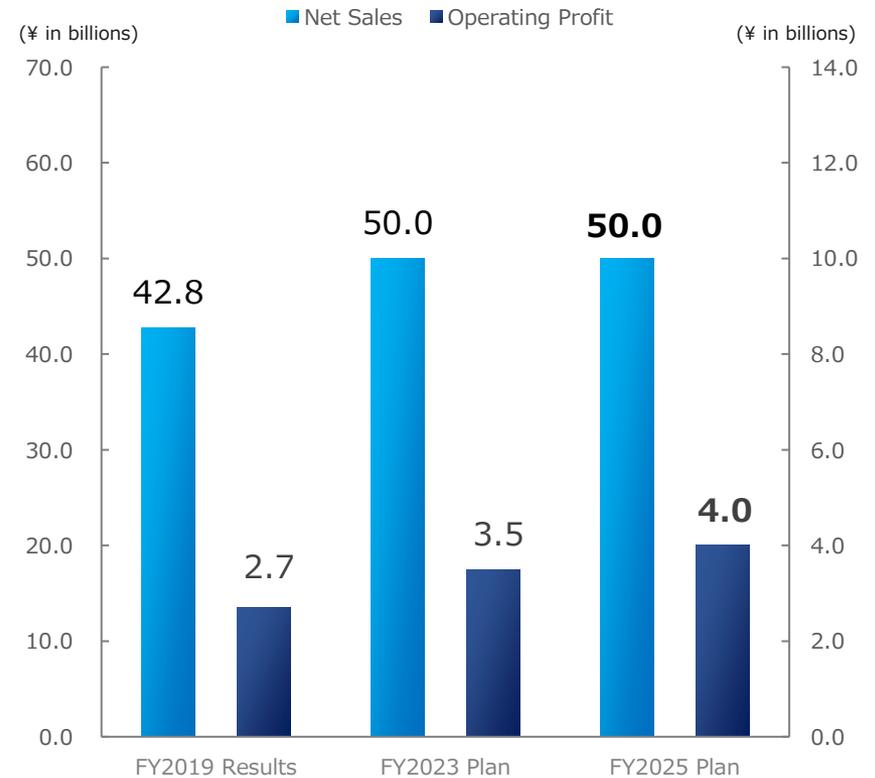


Material and Engineering Business

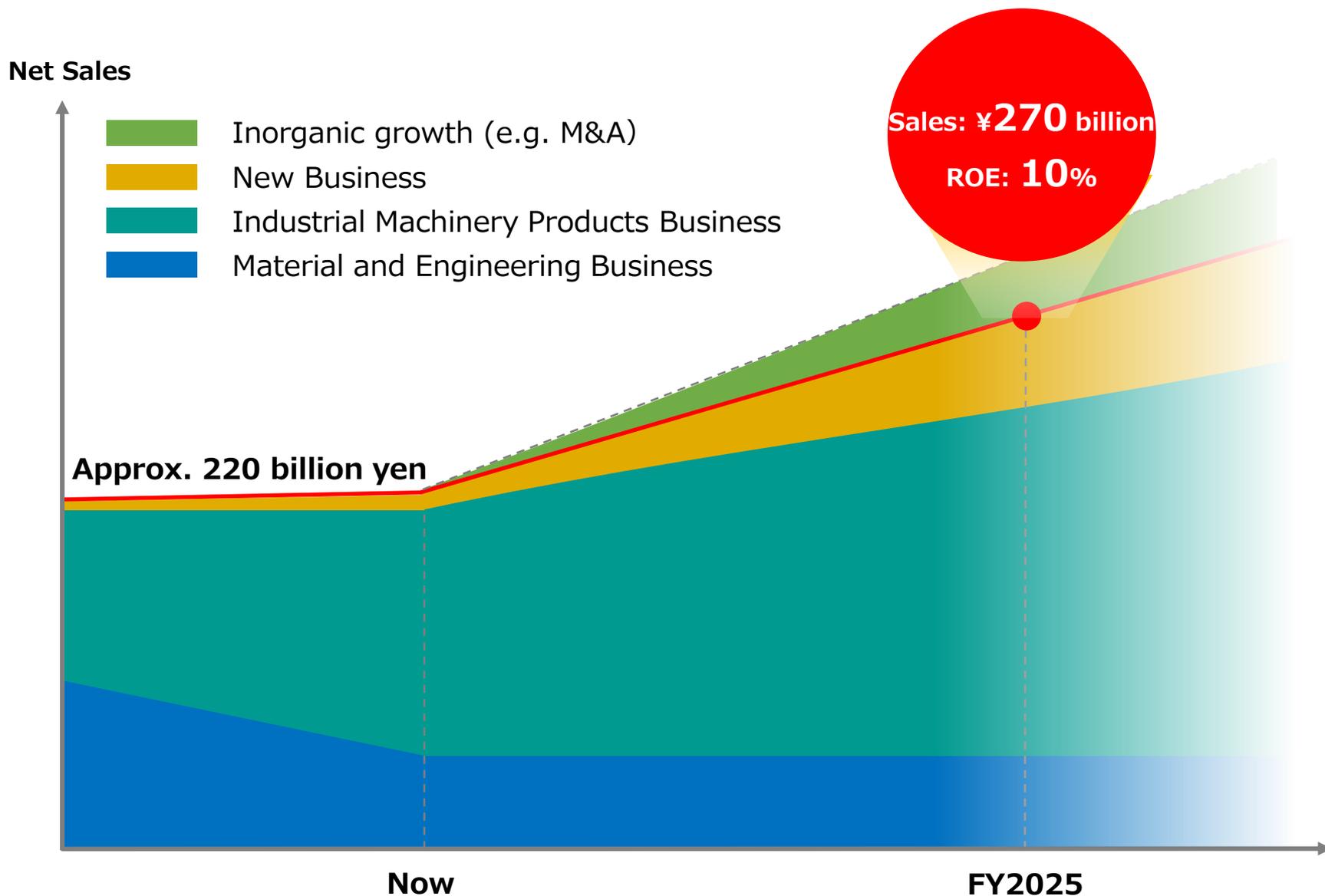
Steel castings and forgings

Clad steel products

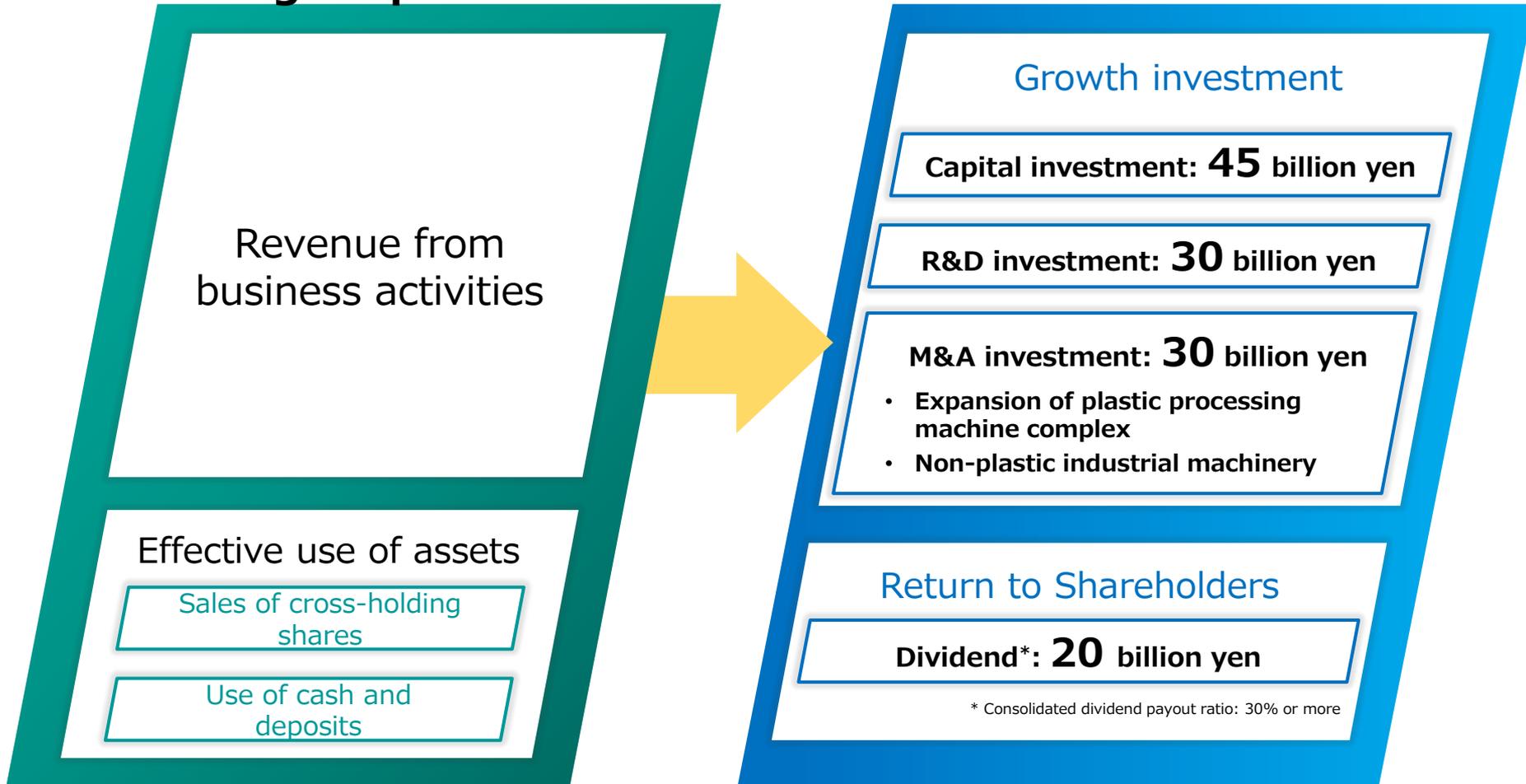
Engineering services



Future Growth Envisioned



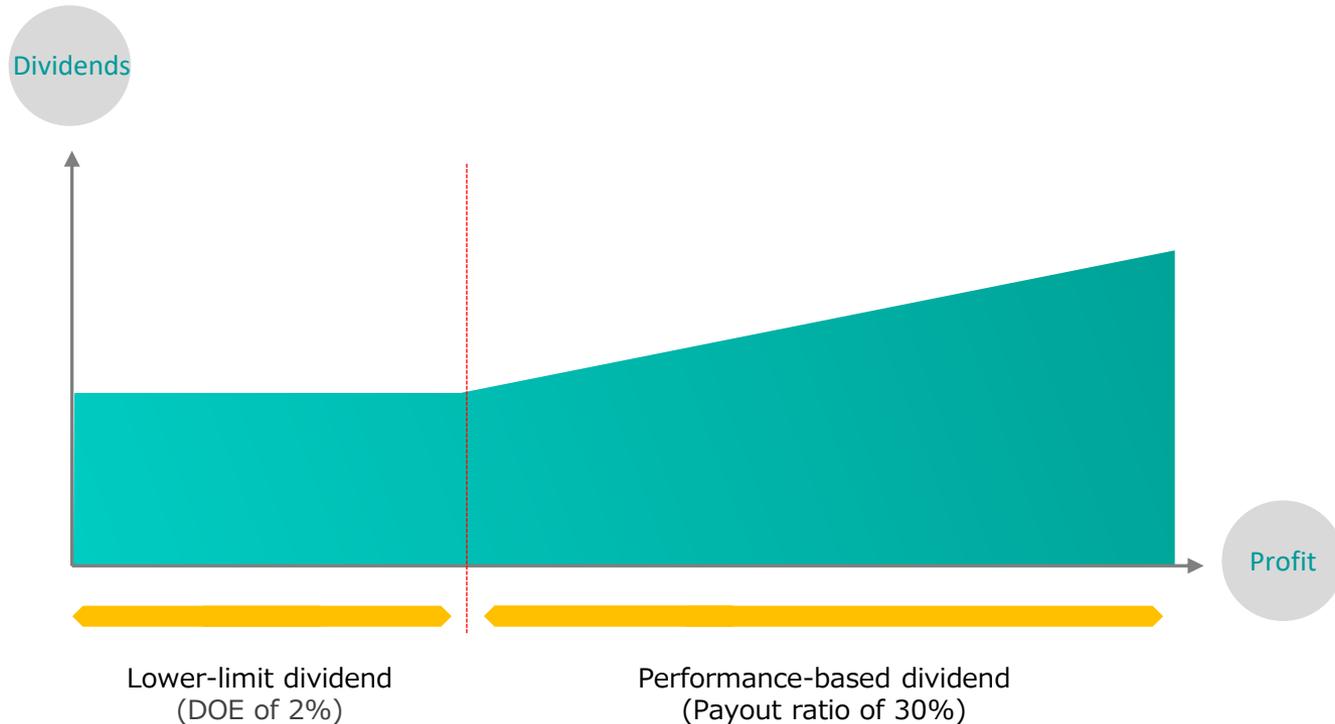
Ensure a proper balance between growth investment and return to shareholders for the purpose of continuously increasing corporate value



Dividend policy in the period of JGP2025

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





Segment policies

PART III

Segment Policies

Segment	Sub-segment	Business policy
Industrial Machinery Products Business	Plastic production and processing machinery	Increase the competitiveness of existing products, expand plastic processing machine complex and expand the service business to play the role of a core business and drive growth.
	Molding machines	Increase production capacity and strengthen sales efforts in key areas with the aim to be among the world's top five manufacturers.
	Other machinery	Spread existing products centering on ELA systems and create a core business subsequent to plastic processing machinery.
Material and Engineering Business	Steel castings and forgings	Strengthen the production system and implement strict cost control to consistently generate profit.
	Clad steel plates and pipes	
	Engineering services and others	
New Business		Focus on three domains and swiftly attain profitability in each.

Drive growth as JSW's core business



Priority measures

1. Increase the competitiveness of existing products.

(1) Pelletizers

Continue to increase the market share mainly in the brisk Chinese market.

(2) Twin-screw extruders

Step up overseas expansion chiefly in China and Southeast Asia.

(3) Film and sheet manufacturing equipment

Step up actions to high-quality separator films for lithium-ion batteries.

Focus on growth areas such as 5G-related films with a view to develop a post separator film businesses.

2. Expand to plastic processing machine complex.

Boost and capture demand for new products through mergers and acquisitions.

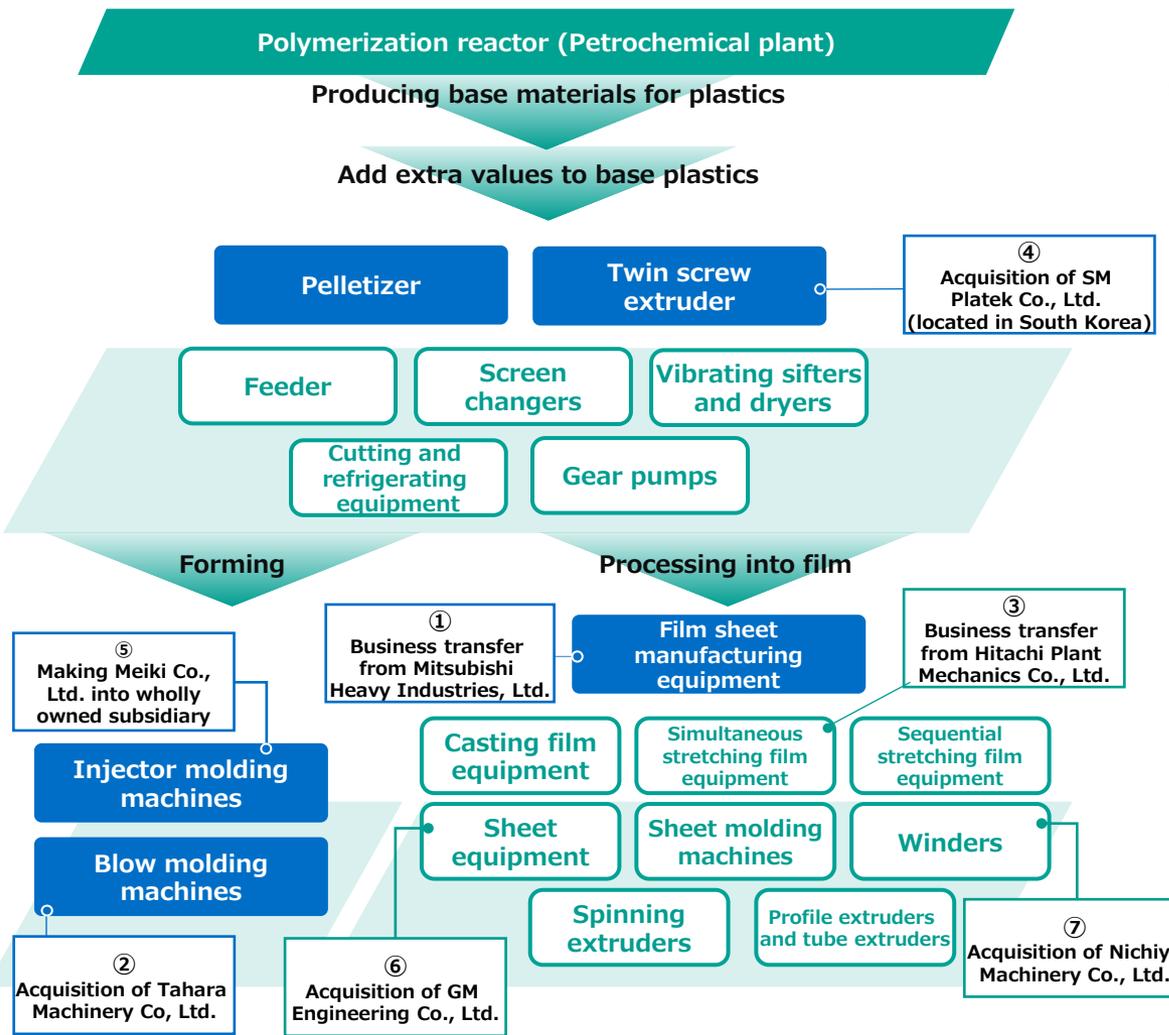
3. Enlarge the after-sales service business.

Expand the service structures in China and Europe.

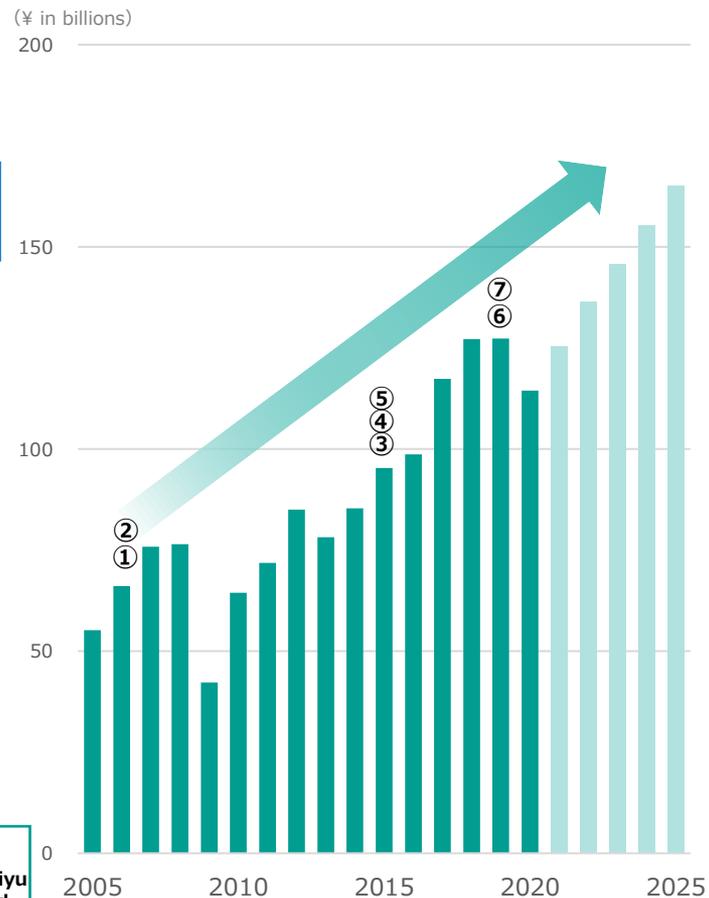
Make use of the factory dedicated to services to shorten delivery lead times and to satisfy customer needs.

Plastic Production and Processing Machinery

Accelerate the expansion of plastic processing machine complex.



Sales of plastic processing machinery



Aim to be among the world's top five



Priority measures

1. Plastic injection molding machines

(1) Optimize global production systems and increase production capacity

Hiroshima Plant:

Increase production capacity, mainly for small-sized machines as well as the capacity to supply to Japan and overseas.

Meiki Plant:

Boost the capacity as a production base for ultra-large machines and special machines.

Overseas production bases:

Increase production in China and the United States and commence production in Europe.

(2) Strengthen sales efforts in key areas

Japan, the United States, China, Southeast Asia and Europe

2. Magnesium alloy injection molding machines

Expand sales of ultra-large machinery to the automobile sector.

3. Blow molding machines

Expand business in the Asia region, including China.

Molding Machines

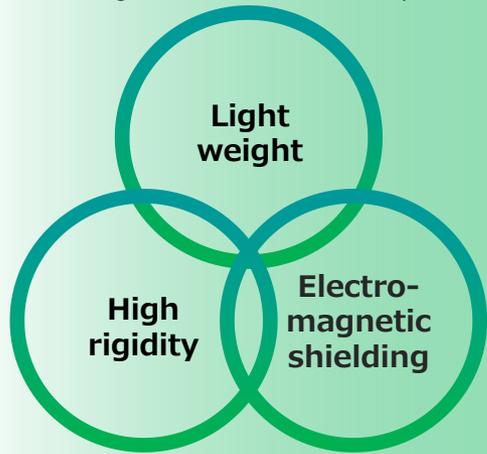
- ◆ Mounting expectations are focused on magnesium molded products in the field of large automotive components.
- ◆ In addition to selling molding machines, manufacture large automotive components at subsidiary to encourage the adoption of magnesium molded products in this field.



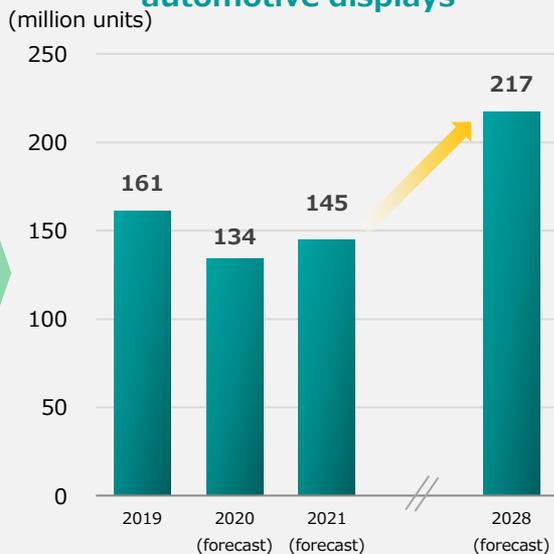
JLM1300MGII magnesium alloy injection molding machine

Characteristics of magnesium alloys

Magnesium alloys are in rising demand globally as materials helpful for reducing automobile weight and environmental footprints.

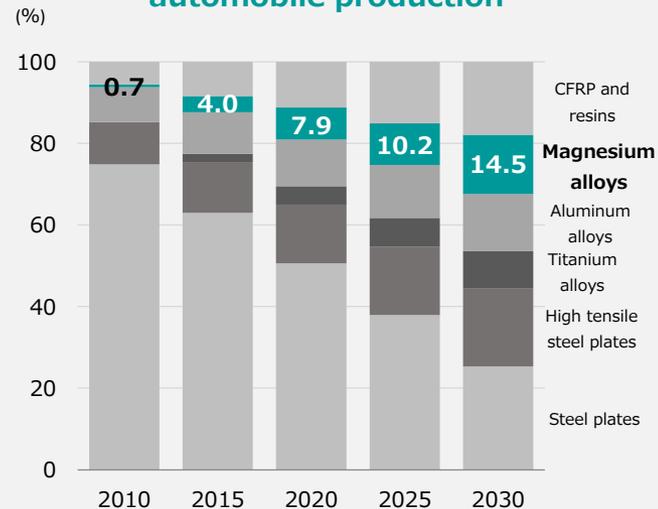


Forecast on global market of automotive displays



Source: JSW based on Yano Research Institute: *Survey on Global Automotive Display Market (2020)*
 <https://www.yano.co.jp/press-release/show/press_id/2521>

Materials used for automobile production



Source: Extracted and edited materials created by the Ministry of Economy, Trade and Industry on the basis of data from the U.S. Department of Energy: *Vehicle Technologies Program: Goals, Strategies, and Top Accomplishments.*

Expand existing businesses and cultivate new products and fields.



Priority measures

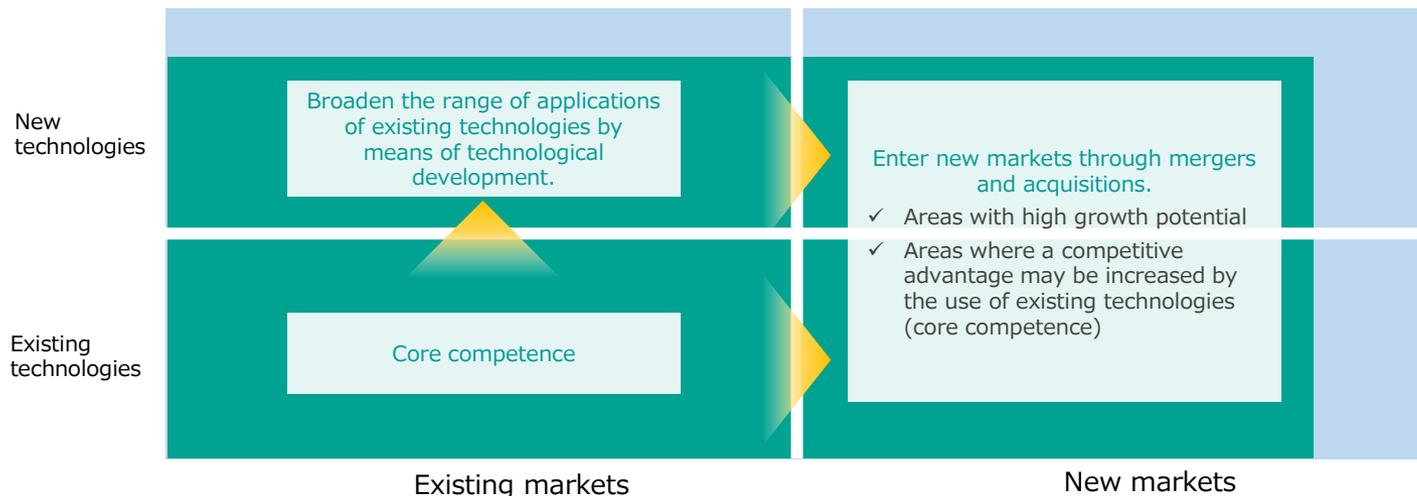
1. Restructure the excimer laser annealing (ELA) system business

Integrate the manufacturing and sale of ELA systems with after-sales services to strengthen the business structure.

Use differentiation technologies to capture the Chinese market.

2. Receive orders for new industrial machinery products.

Take advantage of core competences to step into new markets with future growth potential.



Enhance and reform the structure for consistently generating a profit.



Priority measures

1. Steel castings and forgings

Gain orders for high value-added functional materials to boost revenue.

Establish production systems for small and midsize products and mass produced products to win more orders.

2. Clad steel plates and pipes

Build a production system resilient to fluctuations in operation loads by reducing the variable and fixed expenses of plants.

3. Engineering service

Increase competitiveness of hydrogen-related products and market them outside Japan.

Win projects on welded structures for plants and infrastructure geared to the National Resilience Policy.

Expand the inspection service business using original technologies.

Engineering Service

Make effective use of the ability to offer general engineering services to turn this service into a core of the Material and Engineering Business.

Hydrogen-Related Products Inspection Services



Manufacturing tanks using Hydrogen absorbing alloys and steel pressure vessels for storage of hydrogen, which is drawing attention as a next-generation source of energy

From general non-destructive inspections to inspection of plant facilities using the latest inspection approaches



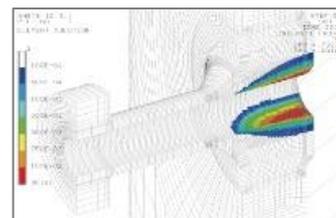
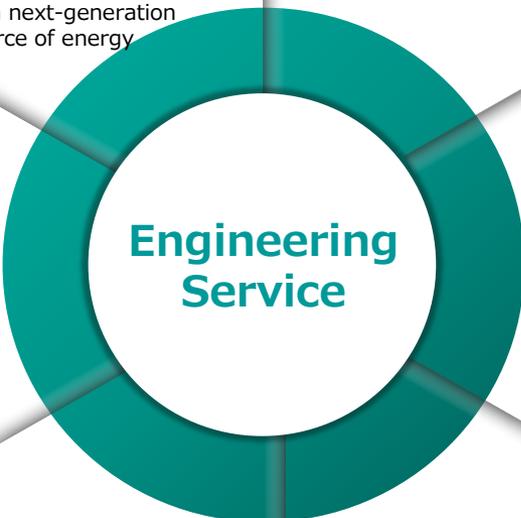
Integrated Construction

Meeting a wide range of needs, from machinery repairs to plant works, construction and civil engineering works



Maintenance

Maintenance, weld repairs, maintenance suggestions, material evaluation and life assessment of pressure vessels, forge equipment and wind power generation facilities



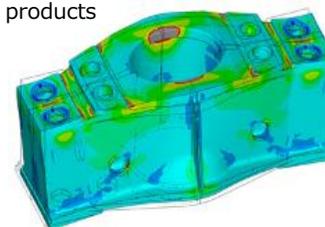
Welded Structures

Manufacturing of welded structures in various applications, including those for industrial use and bridge components

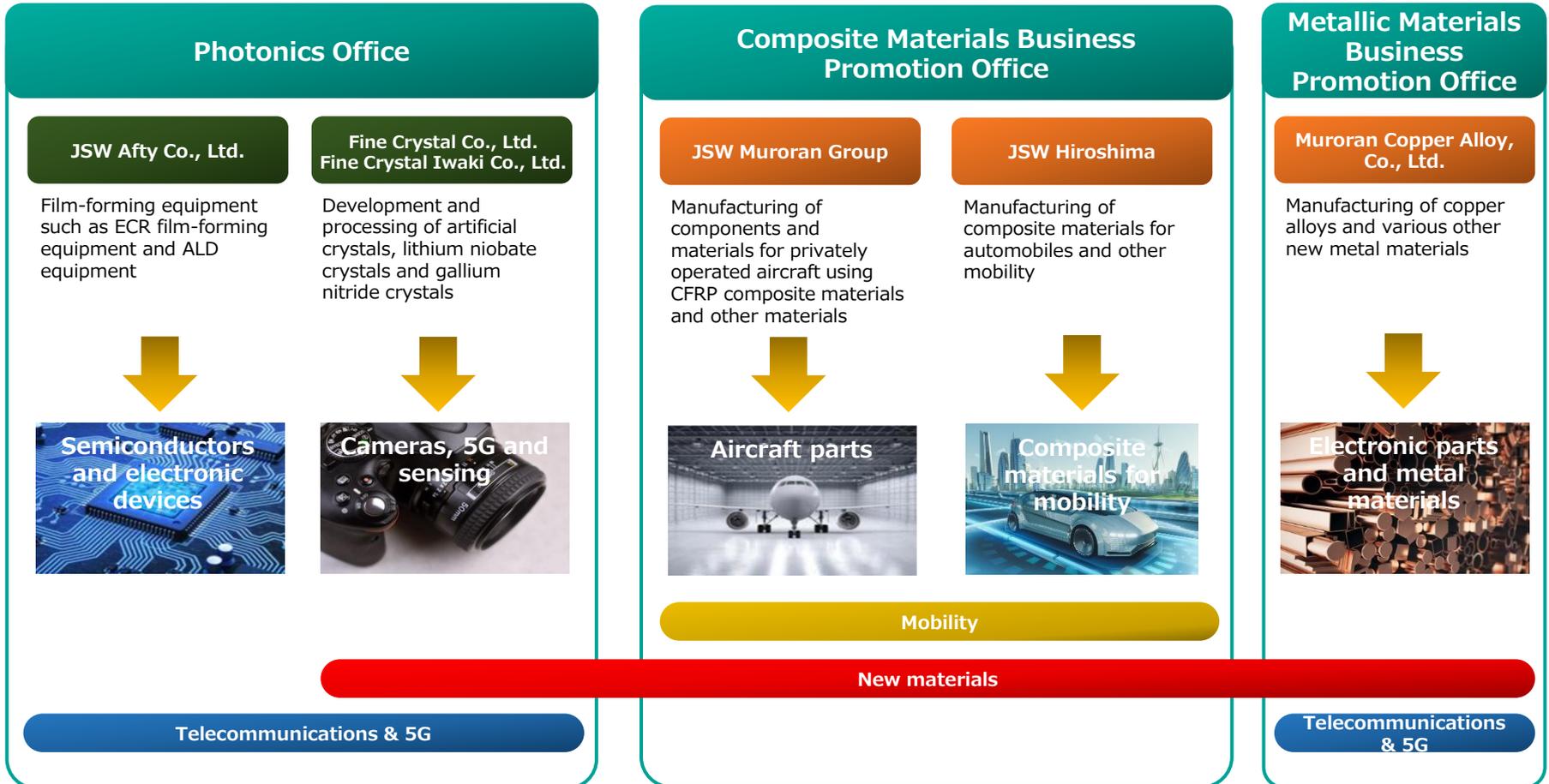


Analysis Service

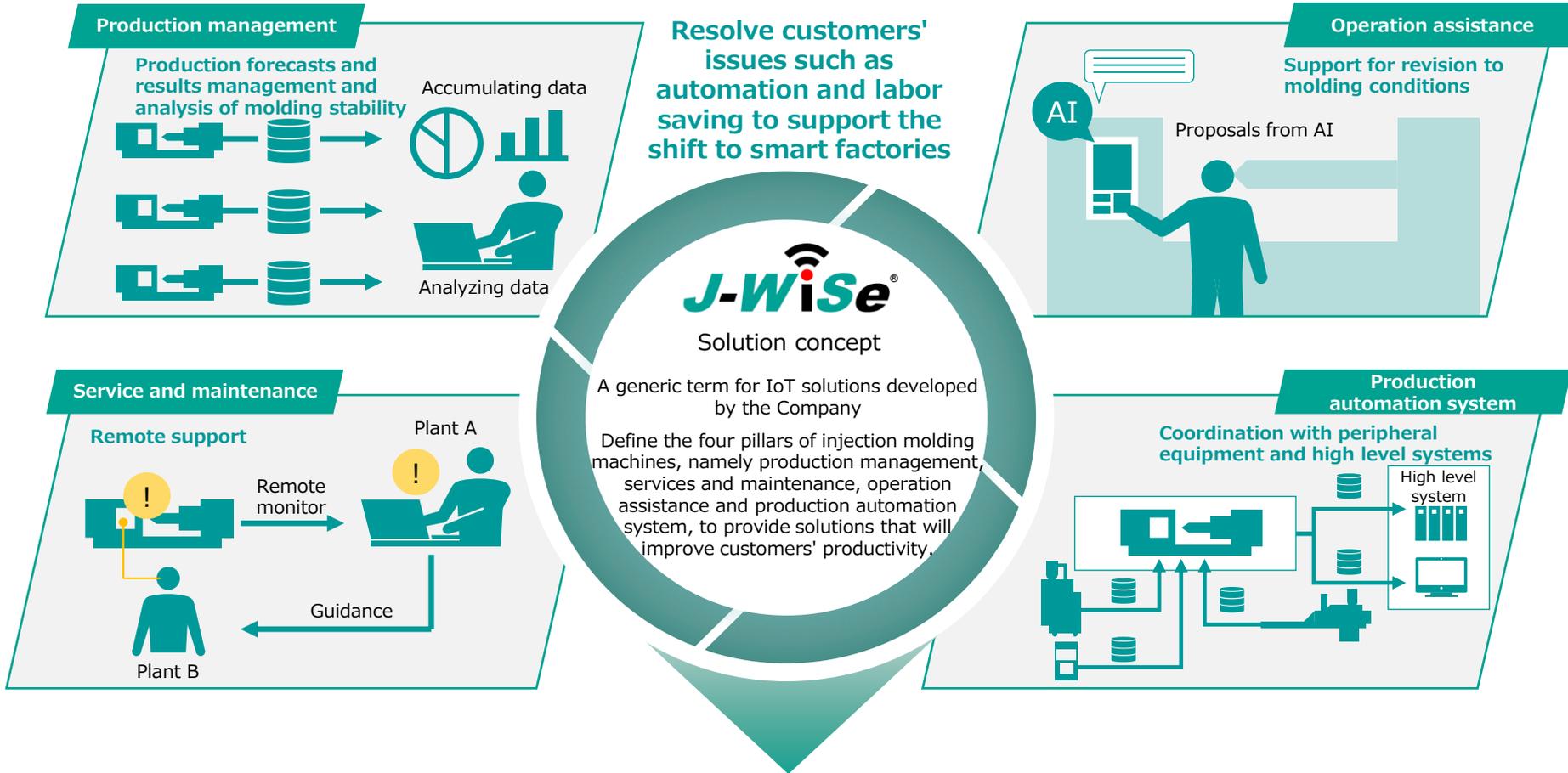
Visualizing and quantifying the stress that applies to products



Strive to swiftly attain profitability.



Utilization of Digital Technologies



Future Strategy

- ① Expand remote guidance and remote maintenance to increase the efficiency of maintenance support.
- ② Implement automated operation of twin screw extruders and automated condition adjustment of film manufacturing equipment as new services.
- ③ An AI algorithm applicable to lifetime prediction and preventive maintenance of JSW products is in the course of development.



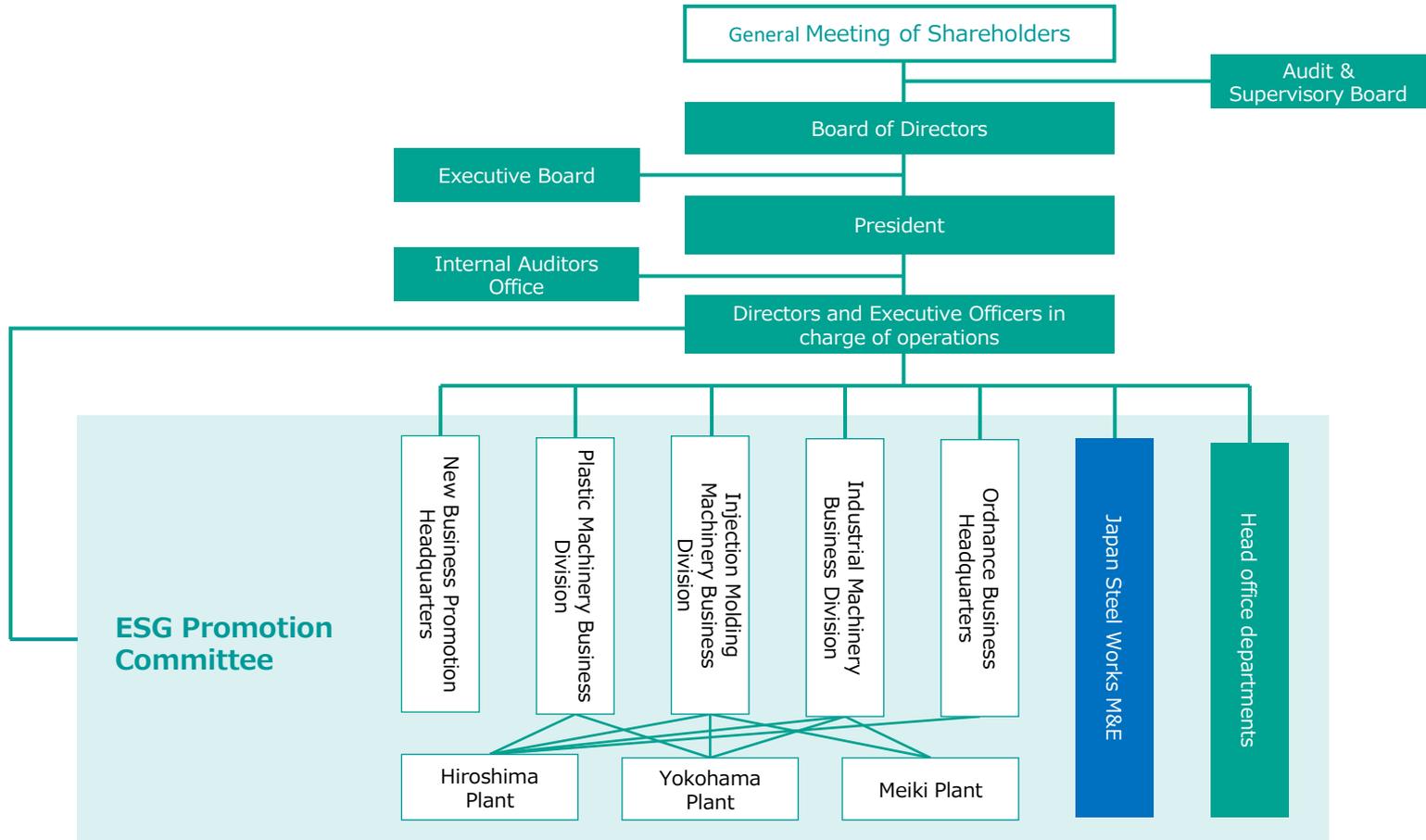
Implementation of ESG management

PART IV



Creation of the ESG Promotion Committee in April 2021

Set up a cross-departmental committee to carry out ESG activities effectively.





Conduct business activities with environmental considerations.

- **Reduce CO₂ emissions**
- **Move forward with conservation and recycling of resources (to lower environmental impacts)**
- **Step up efforts for carbon neutral products and environmentally friendly products**
 - (1) Plastic machinery products for recycling plastic resources
 - (2) Materials and systems for utilizing hydrogen energy
 - (3) Energy-related products for reducing CO₂

Environment: Past and Future Actions

1990

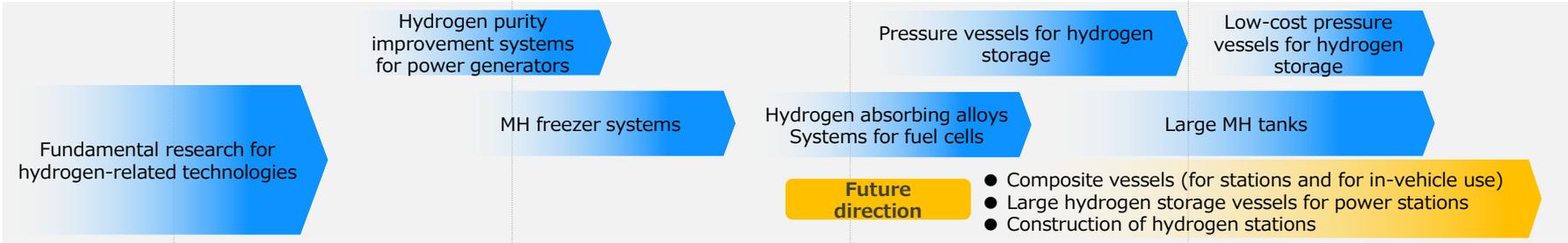
2000

2010

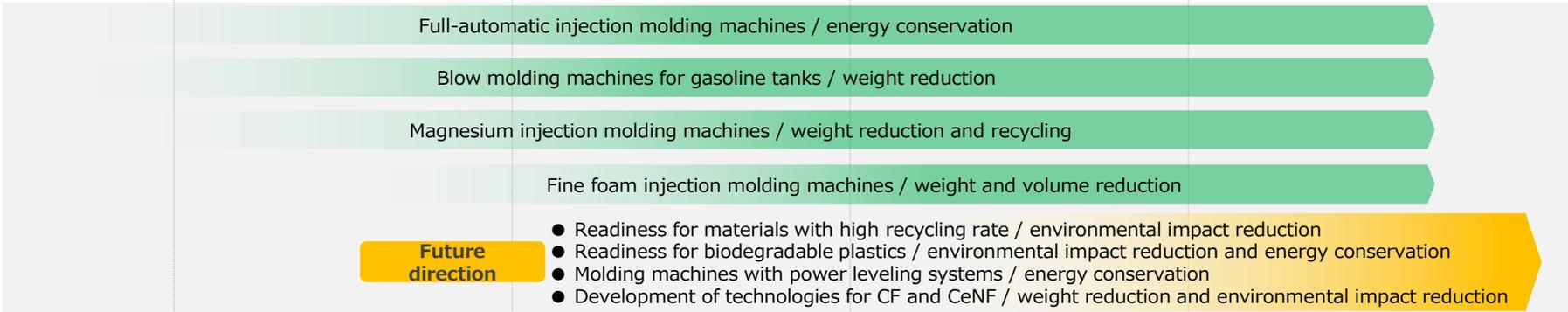
2020

MH: Metal Hydride
CF: Carbon Fiber
CeNF: Cellulose Nano Fiber

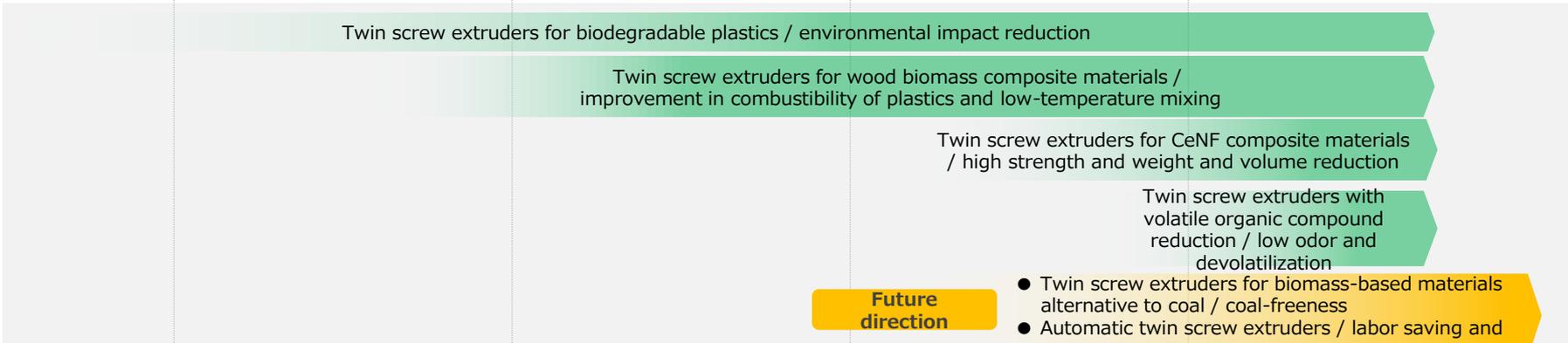
Hydrogen-Related Products



Molding machines



Extruders





Creation of a human resource base for continuous growth

Actions to shift the focus from work styles to job satisfaction

Advancement of the safety culture

Development of next-generation leaders

Securing of diversity in the workforce

Lively workplaces that give excitement to employees

Employee-friendly workplaces

Maintenance of competitive advantage in the workforce

Actions

Effects

Practice management with greater awareness of capital costs for increasing corporate value

1

Assess the business portfolio with the use of a four-quadrant framework

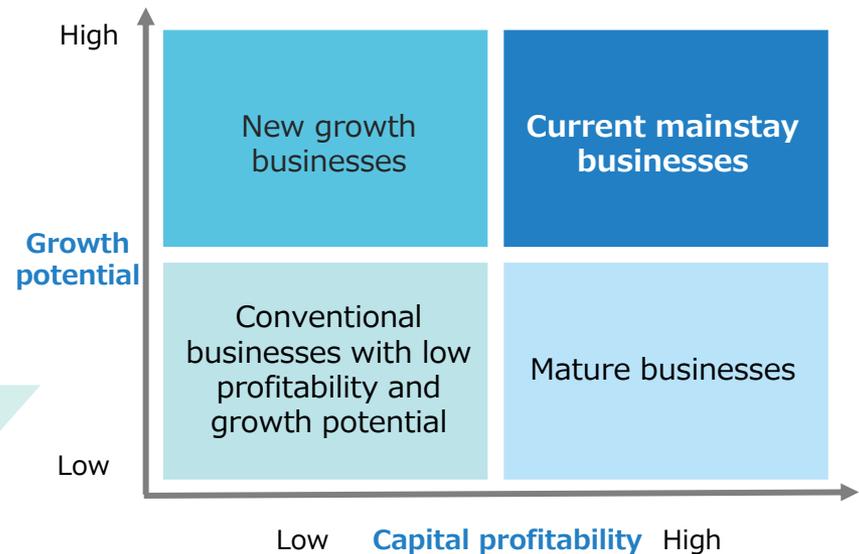
2

Establishment of criteria for business withdrawal

3

Toughening of criteria for adoption of investment

Secure both growth potential and capital profitability



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