

# Achieve New Growth by Strengthening Our Business Foundations and Original Technologies

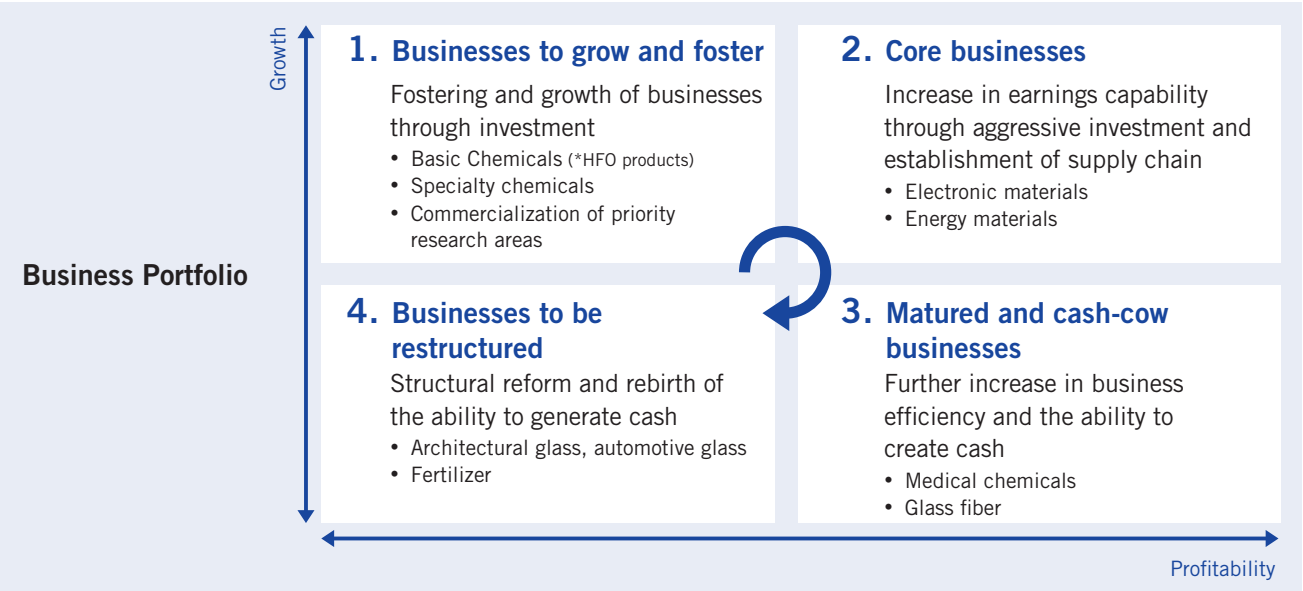
The Central Glass Group has established a Long-Term Vision of continuous growth by strengthening R&D as a driving force, and has formulated and announced its Medium-Term Management Plan as a new management guideline for FY2022 through FY2024.

## Long-Term Vision

Continuously Growing Company Driven by New Technologies and New Products Created through R&D **Establish a Profitable Business Model and Convert to a Highly Profitable Company**

## Basic Measures to Realize the Long-Term Vision

- Strengthen R&D as a growth driver
- Clarify roles of each business and optimize the business portfolio



\* HFO: Hydrofluoroolefin (Products that have low global warming potential (GWP) and comply with regulations on fluorocarbon)

## Basic Policies of Medium-Term Plan

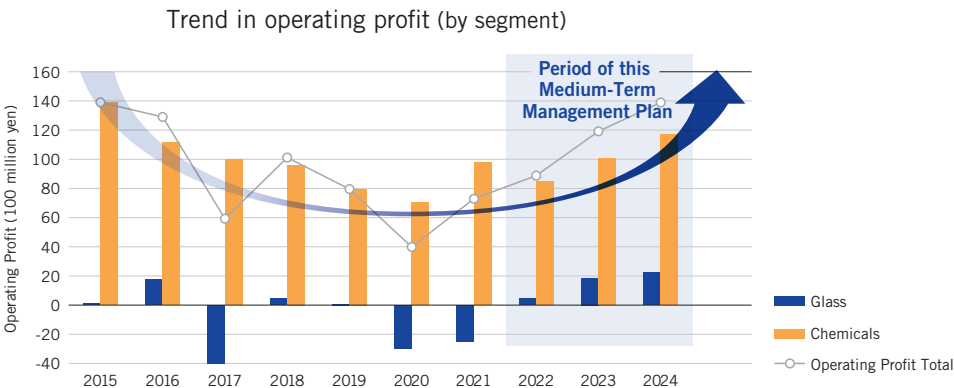
- Achieve new growth by strengthening our business foundations and original technologies**
  - Return to a growth path
    - Concentrate managerial resources to the businesses to be grown in order to accelerate establishment of profitable business models and business expansion to growth markets
    - In the Chemicals business, harvest the fruits of previous investments and continue further investment for the future
    - In the Glass business, complete the structural reform and evolve toward profitable business
    - In other business, further increase earning capability and maximize free cash flow
  - Continue strengthening R&D to ensure future growth
  - Provide stakeholders with reassurance and reliability by increasing all employees' quality awareness
- Maintain a healthy financial base**
  - Distribute cash flows based on a well-balanced consideration of shareholder returns, investments, and financial discipline
- Contribute to the global environment**
  - Reduce greenhouse gas emissions
  - Provide products and technologies that contribute to reducing environmental burden

## Financial Goal (FY2024)

ROE goal in the Medium-Term Management Plan: Aim for achievement of 8% ROE

Indicator		FY2024 Target
Major item	Operating profit	14.0 billion yen
	Operating profit ratio	8%
Financial indicator	ROE	8%
Shareholder returns	Total return ratio	At least 30%
	Dividend on Equity (DOE)	2.4%

- Capital investments  
**41.0** billion yen  
(3-year cumulative total)
- Cost for R&D  
**24.0** billion yen  
(3-year cumulative total)



## Capital Policy

Seek a capital structure focusing on optimization of investment and funding with the aim of maximization of enterprise value

### Basic Policy for Capital Policy

Funding	Stably and systematically raise funds through a combination of appropriate methods, taking into account the balance between funding cost and continuity (risk)
Management (Investment)	Inject capital to selected sources generating profits exceeding funding cost and cash flow exceeding invested capital
Distribution	Distribute generated cash based on a well-balanced consideration of shareholder returns, investments and financial discipline

(Unit 100million yen)		3-year cumulative total
Operating CF		480
Investment CF	Capital Investments	-410
	Sales of assets	170
Total		-240
Free CF		240
Financial CF	Dividend	-100
	Funding/repayment	-40
	Acquisition of treasury shares	-100
Total		-240

### Policy for Shareholder Returns

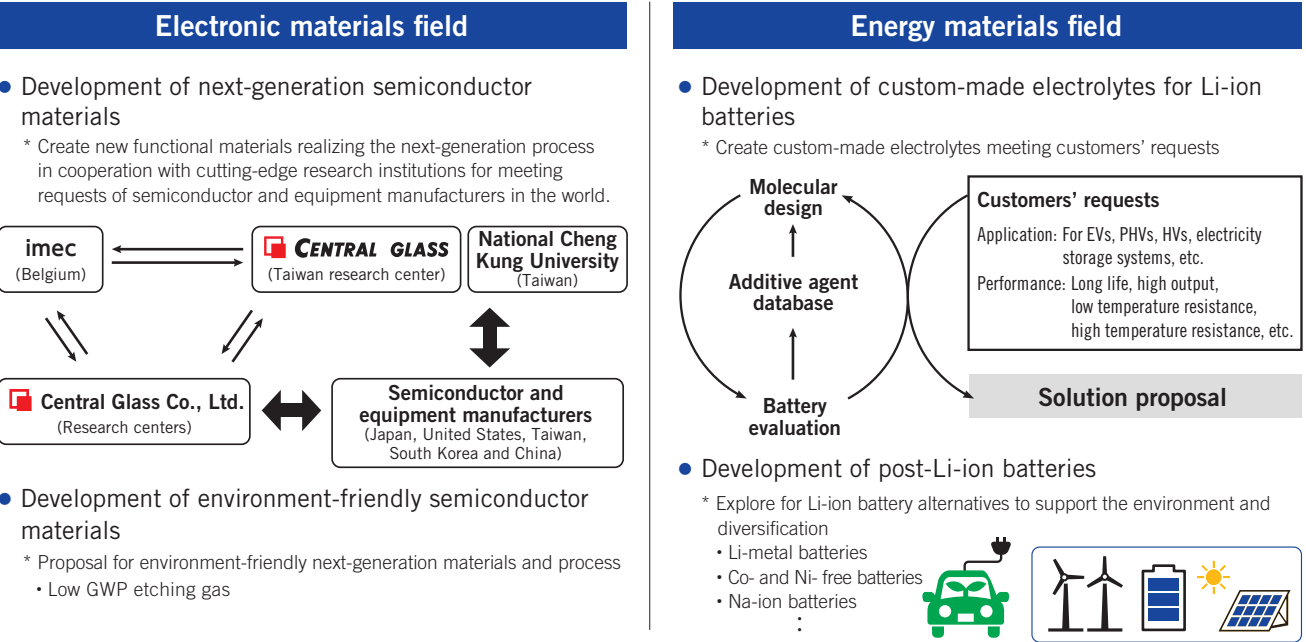
- Total Return Ratio: At least 30%
- DOE (Dividend on Equity Ratio) 2.4%
- Acquisition of treasury shares
  - Fundamentally based on the dividend criterion DOE and the dividend amount based on total shareholder return ratio and adjusted as needed
  - Allocate about 50% of funds raised by sales of shares in the FY 2022 plan to acquisition of treasury shares

### Major investments

- Chemicals
  - Invest in commercialization of priority research areas (Power semiconductor materials: From research to mass production facility)
  - Electronic materials: Construct new product facilities and increase capacity
  - Energy materials: Secure the ability to purchase raw materials (Invest in supply chain), Expand manufacturing bases
- Glass
  - Invest mainly in maintenance and renewal within operating cash flow (Keep free cash flow positive)

R&D Policy

- Focus areas: Electronic materials, energy materials, and priority areas of corporate research\*  
\* Corporate research refers to the long-term research exploring for new areas in foundation research.
- Aggressively inject R&D resources toward solution proposition for customer needs (such as potential needs, performance improvement and environmental burden reduction)
- Strengthen functional materials business by improving application development technologies (performance assessment and data science) (expansion of applications of our original compounds)

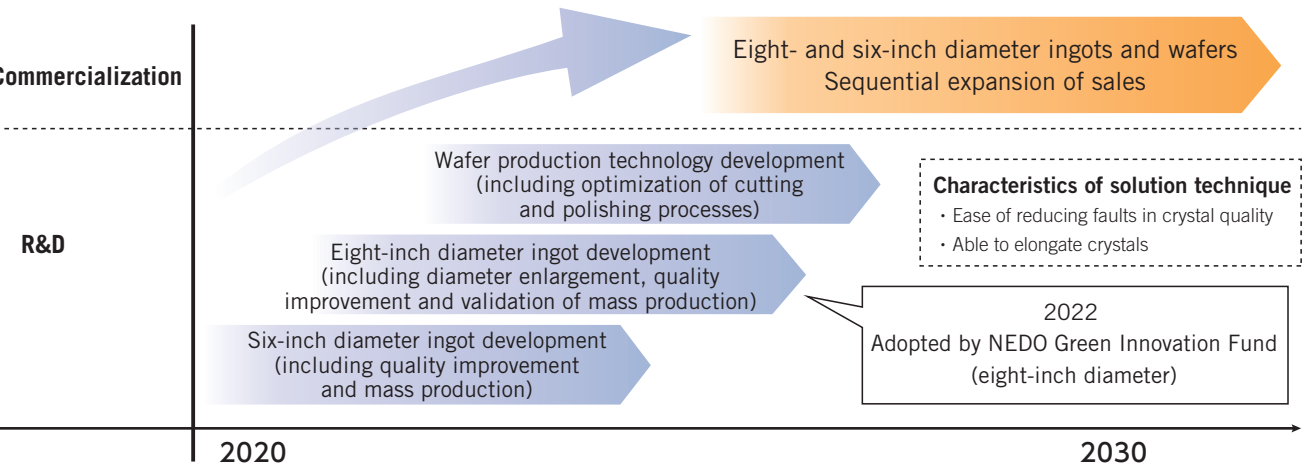


Product Business Model Based on R&D “Commercialization of SiC”

Under our corporate research system where new areas are widely explored, we focus on next generation power semiconductor materials and SiC, which contribute to improvement in performance of rapidly popularizing EVs. We have advanced R&D of solution techniques with superior quality, and we are close to establishing mass production techniques for six-inch ingots. Eight-inch ingots were adopted by the NEDO Green Innovation Fund, and development was started. Also, for wafers, we are accelerating R&D towards commercialization.

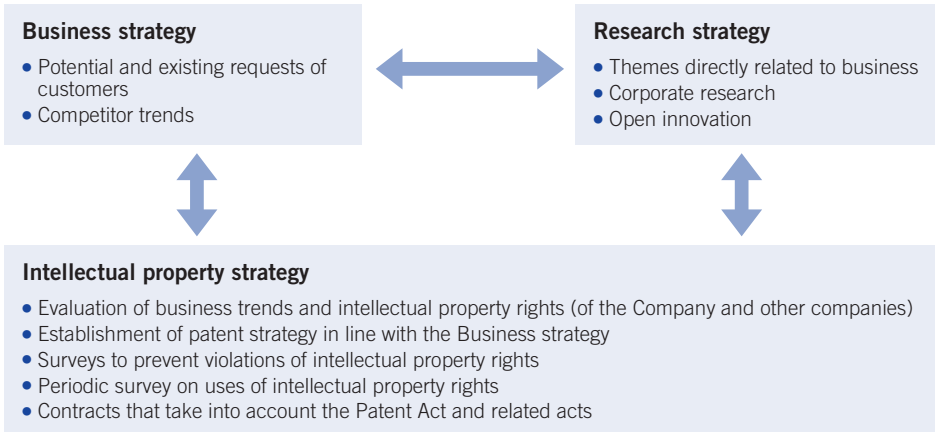
Characteristics of SiC power semiconductors: Possible to significantly reduce the loss of energy at conversion of power

Can contribute to realization of a carbon-neutral society



Intellectual Property Strategy

- Advance a three-pronged strategy along with business and research and maximize earnings
- Intellectual property department plays the role of creating and using intellectual property rights and respecting the intellectual property rights of other companies.
  - Intellectual property department contributes to present and future profits of the Company through intellectual property rights in cooperation with business and research departments.



Measures toward the Global Environment Reduce greenhouse gas (GHG) emissions

Challenge to realize net-zero GHG emissions in 2050

(Scope 1 + 2)

Milestone reduction goal for GHG emissions in 2030 (vs. 2013)

Our goal (our Group total volume): reduction goal of 40%

\* For automotive glass businesses in United States and Europe (agreed to be) transferred, all has been deducted after 2013, the criterion year for comparison.

2013	2030	2050
GHG-reducing technologies in manufacturing processes <ul style="list-style-type: none"><li>• Fuel conversion (including LNG and total oxygen combustion)</li><li>• Waste heat recovery</li><li>• Production efficiency by effectively using by-products</li></ul>	GHG-reducing products on the market (outside the scope of emission reduction within the Company) <ul style="list-style-type: none"><li>• Architecture glass (heat insulation) and automotive weight-reducing thin laminated flat glass</li><li>• Products with low global warming potential (including next-generation fluorinated cleaning agents)</li><li>• Power semiconductor materials</li></ul>	

Measures toward Improving Quality Awareness

Become an organization giving reassurance and reliability to stakeholders by ensuring provision of products and services meeting the needs of customers and society

Permeation of quality culture

