



CHINA STEEL CHEMICAL CORPORATION

Investor Conference

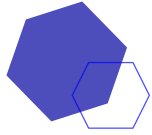
November 2024





Safe Harbor statement

- This presentation may contains forward-looking statements. All statements other than historical and current fact, without limitation, including business outlook, predictions, estimates, are forward-looking statements.
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Agenda

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Company Profile

02

Operating Performance

03

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04

Future Development



01

Company
Profile



Basic information

China Steel Chemical Co., Ltd. was established on 1989.

Capital

2.369 Billion

The only coal
chemical plant in
Taiwan.

stock symbol

1723

The first professional
graphitization plant
in Taiwan.

Number of Employees : 338

PhD-8 、 Master-100 ; Male-87% 、 Female-13%

Manufacture Base

Coal Chemical Plant : Kaohsiung Linhai Industrial Park

Carbon Material Plant : Pingnan Industrial Park



Major shareholder

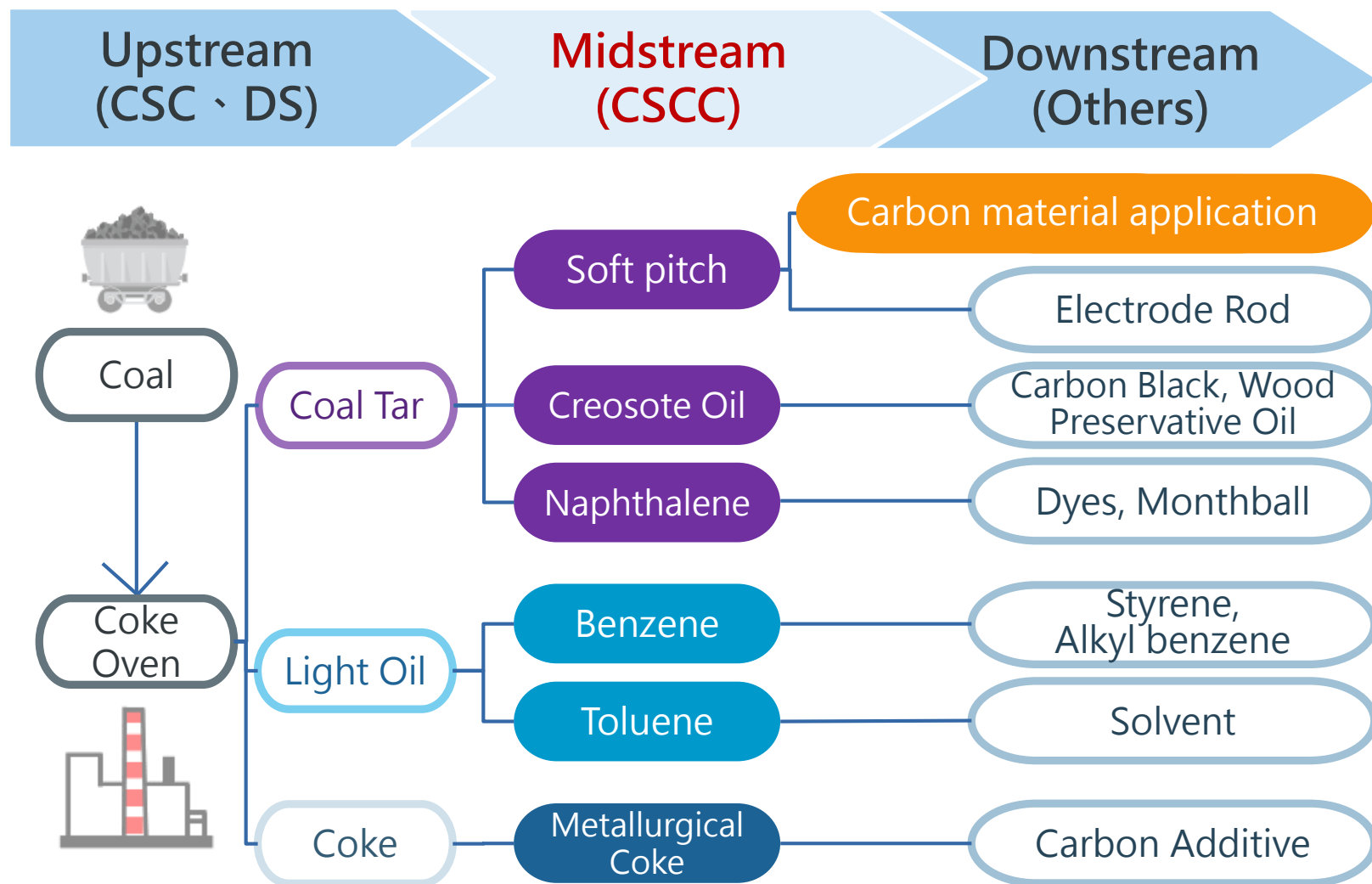
Major shareholder	Percentages
China Steel Corporation	29.04%
International CSRC Investment Holdings Co., Ltd.	4.96%
Fubon Life Insurance Co., Ltd.	3.93%
Ever Wealthy International Corp.	2.01%
Chichengte Investment Co., Ltd.	1.46%
KGI Life Insurance Co., Ltd.	1.10%
Hsinyang Investment Co., Ltd.	1.01%
Vanguard Total International Stock Index Fund Investment Account	0.96%
Chang Gung Medical Foundation	0.93%
Mega International Commercial Bank Trust Account - CSCC	0.84%

As of : July 15, 2024

46.24%

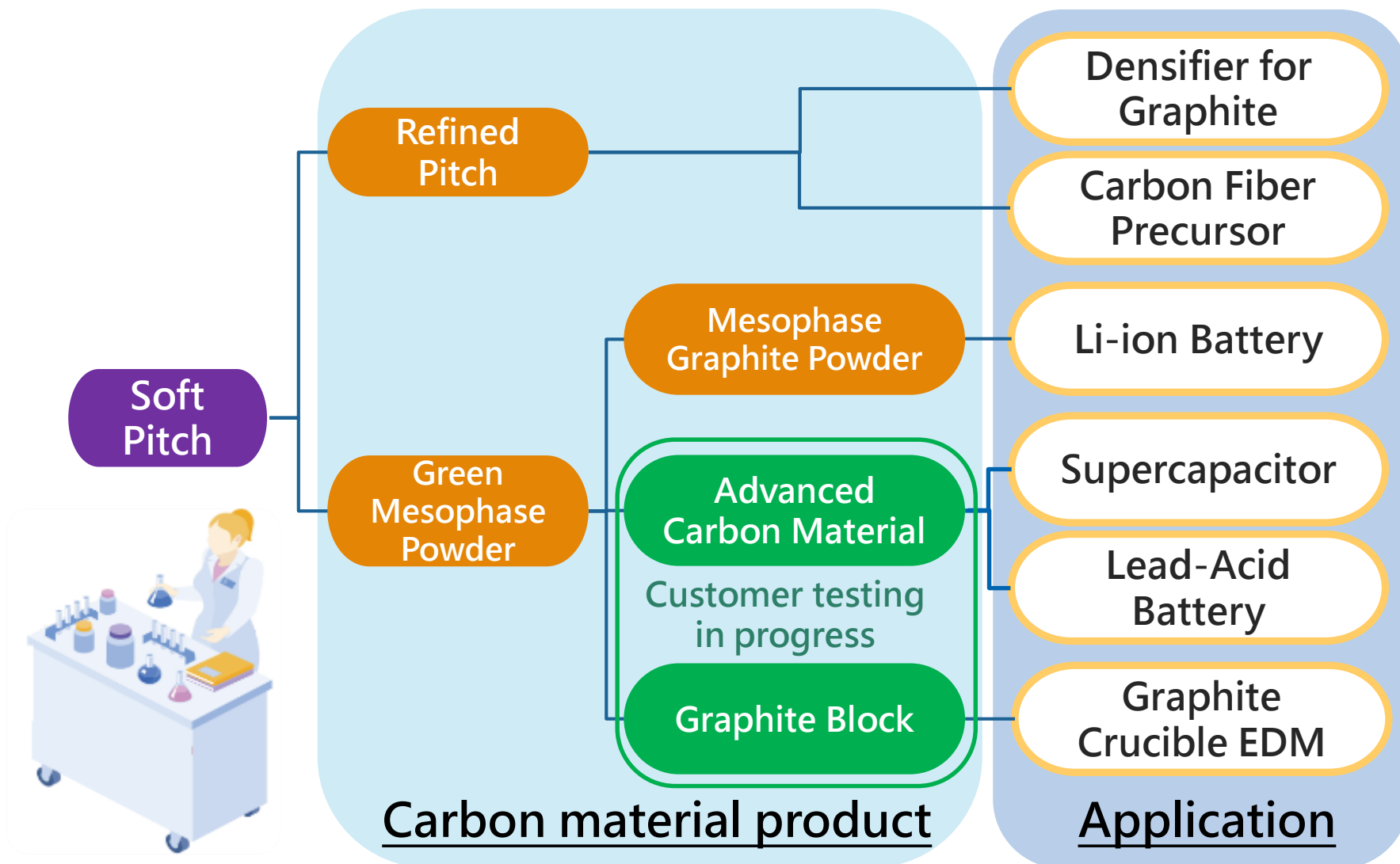


The Relating Product Map of Coal Chemical Industries





Applications of Carbon material product





02

Operating
Performance

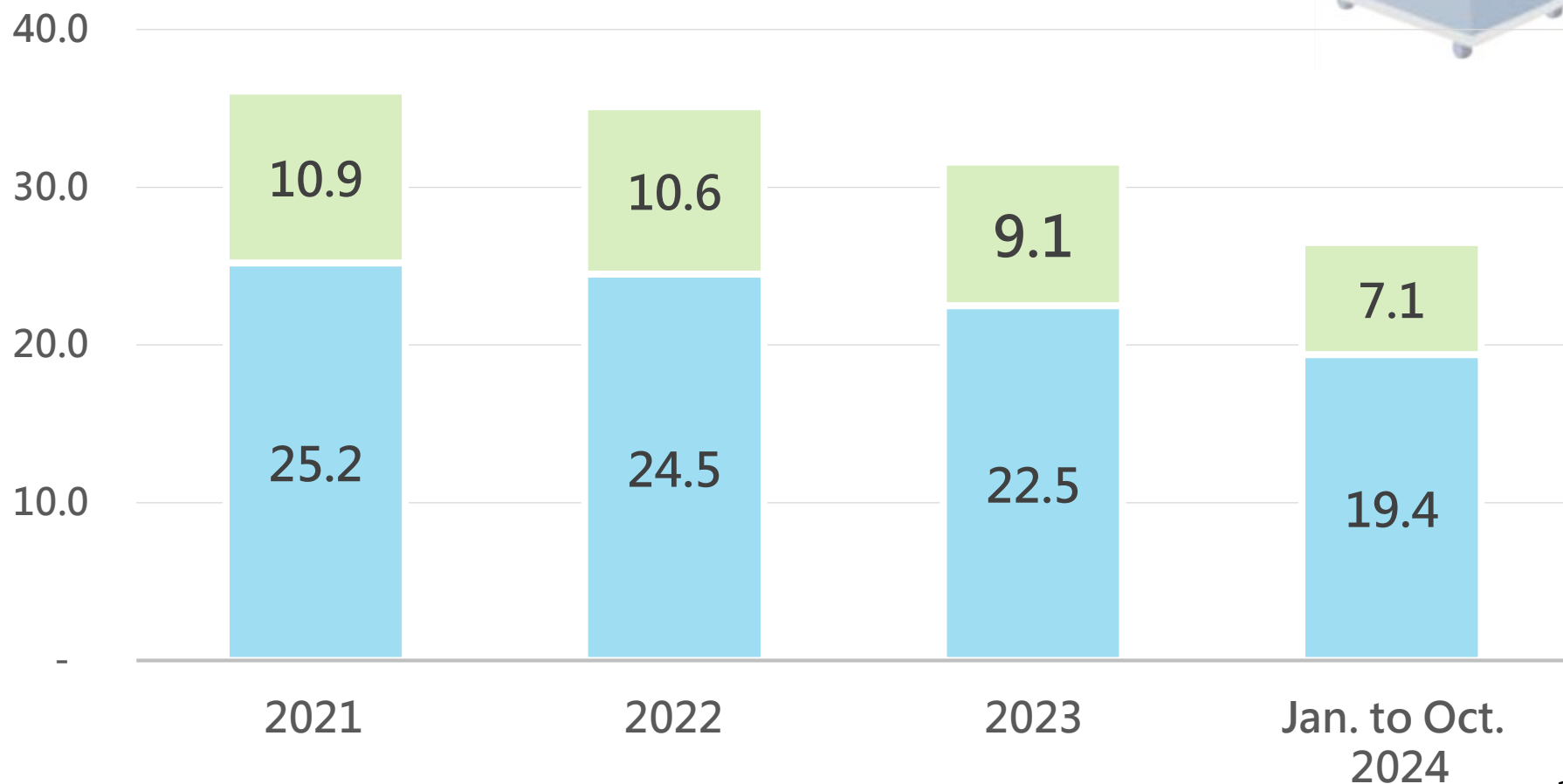


Raw material inputs



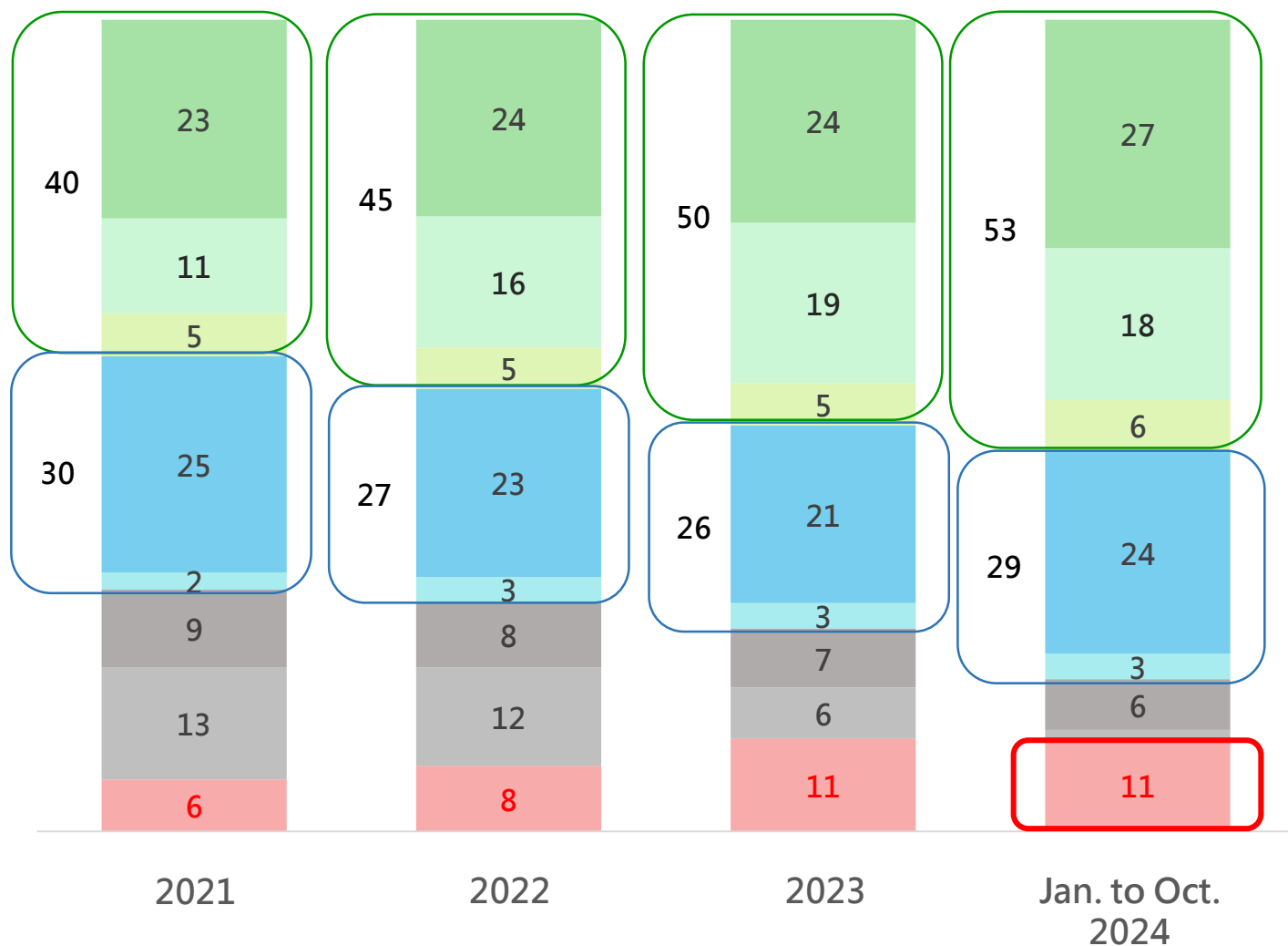
■ Coal Tar ■ Light Oil

(Unit : ten thousand metric tons)





Revenue breakdown by Products in the past three years





Coal Chemical Products Sales

Product	Domestic	Export	Product Overview
Soft Pitch	1%	99%	Used for baking aluminum anode materials, mainly exported to long-term customers in Australia.
Creosote Oil	55%	45%	Used for making carbon black, a raw material for tires. Export market mainly in Japan.
Naphthalene	10%	90%	Used for making naphthalene balls and dyeing pigments. Naphthalene balls exported to Southeast Asia, and dyeing pigments exported to India.
Benzene	100%		A basic raw material for the petrochemical industry with wide applications. Insufficient domestic supply must rely on imports, and now for all are domestic sales .
Toluene	6%	94%	Used as a solvent, mainly exported to Singapore.
Metallurgical Coke	100%		After partial processing, supplied to domestic customers for making carbon- additive.

Note: The ratio of domestic and foreign sales is the ratio of revenue in 2023.



Carbon material product

Product

Domestic

Export

Product Overview

Mesophase
Graphite
Powder

22%



78%

Sold to battery cell factories for making Li-ion Battery, with exports primarily to China, Southeast Asia, and Japan.

Green
Mesophase
Powder

31%



69%

Mainly sold to anode material factories for producing anode materials, with exports primarily to China. And also used for other applications in non-anode materials.

Refined Pitch



100%

Sold for use in steelmaking electrode rods for dipping processing, with exports primarily to China, Southeast Asia, and Japan.

Advanced
Carbon
Material

Mainly sales materials for supercapacitors, advanced lead-acid batteries, and lithium-ion capacitors, with markets including China, Japan, South Korea, and Taiwan.

Graphite Block

Mainly used for graphite components in silicon carbide semiconductors, metal casting, and hot-press glass molds, with a primary focus on domestic sales.

Note: The ratio of domestic and foreign sales is the ratio of revenue in 2023.



Product Coverage of a Variety of Industries

Creosote Oil



Car industry tire
- Carbon Black

Benzene



Petrochemical industry
- Basic raw material

Soft pitch



Aluminum smelting industry
- Electrode Rod



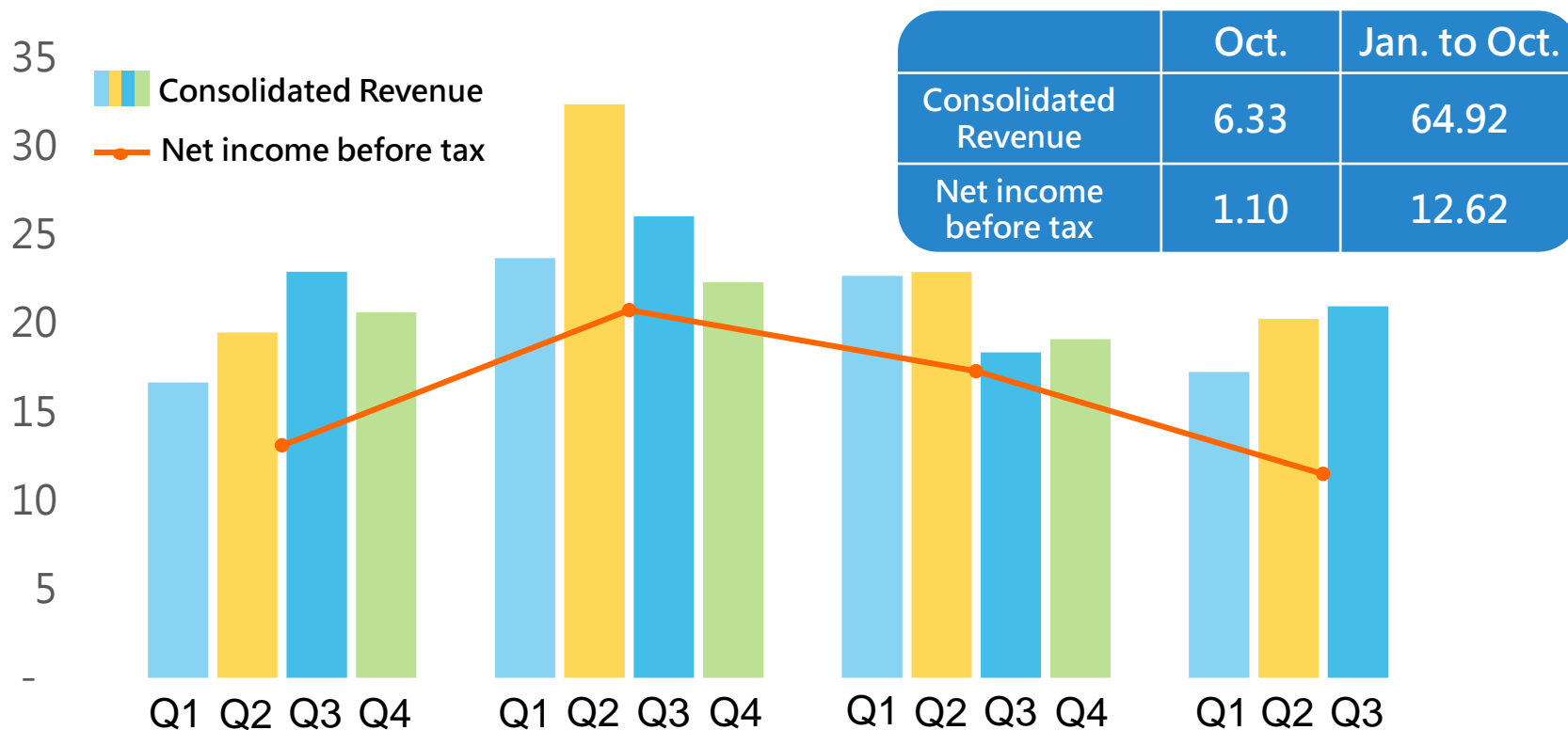
Carbon-Material



Green energy industry
- Energy storage
/electric batteries



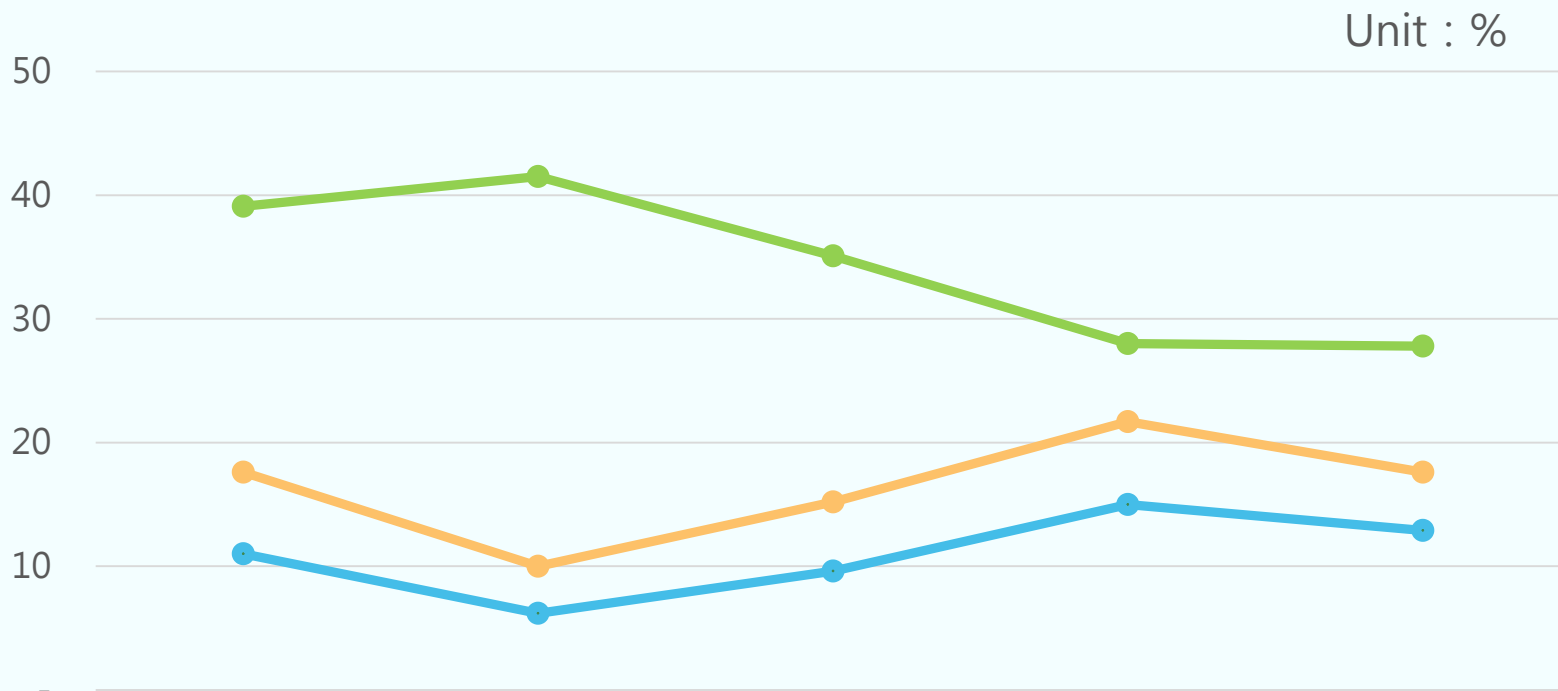
Consolidated Revenue and Net income before tax in the past three years



	2021	2022	2023	2024 Q1 to Q3
Consolidated Revenue	79.82	104.60	83.18	58.59
Net income before tax	13.13	20.78	17.33	11.52



Major financial indicator



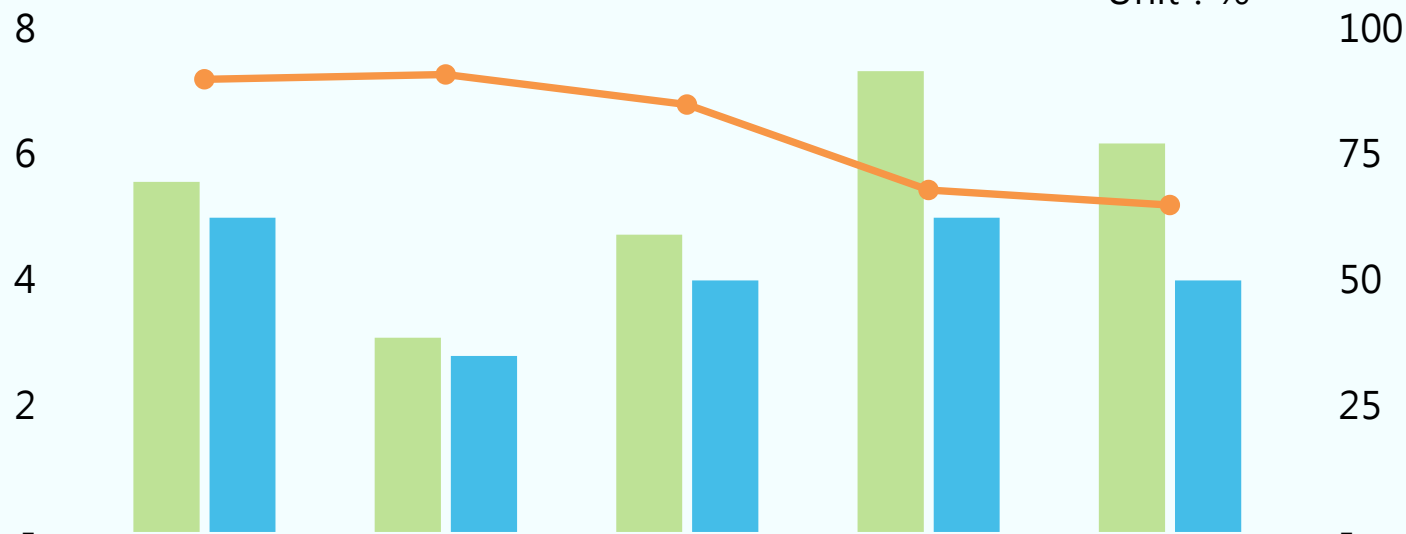


Dividend Policy

EPS and Dividend in the past five years

Unit : NTD/Per share

Dividend payout ratio
Unit : %



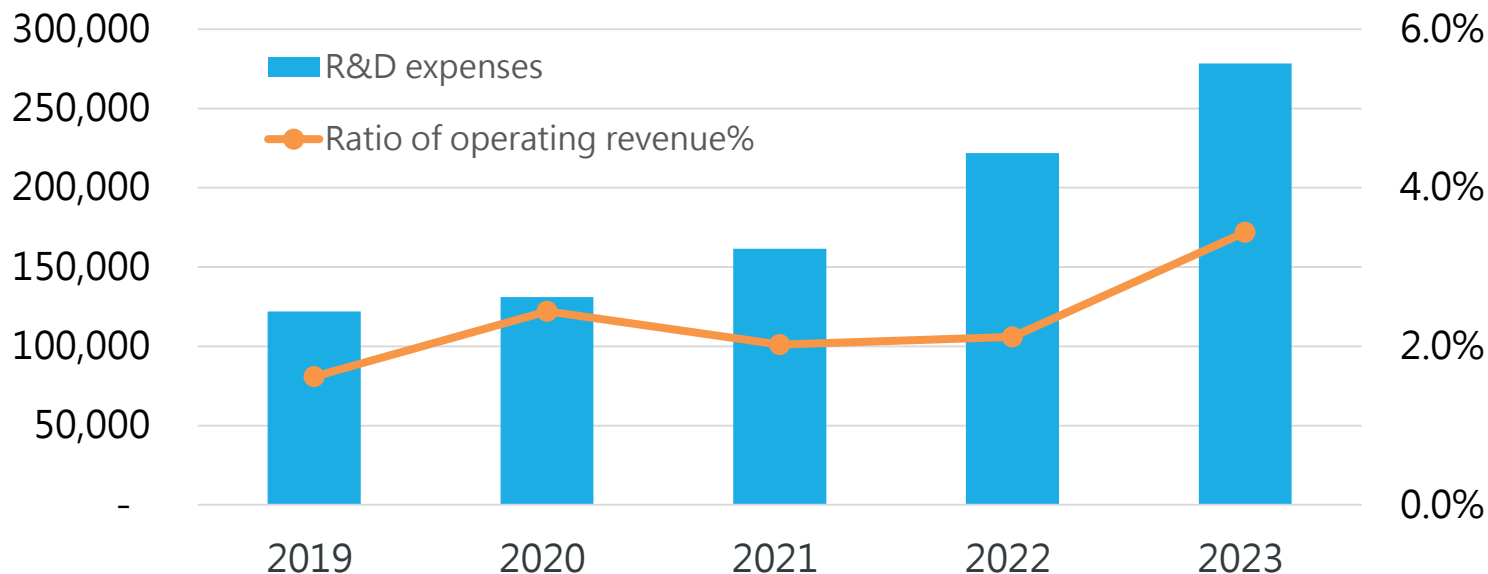
	2019	2020	2021	2022	2023
■ EPS	5.57	3.09	4.73	7.33	6.18
■ Cash Dividend	5	2.8	4	5	4
—● Dividend Payout Ratio	90	91	85	68	65

- ✓ CSCC has been profitable for 30 consecutive years. The total amount of distributed dividends (including stock dividends) is above NT\$125.



R&D expenses and Industrial innovation

Unit : NTD Thousands



Industrial innovation subsidy projects in recent years	Execution situation
I - The development of high-purity carbon powder and isotropic graphite for use in compound semiconductors.	Completed
II - The development of anode materials for electric bus batteries	Completed
III - The development of high-purity graphite crucible for SiC crystal growth used in compound semiconductors.	Executing
IV - Anode Material Development and Verification Program for Ultra-High Power Batteries	Signing



03

Sustainable
Development



Corporate governance



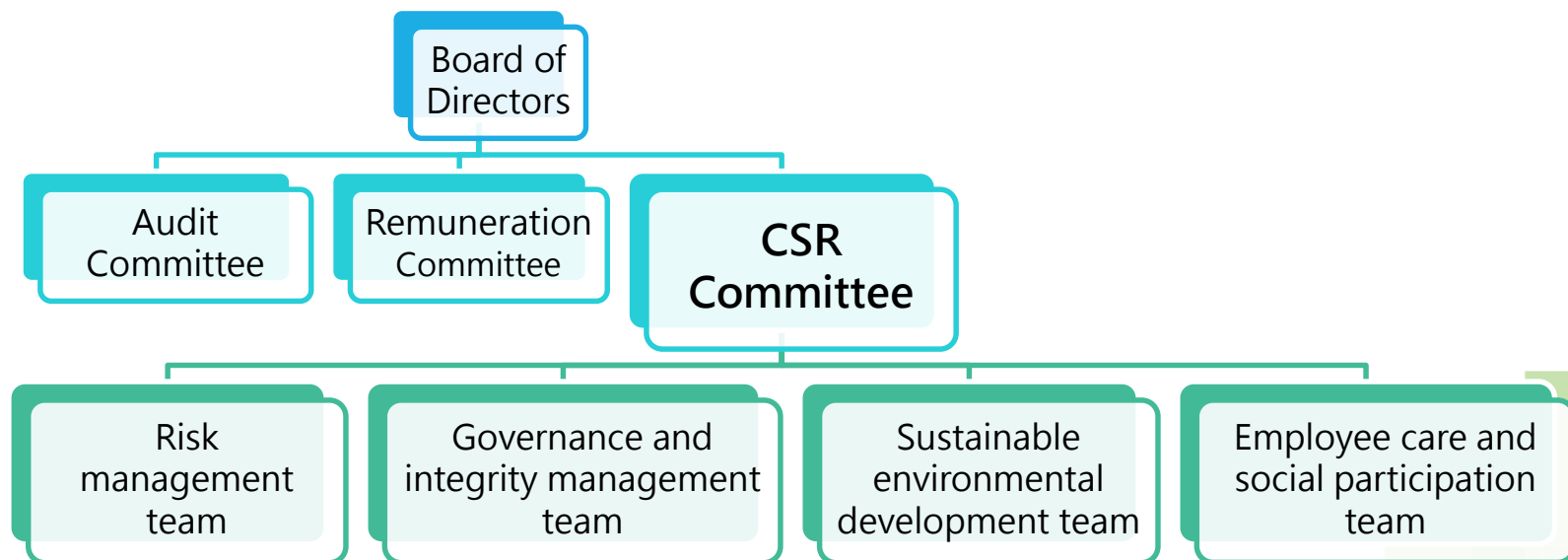
To establish Sustainable Development Committee.



CSCC was in the second grade(6%~20%) according to the lasted corporate governance evaluation results(2023), and for four consecutive years.



CSCC was involved TWSE Corporate Governance 100 index(2022 and 2023). Selected as a constituent stock of the "TIP Customized Taiwan Green Energy and Electric Vehicles Index" in November 2023.





Carbon neutrality by 2050

Following the group's policy, the company has pledged to achieve carbon neutrality by 2050. We have established short, medium, and long term strategies and targets, outlining various carbon reduction strategies and a pathway to carbon neutrality.

Short-term

- By adopting mature, readily implementable carbon reduction technologies, we have **completed a cumulative total of 75 carbon reduction projects** since our baseline year of 2018, **achieving a reduction of 12,110 tons of carbon emissions**.

Medium-term

- By leveraging innovative technologies, AI intelligence, and replacing absorption chillers, we aim to enhance energy efficiency and **achieve a 33% carbon reduction target by 2030**.

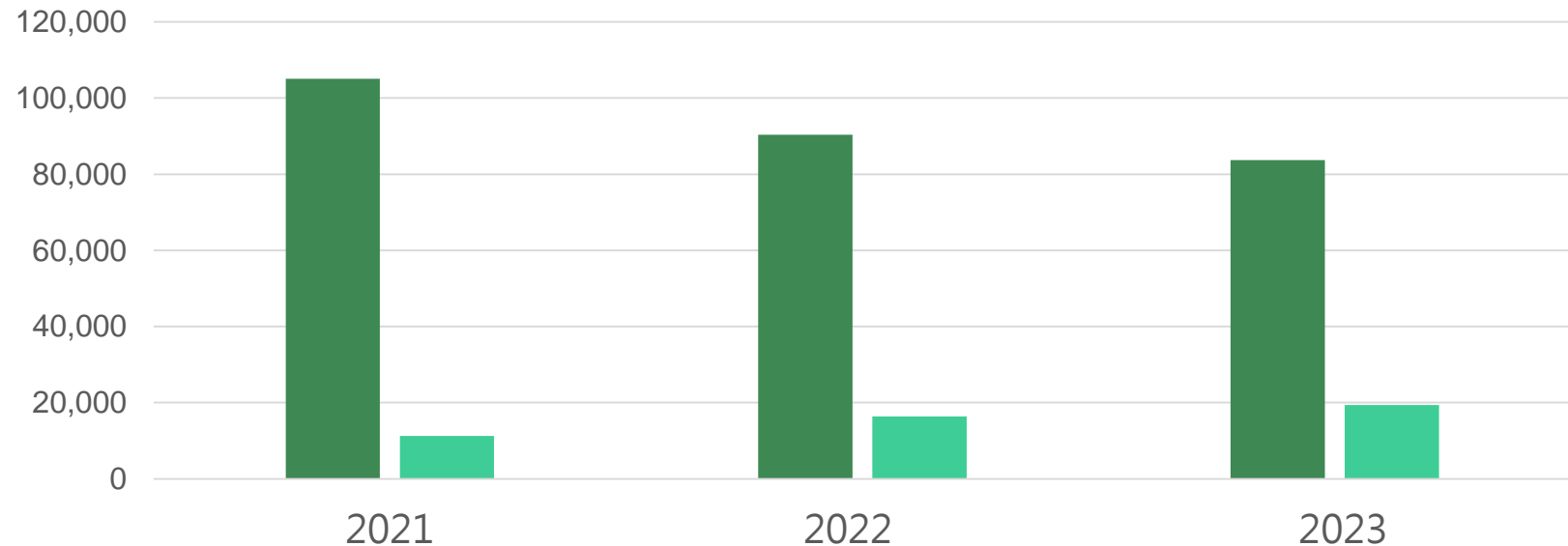
Long-term

- Utilizing clean energy technologies such as green electricity and hydrogen, complemented by carbon capture techniques, we aim to reduce emissions first and then remove residuals, progressing toward **carbon neutrality by 2050**.



Greenhouse gas inventories conducted over the past three years.

Unit : metric tons



■ Plant of Xiaogang

Through process improvements, waste heat recovery, and enhanced energy efficiency measures, Xiaogang Plant's audited emissions have steadily decreased.

■ Plant of Pingnan

- The Pingnan plant is still undergoing expansion and production capacity continues to increase, so carbon emissions are rising.
- The subsequent plan includes electrification of energy systems, the transition to green electricity, the installation of renewable energy equipment, and an increase in green energy usage, all aimed at gradually reducing carbon emissions each year.



ESG Implementation and Award Achievements

2019-2023

➤ Gold Award from TCSA

2023

- Awarded for Environmental Protection Sustainability Contribution Award
- Awarded for Excellent Trading Business
- Ministry of Health and Welfare "Healthy Workplace Certification - Promotion Label"

2022

- National Enterprise Environmental Protection Award-Bronze medal
- Top 100 Carbon materials competitiveness on Business Weekly

2024

- Award for The 9th National Environmental Education Award of the Excellence Award
- Award for Affairs 113 Industrial Park Greening and Beautification-Second Place
- Pingtung Excellence Enterprise Award - Investment Model Award
- Sports Administration, Ministry of Education - Sports Enterprise Certification
- Taiwan Electrical and Electronic Manufacturers' Association - Digital Transformation Model Award
- Top 100 Carbon materials competitiveness on Business Weekly

2021-2024

2023



Awarded TIPS level a patent and certification



Awarded Certification of information security ISO 27001



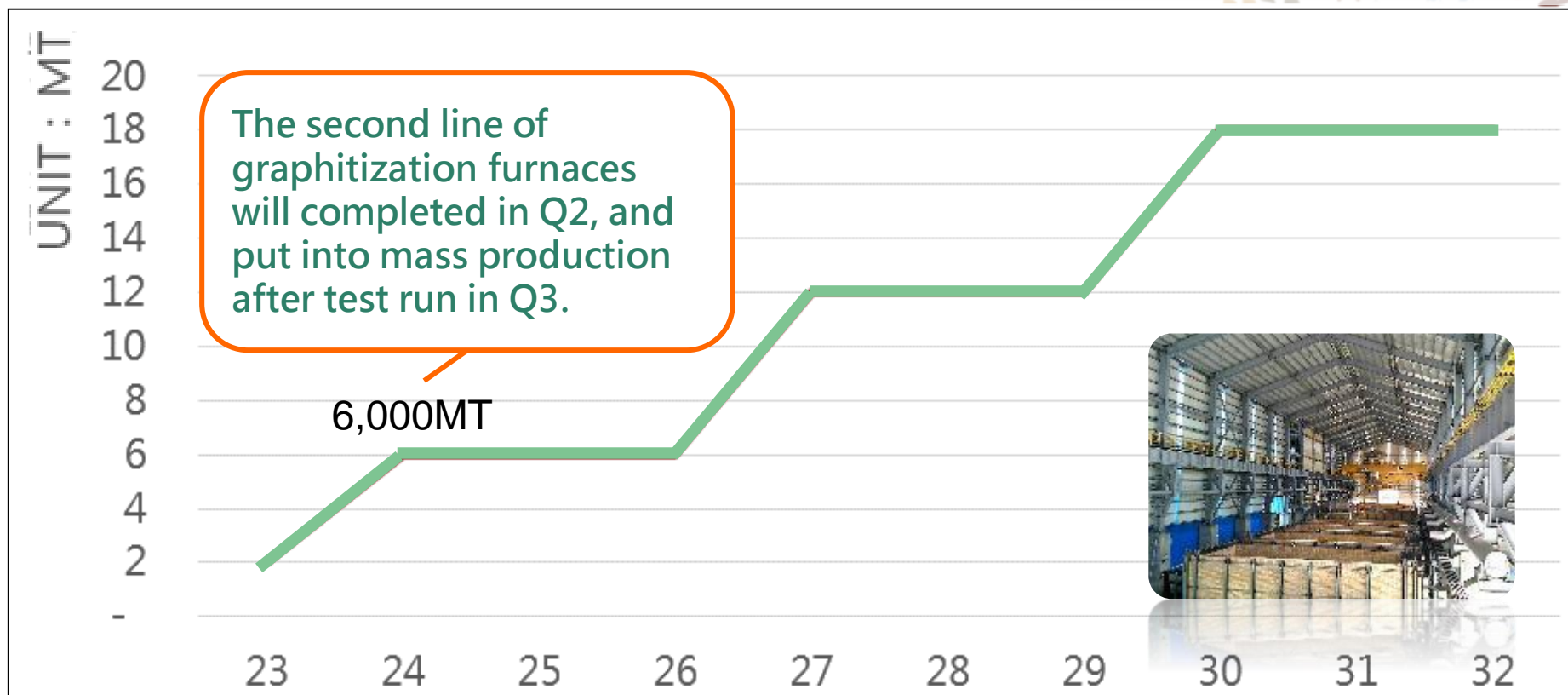
04

Future
Development



Carbonization Capacity Expansion

To meet the long-term demand for future anode materials, isotropic graphite, and graphite electrode rods, the following graphite production capacity expansion plan has been outlined:

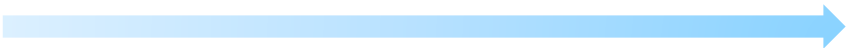


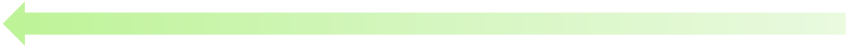


Mesophase Graphite Powder Planning

Feature	Development	Opportunities
<ul style="list-style-type: none">✓ High first columbic efficiency✓ High energy –density✓ High discharge capability✓ Long cycle life	<ul style="list-style-type: none">✓ Ultra high drainage rate✓ High capacity silicon carbon material✓ High capacity fast charging✓ Artificial graphite compound	<ul style="list-style-type: none">✓ De-Sinicization✓ Localization✓ Semi-solid State Battery✓ Energy Storage Applications

Advanced Applications such as F1 Electric Racing Cars, Vertical Take-off and Landing Aircraft (eVTOL)

Energy Density(Wh/Kg): Low  High

Power Density(W/Kg) : Strong  Low

UF1
UF2

Racing car / HEV



MG11
MG10

PT / Drone



MG12
TAG11

EV / ESS



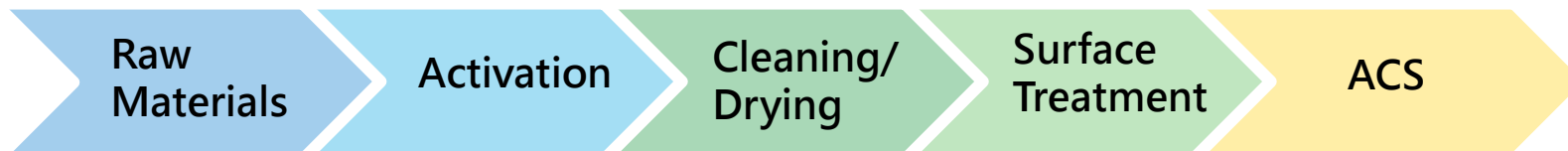
MG13
BS481

Tablets / 3C





Advanced Carbon (ACS) Product Development



- ACS annual production capacity is 90MT/year.

Features of ACS

- ✓ High Surface Area
- ✓ High Capacitance
- ✓ Good chemical properties and thermal stability
- ✓ Low functional group

Product application

Super-capacitor

Lead-acid Battery

Lithium-Ion Capacitor



Applications of ACS

Supercapacitors

- ✓ Supercapacitors have high efficient charge and discharge characteristics. Cycle life is more than twenty thousand times.

High-Power Discharge Applications

3.0V High-Voltage Supercapacitor



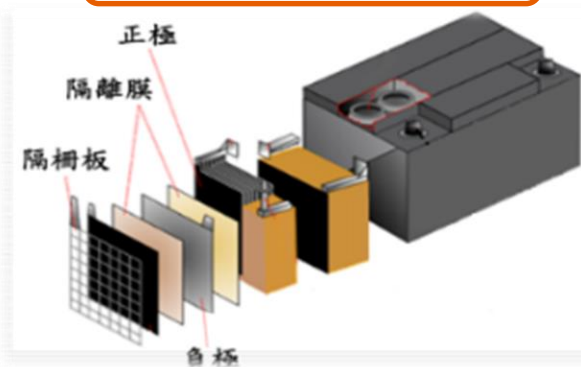
⇒ Rail Vehicles, Wind Power, Automotive Industry, Smart Grid

Advanced Lead-Acid Battery

- ✓ Advantages of Adding Advanced Carbon Powder to Lead-Acid Battery Anodes:

Enhanced Conductivity and Extended Lifespan

High-Rate Discharge



⇒ Automotive Start-Stop Battery, UPS Uninterruptible Power Supply System

Lithium-Ion Capacitor

- ✓ A Hybrid of Lithium-Ion Battery and Supercapacitor, with Characteristics In-Between Both

Capable of Balancing Size, Charge/Discharge Power, and Cycle Life Characteristics



⇒ AI Data Center Power Backup System, Rail Vehicles



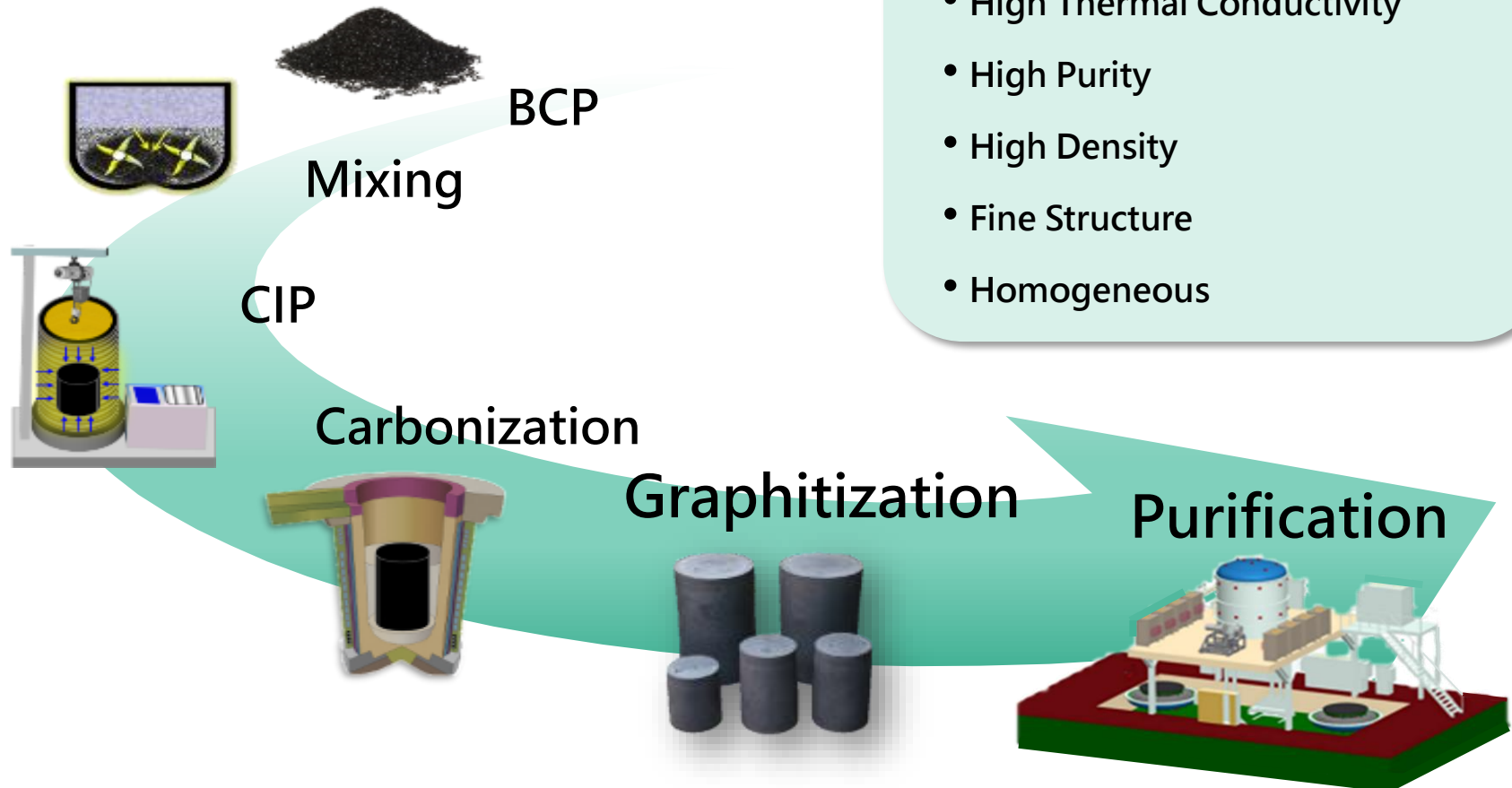
Graphite Block Development

High Purity

High Density

High Strength

- Thermal and Chemical Resistance
- High Thermal Conductivity
- High Purity
- High Density
- Fine Structure
- Homogeneous

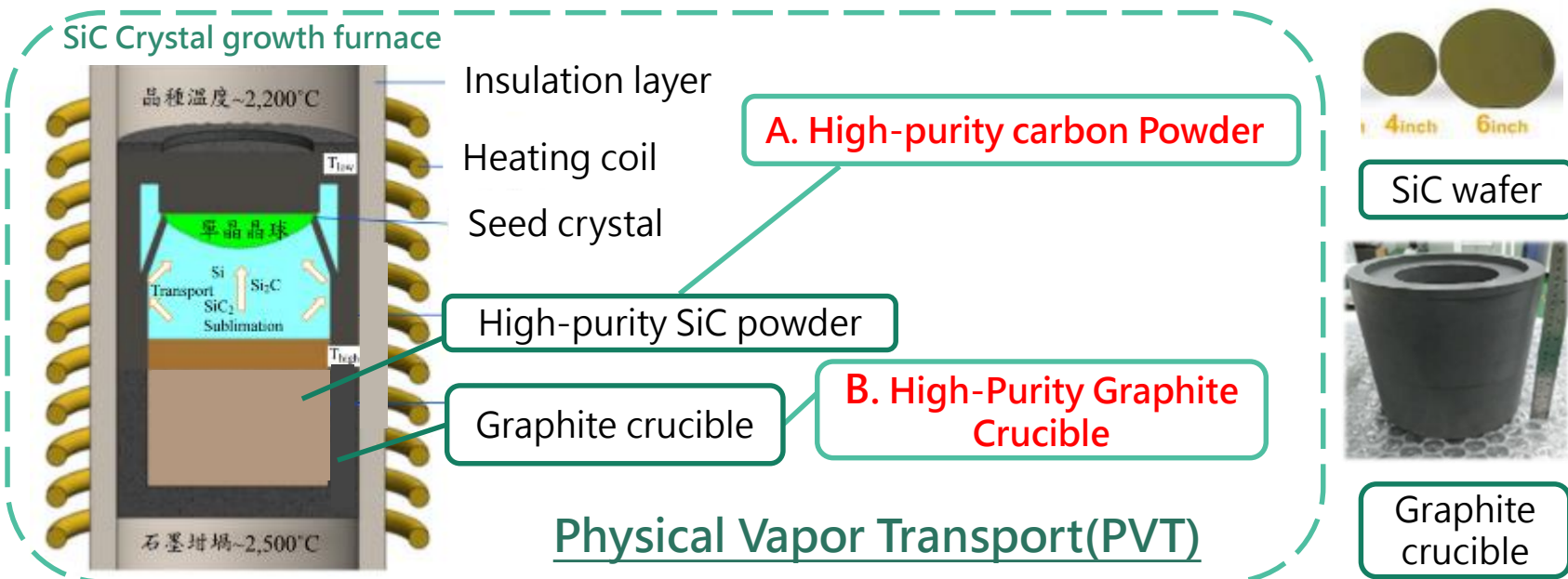




Application of SiC carbide crystal growth

- The key carbon materials and graphite materials used in silicon carbide crystal growth include:

A. High-purity carbon powder 、 B. High-Purity Graphite Crucible



Advantages

SiC power devices possess unique advantages such as high voltage, high current, high temperature, high frequency, and low loss. When applied in electric vehicles and charging stations, they can save up to 75% of energy.



The Board Approved the Establishment of a Mass-Production Halogen Purification Furnace on 2024/10/31.



Application of Graphite Block

連接板



螺帽



連鑄冶具



3D玻璃模具



支撐軸件



連鑄模具



加熱器



石墨電極



半導體構件



SiC長晶坩堝



SiC長晶坩堝



高純碳粉



Silicon carbide compound semiconductor



Creating a sustainable and friendly environment, and precision manufacturing in green energy.

To become a key carbon material supplier for the green energy industry.



Customer Satisfaction 、 Sincerity 、 Credibility 、 Cooperation



中鋼碳素
CHINA STEEL CHEMICAL

Q&A

T h a n k y o u

