



CSC GROUP



# 鑫科材料科技股份有限公司

ThinTech Materials Technology Co., Ltd.(TTMC)

Investor Conference  
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# Content

I. Company Profile	4
II. Operational Overview	8
III. Financial performance	10
IV. Development Strategy	12
V. China Steel Precision Materials Co.	15
VI. Conclusions	19

# Safe Harbor Statement



This presentation may contain forward-looking statements. All statements other than historical and current fact, without limitation, including business outlook, predictions, estimates, are forward-looking statements. Such statements are based upon management's current beliefs and expectations and are subject to various risks, uncertainties and other factors that could cause actual outcomes and results to differ materially.

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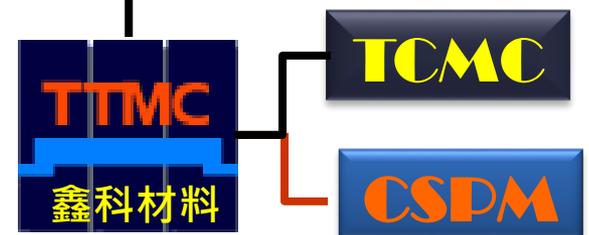
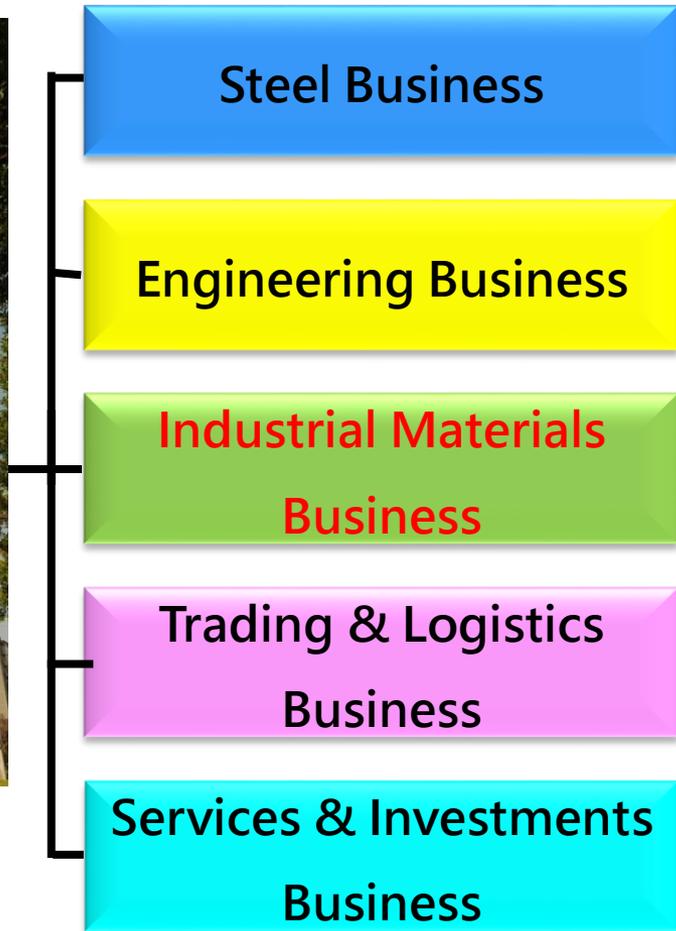
This cautionary statement is applicable to all forward-looking statements contained in this presentation.

# I. Company Profile

## -Industrial Material Business Group



CSC Group



TTMC belongs to Industrial materials business group, undertakes Chinasteel's industrial materials technology, and focuses on the manufacture and sales of **opt-electric sputtering targets**. The market territory includes Taiwan, China, Japan, Europe and USA.



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# I. Company Profile

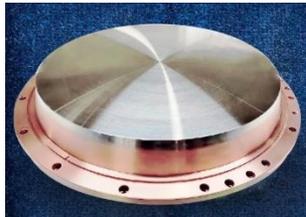
## -Products Development Trace



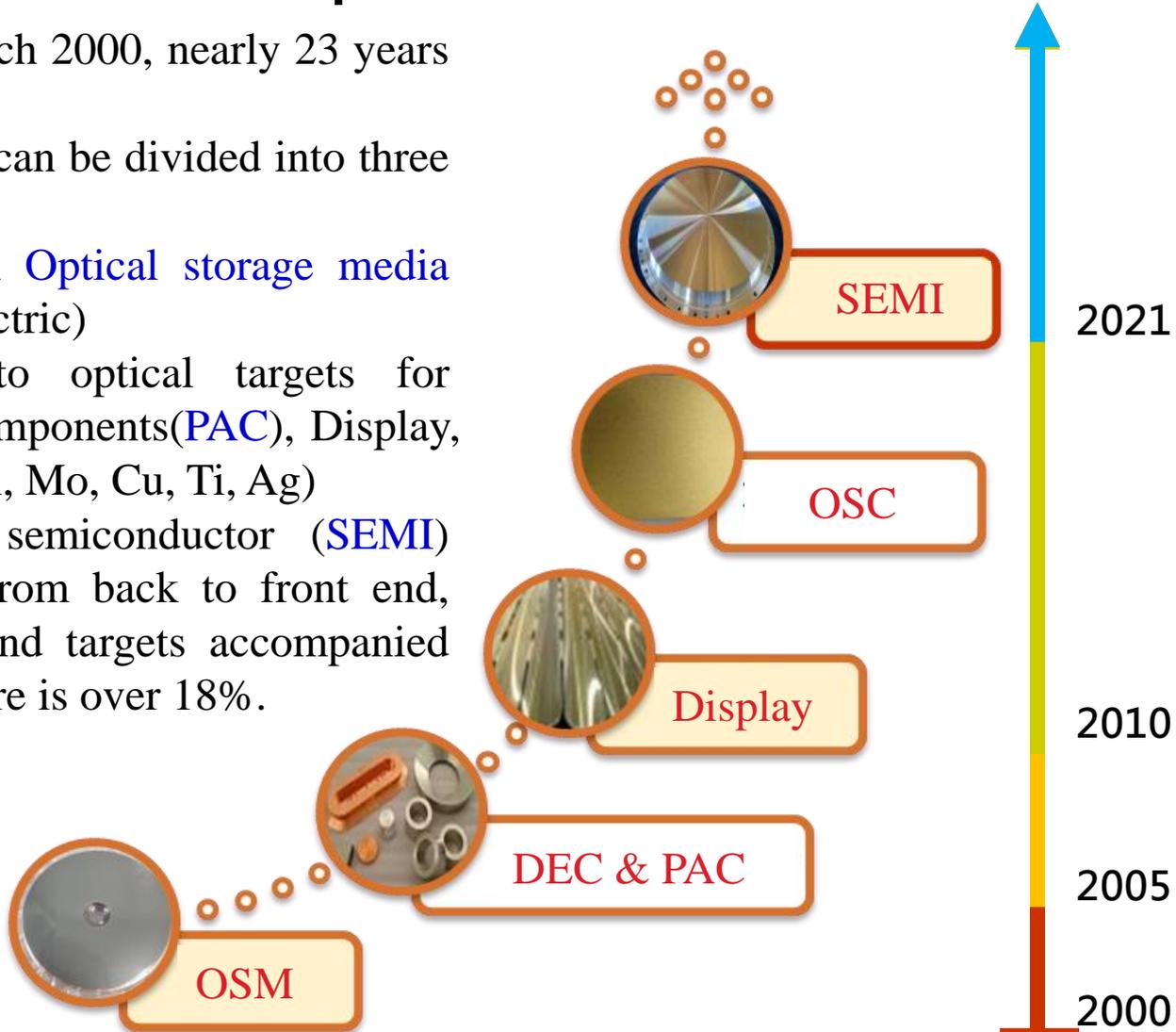
- TTMC is established on March 2000, nearly 23 years so far.
- Products Development trace can be divided into three stages:
- **Early(2000-2005):** Focus on **Optical storage media (OSM)** targets (Ag, Al, Dielectric)
- **Middle(2006-2020):** extend to optical targets for decoration(**DEC**), passive components(**PAC**), Display, Crystal Oscillators (**OSC**) (Al, Mo, Cu, Ti, Ag)
- **Near(2021~):** launch into semiconductor (**SEMI**) industry, strategy: process from back to front end, Size from small to large, and targets accompanied with slugs. Now the sale figure is over 18%.



Semi Slug



Semi target



# I. Company Profile

## -Operation strategy



- 1** • Implement lean management and improve business performance
- 2** • Develop smart manufacturing short-chain production technology, save energy and reduce carbon
- 3** • Refining the production technology of photoelectric targets, consolidating the foundation and expanding the source
- 4** • Develop high-end target material production technology and step into the semiconductor and 5G industries
- 5** • Establish recycling of raw materials and master key raw materials



# I. Company Profile

## -Recent key achievements



111

- The company was honored by the Occupational Safety and Health Administration of the Ministry of Labor to present the corporate sustainability report public occupational health and safety index evaluation-excellent enterprise. 10% Outstanding Enterprises.
- In December, the carrier material in the field of panel-level fan-out packaging was developed, mass produced and sold.
- In December, launched into the mass production and supply of biomedical materials for boron neutron capture therapy (BNCT) deceleration.

112

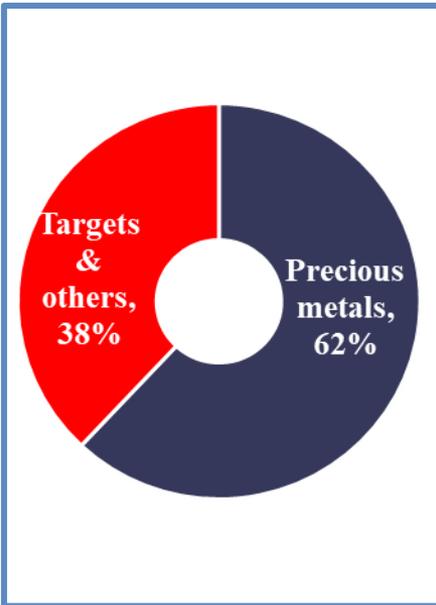
- In January, it was approved to issue the third guaranteed domestic convertible corporate bond .
- In May, obtained IATF 16949: 2016 quality management system verification for the automotive industry.
- In June, the shareholders' meeting approved the distribution of a cash dividend of 1 yuan per share in 2022.
- In June, the shareholders' meeting approved the acquisition of 70% equity of Changzhou China Steel Precision Materials Co., Ltd. with cash and new ordinary shares as consideration.

# II. Operational Overview

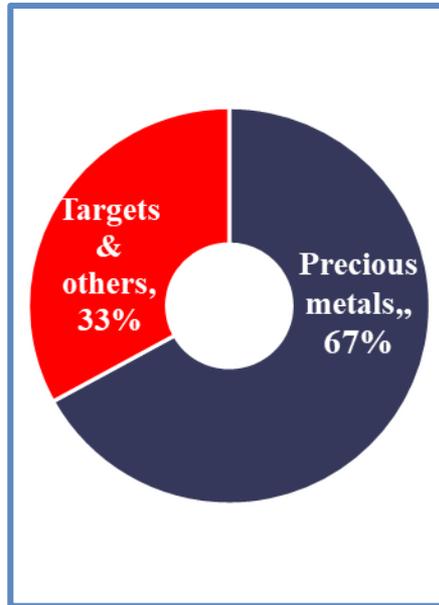
## -Sales Revenue Ratio by Product



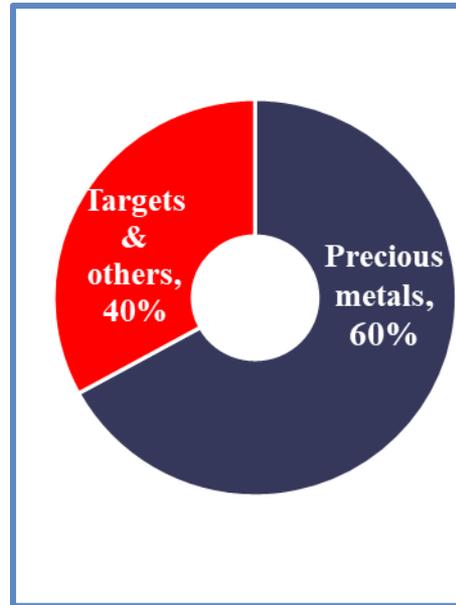
2020



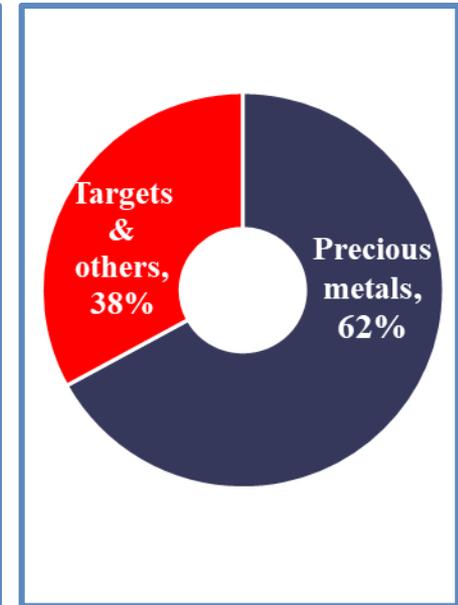
2021



2022



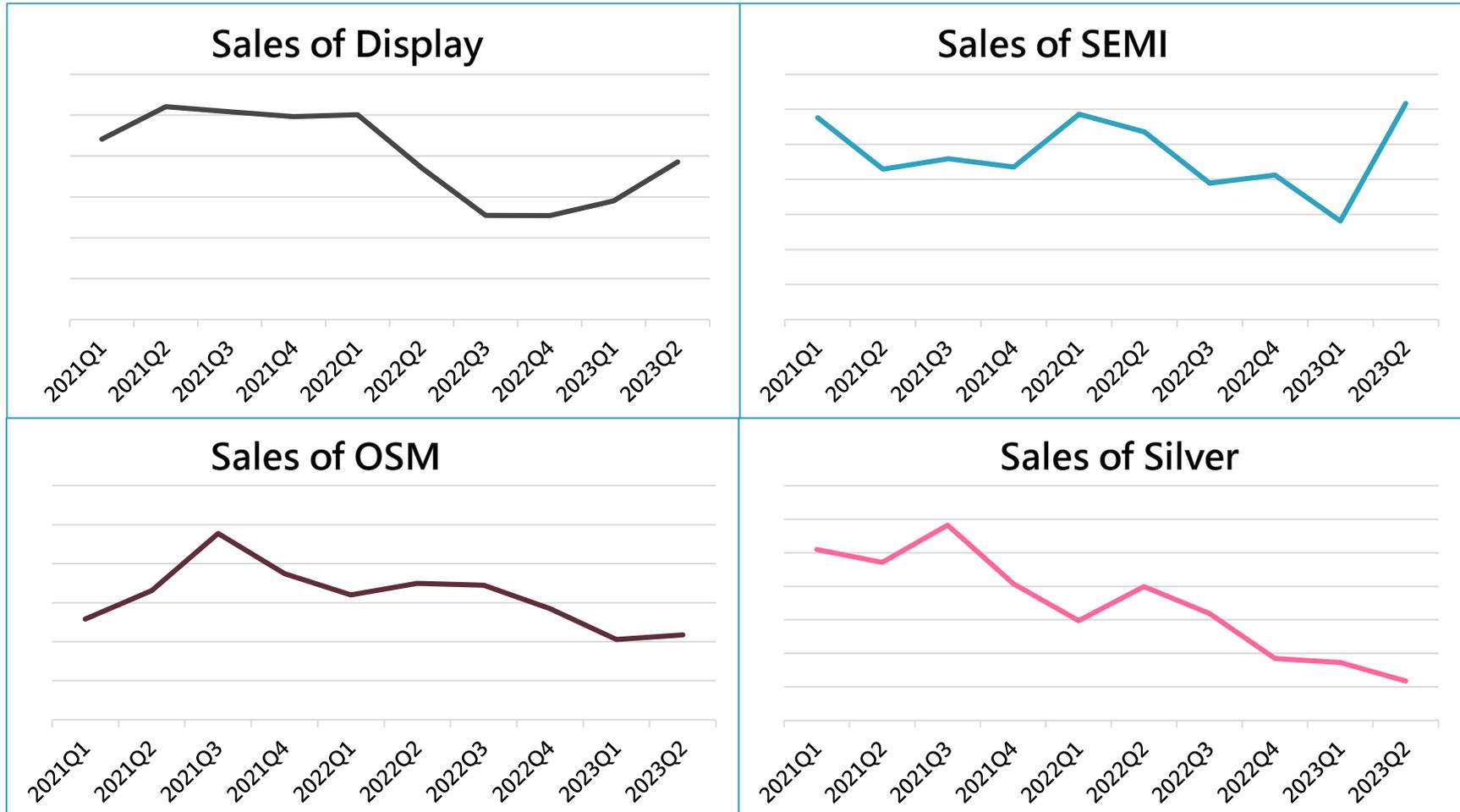
2023 Q2



To optimize the product mix, the company is dedicated to raise the ratio of high profit products (targets and others). Such ratio increases from 2020 to 2022 except in 2021 covid-19 year. The sales ratio high profit products is slightly decreased from 40% to 38% in Q2 this year due to the adjustments to inventory positions in the panel industry. Such sales ratio is expected to increase again when panel demand is recovered in H2 this year.

# II、Operational Overview

## -Sales trend of major products



Orders of 2023Q2 in Display and SEMI industries have gradually recovered, and the optical storage media industry continues to develop steadily.

# III. Financial Performance

## -2023Q1 consolidated profit and loss



Unit : thousand NTD (except EPS in NTD)

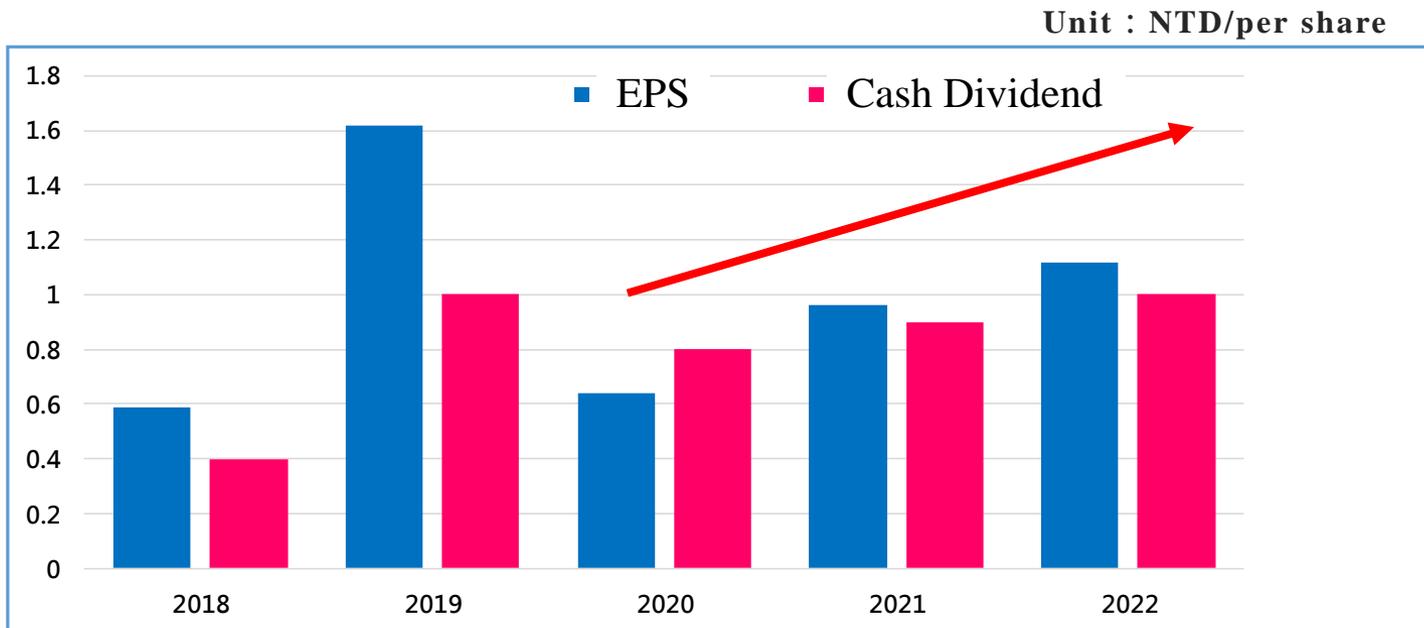
Items	2023Q1	2022Q1	Increased (decreased) Amounts	Increased (decreased) Percentages
Operating Revenue	549,032	662,750	(113,718)	(17)
Operating Costs	505,929	594,975	(89,046)	(15)
Gross Profit	43,103	67,775	(24,672)	(36)
Gross Margin	8%	10%	(2%)	(20)
Operating Expenses	34,595	39,426	(4,831)	(12)
Operating Profit	8,508	28,349	(19,841)	(70)
Non-Operating Income and Expenses	1,931	7,618	(5,687)	(75)
Operating profit Before Tax	10,439	35,967	(25,528)	(71)
Net Income(Losses)	8,331	28,808	(20,477)	(71)
Net Income Margin	1.5%	4.3%	-	-
Earnings Per Share	0.11	0.39	(0.28)	(71)

Affected by the market downturn in 2023Q1, the panel and the electronics industry have adjusted some inventory reductions, resulting in a decrease in order volume and financial performance compared with the same period last year. 2023Q2 has bottomed out and recovered. 2023H2 is expected to usher in a peak season.

# III. Financial Performance

## -EPS and Cash Dividend

year	2018	2019	2020	2021	2022
EPS	0.59	1.62	0.64	0.96	1.12
Cash Dividend	0.4	1	0.8	0.9	1
Dividend	68%	62%	125%	107%	89%



# IV. Development Strategy

## -Dual spindles go hand in hand



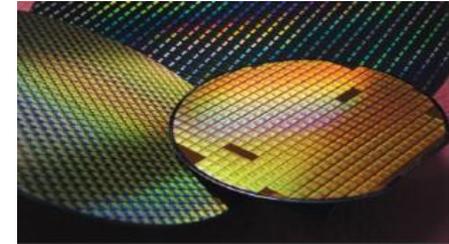
- Targets and slugs for SEMI industry
  - The semiconductor target market presents an oligopoly pattern. The four major suppliers of Nikko, Honeywell, Tosoh and Praxair account for 80% of the global market. It can be seen that Japan and the United States have obvious advantages in the field of high-end sputtering targets. In addition, the Chinese target manufacturer Ningbo Jiangfeng Electronics (KFMI) has now stepped into the semiconductor target market, mainly producing high-purity tantalum, aluminum, and titanium semiconductor targets. Because of its price competitiveness, it has already supplied domestic semiconductor factories. °
  - At present, the company is cooperating with major international manufacturers to produce semiconductor metal targets for 8-12-inch wafers, and has entered the product trial production stage. After the relevant equipment is in place, it will be introduced into mass production. It is a key development project for the company to upgrade manufacturing and refined products in the future.
  - The company's semiconductor equipment is expected to be installed in September this year, and production will start in the fourth quarter. Overall, it is estimated that the revenue of semiconductor targets will grow by 20% this year, and the proportion of the overall targets is expected to increase from 16% to more than 20%.
- Advanced Specialty Alloy Applications
  - Both TTMC and CSPM(China Steel Precision Materials) are special alloy companies within the CSC group. CSPM is mainly engaged in the production and sale of titanium, nickel alloys and non-ferrous metal forgings. In addition, CSPM is also the raw material supplier of the product, through upstream and downstream integration in the future, not only can strengthen the synergy of TTMC' upstream and downstream connection of target materials and specialty alloys, but also expand the future application fields of products to improve overall operating performance and long-term competition The company expects to complete the acquisition of 70% equity of CSPM before 2024Q1.

# IV. Development Strategy

## -Targets for SEMI Industry

- Advanced 3D-IC fabrication process is composed of three major ends, including FEOl (Wafer level IC fabrication), MEOl (Wafer thinning), and BEOl (Wafer level packaging).
- The targets for the back-end packaging, middle-end wafer thinning, and the second and third-generation compound semiconductor fields have been developed and achieve sales results. By actively constructing semiconductor target fundamental technology, the business to the front-end IC manufacturing field is on the way.
- In order to improve the self-made rate of semiconductor targets and expand target products for 12-inch wafers, about 145 million has been invested in equipment, and trial production will be completed in Q4 of 2023. In the future, it will be possible to effectively control the production quality and improve the technical capability of manufacturing target substrates for 12-inch wafers.
- The IATF 16949 certification has been obtained in May 2023, which means that the product meets the quality requirements of the automotive industry from design and development to manufacturing processes. It can expand and promote vehicle-related products at the same time. Proportion of revenue.

IC fabrication



Wafer thinning



IC packaging



# IV. Development Strategy

## -Supply Chain of SEMI Metals Targets

### Suppliers

霍尼威爾-美  
(Honeywell)

普萊克斯-美  
(Praxair)

東曹-日  
(Tosho)

日礦金屬-日  
(JX NMM)

江豐電子-陸  
(KFMI)

有研億金-陸  
(Grikin)

光洋科-台  
(Solar)

鑫科材料-台  
(TTMC)

### End users

TSMC

UMC

Samsung

PSI

IST

MicroSilicon

ASC

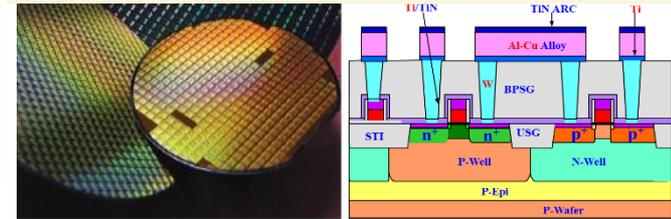
SPIL

Amkor

### Application (Metallization film)

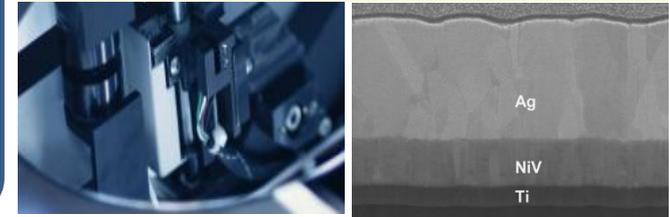
**FEOL**  
**-IC**  
**fabrication**

FEOL-IC fabrication targets (Al/Ti/Cu/Ta)



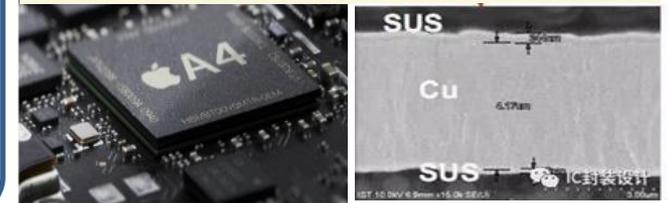
**MEOL**  
**-Wafer**  
**thinning**  
**-FSM/BSM**

MEOL-FSM/BSM targets (Ti/NiV/Ag)



**BEOL**  
**-IC**  
**packaging**  
**-UBM**  
**-Anti EMI**

BEOL-Anti EMI Targets (Cu/SUS)



**Al/Ti/Cu/Ta**  
**High Purity**  
**Metal Targets**



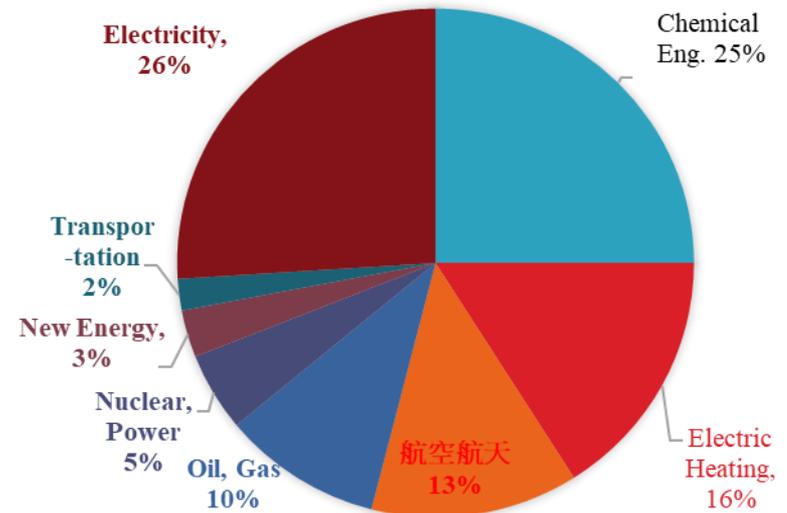
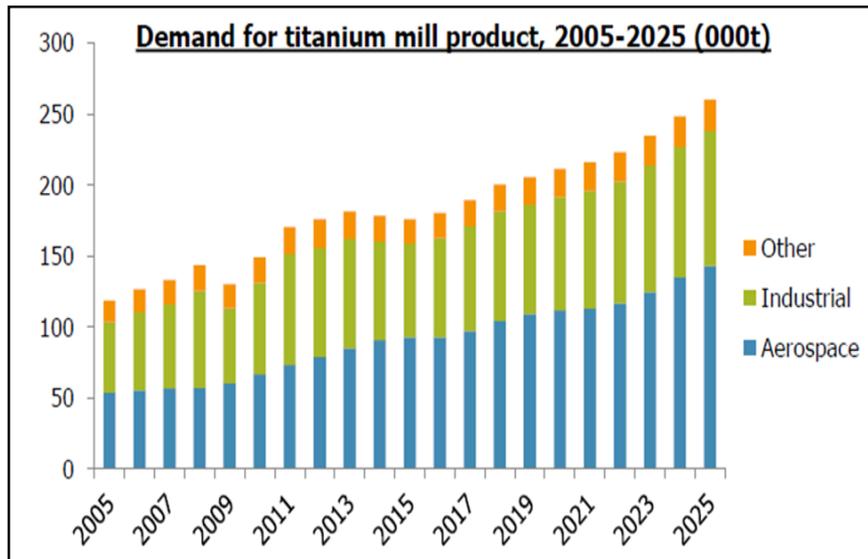
# V. China Steel Precision Materials Co.

## -Advanced Specialty Alloy Applications

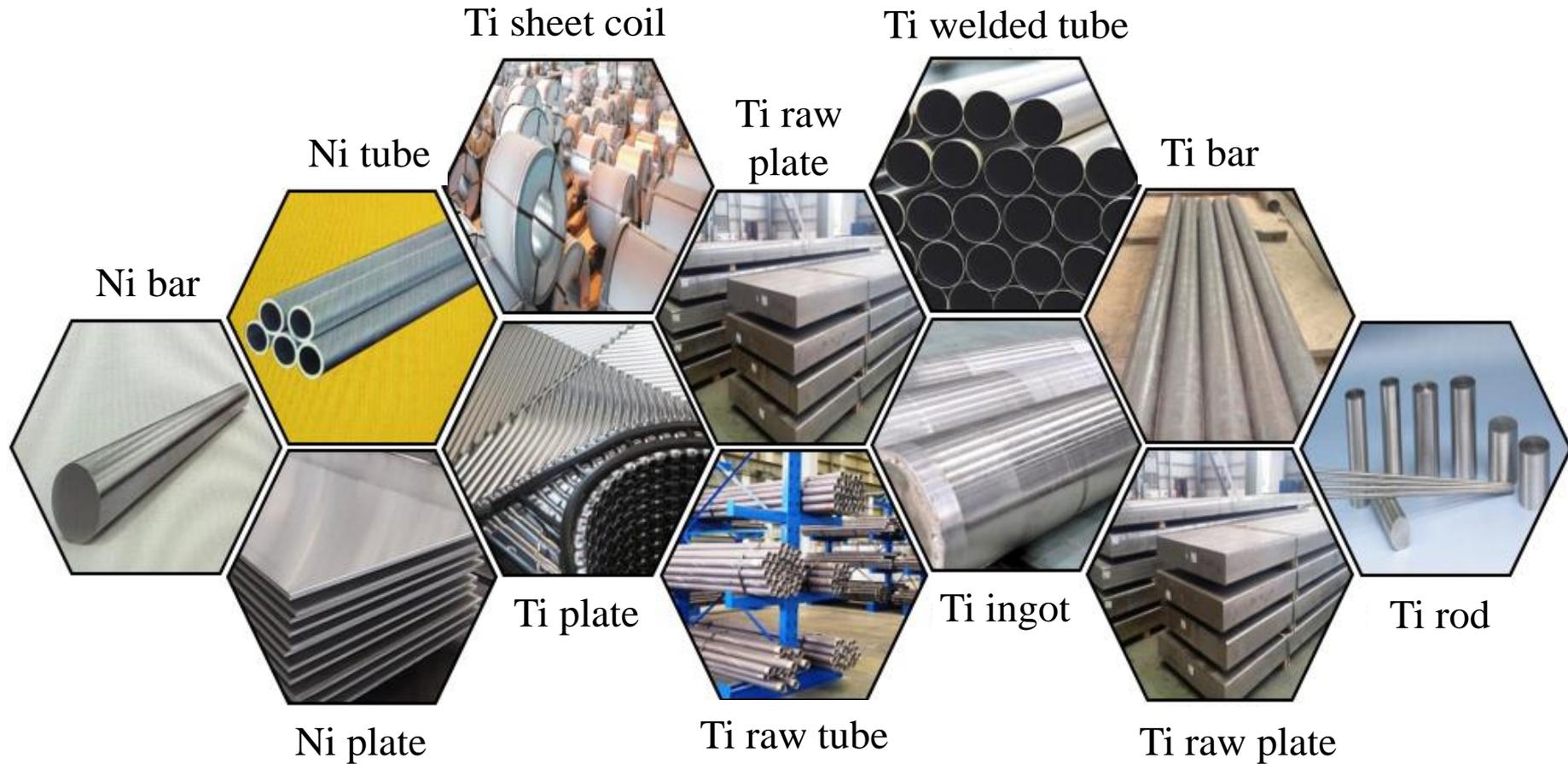


- CSPM was established in 2011. The company is located in Wujin Economic Development Zone, Changzhou City, Jiangsu Province, China. It is an important subsidiary of China Steel Corp. Group in the field of specialty alloys. The main shareholders of the company are listed on the right.
- CSPM mainly produces pure titanium, titanium alloys, and nickel-based alloy plates, pipes and other products, accounting for nearly 80% of the overall revenue.
- Due to the metal properties of titanium and nickel-based alloys, they are used in various fields, and the demand trend is growing year by year.

Shareholder	Holding ratio
China Steel Corp.	70%
Walsin Lihwa Co.	30%



# V. China Steel Precision Materials Co. -Products Mix





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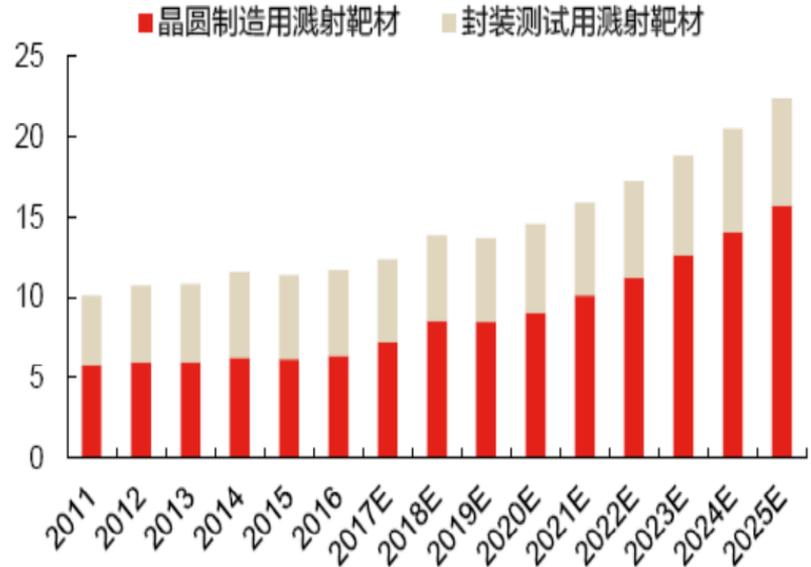
# V. China Steel Precision Materials Co. - Strategy Development and Synergy



單位:億美元

## ● Focus on the application of the semiconductor target market

- ✓ It is estimated that by 2025, the global semiconductor target market will reach 2.24 billion US dollars.
- ✓ Invest in the titanium purity refining process, develop the supply of high-purity titanium raw materials; further develop the market for titanium targets and nickel-based alloy targets.
- ✓ The specialty alloy substrate for panel-level fan-type packaging is a designated supplier approved by the technology transfer party, and is currently the exclusive supplier in the market.



## ● Expand the application field of new products

- ✓ Expand high-nickel alloy products in petrochemical industry, energy power, automotive market, and industrial steel fields.
- ✓ Developed the A286-S continuous casting roll sleeve product in the iron and steel industry.
- ✓ Develop 625 welding wire products for petrochemical industry and energy power.

## ● Circular economy synergy

- ✓ Recycling of residual target materials (transfer titanium waste from TTMC to CSPM fine materials to achieve a circular economy)
- ✓ Recycling of special alloys (alloy materials need to be replaced with low-cost recycled raw materials).



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# V. China Steel Precision Materials Co. - investment evaluation



Purpose

Benefit

Feasibility

Legality

Both TTMC and CSPM are companies that develop industrial materials within CSC Group. The two companies have a high degree of business relationship. The case facilitates the expansion and growth of the two companies, as well as consistent management strategies and resource sharing. The value of downstream vertical integration, through this case, will give the maximum synergistic effect of one plus one greater than two.

CSC can continue to assist TTMC in the management of fine materials in terms of finance, technology and management. In the future, TTMC can further grasp the source of raw materials, recycle and recycle resources to reduce costs, and optimize product mix from multiple angles to disperse operating risks and improve overall quality. Operational performance is conducive to strengthening the medium and long-term competitiveness.

TTMC's share capital is only NT\$735 million, while the value of 70% of CSPM's equity is about NT\$1.423 billion. In order to reduce TTMC's capital needs and borrowing pressure, planned to obtain the equity of through 50% share exchange and 50% of cash . The cash position can be raised through financing from banks.

In this case, an independent expert appointed by the audit committee will evaluate the rationality of the purchase price, propose the operation procedure to the board of directors for approval, and then submit it to the resolution of the shareholders' meeting. Everything will be implemented in accordance with the law.



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# VI. Conclusions



- ❑ **Target material and vapor deposition material for semiconductor process**
  - ✓ At present, the company is cooperating with major international manufacturers to produce semiconductor metal targets for 8-12-inch wafers, and has entered the trial production stage. After the relevant equipment is in place, it will be introduced into mass production. It is estimated that the revenue of semiconductor targets will grow by 20% this year, accounting for The proportion of the overall target material is estimated to reach more than 20% from 16%.
- ❑ **Advanced Specialty Alloy Applications**
  - ✓ TTMC and CSPM are both CSC group's specialty alloy manufacturing companies. In the future, through upstream and downstream integration, in addition to strengthening the synergy of TTMC' upstream and downstream connection of targets and special alloys, products can also be expanded In order to improve the overall operating performance and long-term competitiveness in the future application field, the company expects to complete the acquisition of 70% equity of CSPM before 2024Q1.



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Thank you all in attendance

Q&A

