

SHINAGAWA UPDATE

Results for Fiscal Year Ended March 2022

June 16, 2022

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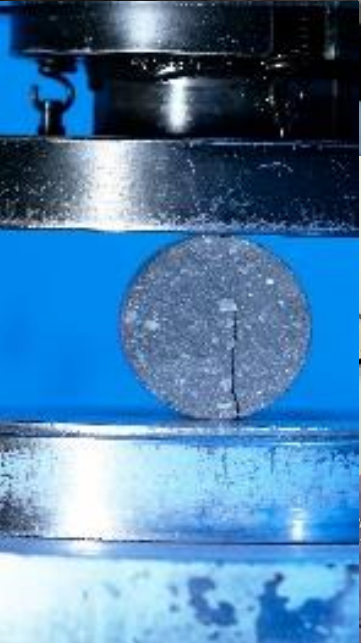
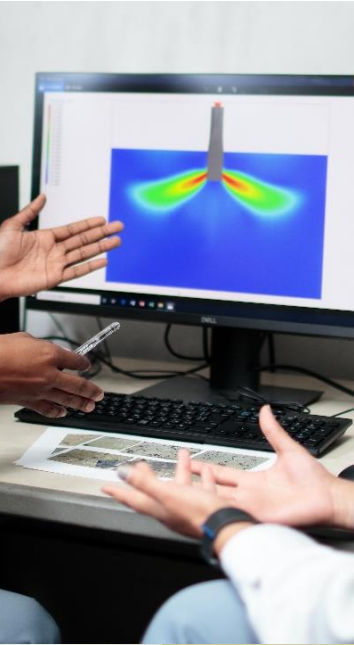
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I . Overview of Financial Results for 2021 (Fiscal Year ended March 2022)

1. Consolidated Financial Highlights

(Unit: Million JPY)

	FY2020 Results	FY2021 Results	YoY
Net Sales	99,969	110,784	+10.8%
Operating Income	7,285	10,107	+38.7%
Ordinary Income (ROS)	8,220 (8.2%)	10,716 (9.7%)	+30.4% (+1.5pt)
Profit attributable to owners of parent	2,114	5,308	+151.1%

- Japanese crude steel production in 2021 increased by 15.5% to 95.64 million tons YoY
- Net sales increased by 10.8% mainly due to increased refractory sales driven by an increase in Japanese crude steel production
- Significant (over 30%) increases in both operating and ordinary income
- Profit attributable to owners of parent significantly increased by 151.1% (Impairment loss of 3.3 billion yen was recorded last year)

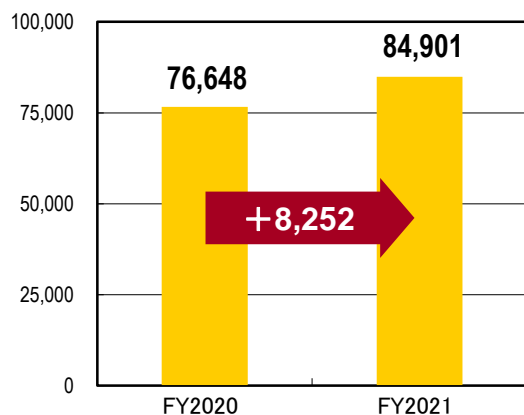
2. Net Sales by Business Segment

(Unit: Million JPY)

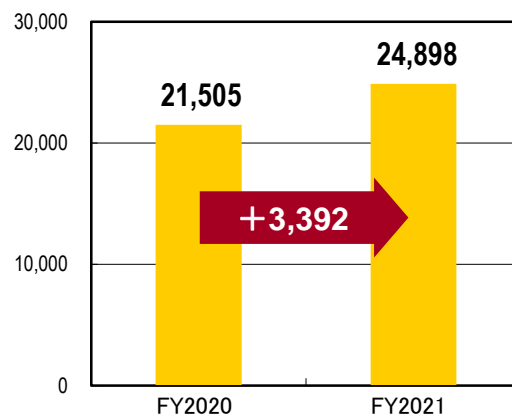
	FY2020	FY2021	YoY
	Results	Results	
Refractories & Related Products	76,648 [76.7]	84,901 [76.6]	+10.8%
Engineering	21,505 [21.5]	24,898 [22.5]	+15.8%
Real Estate	1,814 [1.8]	984 [0.9]	▽45.8%
Total	99,969 [100.0]	110,784 [100.0]	+10.8%

Note: Figures in square brackets [] indicate net sales share (%) by business segment.

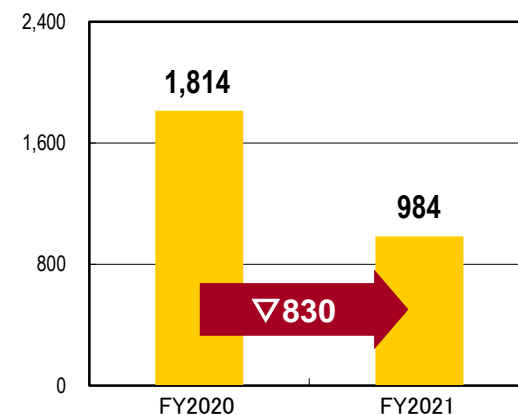
Refractories & Related Products
Million JPY



Engineering
Million JPY



Real Estate
Million JPY

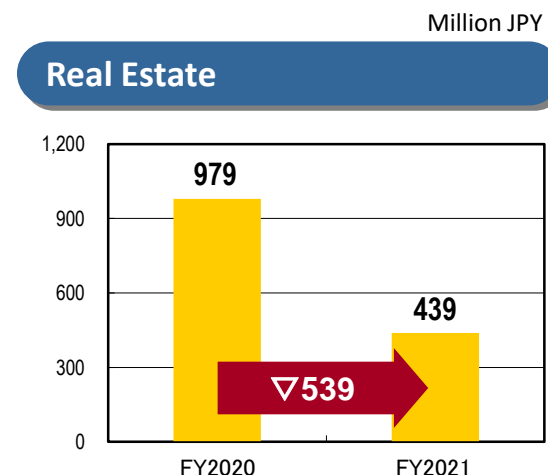
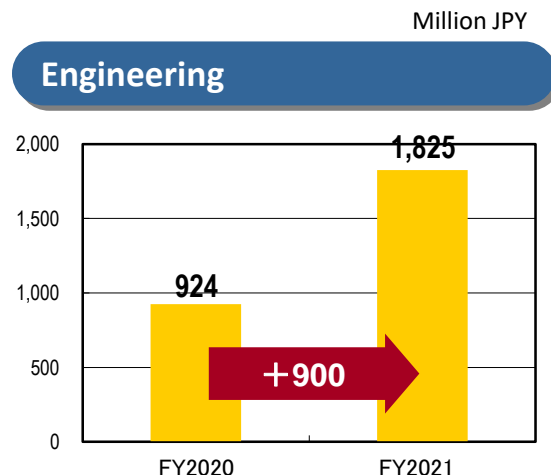
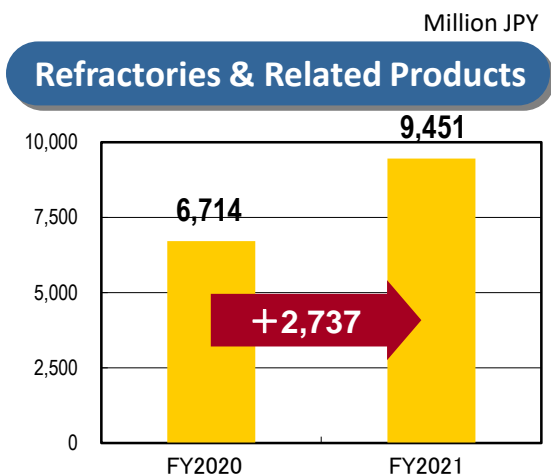


3. Operating Income by Business Segment

(Unit: Million JPY)

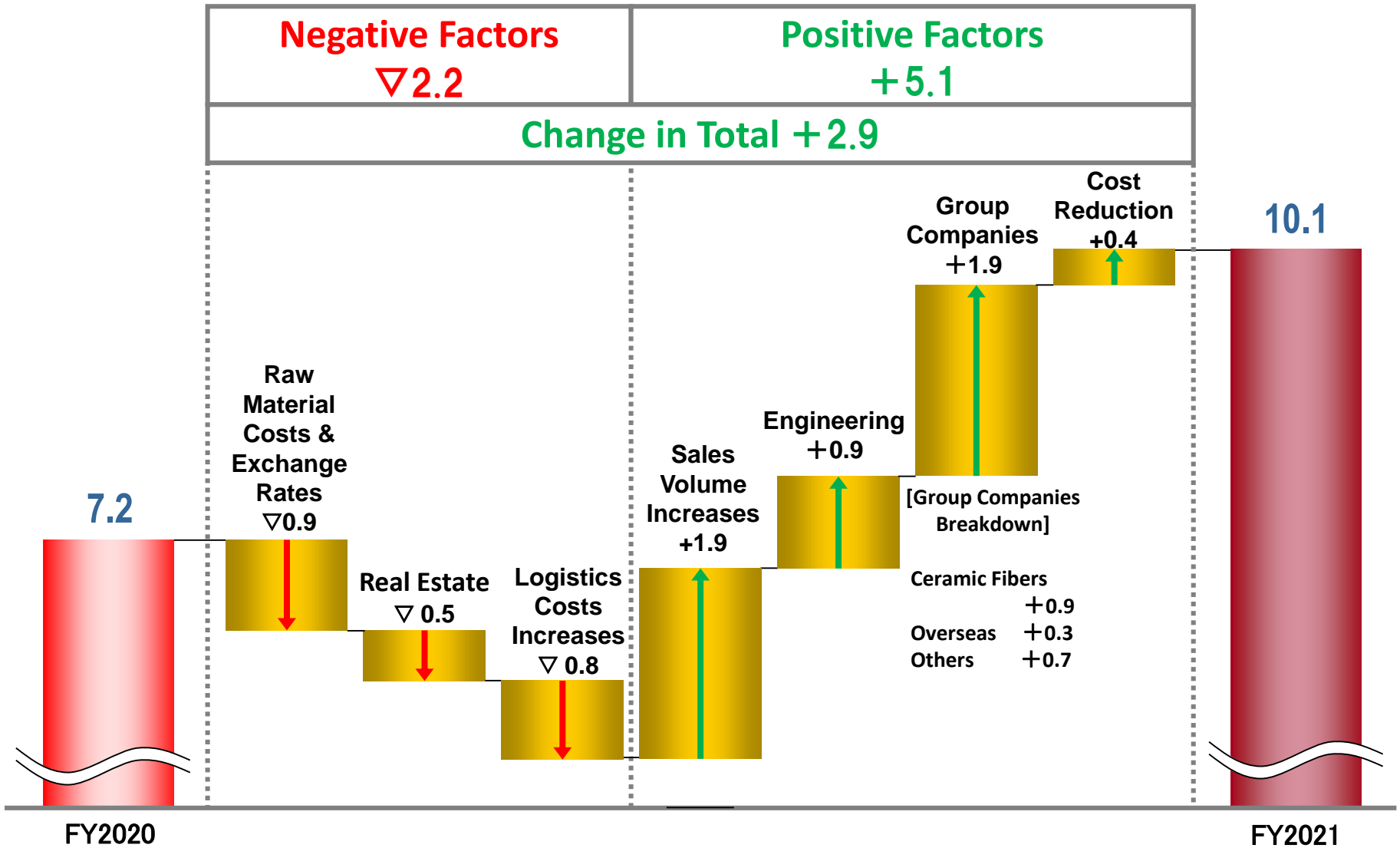
	FY2020	FY2021	YoY
	Results	Results	
Refractories & Related Products	6,714 [79.5]	9,451 [80.7]	+40.8%
Engineering	924 [10.8]	1,825 [15.6]	+97.4%
Real Estate	979 [9.7]	439 [3.7]	▽55.1%
Total	8,618 [100.0]	11,717 [100.0]	+36.0%
Adjustments	▽1,332	▽1,609	—
Operating Income	7,285	10,107	+38.7%

Note: Figures in square brackets [] indicate net sales share (%) by business segment.



4. Factors Behind Changes in Operating Income (YoY)

(Unit: Billion JPY)



5. Consolidated Balance Sheet

(Unit: Million JPY)

	2021/3	2022/3	Changes	
Current Assets	71,654	78,740	+7,086	<ul style="list-style-type: none"> ▪ Cash & Cash Equivalents +3,173 ▪ Notes and accounts receivable & Contract assets ※¹ +5,018
Fixed Assets	38,550	40,969	+2,419	<ul style="list-style-type: none"> ▪ Tangible & intangible fixed assets +1,810 ▪ Investments & other assets +609
Total Assets	110,205	119,710	+9,504	※ Categorized as "Notes and accounts receivable" for FY Ended March 2021
Current Liabilities	35,149	39,400	+4,251	<ul style="list-style-type: none"> ▪ Notes and accounts payable-Trade +2,936 ▪ Short-term debt ▽2,804 ▪ Accounts payable-Other +3,012 ▪ Deposit received on sale ▽1,506 ▪ Provision for environmental measures +1,410
Fixed Liabilities	4,772	17,070	+12,298	<ul style="list-style-type: none"> ▪ Long-term Loans Payable +11,948 ▪ Deferred Tax Liabilities +393
Total Liabilities	39,872	56,470	+16,598	
Shareholders' Equity	59,267	58,301	▽966	<ul style="list-style-type: none"> ▪ Capital Surplus ▽4,738 ▪ Retained Earnings +3,758
Accumulated Other Comprehensive Incomes	1,413	1,868	+455	<ul style="list-style-type: none"> ▪ Foreign Currency Translation Reserve +517
Non-controlling Interest	9,653	3,069	▽6,584	
Total Net Assets	70,333	63,239	▽7,094	
Total Liabilities & Net Assets	110,205	119,710	+9,504	

	2021/3	2022/3
ROE (Return on Equity)	3.6%	8.8%

6. Consolidated Cash Flows

(Unit: Million JPY)

	FY2020	FY2021	Changes
Cash Flows from Operating Activities	9,327	9,494	
Cash Flows from Investing Activities	▽4,006	▽5,166	
Cash Flows from Financing Activities	▽2,411	▽3,348	
Cash and Cash Equivalents at the End of Period	15,564	16,763	+1,198

Interest-bearing Debt/Cash Flow Ratio

(Unit: Million JPY)

	FY2020	FY2021	Changes
Interest-bearing Debt	13,683	22,854	+9,171
Cash Flows from Operating Activities	9,327	9,494	+167
Ratio	1.7	2.4	+0.7

【 Main contents of cash flows from operating activities 】

- Income before Income Taxes 9,413
- Depreciation 2,684
- Changes in Account Receivable ▽4,024
- Changes in Accounts Payable 3,474
- Provision for Environmental Measures 1,410
- Income Taxes Paid ▽1,809

【 Main contents of cash flows from investing activities 】

- Purchase of Tangible Fixed Assets ▽3,208
- Refund of Long-term Guarantee Deposits ▽1,509

【 Main contents of cash flows from financing activities 】

- Proceeds from Long-term loans payable 12,400
- Payments from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation ▽10,408
- Repayments of Long-term Loans Payable ▽2,799
- Cash Dividends Paid ▽1,495

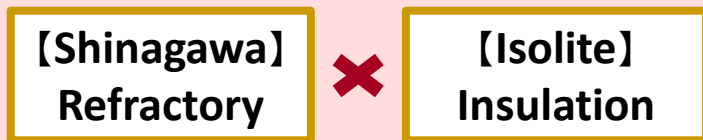
7. Shinagawa Group Reorganization:

Isolite Insulating Products is now a wholly owned subsidiary of Shinagawa

Achieving Carbon Neutrality is the World's Most Urgent Mission ⇒ New Business Opportunities for Shinagawa/Isolite by Fully Utilizing Synergies

【Maximizing Synergies】

① Technological Integration



- Development of New Refractory Materials
e.g. Refractory containing Ceramic Fiber※1
- Development of New Furnace Lining Design
e.g. New Furnace Lining with improved heat insulation by combining Refractory and Ceramic Fiber※2

② Collaboration in Overseas Business※3

**Enabling Further & Faster Growth
of Shinagawa Group**

※1 Refractory containing Ceramic Fiber
Exploring new applications with better heat insulation, heat resistance, corrosion resistance, and strength property

※2 New Furnace Lining
Further energy savings by designing new furnace lining with improved heat insulation by combining Refractory and Ceramic Fiber

※3 Complementary Overseas Locations

	Shinagawa	Isolite
Asia	China, Taiwan, Korea, Indonesia, India	China, Taiwan, Malaysia
Oceania	Australia	
Americas	USA (Brazil)	
Europe		Germany



II . FY 2022 Business Plan

1. Business Environment

● Uncertainty looms over the global economy with Russia's invasion to Ukraine and the impact of the related economic sanctions.

● The steel industry is expected to continue producing crude steel at the same level as in 2021.

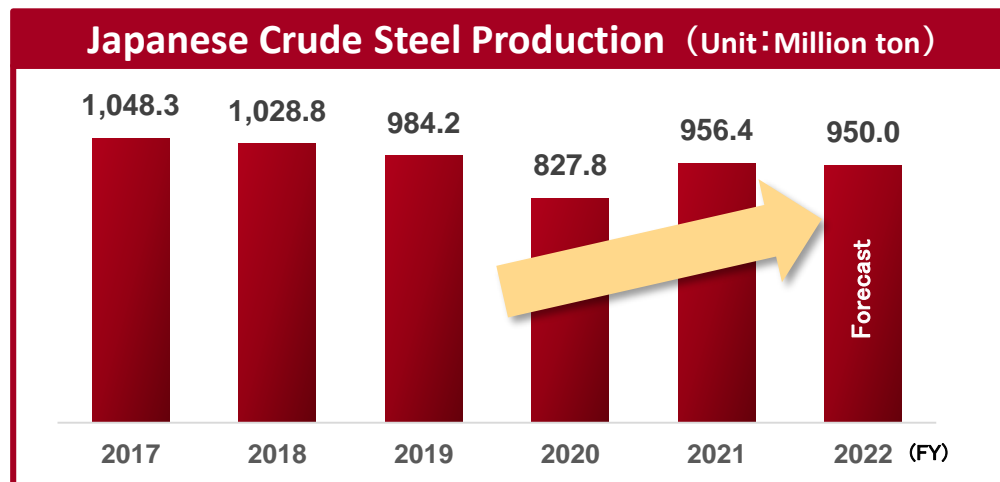
● We expect to avert the negative impact of raw material costs increase by further diversifying its sources.

⇒ Fused raw material costs soars due to lockdown in China

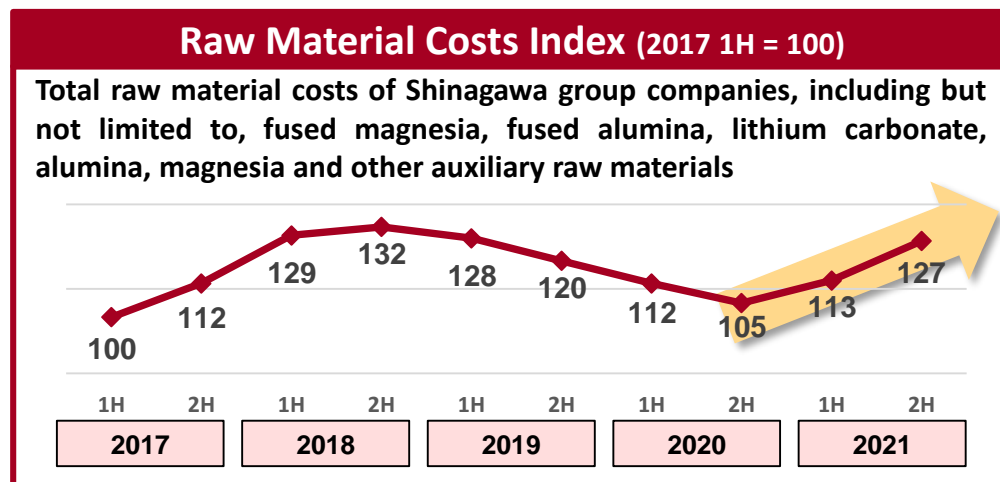
⇒ Lithium carbonate costs soars due to increasing demand of EV

⇒ Costs increase of Chinese raw material and crude oil globally results in Japanese raw material costs increase

⇒ The global supply chain is in turmoil



* Source: The Japan Iron and Steel Federation



* Source: Shinagawa Refractories

2. Consolidated Financial Forecasts for FY2022

(Unit: Million JPY)

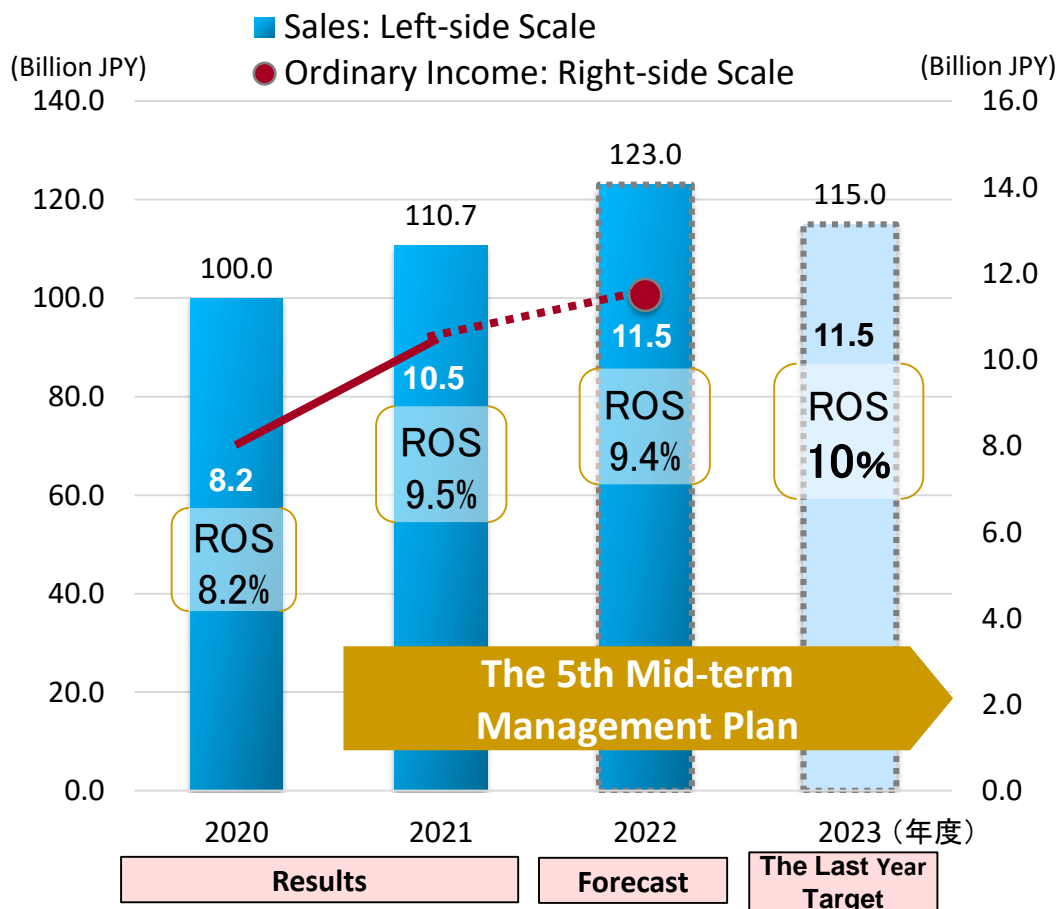
	FY2021	FY2022	YoY
	Results	Forecast	
Net Sales	110,784 [100.0]	123,000 [100.0]	+11.0%
Operating Income	10,107 [9.1]	— [—]	—
Ordinary Income	10,716 [9.7]	11,500 [9.3]	+7.3%
Profit attributable to owners of parent	5,308 [4.8]	— [—]	—

Note: Figures in square brackets [] indicate ratio (%) to Net Sales

- Shinagawa expects to continue facing a challenging business environment with an upward trend of raw material costs and the weak JPY.
- We will achieve the above forecast by reasonably passing on raw material costs increase, while assuming a high level of crude steel production continues.

3. FY2022 Business Plan: Overview

**The Final Year Target will be achieved
One Year Ahead of Schedule**



* ROS(%) = (Ordinary Income ÷ Sales) x 100

■ The 5th Mid-term Management Plan The Last Year Target

	FY2023 The Last Year Target
Sales	115 Billion JPY
Ordinary Income	11.5 Billion JPY
ROS	10%

Forecast made in 2020

- Crude Steel Production in Japan: 90 Million t/Y
- Exchange Rate: 105 JPY/US\$

Current Situation in 2022

- Crude Steel Production in Japan: 95 Million t/Y
- Exchange Rate: 115 JPY/US\$*

* Forecast made in March 2022

4. FY2022 Business Plan: Basic Policy & Overview of Primary Action Plans

Basic Policy

< The 5th Mid-term Management Plan >

Shinagawa aims for the record financial performance despite the gradual decline in domestic steel demand by introducing new products that meet various customers' needs and strengthening our competitiveness by production optimization

Primary Action Plans

1

Sales Expansion & Production Optimization in Japan

2

Overseas Business Expansion

3

New Business Opportunities

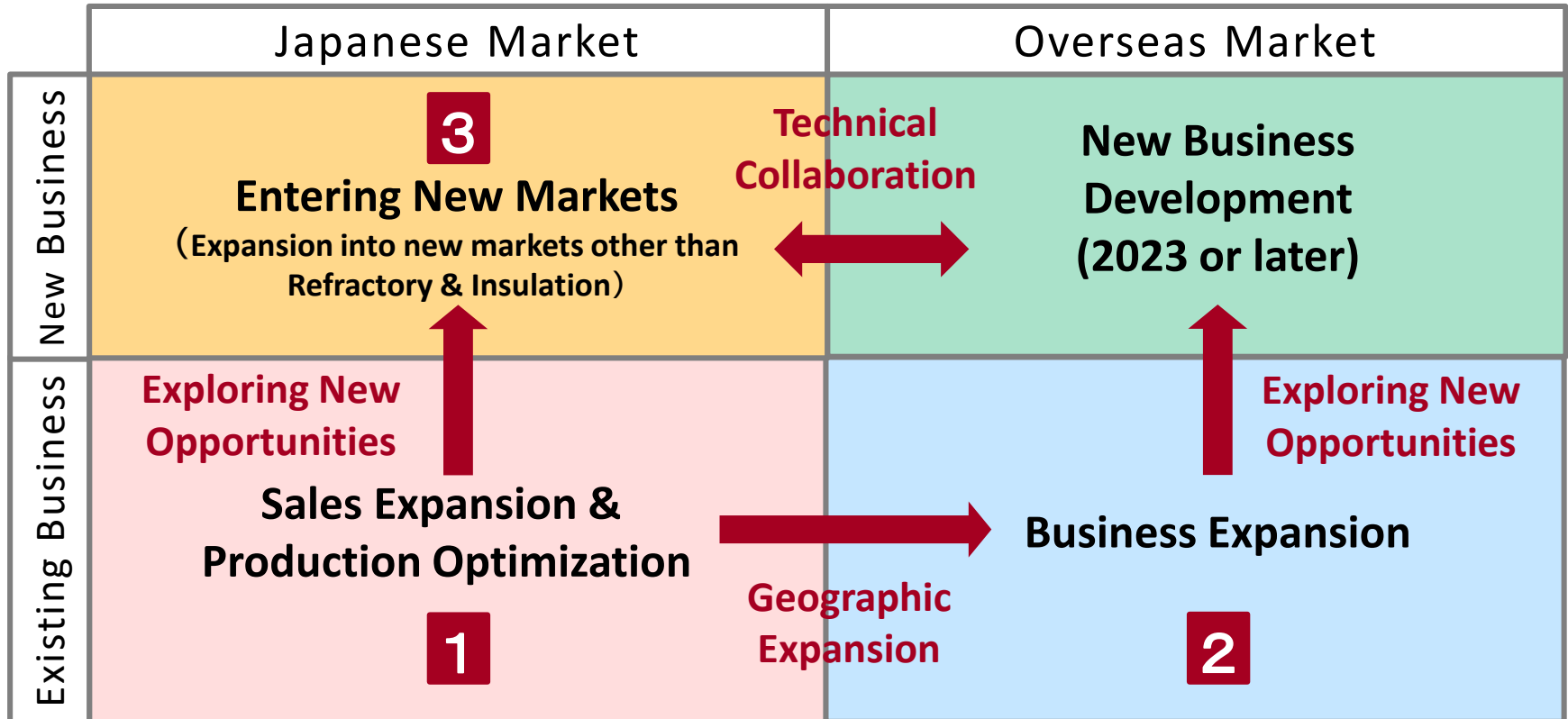
4

Vigorous Capital Investments

4. FY2022 Business Plan: Basic Policy & Overview of Primary Action Plans

< Primary Action Plans: Correlation Diagram >

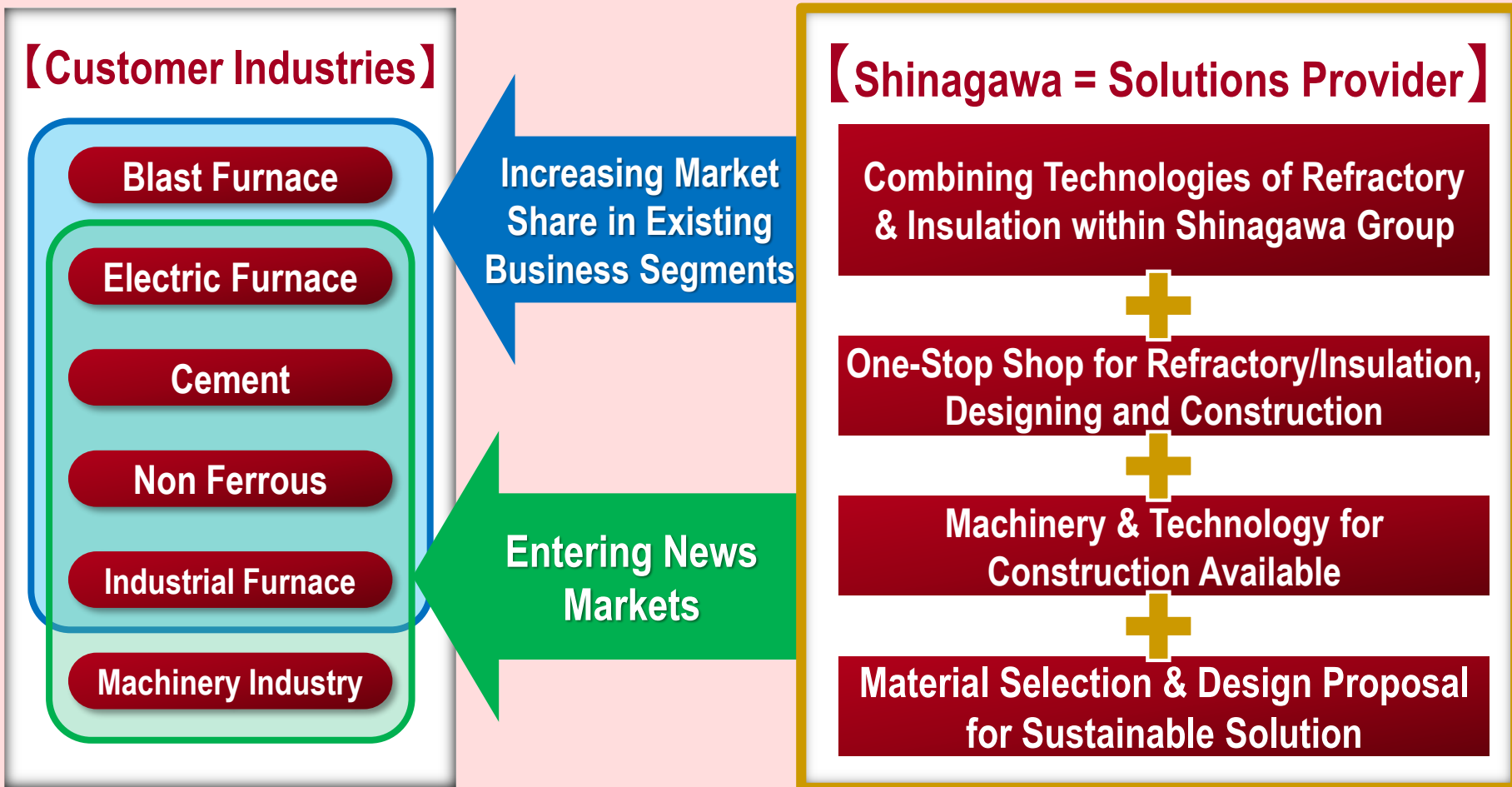
Plan and Execute Primary Actions while Growing Business Portfolio



5. Primary Action Plans

1 Sales Expansion & Production Optimization in Japan

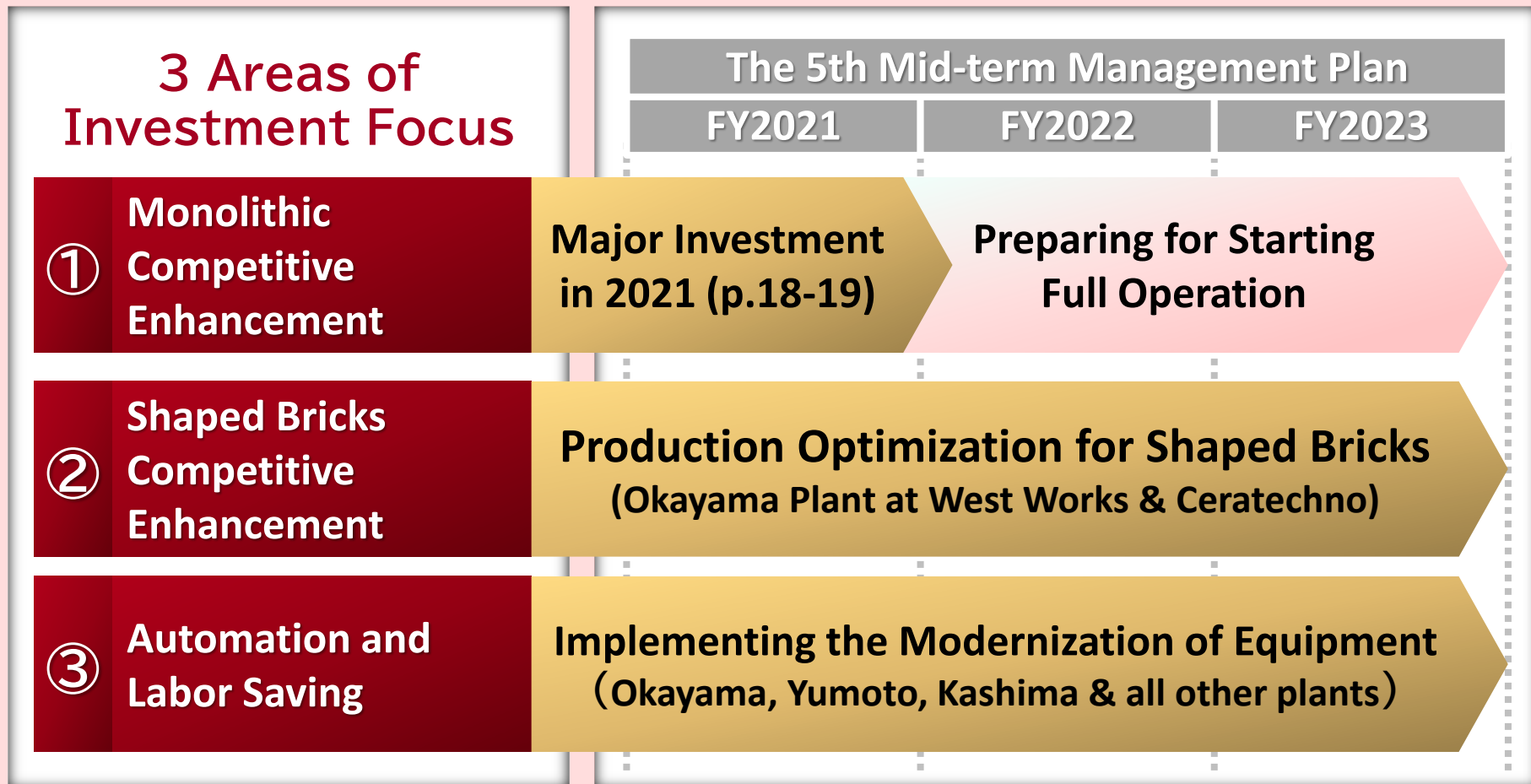
1) Sales Expansion of Refractory & Insulation



5. Primary Action Plans

1 Sales Expansion & Production Optimization in Japan

2) Production Optimization in Japan

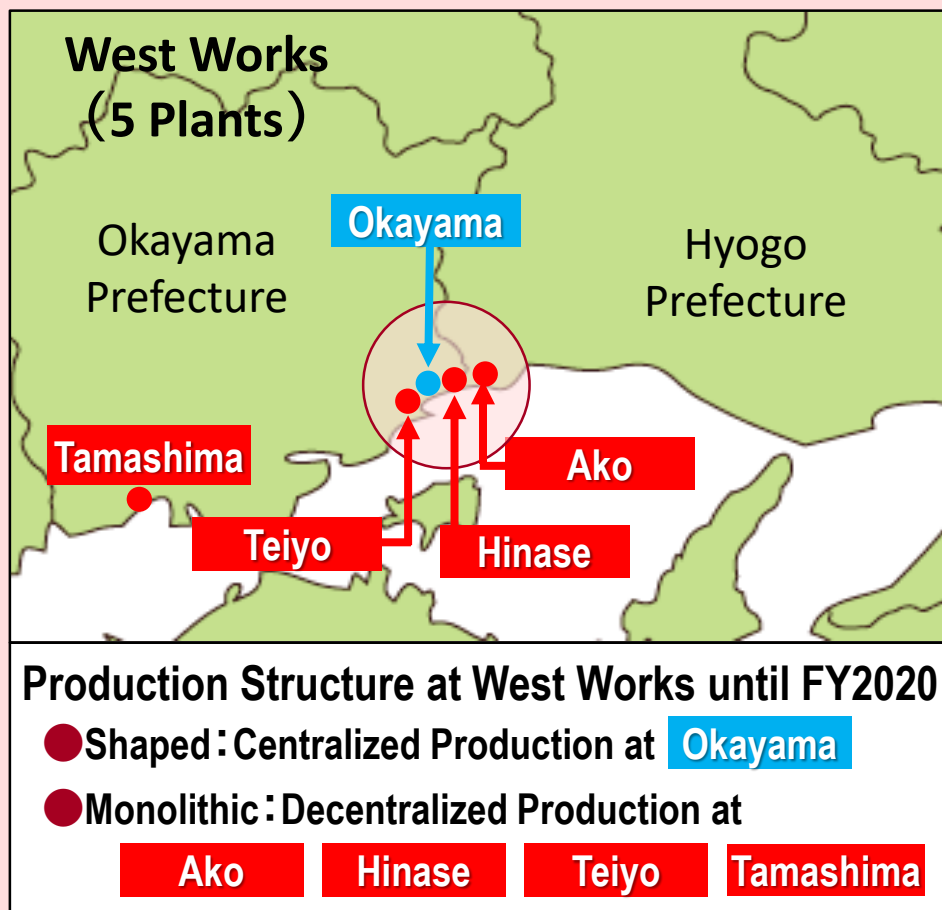


5. Primary Action Plans

1 Sales Expansion & Production Optimization in Japan

2) Production Optimization in Japan

① Monolithic Competitive Enhancement



Consolidating Monolithic Production in West Works to Enhance Competitiveness



[Consolidation into Ako Plant]

- Restructuring of Monolithic Production Renovations & New Constructions
- Aiming to begin full-scale operation in FY2024

[Total Capital Investment 2021-2023]

3.7 Billion JPY

5. Primary Action Plans

1 Sales Expansion & Production Optimization in Japan

2) Production Optimization in Japan

① Monolithic Competitive Enhancement

Schedule and Updated Status

Year/Timing	The 5th Mid-term Management Plan						The 6th	
	FY2021		FY2022		FY2023		FY2024	
	1H	2H	1H	2H	1H	2H	1H	2H
New Constructions Ako #2 Plant	1st Phase Building <i>Done</i>		2nd Phase Shipping Station, Infrastructure, New Machine		New Plant Complete		New Plant Begin Operation	Consolidation Complete
Renovations Ako #1 Plant (Clay Refractory → Precast Block & Basic Refractory after Consolidation)					Installing Precast Block	Production Transfer		Begin Operation
Teiyo (Clay Refractory)						Production Transfer		Plant Closure
Hinase (Basic Refractory)							Production Transfer	Plant Closure

- 1st Phase (Building) has been completed. On schedule.
- Currently preparing for 2nd Phase (Shipping Station and Infrastructure)

5. Primary Action Plans **2** Overseas Business Expansion

▶ History of Overseas Business Expansion

Overseas expansion since 1997, started from China

⇒ In 2022, secured production bases in all major markets in the Indo-Pacific region

Overseas Expansion since late 1990s	1997/ 3	China	● Shenyang Shinagawa Metallurgy Materials
	1998/ 6	Australia	● Shinagawa Refractories Australasia
	2003/ 3	China	● Jinan Ludong Refractories (minority stake)
	2006/ 7	USA	● Shinagawa Advanced Materials Americas
	2008/ 4	China	● Liaoning Shinagawa Hefeng Metallurgical Material
	2014/10	Indonesia	● PT Shinagawa Refractories Indonesia
	2019/ 8	India	● SG Shinagawa Refractories India

[Announced New Strategic Acquisitions]

2022/ 5	Brazil	● Saint-Gobain's Refractories business in Brazil
2022/ 5	USA	● Saint-Gobain's Alumina based Wear Resistant Ceramics business in USA

5. Primary Action Plans **2** Overseas Business Expansion

► New Strategic Acquisitions in Brazil and USA

(announced on 5/12/22)



Brazil: Vinhedo SP

BUSINESS OVERVIEW

Business Description	Manufacturing and sales of refractories
Location	Vinhedo, São Paulo, Brazil
Establishment	1953
FY21 Sales	394 million BRL
# of Employees	More than 300
Main Products	Trough & Runner, Tap Hole Mix, Bricks for Steel Ladle & BOF etc.



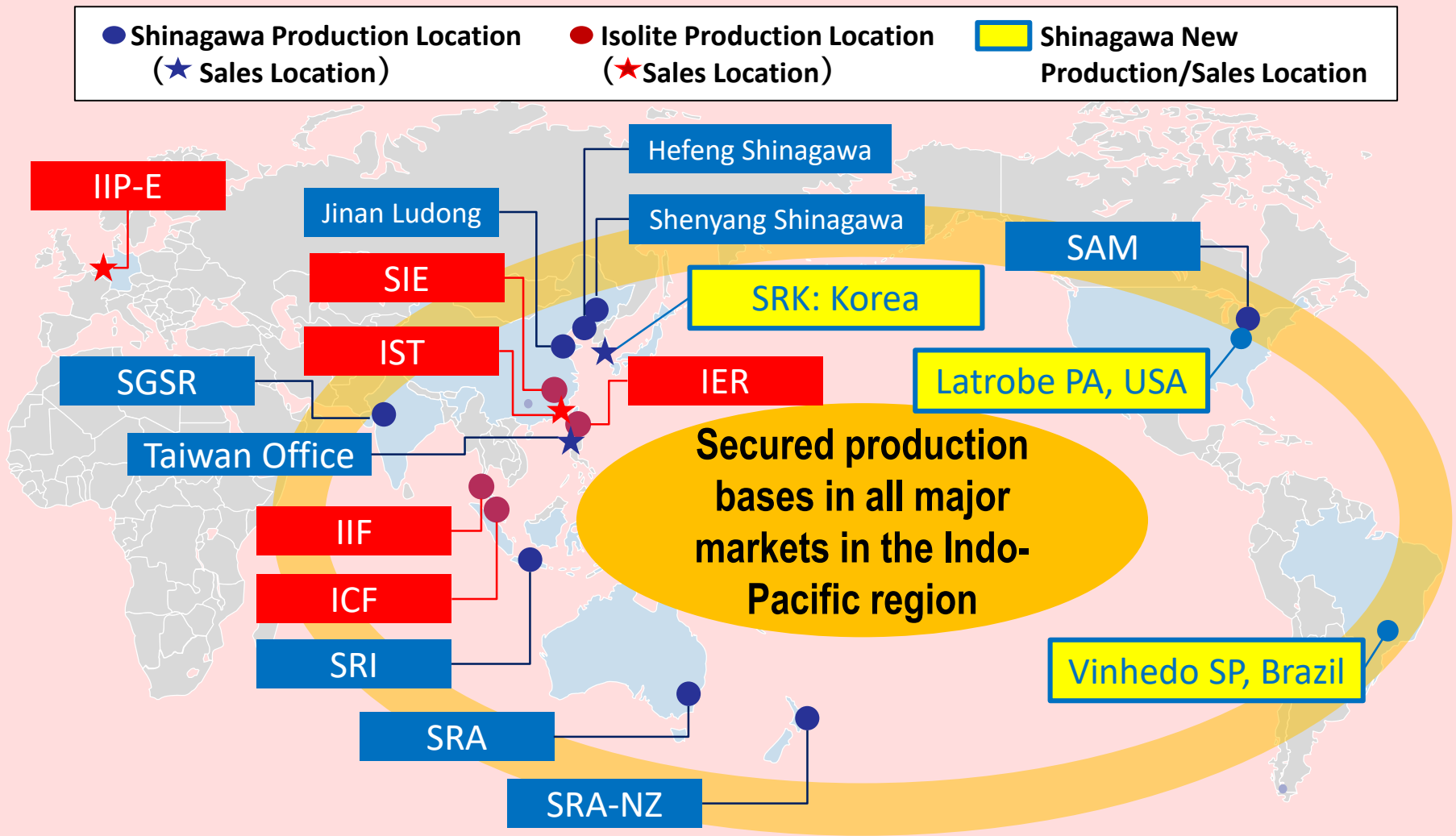
USA: Latrobe PA

BUSINESS OVERVIEW

Business Description	Manufacturing and sales of Alumina based wear resistant alumina products
Location	Latrobe, Pennsylvania, US
Establishment	1906
FY21 Sales	9 million US
# of Employees	Around 50
Main Products	Conveyor Transfer Chute Lining , Classifier Cone Lining etc. (Durafrax®)

5. Primary Action Plans **2** Overseas Business Expansion

► Overseas Expansion and Collaboration within Shinagawa Group

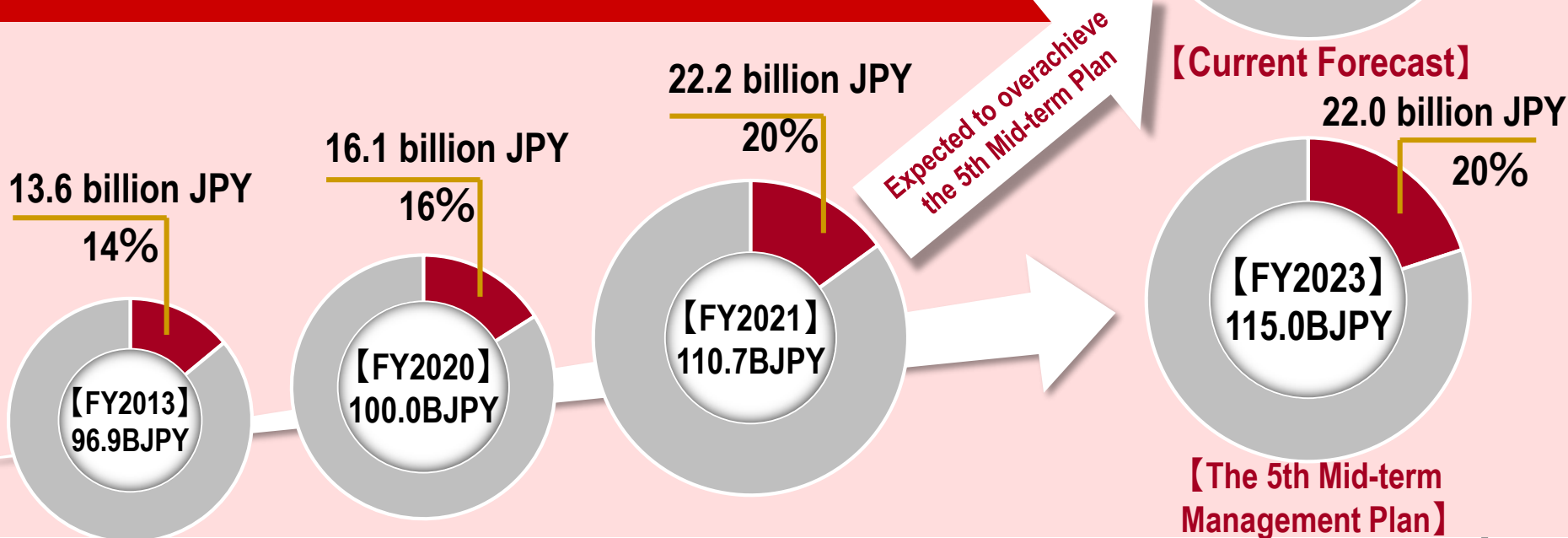


5. Primary Action Plans **2** Overseas Business Expansion

► Increasing Trend of Overseas Sales

* Overseas Sales = Export from Japan + Sales by Overseas Production Locations

With the new addition of sales in 12 billion yen from Brazil and USA, the Group's overseas sales in 2023 are expected to overachieve the Mid-term Plan, to reach 34 billion yen and the overseas sales ratio will reach 27%.



5. Primary Action Plans **2** Overseas Business Expansion

▶ Further Expansion of Overseas Business

< New Overseas Projects currently Under Consideration >

[China]

● Additional Production Base

Considering further collaboration with our JV partner, Anshan Hefeng Refractories (a major refractory manufacturer in China), including producing other products locally,



[India]

● Sales Collaboration

Sales collaboration with Dalmia Bharat Refractories, the No. 2 refractory manufacturer in India: Currently considering further collaboration



● Additional Production Base

Considering new production bases in India following SGSR

[USA]

● Sales Collaboration

Sales collaboration with HarbisonWalker International, the top refractory manufacturer in USA



● Additional Production Base

Considering new production bases in USA following SAM and Latrobe

Further expanding overseas business is the cornerstone of Shinagawa's growth strategy, and we will continue to actively explore investment opportunities, including M & A

5. Primary Action Plans **3** Entering New Markets

▶ New Development at Shinagawa Fine Ceramics

- Mainly used as a substitute for metal parts (Required properties: High temperature resistance, low expansion, wear resistance, chemical corrosion resistance)
- Main customers: Manufactures of semiconductor / LCD manufacturing equipment, pumps, and special metals.

Considering going global in collaboration with the wear-resistant ceramics business in USA (Latrobe)

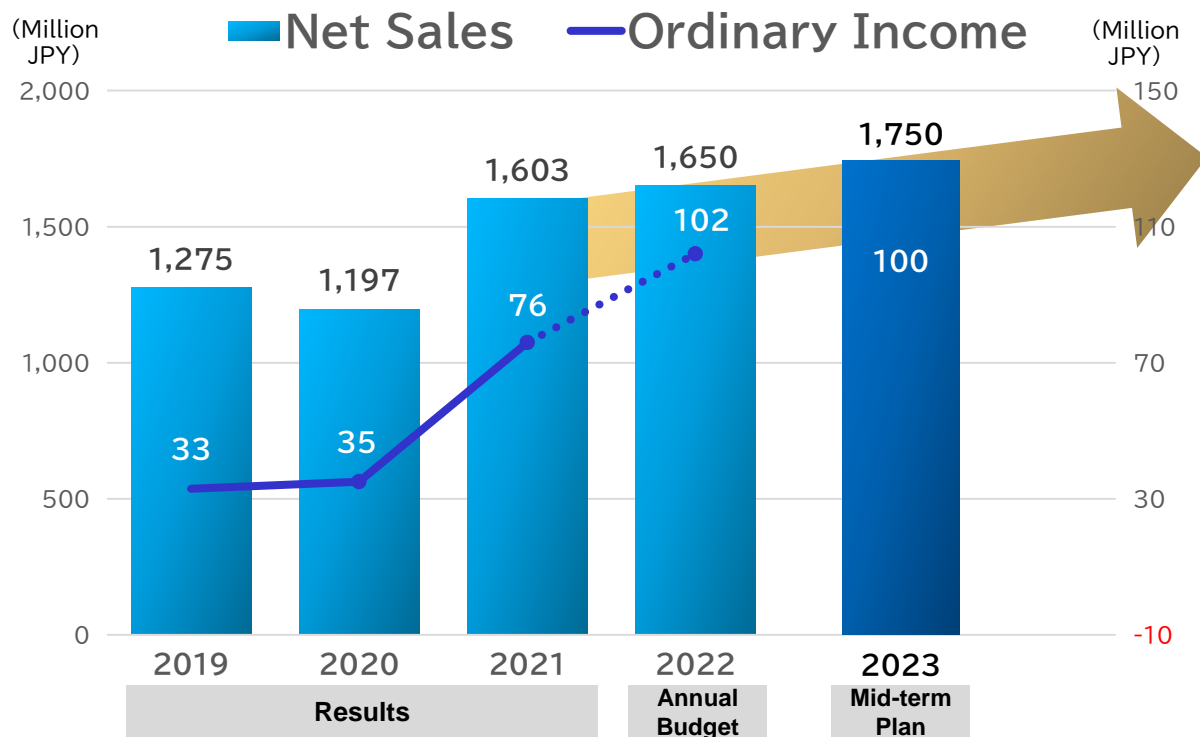
Ceramics for Semiconductor / Liquid crystal manufacturing equipment



Ceramics for various Pumps

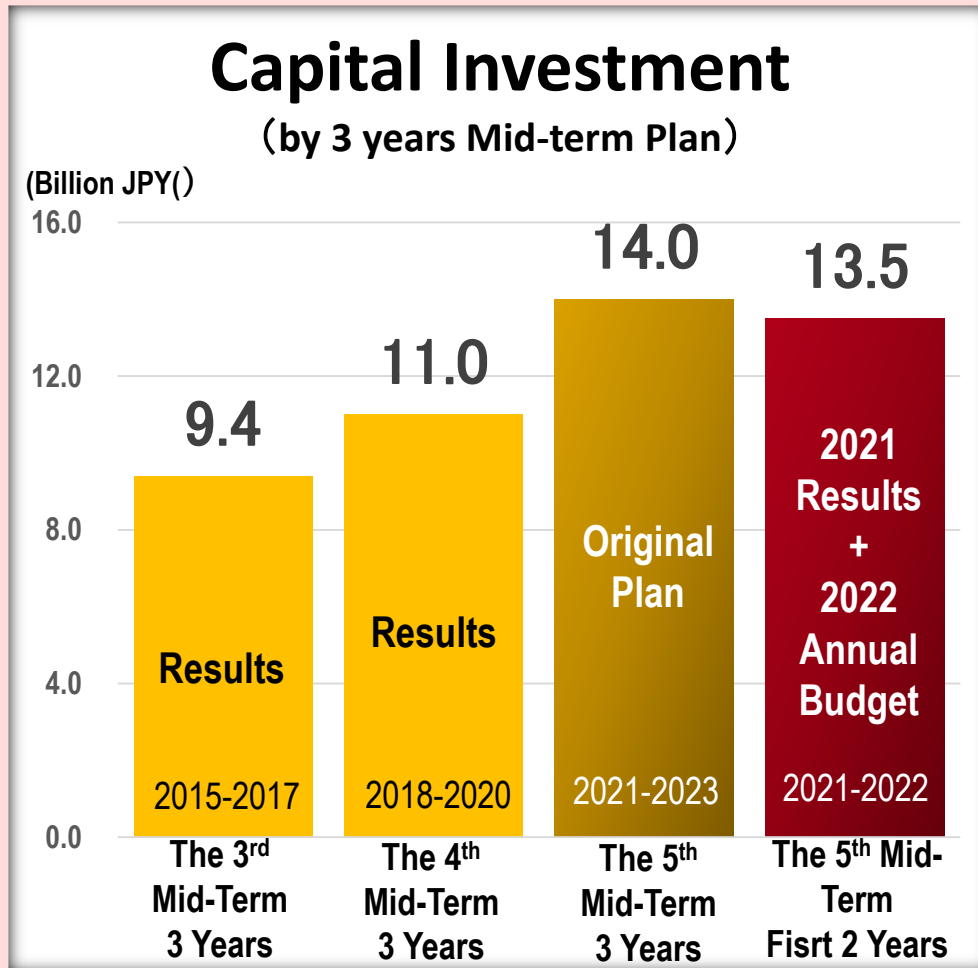


Wear resistance Ceramics rollers



5. Primary Action Plans **4** Vigorous Capital Investments

► Expanding Capital Investment for the Future Growth



Spent Initial 3 Years
Budget by the 2nd Year



Continue Vigorous
Investment in the 3rd Year
for the Future Growth

【Keys of Investment Strategy】

- Production Optimization
(Consolidating Monolithic Production
in West Works: 3 to 1)
- Stability & Cost Competitiveness
- Modernization & Automation

6. Corporate Sustainability

1) Our Commitment and Action Plan

【Our Commitment】 Creating a Sustainable Society

Based on our management philosophy of "Creation of a Prosperous Society by Industrial Development," Shinagawa will work together with our stakeholders to create a sustainable society from the perspectives of "Environment," "Society" and "Governance," and continue to grow through sustainable business activities and increase corporate value.








【Action Plan】 Establishing Sustainability Committee

- (1) Develop, revise, and promote various policy proposals related to Sustainability Management
- (2) Manage the progress of action plans related to Sustainability Management
- (3) Deal with any other important matters related to Sustainability Management



6. Corporate Sustainability

2) Materiality at Shinagawa

SDGs	Theme	No.	Materiality
	Climate Change & Reduction of Environmental Impact	1	Develop and provide environmentally-friendly products and solutions to contribute to the reduction of CO ₂ emissions and energy conservation
		2	Reduce CO ₂ emission and promote energy conservation in production processes
		3	Minimize the impact on the environment by promoting refractory recycling and reducing waste
	Quality Improvement & Stable supply	4	Support the operations of our customers by consistently providing high quality products and services
	Innovation	5	Consistently innovate technologies through active capital investment and developing human resources to improve productivity and cost competitiveness
	Health & Safety	6	Prevent accidents through continuous improvement of the safety environment in works and furnace construction sites and safety training
	Diversity, Inclusion & Respect for Human Rights	7	Create workplace environments in which allow diverse workforce can thrive to play active roles
		8	Establish sound workplaces and responsible supply chains that respect human rights
	Compliance	9	Fully comply with laws and regulations to build fair and sound relationships with employees and partner companies
	Stakeholder Relations	10	Contribute to the sustainable development of local communities by promoting communication and deepening engagement
		11	Make sound profits through business activities and return them to stakeholders

← (: E(Environment) : S(Society) : G(Governance)

6. Corporate Sustainability

3) Addressing Climate Change

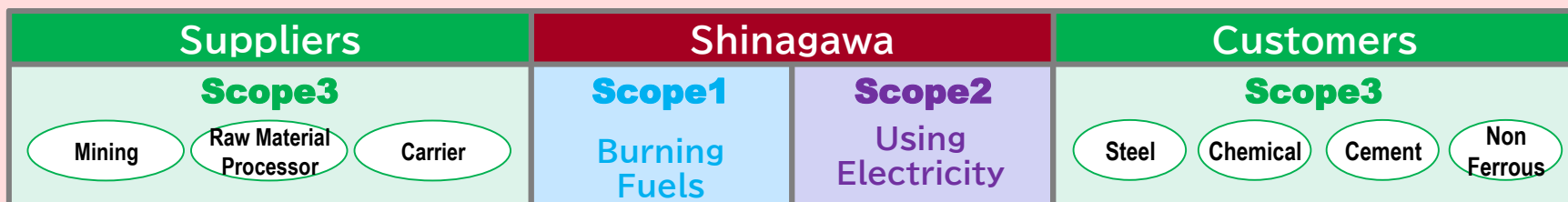
① Towards Carbon Neutrality

Goal

- Reduce Greenhouse Gas Emissions 50% by 2030 (vs 2013)

2013:52,900 tons/Y → 2030:26,000 tons/Y

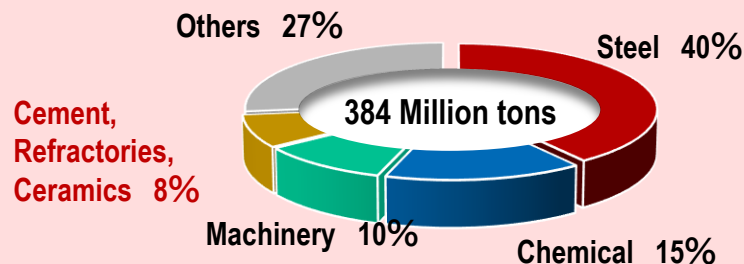
- Carbon Neutrality by 2050



In addition to our own initiatives to reduce CO₂ emissions, we contribute to the reduction of CO₂ emissions in society through our products and technologies

Shinagawa considers the contribution to the reduction of CO₂ emissions in society as "A Major Business Opportunity" and actively promote initiatives to achieve carbon neutrality

【Reference】CO₂ Emissions by Industry (FY2020)



Source: National Institute for Environmental Studies

6. Corporate Sustainability

3) Addressing Climate Change



② Support for the TCFD and its Recommendation

- Shinagawa declared support for the TCFD and its recommendations on December 2021 and has joined their consortium.
- We will voluntarily and proactively promote information disclosure based on the TCFD's recommendations, reduce the burden on the global environment through our business activities, and continue verification for the creation and sustainable development of a decarbonized, circular economy, and a society in harmony with nature.

■ Scheduled disclosure of information in accordance with the TCFD recommendations

Recommendations	Details	Scheduled Disclosures
Governance	Governance by the Board of Directors and the management's roles	• Organization and activities of the Sustainability Committee
Risk Management	Proper mechanism for sorting, assessing, and managing climate-related risks	• Processes for identifying, assessing, and managing climate-related risk
Strategy	Company-wide strategy based on various climate-related scenarios	• Identify risks and opportunities in climate-related scenarios and demonstrate where we should be
Metrics & Targets	Setting targets and monitoring trends of GHG emissions and other Indicators	• Assessment of climate-related risks and opportunities, indicators and trends

7. The 5th Mid-term Management Plan & Policy for Profits Return to Shareholders

► Sustainable Return of Profits to our Shareholders

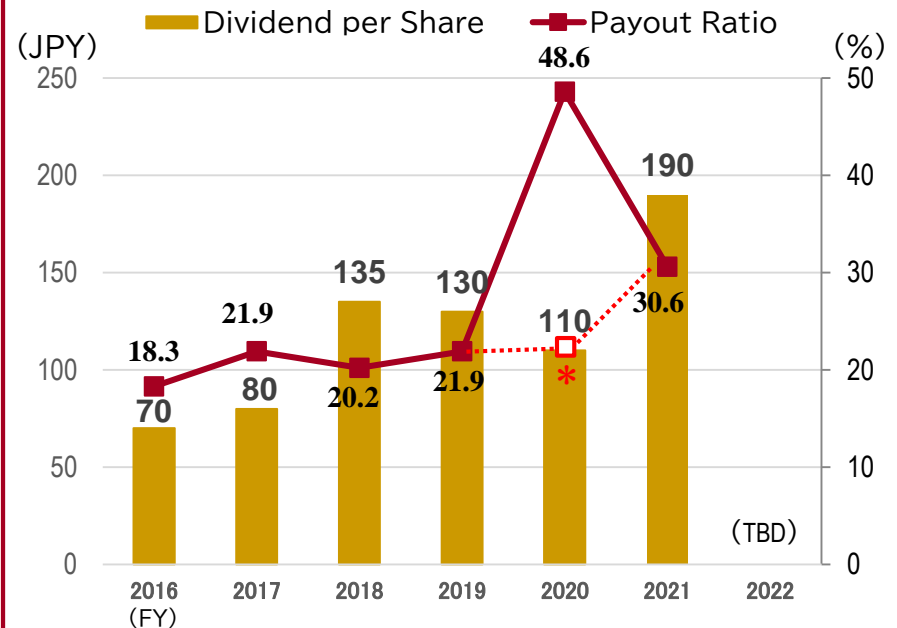
【Dividend Policy】

Considering the important of enhancing the return of profits to our shareholders, we decided to aim for a dividend payout ratio of 30%

【Until The 4th Mid-term Management Plan】
Payout Ratio 20%

【The 5th Mid-term Management Plan】
Payout Ratio 30%

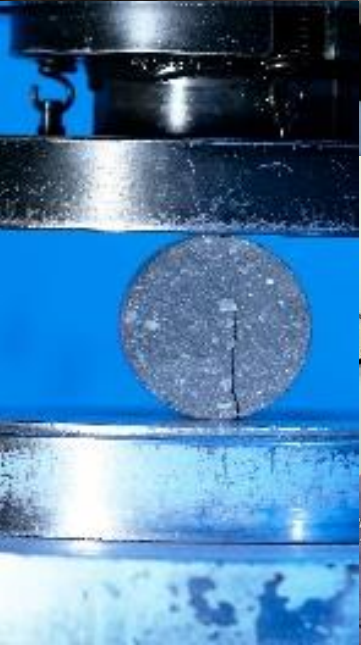
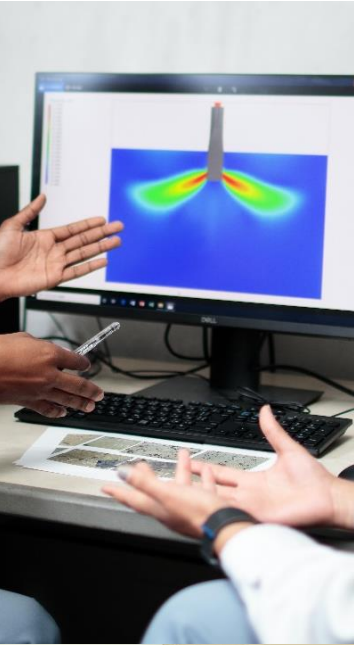
Dividend per Share & Payout Ratio



* : It was about 23% without the special factor (impairment loss).

< Dividend for FY2022 >

The full-year earnings forecast for FY2022 is 123.0 billion JPY in net sales and 11.5 billion JPY in ordinary income. Considering the recent surge in raw material prices and foreign exchange trends, the dividend for FY 2022 has not been decided yet.



III. Supplementary Notes

1. Corporate Management Principles

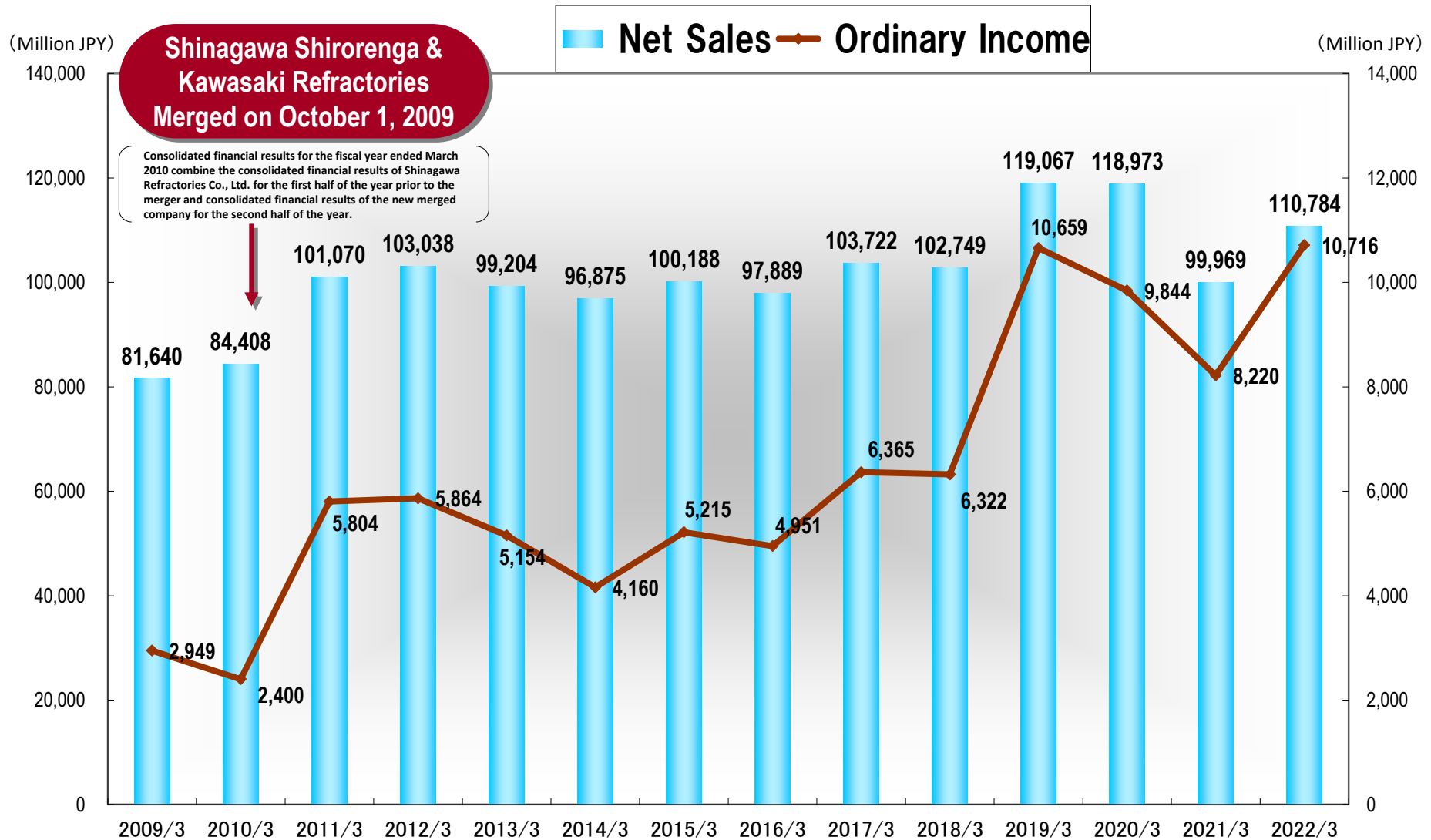
Shinagawa's Management Principles

Shinagawa contributes to the industrial development and the realization of a prosperous and sustainable society through providing high quality refractory products and engineering services such as designing and constructions of various furnaces.

We develop human resources with a high level of creativity and execution abilities, pursue excellence in technical capabilities, and establish solid financial base to achieve the followings:

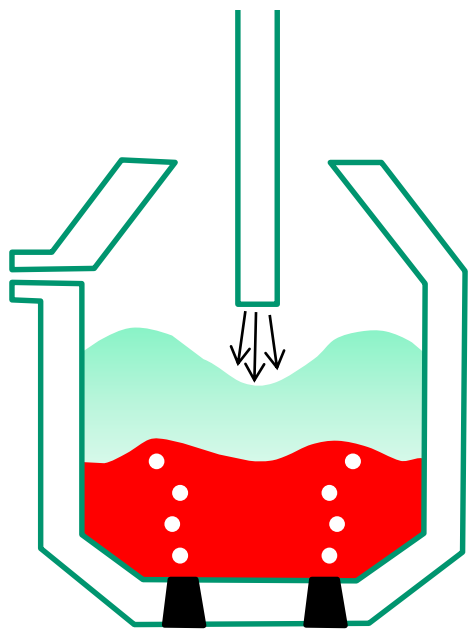
- ① Be a leading global provider of thermal solutions and refractory engineering services
- ② Respond to customers' needs with timely, well-thought-out and reliable solutions
- ③ Earn high level of trusts from our shareholders, suppliers, customers and communities
- ④ Provide our employees with a safe, positive and productive working environment

2. Consolidated Net Sales & Ordinary Income for Past 14 Years

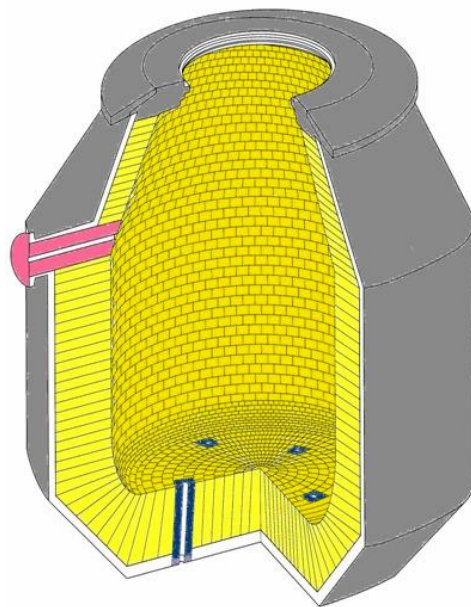


3. The Roles of Refractories Industry

- Many vital materials that support important social infrastructure, such as steel, non-ferrous metals, cement and glass, are produced in furnaces lined with refractory products.
- The refractories industry supports the foundation of these key industries through providing refractory products and engineering services for designing and constructions of furnaces.



Refining of Molten Steel in Converter



Refractory Lining



Fire Bricks for Converters



Furnace Construction with Fire Bricks

4. Major Products

Refractories

- Refractories are industrial materials that can resist ultra-high temperatures in excess of 1,500 °C.
- Approximately 80% of refractory production is consumed by the steel industry.

Shaped Refractories

Shaped refractories (“fire bricks”) provide basic support to industrial furnaces and ultra-high temperature processing facilities

- Magnesia-based bricks
- Carbon-containing bricks
- Fire-clay and high-alumina bricks
- Flow control system refractories for continuous casting
- Silicon carbide bricks
- Silica bricks, etc.



Monolithic Refractories

A complete system package including “product, design, installation and after-sales service” that can suit a wide range of applications

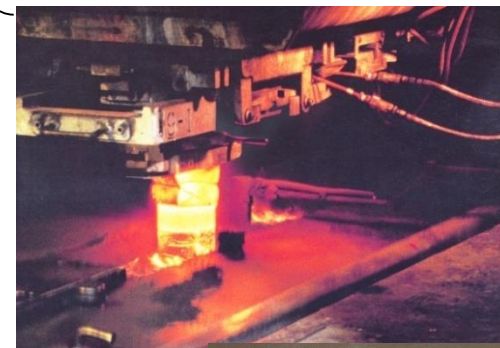
- Castable refractories
- Precast shapes
- Gunning refractories
- Plastic and ramming mixes
- Refractory mortars, etc.



Mold Powder

An essential material for producing high-quality steel

(Powder-type material added to maintain the surface temperature inside casting molds. It prevents the steel from oxidizing and acts as a lubricant during the continuous casting process.)



5. Key Features and Advantages

1

**Leading Company of Ultra-High
Temperature Technologies**

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2

**Solid Customer Base with Highly-Advanced
Technological Capabilities**

3

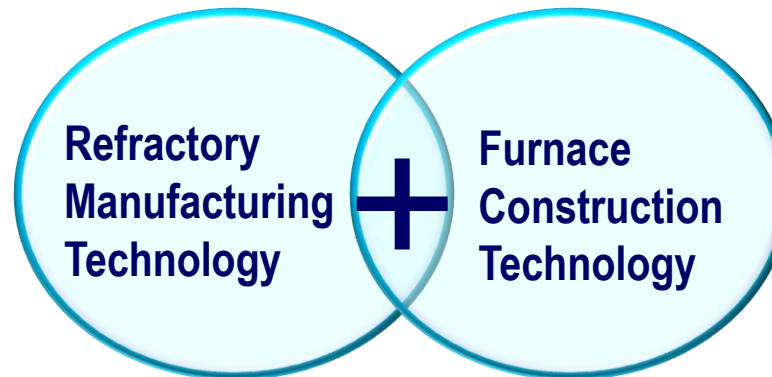
Active Global Business Expansion

5. Key Features and Advantages

Leading Company of Ultra-High Temperature Technology

Solid Technology Development and Commercialization Capabilities supported by Key Two Technologies

- Refractories
- Ceramic Fibers
- Fine Ceramics
- Chemical Products



- Furnace Design
- Engineering Services
 - Furnace construction work for blast furnaces, converters, incinerators
 - Ultra-fast relining of blast furnaces and hot stoves
 - Maintenance of furnaces used by iron and steelmaking works

**Customer-Oriented
Technological Support**

**Development Capability to
Meet Customer Needs**

Disclaimer

This document is intended to provide information on the results for the fiscal year ended March 2022 (April 2021 – March 2022) and is not intended to solicit investment in securities issued by the Company.

The document was prepared based on data available as of June 16, 2022. Opinions, forecasts, etc. described herein are based on the Company's judgment at the time of the preparation of the document. The Company does not warrant or guarantee the accuracy or completeness of the information contained herein, and such information may change without notice in the future.

SHINAGAWA UPDATE

Results for Fiscal Year Ended March 2022

June 16, 2022