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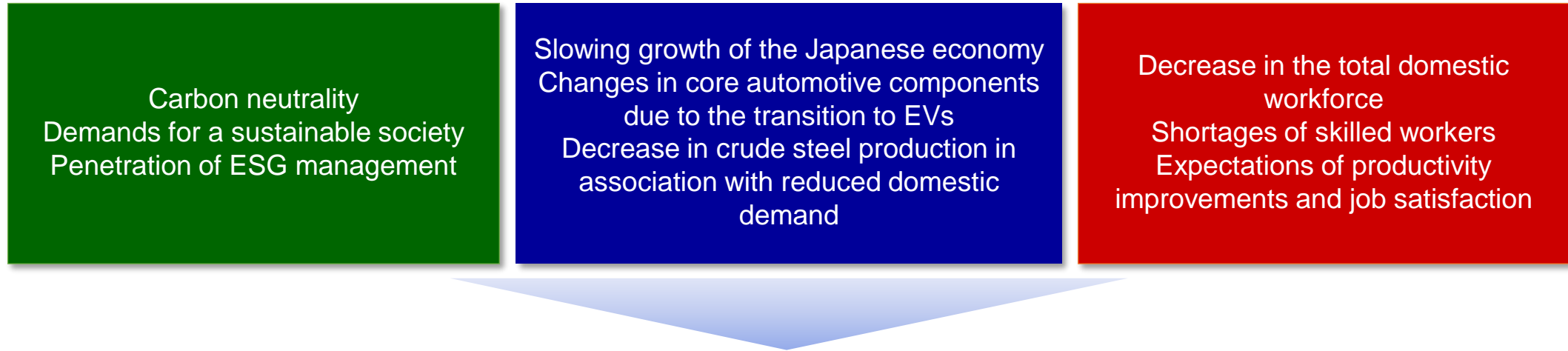
*Chugai Ro Break Through
2022-2026*

**Chugai Ro Group Medium-Term Management Plan
(Fiscal Year 2022 to Fiscal Year 2026)**

May 13, 2022

1. Changes in the Environment Surrounding the Company and Our Response

The social and economic environment surrounding the Chugai Ro Group continues to change rapidly and significantly. To respond to these changes, we have formulated “Management Vision 2026,” a medium-term management plan covering the next five fiscal years.



Carbon neutrality is the biggest change for the industrial furnace industry, which deals in thermal technology, since the industrial revolution. In addition, we must also perceive issues such as changes in the economic situation and labor market as “opportunities” and link them to growth.

We intend to make significant changes ourselves for the Group to achieve sustainable growth in a changed society.

2. Management Philosophy and Management Vision 2026

[Management philosophy]

Chugai Ro creates new value through its core of thermal technology, thus contributing to society while realizing the prosperity of the company and the happiness of its employees.

We will create new value

[3 key strategies]

- (1) The creation of new markets centered on carbon neutrality
- (2) Brushing up of existing products suited to needs to expand sales and increase profits
- (3) The creation of rewarding workplaces

[Management Vision 2026]

Renovate ourselves to develop our future with the technology for carbon neutrality!

3. Results Targets (Consolidated)

Unit: Million yen

[Fiscal year 2026 results targets]

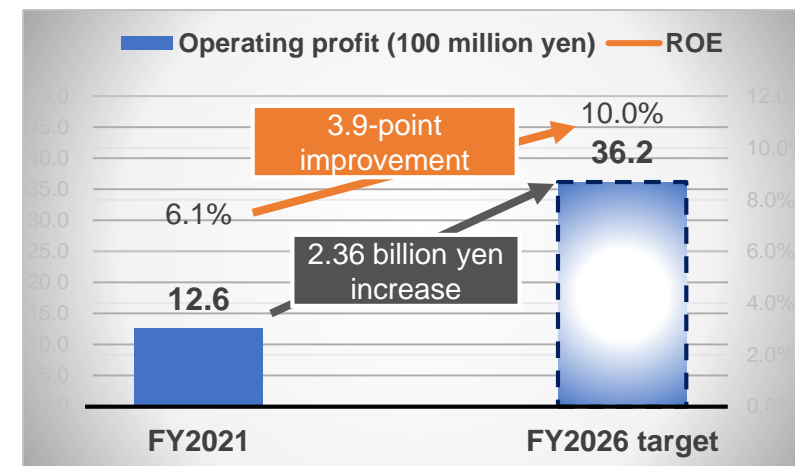
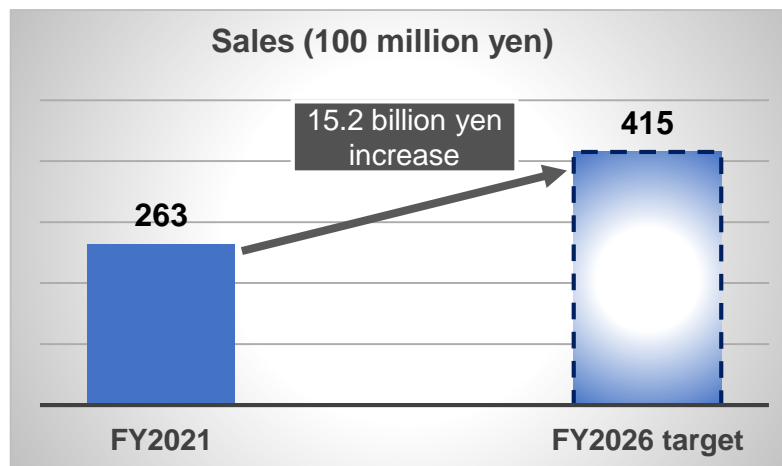
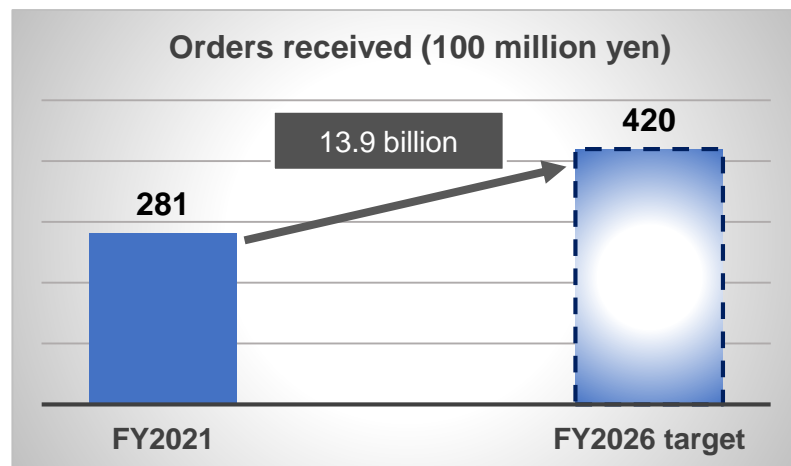
Sales: 41.5 billion yen

Operating profit: 3.62 billion yen

(Operating profit margin: 8.7%)

ROE: 10.0%

Item/year	FY2021 result	FY2026 target
Orders received	28,137	42,000
Sales	26,317	41,500
Operating profit	1,263	3,620
Ordinary profit	1,493	3,720
Profit attributable to owners of parent	1,360	2,450
ROE	6.1%	10.0%



4. Indicators of Important Strategies and Measures for their Achievement (1)

- (1) **Creation of new markets centered on carbon neutrality** (centered on the 3 areas of carbon neutrality, zero emissions and thermal technology compatible with highly functional materials)

[Indicators of new market creation based on new products]

Creation of a 10 billion yen market that meets society's needs in 2030



**Fiscal year 2026
Sales target: 4.0 billion yen**

[Measures for achievement]

- Investment of **about 1 billion yen in total** to establish a new research institute for R&D aimed at the creation of new markets
- **Increase of 30 employees** in R&D sector
- Aim for **sales of 4 billion yen** for new products in fiscal year 2026

Carbon neutrality

Acceleration of development for the reduction of CO₂ emissions from the company's combustion-type industrial furnaces and combustors

- **17% reduction** in the CO₂ emissions of delivered equipment by **fiscal year 2026** (compared to fiscal year 2013)
- **100% reduction** in the CO₂ emissions of delivered equipment by **fiscal year 2050** (compared to fiscal year 2013)

Zero emissions

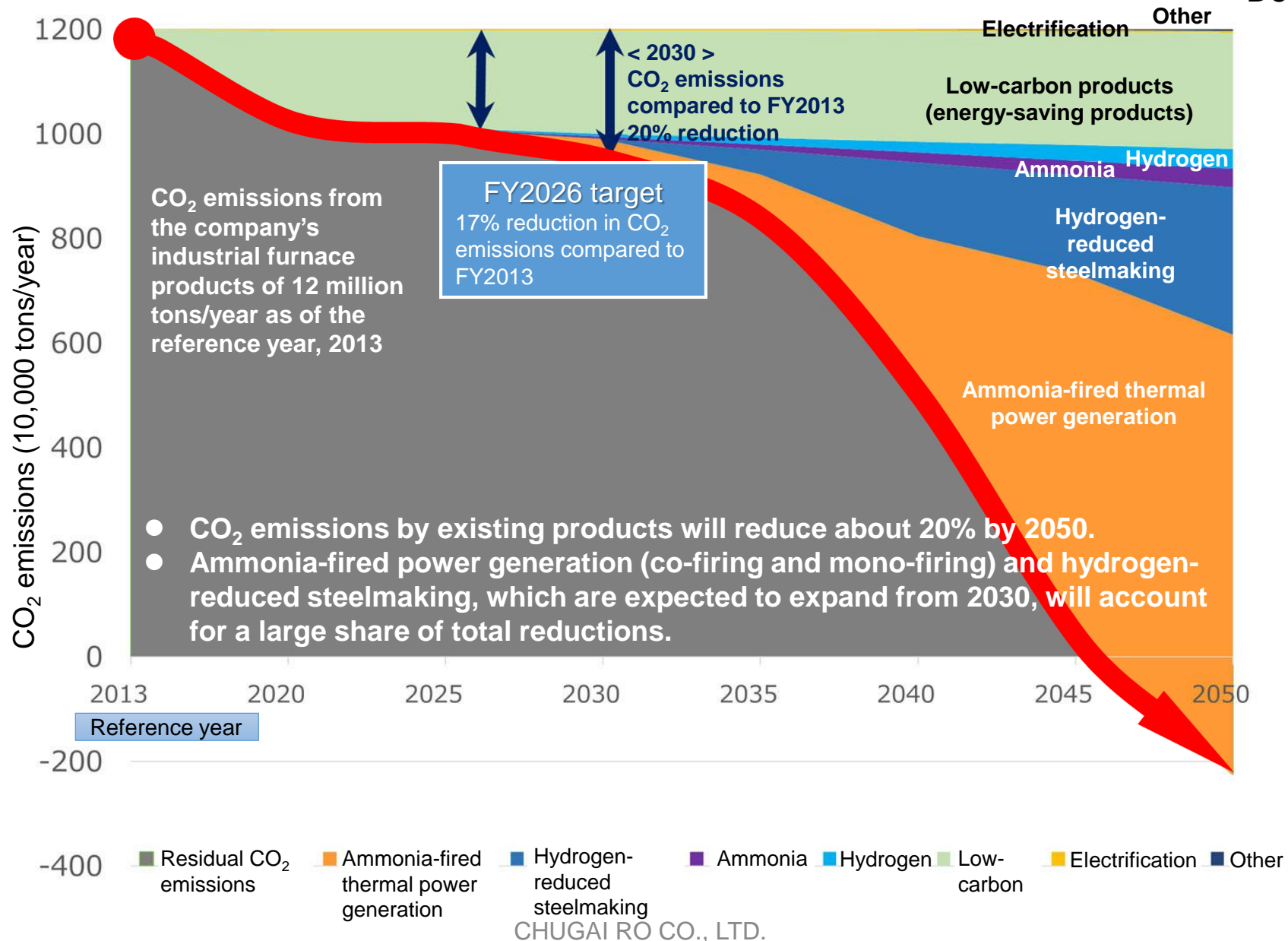
- Establishment of resource recycling processes for electric furnace dust, waste lithium-ion batteries, waste plastics, etc.
- Focus on expanding sales of environmental purification process equipment for soil improvement, water purification, etc.

Thermal technology compatible with highly functional materials

- We will launch a new research center in fiscal year 2023 equipped with high-temperature hot press furnaces, flame processing equipment, kilns, etc.
- We will perform contract testing efficiently and propose the optimal equipment for meeting customers' needs

4. Indicators of Important Strategies and Measures for their Achievement (1)

Decarbonization Target



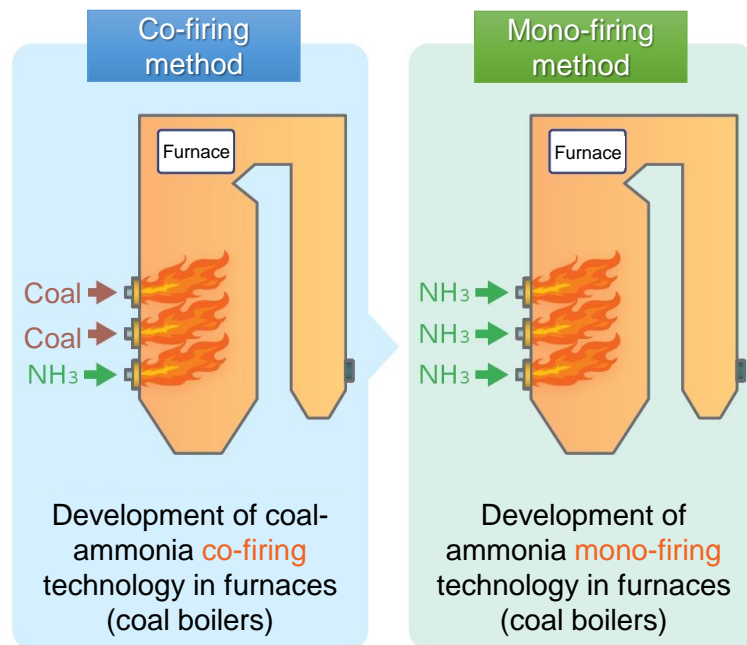
4. Indicators of Important Strategies and Measures for their Achievement (1)

Initiatives for Carbon Neutrality

① Development of large-capacity ammonia mono-fired burners for pulverized coal-fired boilers at coal-fired power plants

We are promoting the development of ammonia combustion technology for industrial furnaces as part of the project “Development of Decarbonized Industrial Furnaces Based on Innovative Ammonia Combustion,” which the New Energy and Industrial Technology Development Organization (NEDO) selected the company for in March 2021.

Moreover, concurrently from May, we have been aiming for carbon neutrality through ammonia combustion at coal-fired power plants, which emit large amounts of CO₂ and need to be addressed urgently. We will start demonstration tests in fiscal year 2022 towards the start of implementation at power plants in 2028, the achievement of a 20% ammonia co-firing ratio in 2035, and the achievement of 100% mono-firing in 2050.

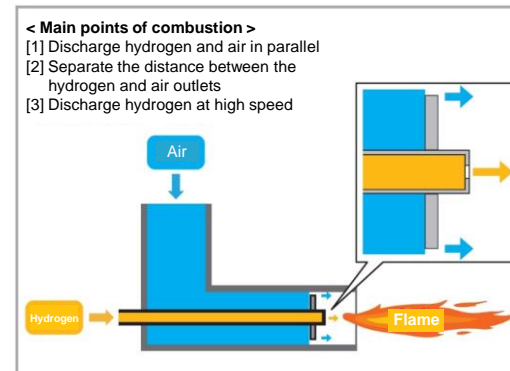


Development of a large-capacity ammonia mono-fired burner for thermal power generation

② Expansion of the application of hydrogen burners to the company's products and the promotion of CO₂ reductions

In 2018, in collaboration with Toyota Motor Corporation, we were the first in the world to develop a general-purpose hydrogen burner aimed at industrial use, and have since expanded compatible facilities sequentially.

Hydrogen-using technology is a promising theme alongside the use of ammonia. We propose various environmentally friendly heat treatment furnaces by expanding the variation of the company's hydrogen burners, and are developing initiatives in line with customers' environmental guidelines, such as the Sustainable Development Goals (SDGs).



Radiant tube type hydrogen fired demonstration furnace installed at Sakai Works in April 2022

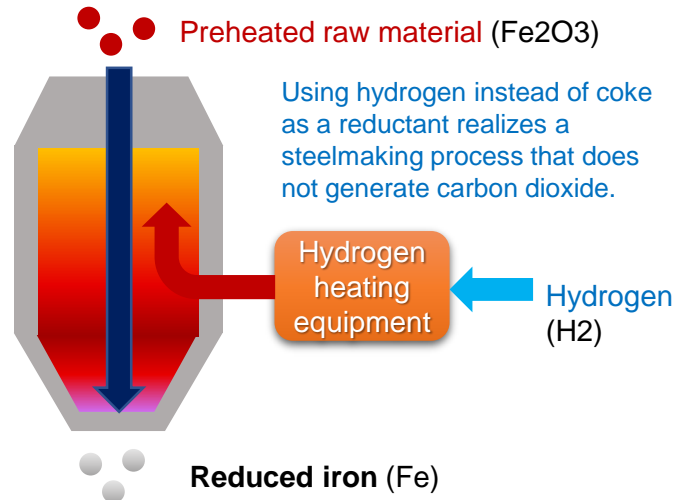


4. Indicators of Important Strategies and Measures for their Achievement (1)

Initiatives for Carbon Neutrality

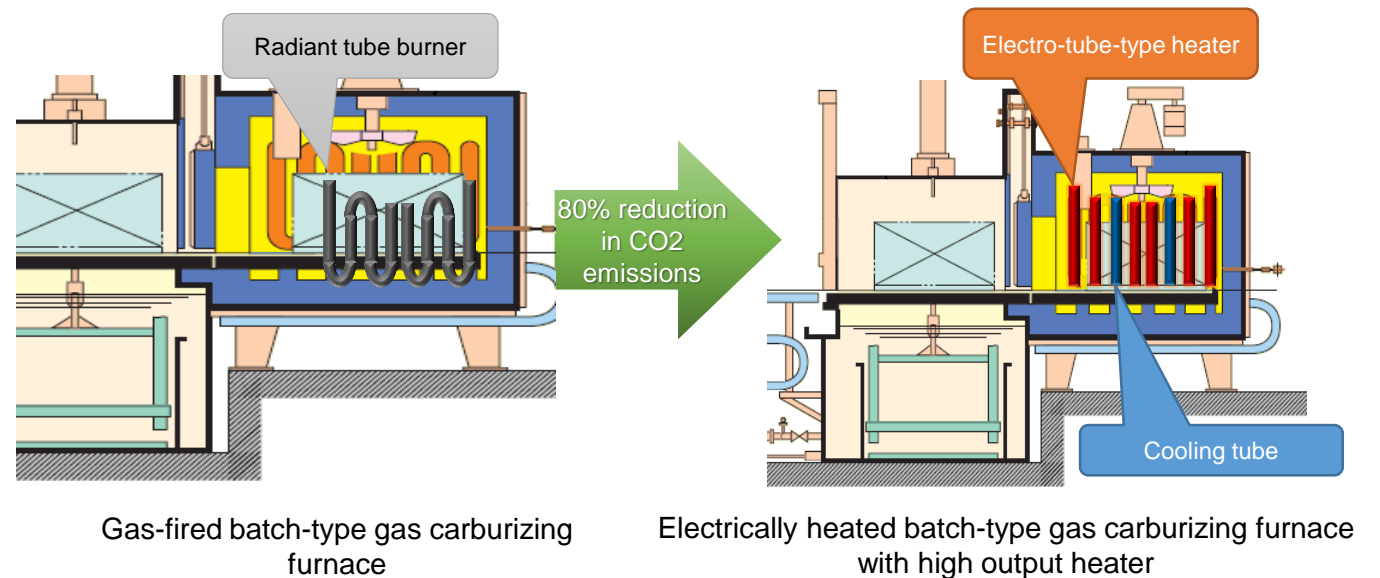
③ Development of heating technology for hydrogen reduction

The pig iron making process, which produces iron from iron ore, uses coke, which is composed mainly of carbon, and emits large quantities of CO₂. In the steel industry, it is essential to reduce CO₂ emissions throughout products' lifecycles, and major blast furnace companies are working on themes such as [1] blast furnace hydrogen-reduced iron making and [2] direct hydrogen reduced iron as ultra-innovative technologies for the iron making process, which accounts for 70% of the CO₂ emitted in the steelmaking process. The Company is also participating in the development of these products.



④ Promotion of CO₂ reductions through electrification

We have sold more than 130 thousand batch-type gas carburizing furnaces that carry out heat treatment of automotive and machine parts, but more than 95% of those are gas-fired. We developed a new high-performance heater for electric heating to promote the reduction of CO₂ emissions. Conventional electric heating systems have a smaller heating capacity than gas-fired systems, resulting in the issues of longer heat-up times and lower productivity. Our newly developed high-output heater has 1.3 times the heating capacity of gas-fired systems and can shorten heat-up time. Having also worked with ingenuity on its cooling capacity, adoptions of this heater are increasing as an electrically heated furnace with total productivity higher than that of gas-fired systems. In countries and regions with relatively low power costs, electrification technology is likely to be adopted widely for industrial furnaces, and we are developing appropriate heaters for each furnace type.



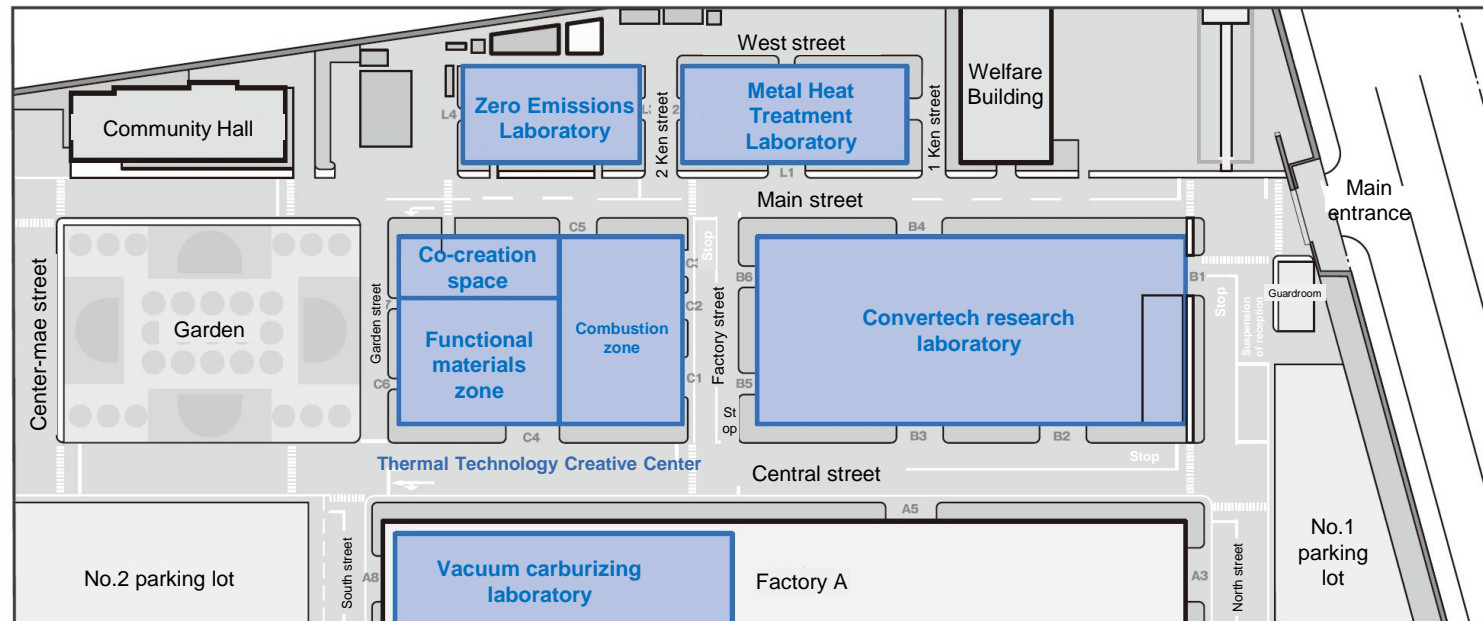
4. Indicators of Important Strategies and Measures for their Achievement (1)

The New Research Institute Concept

Sakai Works: Image of the reorganization of research facilities



Conceptual drawing of the completed Thermal Technology Creative Center



- [The aims of establishing the new research institute]**
- A “state-of-the-art research facility” with the most important aim of “contributions to carbon neutrality”
 - A “research facility for showing, learning, and gathering” aimed at the activation of innovation through “co-creation” both inside and outside the company
 - An “efficient research facility” through consolidation at Sakai Works aimed at the promotion of rapid and efficient development activities
 - Scheduled completion: November 2023

4. Indicators of Important Strategies and Measures for their Achievement (2)

(2) Brushing up of existing products to expand sales and increase profits

[Indicators of sales expansion and profit increases]

Fiscal year 2026

Accumulated sales: 11.2 billion yen



Accumulated operating profit: 2.06 billion yen

[Measures for achievement]

- R&D investment of **about 1 billion yen** over five fiscal years to brush up existing products
- Certain execution of the “human resources and investment plan” and brushing-up based on each division’s plans

Brushing-up	Aim	For existing products	
Functional improvement Service improvement	Share expansion Improvement of profitability	[Heat treatment] [ME] [Plant]	Battery material furnaces, functional material and high-temperature furnaces, atmospheric heat treatment furnaces, vacuum furnaces Crisp® (IoT package for heat treatment equipment) Heating furnaces, stainless steel BAL, copper BAL, electromagnetic steel lines
Application development	Market development	[Thermo systems] [Converttech] [Chugai Engineering]	Energy-saving, low NOx burners, flame treatment equipment RS Coater™ (new wafer coating equipment) Kilns, RTO (stored heat-type exhaust gas treatment equipment)

4. Indicators of Important Strategies and Measures for their Achievement (2)

Initiatives for Changes in Product Groups

In order to contribute to the “Green Growth Strategy towards 2050 Carbon Neutrality,” we will reduce CO₂ emissions through hydrogen and ammonia combustion, electrification and energy conservation with the facilities we deliver (eco-processes), and propose various production facilities towards the provision of **materials for environmentally friendly products (eco-products)**.



Various high-temperature sintering furnaces and hot presses to manufacture the carbon materials and fine ceramic parts essential in the manufacturing processes of rechargeable batteries, magnetic materials for motors and semiconductor wafers



Manufacturing facilities for the copper, copper alloy strips and ultra high-tensile strength materials essential for semiconductors and EVs

4. Indicators of Important Strategies and Measures for their Achievement (3)

(3) The creation of rewarding workplaces

We think that a “rewarding workplace” is one where effort leads to results. The result is operating profit, and we aim to maximize this result. On the other hand, the improvement of work-life balance is a management issue for the company as part of the reform of work styles, and increasing productivity to reduce actual total work hours is essential. By implementing the measures in the current medium-term management plan, we will improve the productivity of the company significantly and achieve both increased operating profit and the shortening of actual total work hours to realize “rewarding workplaces.”

$$\text{Productivity} = \frac{\text{results obtained}}{\text{resources invested}} = \frac{\text{output}}{\text{input}}$$



[Indicators of the improvement of productivity]

Operating profit per person in fiscal year 2026: 5,668,000 yen (non-consolidated)

The forecast of operating profit per person in fiscal year 2021 is 1,828,000 yen -> Expansion of about 3.1 times

Actual total work hours per person in fiscal year 2026: 1,800 hours (non-consolidated)

The forecast of actual total work hours per person in fiscal year 2021 is 2,030 hours -> Improvement of about 11%

[Measures for achievement]

- Total investment of **about 1.5 billion yen** over five years, including system improvements that contribute to greater efficiency
- Establishment of “Business Reform Promotion Section,” which will lead productivity improvement

5. Investment Plan

We will implement strategic investments of about 3.5 billion yen positively over the five-year period from fiscal year 2022 to fiscal year 2026 aiming for sustainable corporate growth and the improvement of corporate value in the medium to long term.

Investment themes	Investment amount	
[1] Investment to establish a new research institute (R&D for the creation of new markets)	About 1 billion yen	Total About 3.5 billion yen
[2] R&D investment to brush up existing products	About 1 billion yen	
[3] Investment for productivity improvement (greater efficiency)	About 1.5 billion yen	

6. Financial and Capital Policies

Profitability	<ul style="list-style-type: none">• Achievement of consolidated operating profit of 3.62 billion yen in fiscal year 2026• We will aim for an ROE of about 10%
Growth	<ul style="list-style-type: none">• We will implement strategic investments that connect to the improvement of corporate value positively (Total: about 3.5 billion yen)
Financial soundness	<ul style="list-style-type: none">• We will maintain a capital adequacy ratio of about 50% (Actual result for the 80th term: 60.5%)
Shareholder returns	<ul style="list-style-type: none">• We will aim for a total payout ratio of at least 50%, also including share buybacks, based on a stable dividend policy.

Attachment: Outline of the Company

Name	Chugai Ro Co., Ltd.	
Securities code	1964	URL https://chugai.co.jp/
Representative	Akira Ozaki, President	
Head Office	3-6-1 Hiranomachi, Chuo-ku, Osaka 541-0046 Tel: 06-6221-1251	
Incorporated	April 1945	
Capital	6,176.72 million yen	
Employees	427 people (consolidated 706 people)	
Places of business	Sakai Works, Sakai Center, Tokyo Branch, Nagoya Sales Office, Combustion Laboratory (Kashiwara, Osaka), Kokura Factory	
Foreign subsidiaries	Taiwan (Kaohsiung), China (Shanghai), Thailand (Bangkok), Indonesia (Jakarta), Mexico (Aguascalientes)	

About This Document

The forecasts of results and other information concerning the future stated in this document have been prepared based on information available as of the date of publication. Actual results, etc., may differ from the expected figures due to various factors.

May 13, 2022

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