TOYO TANSO
Inspiration for Innovation

Medium-Term Management Plan

2024–2028

February 20, 2024

Toyo Tanso Co., Ltd.

1. Medium-Term Management Plan

2024–2028

Summary of the Medium-Term Management Plan (FY2024–FY2028)

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Point 1 Aim for further business growth, driven by semiconductor applications FY2028 targets — net sales: 88.0 billion yen, operating profit: 22.0 billion yen, operating profit margin: 25%, ROE: 12%

Demand for SiC semiconductor applications, in particular, will remain elevated and profitability will expand

Percentage of net sales from all semiconductor applications to rise to 60% in FY2028 (FY2023 result: 40%)

Sales for FY2027 under the plan to rise by approximately 20% over the levels of the previous plan* in real terms, excluding the impact of exchange rates

▶ SiC semiconductor applications — For SiC wafers: special graphite products for electronics applications
For SiC epitaxial: compound materials SiC-coated graphite products

Point 2 Capital investment to total 76.5 billion yen over five years

Continue to invest aggressively and strengthen production capacity throughout the entire Toyo Tanso Group to capture vigorous demand for semiconductor applications and maintain a top-level market share

Point 3 Set a standard for the dividend payout ratio of at least 30% under our shareholder returns policy

Enhance the return of profits to shareholders more stably, taking into consideration the funds required for capital investment

Point 4 Use financial leverage

Implement borrowings in addition to cash on hand and operating cash flow during the term of the plan to fund enhanced shareholder returns and a high level of capital investment

* Medium-term Management Plan (2023–2027) announced February 2023

Targets for the Medium-Term Management Plan (2024–2028)

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	FY2023	FY2024 (forecast)	FY2028 (target)	(Reference) FY2027 (previous target*1)
Net sales	49.2 billion yen	54.0 billion yen	88.0 billion yen	66.5 billion yen
Operating profit	9.2 billion yen	10.9 billion yen	22.0 billion yen	13.5 billion yen
Operating profit ratio	18.8%	20.2%	25.0%	20.3%
ROE	9.3%	8.7%	12%	10%

- Exchange rate
  FY2023: ¥140.6/US$, ¥152.0/€, ¥19.8/RMB
  FY2024/FY2028: ¥135/US$, ¥149/€, ¥19/ RMB
  FY2027 (at the time of the previous plan): ¥124/US$, ¥136/€, ¥18/ RMB

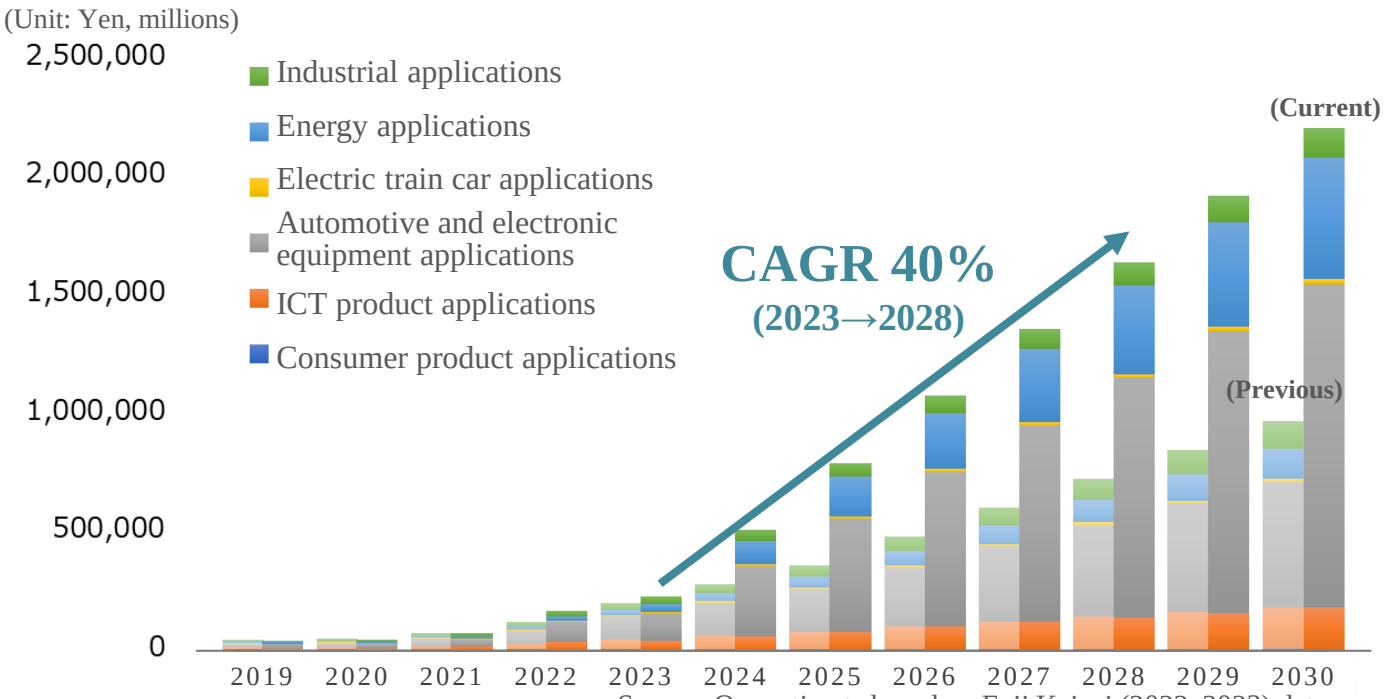
- EBITDA*2 of approx. 31.0 billion yen in FY2028 (EBITDA margin of approx. 35%)

*1 Medium-term Management Plan (2023–2027) announced February 2023
*2 Operating profit ＋depreciation

Outlook for the Semiconductor Market

- High growth is forecast to continue for the SiC device market, with CAGR of around 40%.
- The Si (silicon) wafer market is expected to grow at 5% or more per year (based on the number of wafers produced).

SiC device market



Source: Our estimate based on Fuji Keizai (2022, 2023) data

- The growth in the SiC semiconductor market has led to a continuing rise in the inquiries we receive, with expanding demand for SiC epitaxial applications in particular.
- Net sales for SiC semiconductor applications are forecast to rise to four times FY2023 levels by FY2028, with SiC semiconductor applications accounting for around 30% of total net sales.

Net Sales Targets by Product/Application

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- **Special graphite products for electronics applications and compound materials SiC-coated graphite products are forecast to experience even higher growth due to strong demand for SiC semiconductor applications.**

(Unit: Yen, billions)	FY2023	FY2024 (forecast)	FY2028 (target)	CAGR 2023→2028	(Reference) FY2027 (previous target*1)	(Reference) CAGR 2022→2027
Special graphite products	24.0	27.2	41.9	11.8%	32.2	9.8%
Carbon products for general industries (for mechanical applications)	4.1	3.5	4.7	3.0%	5.4	6.6%
Carbon products for general industries (for electrical applications)	4.4	5.0	7.3	10.6%	7.2	8.6%
Compound materials and other products*2	14.1	16.5	31.2	17.3%	19.2	14.2%
Related goods*2	2.4	1.5	2.6	0.9%	2.4	-12.2%
Total	49.2	54.0	88.0	12.3%	66.5	8.7%

*1 Medium-term Management Plan (2023–2027) announced in February 2023
*2 The classifications used for net sales by product/application have changed as follows:
(Before change) Three major products of compound materials: SiC-coated graphite products, C/C composite products, graphite sheet products
Other: Compound products other than the three products listed above, related goods
(After change) Compound materials and other products: SiC-coated graphite products, C/C composite products, graphite sheet products, and compound products other than the three products listed above
Related goods: Related goods

Business Portfolio

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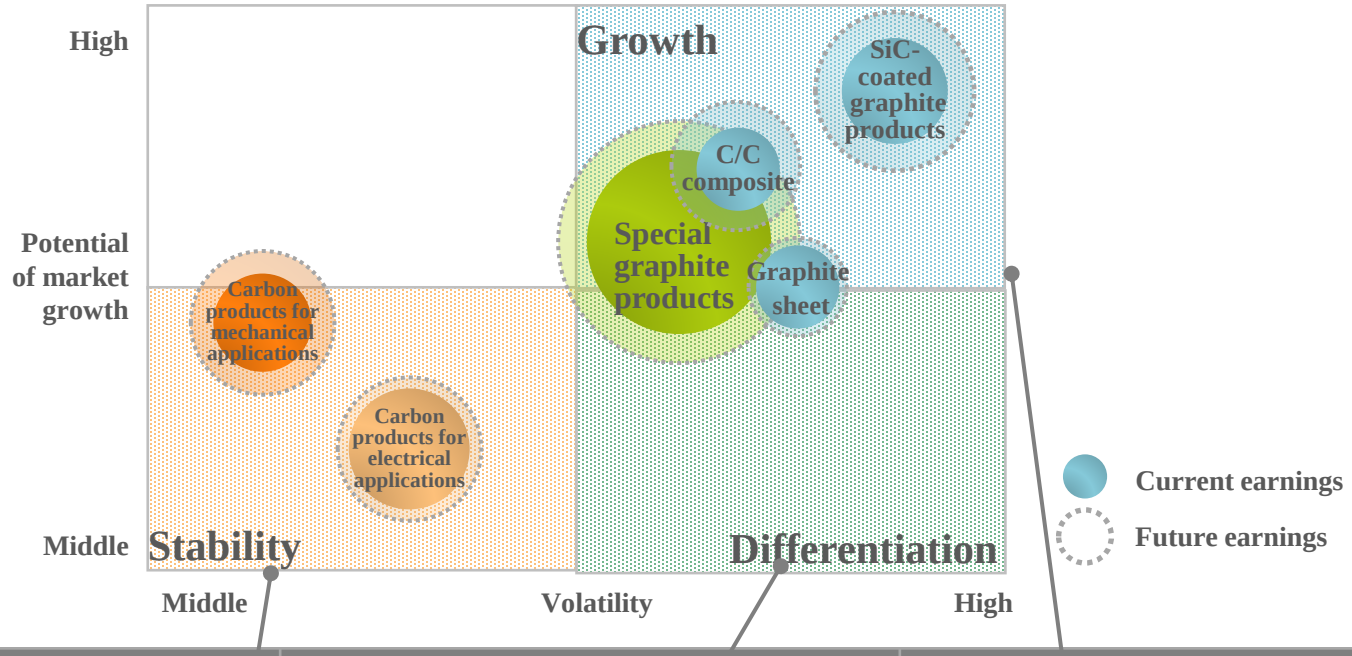
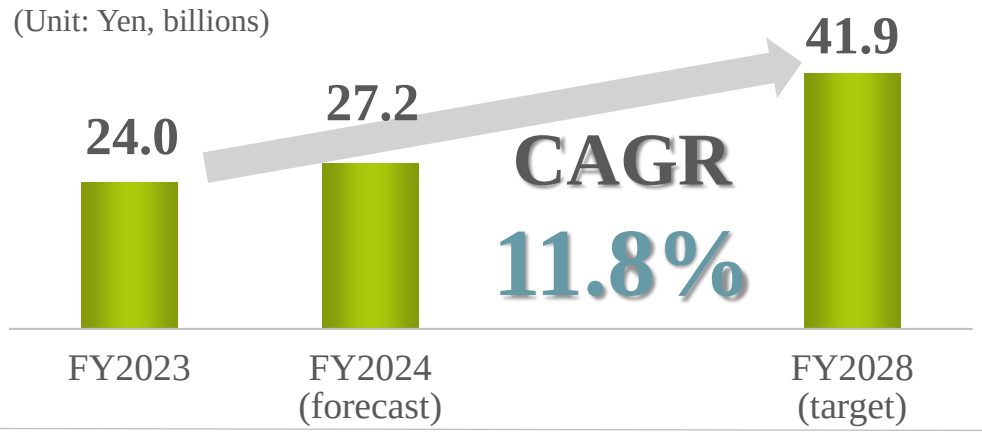
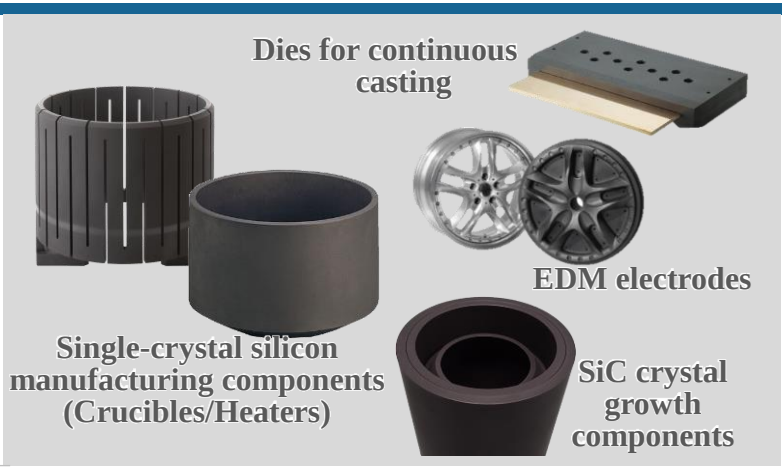
■ **Identify businesses as growth, stable, and differentiation businesses to implement flexible and appropriate strategy.**



Contribute to business stability, with little fluctuation in demand or profitability	Business development focusing on high-added-value domains	High-growth businesses driving earnings
■ **Carbon products for mechanical applications** Become more cost competitive, and strengthen automotive applications and sales expansion in overseas markets ■ **Carbon products for electrical applications** Utilize strengths (delivery time, service) to pursue a higher share of growth markets (Asia, home appliances and power tools) and increase contribution	■ Expand market share in high-added-value domains such as semiconductors, which have high quality requirements ■ Strengthen cost resilience and reduce the burden on domestic manufacturing through measures such as the utilization of contract manufacturing for more general-purpose domains	Sales expansion leveraging the features and strengths of each product ■ **SiC-coated graphite products:** Enhanced production capacity ■ **C/C composite products:** Technical service capacity, including design ■ **Graphite sheet:** Customization to customer specifications

Strategies by Product/Application: Special Graphite Products





▶ Strategy

Pursue greater competitive strength and secure profitability through stronger sales expansion in high-added-value domains

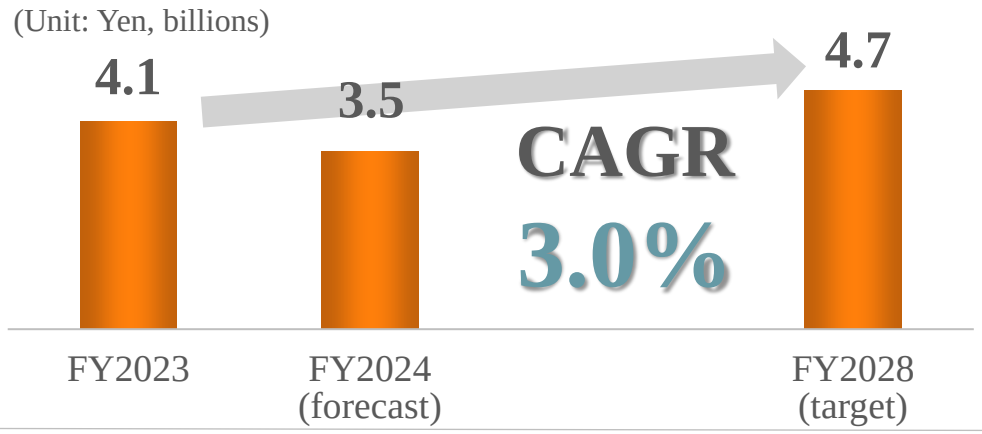
■ Electronics applications

- Our global top market share has been maintained for Si wafers (products for single-crystal silicon manufacturing), and we aim to further increase the share through strategies appropriate to each region.
- For SiC wafers (products for compound semiconductor applications), we will leverage our global sales network to build a firm position in Europe, the US, and China. We will also consider strengthening production systems to prepare for rising demand.
- For products for solar cell manufacturing applications, we will pursue differentiation from Chinese graphite manufacturers, including in the sale of value-added products, firmly premised on securing profitability.

■ General industry applications

We aim to differentiate ourselves from other companies and expand profits through high-added-value sales (materials grade and processing).

Strategies by Product/Application: Carbon Products for General Industries [Carbon Products for Mechanical Applications]



▶ Strategy

Strengthen technological and production initiatives as a Group, including overseas subsidiaries, through measures such as enhancing manufacturing techniques (materials, processing, etc.), the automation of manufacturing, and cost reductions

- We anticipate market growth of 5% or higher* in automotive applications, and higher for applications related to the shift to EVs, and we will position these as a focus to offset a reduction in internal combustion engine-related applications.
- We will also raise the proportion of overseas sales from its current low level, and strengthen the processing capabilities of local subsidiaries.
- Pursue appropriate resource allocation and pioneer new applications with a focus on profitability and market trends.

*Our estimate

Strategies by Product/Application: Carbon Products for General Industries [Carbon Products for Electrical Applications]

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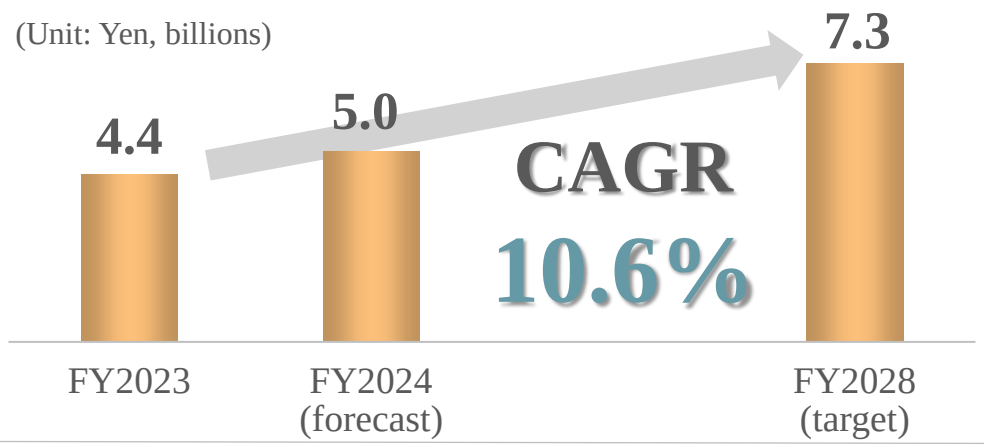
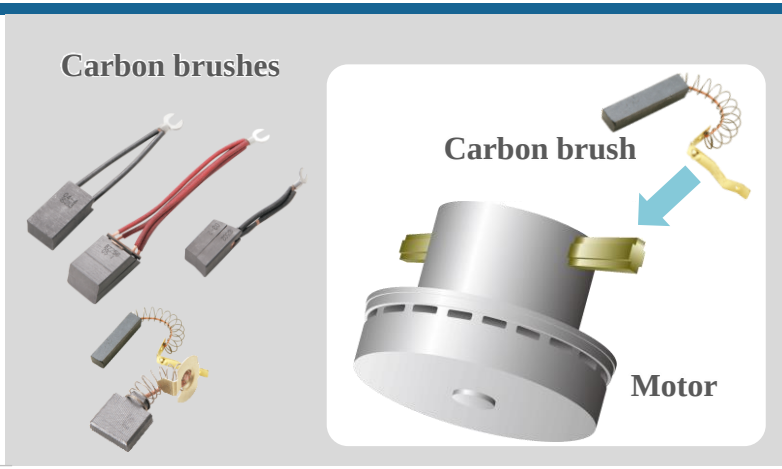


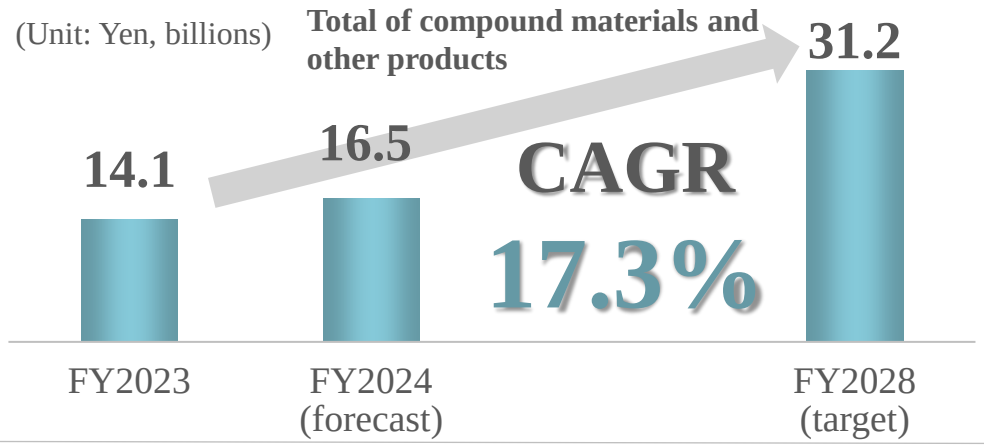


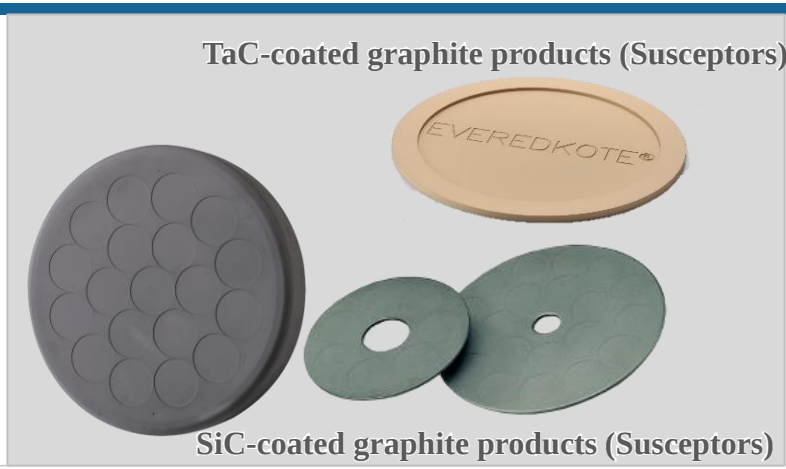
▶ Strategy

Strengthen production technologies, including materials development and automation, to achieve high quality and low costs

- A market correction occurred against the backdrop of the absence of temporary stay-at-home demand seen during the COVID-19 crisis and a downturn in consumer sentiment caused by inflation, but this correction is coming to an end. In this context, we aim to restructure supply chains to change where we procure materials and utilize opportunities such as the withdrawal of competitors to expand sales.
- Despite a progressive shift to brushless motors, there remains a persistent level of demand for cheaper and more powerful motors with brushes, and we forecast a moderate increase in demand for carbon brushes for home appliance and power tool applications. We will use the strength of our delivery times and service to pursue a higher market share in Asia.
- We aim to expand sales of products for automotive and industrial applications, for which sales volumes are low at present, by grasping opportunities such as the shift to EVs and the spread of wind power generation to develop our businesses, including through alliances.

Strategies by Product/Application: Compound Materials and Other Products (SiC-Coated Graphite Products)



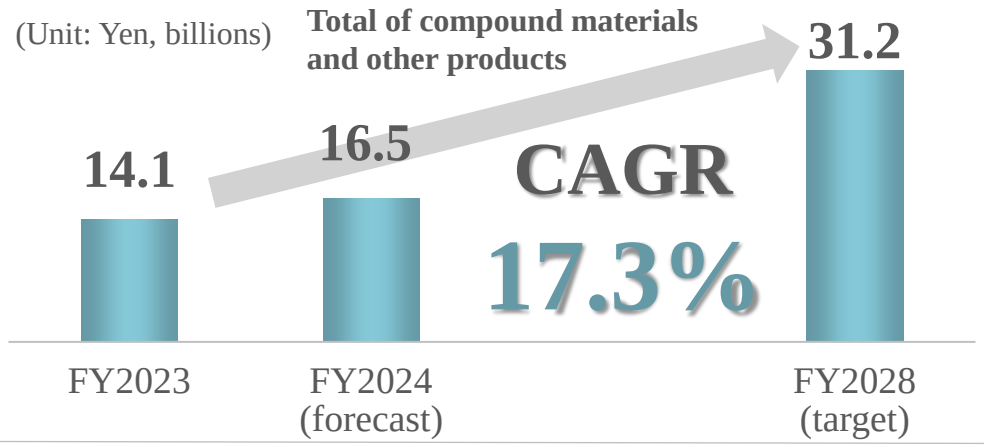


▶ Strategy

Double the size of net sales from core value-added businesses in the next five years through a further increase in capacity

- For Si-epitaxial, we aim to maintain and expand our global top market share, responding to the technological demands of our main customers.
- For SiC-epitaxial, we aim to maintain and expand our market share by capturing user demand for consumables, in addition to installation in new devices.
- For LED applications, we will aggressively expand to target large MOCVD equipment for mass production in the key Chinese market.
- We will finish boosting capacity for SiC-coated graphite products in the second half of 2024 (increased to 150% of 2023 capacity). We have decided to invest further in SiC/TaC-coated graphite products to maintain our high market share.
- We will promote innovations in manufacturing techniques in pursuit not only of quality but also cost saving and productivity, in anticipation of the next decade.

Strategies by Product/Application: Compound Materials and Other Products (C/C Composite Products, Graphite Sheet Products)



▶ Strategy

■ C/C composite products

- **For the three applications (semiconductors, solar cells, and industrial furnaces) that we position as a focus, we will use a proposal-based approach, including design and usage methods, to capture demand for substitutes for other materials and potential demand.**
- In products for industrial furnace applications, C/C composite materials have better characteristics than the metal jigs most often used at present, and replacement will be boosted by the acceleration of labor saving and automation. We expect tailwinds such as a new increase in parts and demand for heat treatment at high temperatures, despite a decline in the number of parts handled for industrial furnaces due to the shift to EVs.

■ Graphite sheet products

- **We will leverage our strength in "customization to customer specifications" to expand new applications and high-added-value products to meet and exceed market growth (automotive, manufacturing jig applications, etc.).**
- We are engaged in improving thermally expandable graphite (raw material) at our joint venture company that produces raw materials, aiming to enhance quality and pioneer new applications. We have not been affected by Chinese export restrictions at present, but we will continue to monitor the situation.

Capital Investment

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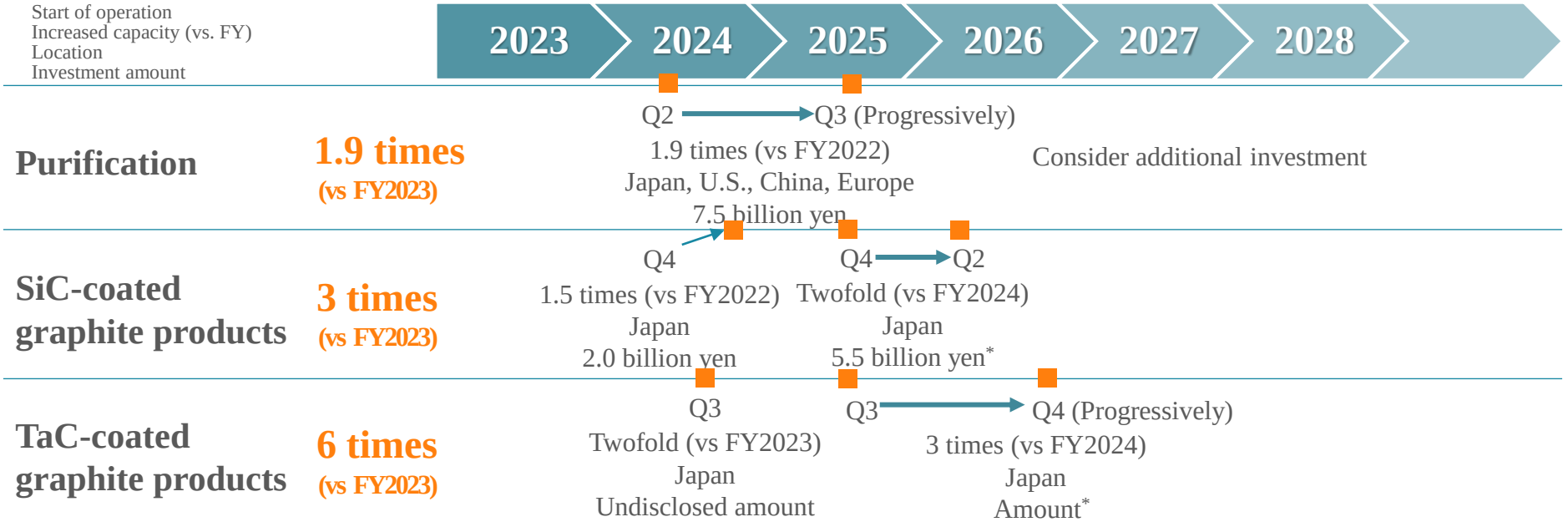
■ **For isotropic graphite materials – machining – high-added-value processes and processing capacity at subsidiaries, we will boost capacity and strengthen production systems to ensure we capture demand for semiconductor applications.**

Total capital investment
(FY2024–FY2028)
76.5 billion yen

Trajectory of capital investment based on the strategies of Medium-Term Management Plan

- Boost production capacity in high-added-value businesses globally, including semiconductor applications
- Reinforce competitive strength in core/established businesses
- Labor saving, energy saving, process integration, automation, process innovation, etc.



*Investment amount in TaC-coated graphite product capacity to commence operation in 2025–2026 has been included in investment amount in SiC-coated graphite product capacity to commence operation in 2025–2026.

▶ **In addition to the projects above, which are already decided, we will consider a range of investments to boost our supply capacity and competitive strength in strategic applications, such as the development of innovative methods for manufacturing isotropic graphite materials and processing capacity enhancements in Japan and overseas.**

Policy on Shareholder Returns

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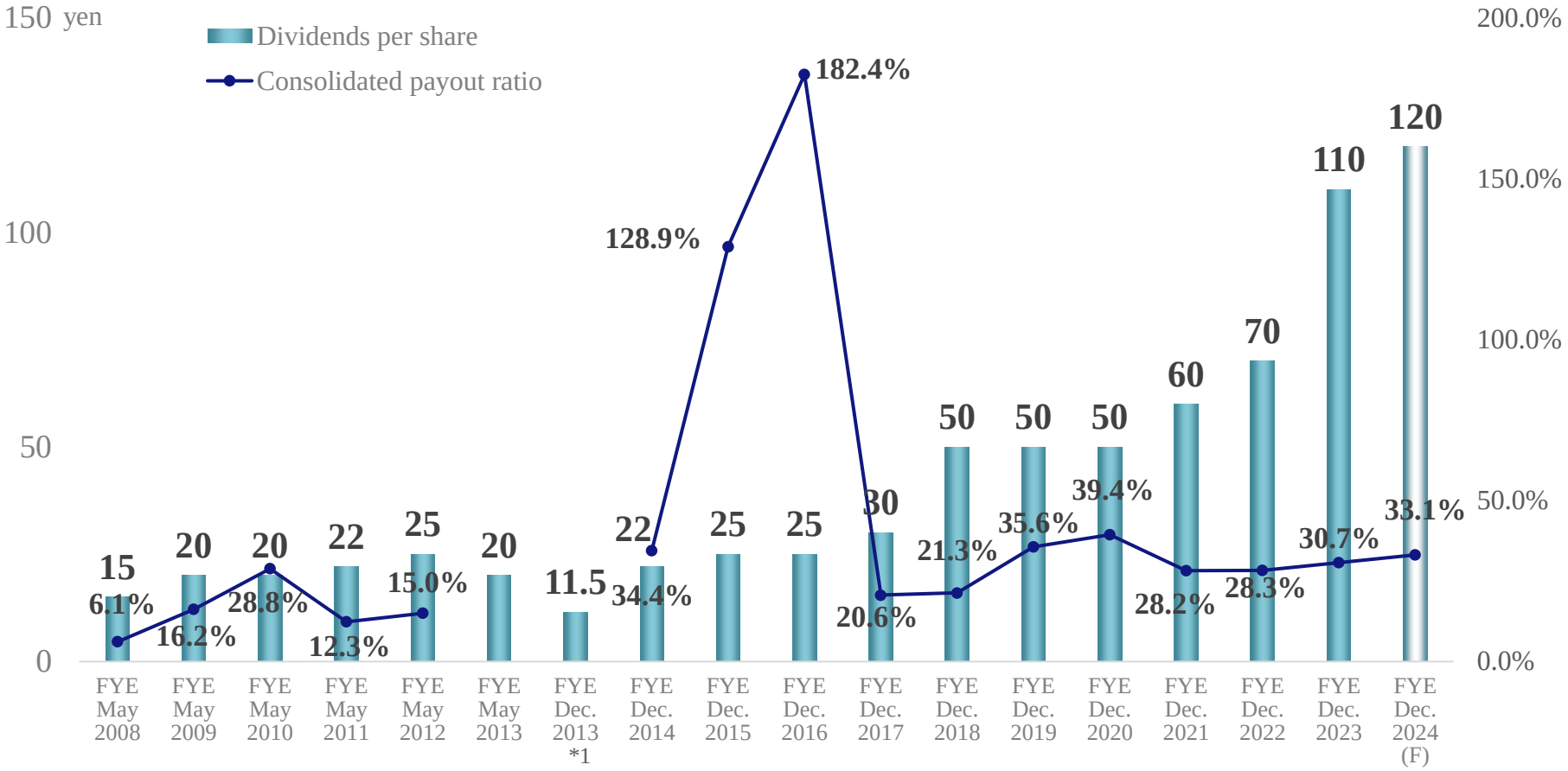
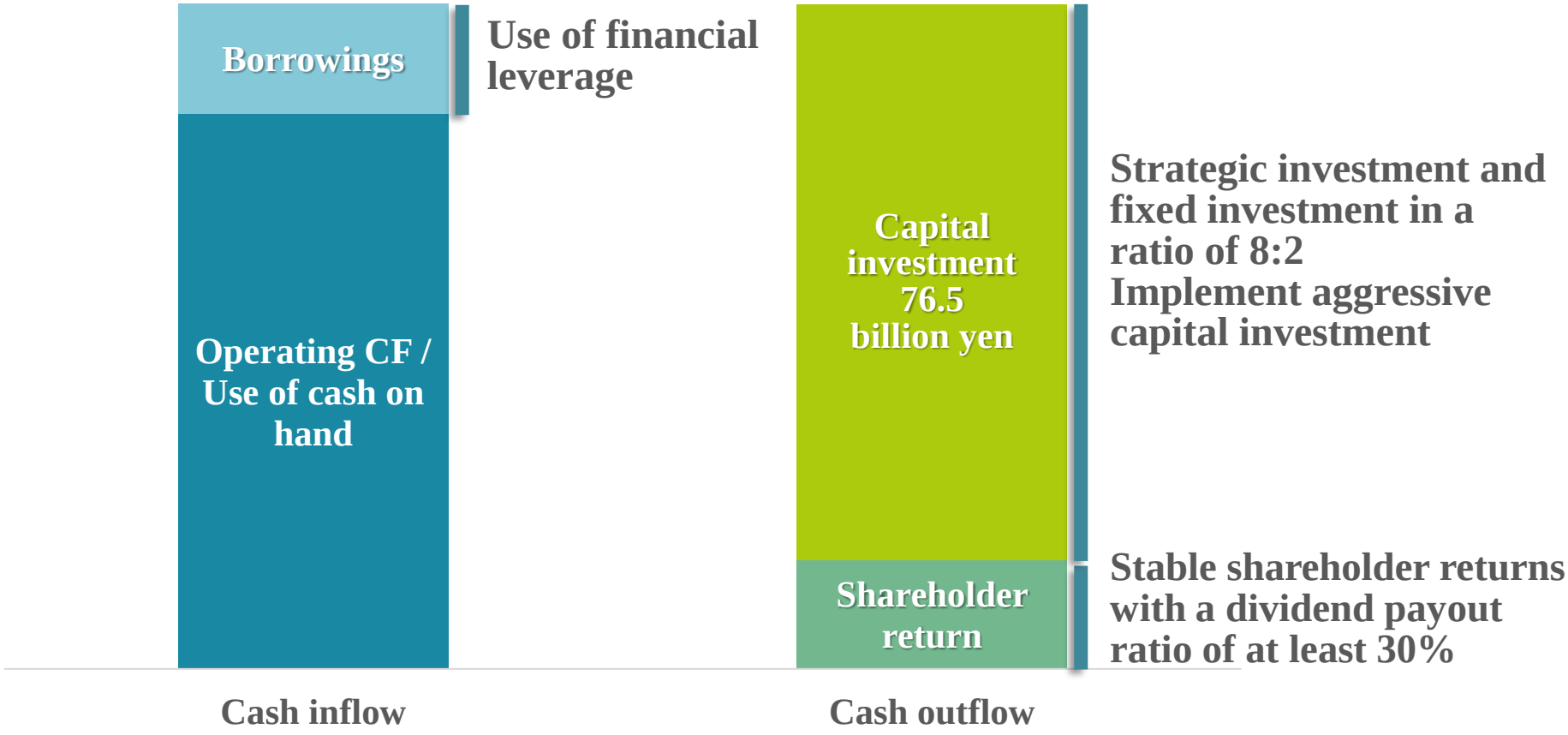
- **We will return profits to shareholders in a stable fashion, maintaining a dividend payout ratio of at least 30%, balanced with capital investment geared to growth against a backdrop of ongoing profit gains.**



*1 The final day of the fiscal period was changed from May 31 to December 31 as of the fiscal year ended December 31, 2013. For this reason, the fiscal year was an irregular seven-month fiscal period (nine months for some subsidiaries).
*2 Since profit was negative in the fiscal year ended May 31, 2013 and the fiscal year ended December 31, 2013, information on consolidated payout ratio is excluded here.

Cash Allocation

- We will implement shareholder return and strategic investments in business expansion through the cash generated from our high earning capacity and the use of financial leverage.



- Achieve business expansion and profit growth and enhance capital efficiency through the effective use of cash for strategic investment, etc.

2. Sustainability

Material Issues Facing Toyo Tanso

Established environmental targets and KPIs

E 	**Contribution to mitigating the risks of climate change and protecting the natural environment**	• Reduce greenhouse gas emissions, including through energy saving and generation • Contribute to reducing greenhouse gas emissions through products • Respond to environmental regulations in each country and reduce environmental burden • Use earth-friendly raw materials and avoid procurement risk
E 	**Pursuit of product development and manufacturing techniques to resolve social issues and customer needs**	• Develop products for a recycling-oriented society, and improve production processes • Respond to more sophisticated quality demands • New product development and service improvement in collaboration with stakeholders
S 	**Creation of safe, secure, and work-friendly workplaces for all**	• Improve workplace environment to ensure safety and health, and boost productivity • Uphold the human rights of all stakeholders • Implement personnel development/training and education • Respect diverse human resources
S G 	**Trustworthy corporate activities**	• Ensure thorough compliance • Strengthen crisis management and response • Promote social contribution activities

Note: Please see our homepage for the links between each item and the SDGs https://www.toyotanso.com/sustainability/

Reduce Greenhouse Gas Emissions, Including Through Energy Saving and Generation

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2030 reduction target for greenhouse gas (GHG) emission intensity (non-consolidated)	30% (vs. 2019)

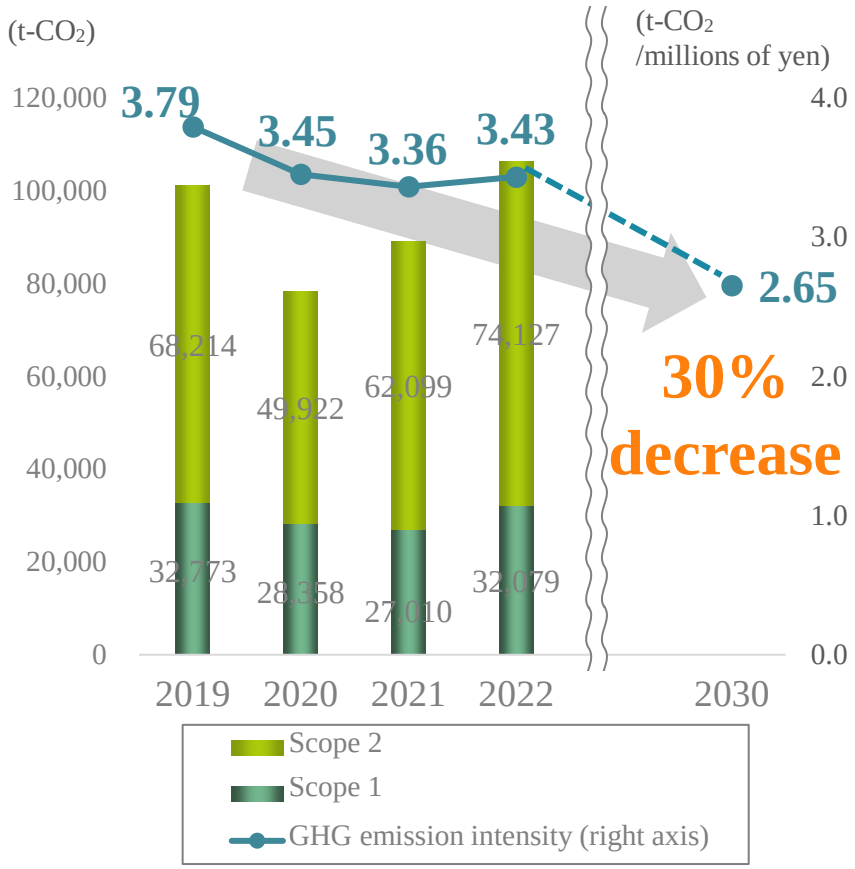
Promote energy saving

- Switch to greener fuels
- Reduce manufacturing emissions intensity
- Switch to furnaces with lower energy intensity
- Introduce energy sources with low CO_2 emission factor
- Optimize furnace operating times
- Optimize the efficiency of furnace loading
- Introduce energy-saving devices (LED lighting, EVs, etc.)

Promote energy generation

- Switch to renewable energy
- Install solar power generating equipment

Trend in GHG emissions (non-consolidated)



Contribution to Reducing Greenhouse Gas Emissions through Products

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2030 target for percentage of net sales from products that contribute to the environment (consolidated)	35% (FY2023 result: 27.1%)

Field	Related applications and products	Proportion (%)*
 Energy saving	・Products for power semiconductors (silicon/SiC) ・Products for LEDs (compound semiconductor manufacturing components and materials) ・Products for industrial furnaces (C/C composite products)	84 (74)
 Energy generation	・Products for wind power, hydroelectric, and geothermal power generation ・Products for solar power generation ・Products for nuclear power generation ・Products for nuclear fusion power generation	15 (23)
 Electrification	・Various pump components for EVs ・Products for fuel cells (CNovel™ catalyst support)	1 (3)

*FY2023 results are shown on the top, with FY2022 results in parentheses underneath
For some products and applications where the final markets are diversely spread, the proportion of sales attributable to each field of environmental contribution is calculated by multiplying net sales by a proportion of sales predetermined for each application, based on various statistical data.

Revisions to the Remuneration System for Directors and Other Officers : The establishment of ESG indicators

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We have revised the performance indicators for medium-/long-term incentive (LTI) remuneration (January 2024), adding incentive indicators linked to the implementation of growth strategy and sustainability initiatives

<Illustration of the composition of remuneration>

The composition is set depending on rank, with a higher proportion of variable remuneration for higher ranks.

Varies within a range of approximately 0 to 150 according to the degree to which performance targets are achieved, with 100 representing the amount paid if targets are met.

Short-term incentive (STI) remuneration

- ROE
- Achievement of operating profit target
- Individual evaluation of each Director or other officer

Medium-/long-term incentive (LTI) remuneration

*Additional indicators

▶Performance indicators

- **Operating profit ***
- Company's share price growth rate
- ROE
- Net sales

▶ESG indicators*

- **CDP climate change score**
- **Global engagement survey**

3. Appendix

The 2030 Management Vision

The vision shows the future of the Toyo Tanso Group, the direction of challenges we will take, and the value we provide to society, to achieve further growth from the core of our founding DNA of “manufacturing completely unique products” and our pioneering spirit.

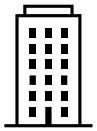
2030 Management Vision

“Creating products with unprecedented potential”
Becoming a leading company through Earth-friendly products and technologies

Company policies

Become a global company

For the world, for society



Become a strong company

Medium-Term Management Plan

Trend in Net Sales and Operating Income

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(Unit: Yen, billions)

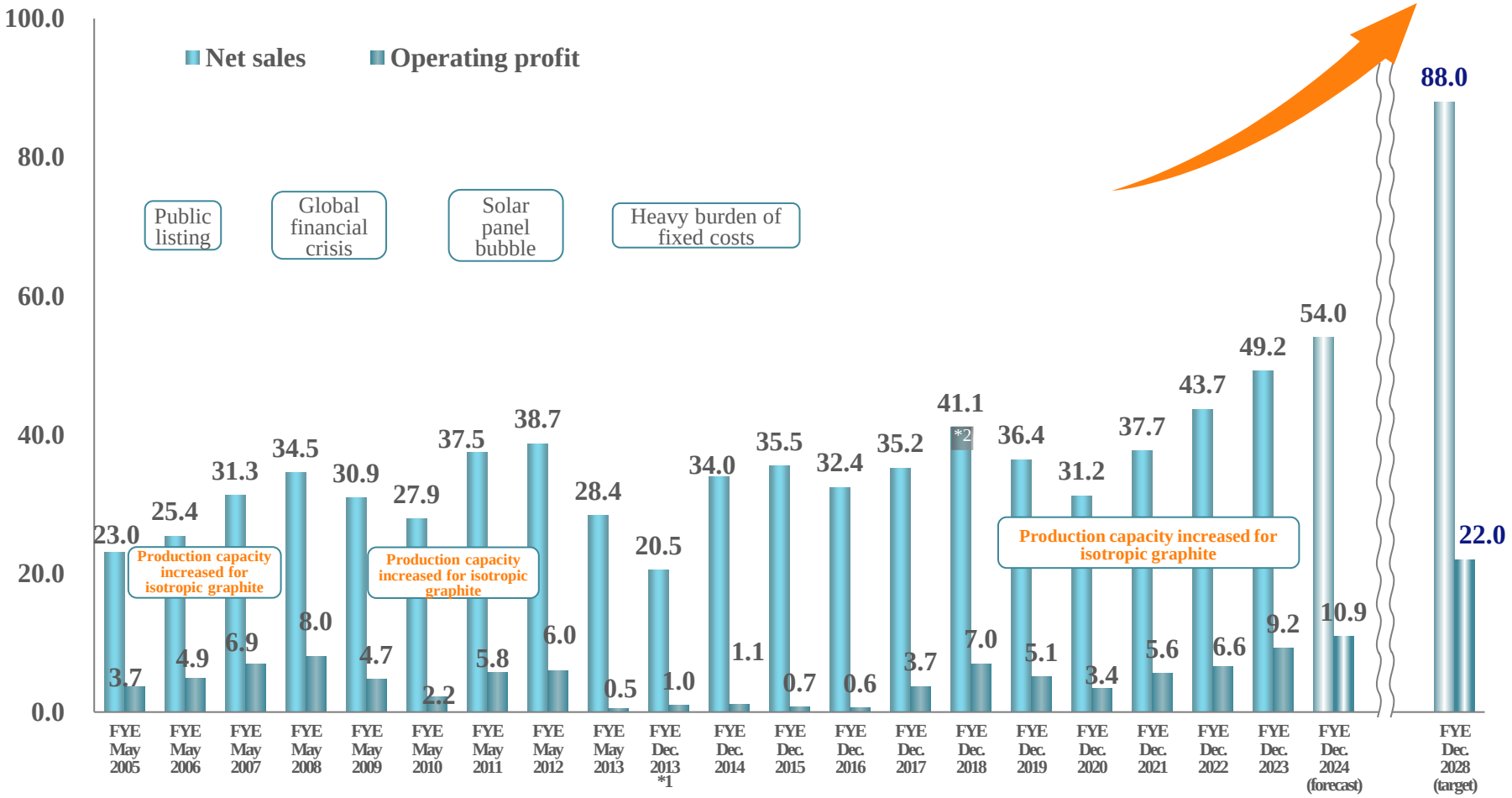
Market growth
Progressive emergence of leading applications

Transition stage to maturity stage
Facilities expansion by companies and modulation of the supply–demand balance

Structural Reform
Strengthened management

Medium-Term management plan
2018–

New medium-Term management plan
2024–2028



*1 The final day of the fiscal period was changed from May 31 to December 31 as of the fiscal year ended December 31, 2013. For this reason, the fiscal year ended December 31, 2013 was an irregular seven-month fiscal period.
*2 Net sales for FY2018 include 3.2 billion yen in net sales for China's high-temperature reactor-pebble-bed modules (HTR-PM).

New Medium-Term Management Plan (Excluding Semiconductors)

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Solar cell

Special (Electronics) | Compound (C/C)

Production is restarting and expanding, even in regions outside China, with the impact of increasing momentum towards renewable energy and US–China trade frictions.

Automotive

Special (General) | General (Mechanical) | General (Electrical) | Compound (C/C) | Compound (Sheet)

The progressive shift toward EVs has led to the expansion of electronic equipment-related markets, including an increase in the number of motors used and enhanced safety features. In addition, demand for the use of carbon in automobile parts is rising, partly due to an increasing focus on weight reduction. At the same time, some markets are being impacted by the shift away from internal combustion engines and the decrease in the number of parts used.

Home appliances / power tools

General (Electrical)

Demand for household washing machines and vacuum cleaners is increasing in developing countries with the rise in disposable incomes, progressive regional electrification, lifestyle changes, and increasingly advanced home appliances. Demand is also anticipated for power tools for household use and associated with capital investment in factories, and the home appliances and power tools markets are both expected to experience moderate growth.

Graphite Products Used in the Manufacturing Process of Semiconductor Devices

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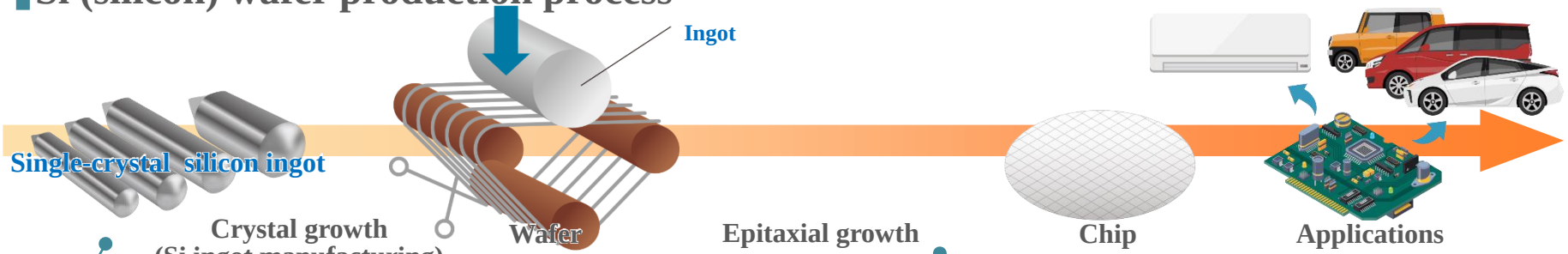
Si (silicon) wafer production process



Graphite products used

Parts for single-crystal silicon manufacturing equipment

Special Graphite (Electronics)

Crucibles, heaters, jigs

Compound (C/C) — Crucibles

Compound (Sheet) — Protective materials

Parts for SiC crystal manufacturing equipment

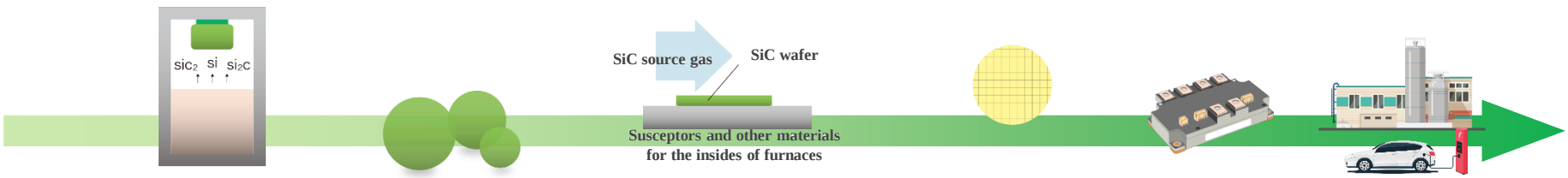
Special Graphite (Electronics)

Materials for the insides of furnaces

Parts for epitaxial growth equipment

Compound (SiC-coated)

Susceptors



SiC wafer production process

Graphite Essential for Semiconductor Manufacturing
Isotropic Graphite

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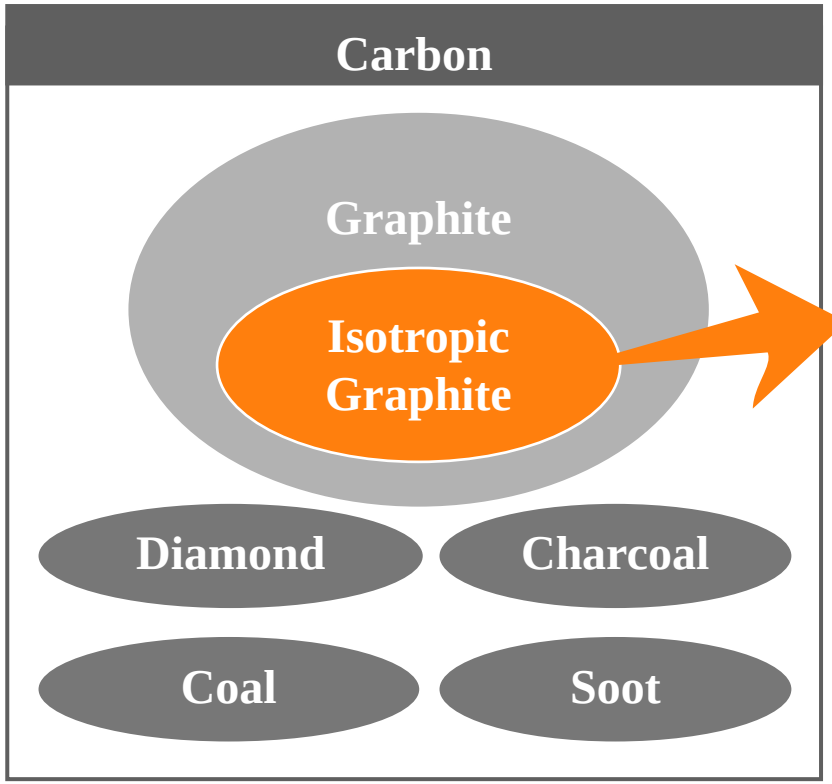
Properties of Isotropic Graphite



Features of graphite

- High heat resistance
- Excellent thermal and electrical conductivity
- Lightweight and easy to machine
- Friction and wear are less likely to occur

+

- Properties such as thermal expansion are uniform in all directions
  - ➢Temperature changes are unlikely to damage graphite components
- High density and high strength with fine grain structure
  - ➢Low consumption
- Very small variation in material properties
  - ➢Contributing to customers' stable production and yield improvement

\+ Heat treatment in a halogen gas atmosphere to remove impurities contained in graphite materials

High purity and stable quality under high temperature
= Essential for semiconductor manufacturing processes

Graphite Essential for Semiconductor Manufacturing
SiC-coated Graphite Products

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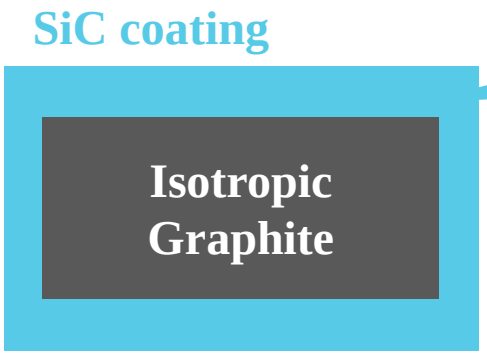
Properties of SiC-coated graphite products

SiC-coated graphite products



* Dense SiC film coated on graphite surface using thermal CVD (chemical vapor deposition)

Features of SiC film

- Excellent oxidation, corrosion, and chemical resistance
- Extremely hard film, stable at high temperatures
- High purity for graphite base materials as well
- High thermal conductivity and excellent heat uniformity

+

- Coated with a dense SiC film
  - ➢Prevents release and dispersion of graphite powder and release of gases and impurities from the graphite base materials.
- Material design enables use at high temperatures
  - ➢Prevents cracking and peeling of the SiC film through the selection of a graphite base material with temperature variation equivalent to that of the SiC film, and maintains high dimensional accuracy even at high temperatures.

+ Materials that do not affect the quality of semiconductor products (Si: silicon and C: carbon)

Higher purity than isotropic graphite, stable quality under high temperature = Essential for semiconductor manufacturing processes

Toyo Tanso will help seek solutions to social challenges by developing technologies that are closely aligned with its customers.

Electronics

[Semiconductor]
Components for crystal growth
Components for wafer processing
[Electronic component]
Jigs for electronic component manufacturing

Energy

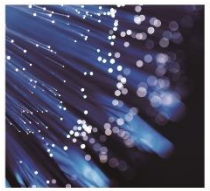
[Power generation]
Grounding brushes for power generators
Components for solar power generation device manufacturing
Core components for next-generation atomic reactor
[Electronic component]
Catalyst carriers

Mobility

[Trains]
Pantograph sliders
[Aircraft]
Engine parts manufacturing (electrodes for EDM, jigs for heat processing)
[Automotive]
Carbon brushes for fuel pumps
Gaskets

Social infrastructure

[Communications]
Components for optical fiber manufacturing
Components for cable manufacturing
[General industry]
Packing
Sealing ring bearings



Life science

[Medical care]
Target materials for CT devices
Analytical column filler
[Home appliances]
Components for LED manufacturing
Carbon brushes for cleaners
Components for compressors

SUSTAINABLE DEVELOPMENT GOALS

Toyo Tanso aims to help bring about achievement of the Sustainable Development Goals (SDGs).

TOYO TANSO

Inspiration for Innovation

(Note) Business forecasts, plans, etc. contained herein are based on information and assumptions of economic conditions, etc. available at the time of writing. Actual business results may vary from forecasts, plans, etc. because of a wide range of factors going forward.

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