



2025.11.25

法人說明會 Investor Conference

# 鑫科材料科技股份有限公司

ThinTech Materials Technology Co., Ltd.(TTMC)





# 議 程

- 致歡迎詞及團隊介紹  
Welcome speech and team introduction  
李建輝 董事長  
Chairman C.H. Lee
- 2025Q3營運現況  
2025Q3 Operation  
許銘璉 行政副總  
Adm. VP M.T. Hsu
- 重點產品與營運展望  
Product Highlights and operation outlook  
馮復安 總經理  
President F.A. Feng
- 提問與回答  
Questions and Answers  
經營團隊  
Management team



# 投資安全聲明

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



# 經營團隊 Management team



董事長  
Chairman



李建輝  
C.H. Lee

- 中鴻鋼鐵(股)公司行政副總經理  
VP of Adm., Chung Hung Steel Corporation
- 中龍鋼鐵(股)公司財務副總經理  
VP of Finance, Dragon Steel Corporation
- 越南中鋼住金(股)公司管理副總經理  
VP of Adm., Vietnam CSC & Sumitomo Metal Corporation

總經理 &  
中鋼精材董事長  
President &  
Chairman of CSPM



馮復安  
F.A. FENG

- 中鋼技術部門專案副處長  
Project Deputy General Manager, Technology Division, CSC
- 中鋼冶金技術處特殊合金品管組長  
Manager, Specialty Alloy Quality Control, Metallurgical Department, CSC

生產技術副總  
Vice President  
of Production  
Technology



林景扶  
Jeff Lin

- 工業技術研究院研究員  
Researcher, Industrial Technology Research Institute

行政管理副總  
Vice President of  
Administration



許銘璉  
M.T. Hsu

- 中鋼工業工程處 經營發展組組長  
Manager, Business Development Section, Industrial Engineering Department, CSC



# I. 關於鑫科(TTMC) Company Profile



<p>2000成立 <b>founded</b></p> <p>2006遷入高科園區 <b>move to KHH Science Park</b></p> <p>2012 上櫃 <b>TWSE OTC (3663)</b></p>	<p>Employers員工數(2025) 208(TTMC/TWN)鑫科 170(CSPM/China)精材</p> 	<p>Capital 資本額(2025) <b>US\$35.6M</b></p> <p>Revenue 合併營收 <b>US\$134.28M</b></p> <p>Major Holders 主要股東(2025) CSC Group 中鋼集團(51.38%) URECO 聯合再生(6.45%)</p>	 <p>QC/OHSMS品保/環安衛 ISO 9001 ISO 45001 ISO 14001 ISO 17025 IECQ-QC 080000 IATF 16949 AEO</p>
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**Location廠址**  
TTMC鑫科  
KHH Sci. Park1, Luke  
8th Rd., Lujhu District,  
Kaohsiung, TWN

**CSPM常州中鋼精材**  
(Changzhou, Jiangsu,  
China)

Plant area : 30,000m2 ;  
Phase 1 : 2 Building , 18000m<sup>2</sup> ,  
Phase 2 : 12000m<sup>2</sup> available

*Southern Taiwan Technology Corridor*



高科園區  
路科八路1號

**Main products 主要產品**

Sputtering Targets 濺鍍靶材	Other products 其他
<b>TFT LCD/Touch panel</b> (Flat/tube, Al, Mo, Cu, Ti)	<b>Biomedical composites</b> (BNCT moderator)
<b>Optical data storage</b> (ZnS, TRA-, TRB- series)	<b>Parts Cleaning</b> (Au, Ag...)
<b>Crystal Oscillators/ Passive component</b> (Ag, Ag-alloy series)	<b>Sputtering parts</b> (Taiko ring, sliding plate, FOPLP carrier...)
<b>Tool/Decoration</b> (Al, Cu, Ti, Ni-alloy series)	<b>Industrial Ni-base alloy</b> (Pickling hook, Furnace)
<b>Semiconductor</b> (Al-Cu, Ti, NiV, Ag, Au series)	<b>Ti-base alloy</b> (3C frame, Cu foil roller, roof, curtain wall )



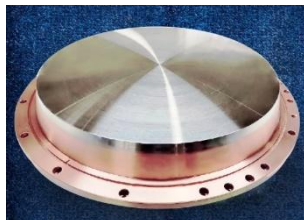
# I. 產品發展軌跡 Products Development Trace



- 鑫科早期(2000~2005)以光碟片用銀、鋁、介電靶起家；2006~2020則以面板為主，擴及裝飾鍍、被動元件及石英震盪用鋁、鉬、銅、鈦靶；2021~2023則開始發展半導體用靶材，策略為製程由後向前、尺寸由小至大、涵蓋純矽及化合物。2024也跨足鈦/鎳特殊合金及面板級扇外型封裝用Fe-Ni合金載板。
- Early(2000~2005) : Focus on Optical data storage (ODS) 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)
- Near(2021~2023) : Launch into semiconductor(SEMI) industry, strategy: process from back to front end, size from small to large, and application for both Si & compound semiconductor.
- Now(2024~) : Extend the application of Specialty Ti/Ni Alloys, such as FOPLP Fe-Ni carrier plate and Smartphone Ti frame.



半導體蒸鍍材  
Semi Slug



半導體靶材  
Semi target



光儲存媒體  
ODS



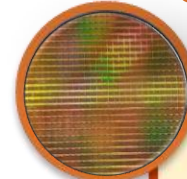
裝飾及被動元件  
DEC & PAC



面板  
Display



晶體振盪器  
OSC



半導體  
SEMI

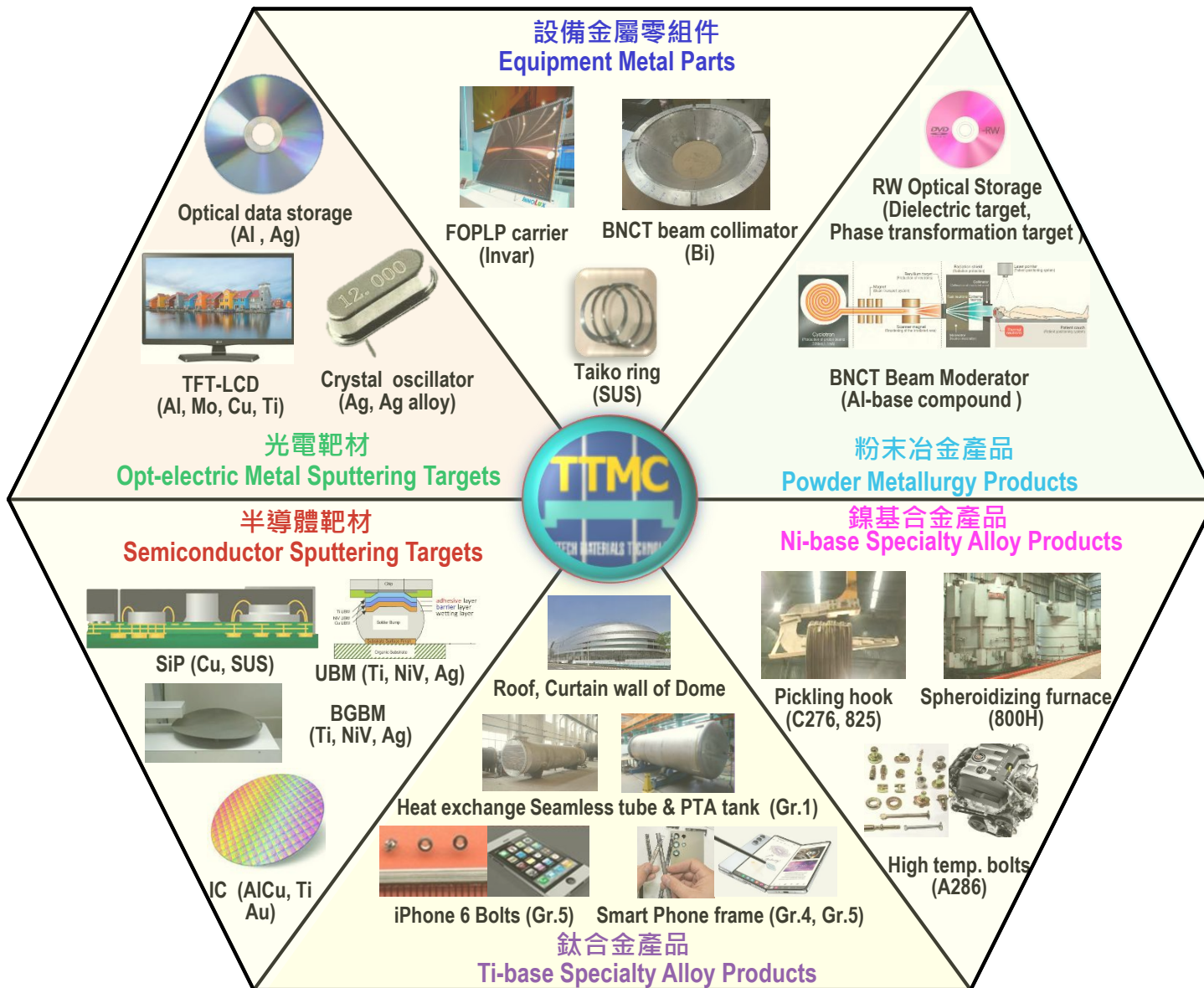


特殊合金  
Ti/Ni





# I. 鑫科產品組合 Product Mix of TTMC



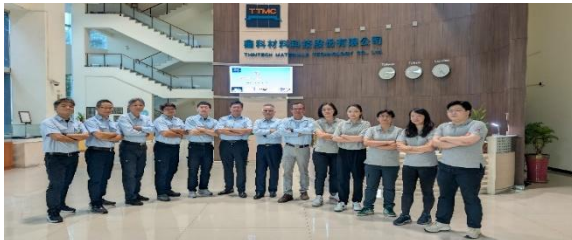


# I. 營運概況 Operational Overview



## -近期重要紀事 Recent important events

- 成為面板級扇外型封裝金屬載板之唯一技轉方認可供應商，2025年配合顧客需求，穩定出貨，Q3起新增2個客戶出貨，並延伸至晶圓載具產品。  
Became the only metal carrier supplier authorized by the technology transfer side for fan-out panel level packaging and fully met the required quantity from end user in 2025. Additionally, two new customers were added, and product line was extended to wafer carrier products.
- 榮獲TIRI 上櫃中小型股【2025第一屆 潛力進展獎】  
Honored with the TIRI Small & Mid Cap of TPEX companies 【2025 The 1<sup>st</sup> Potential Progress Award】
- 榮獲114年度【企業永續報告書揭露職業健康與安全績效主動評比】TOP 10% 績優企業  
Recognized as a TOP 10% Outstanding Enterprise in the 2025 【Corporate Sustainability Report Disclosure of Occupational Health and Safety Performance Voluntary Assessment】
- 榮獲114年【中華民國科技管理學會第二十七屆科技管理團隊獎】  
Honored with the 【27th Science and Technology Management Team Award】



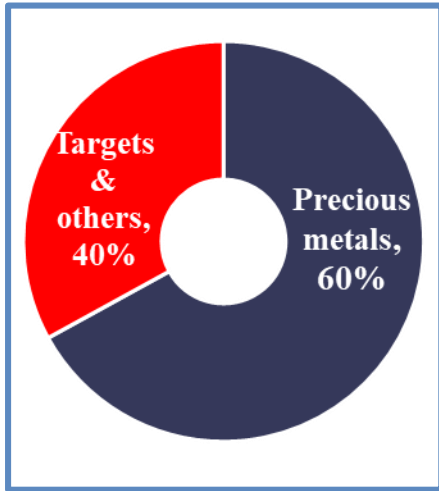


# I. 營運概況 Operational Overview

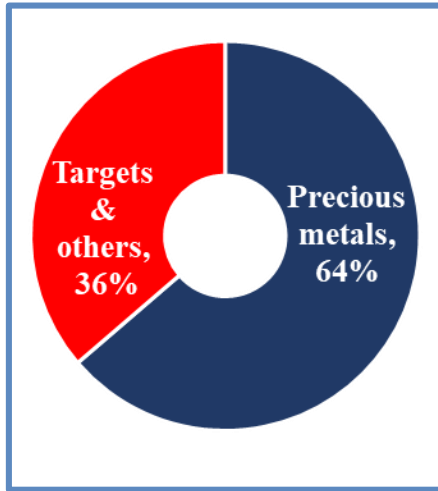
## - 產品營收比率 Sales Revenue Ratio by Product



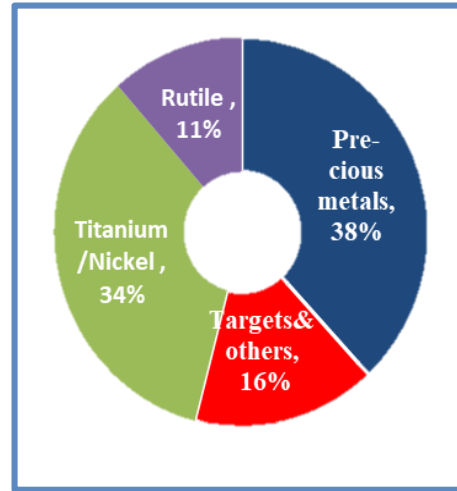
2022



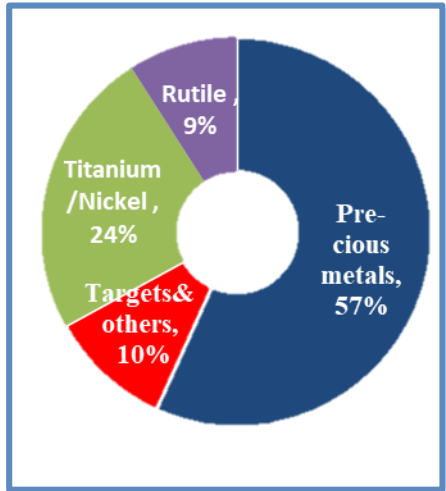
2023



2024



2025 Q3



去年(2024)併購中鋼精材，產品類別新增鈦鎳特殊合金，以多樣化產品為公司創造更多收益，促使貴金屬銷售量比重下降，惟2025Q3避險情緒高漲帶動貴金屬價量齊漲，致貴金屬比重較2024年增加。

Titanium and Ni-based specialty alloys were added to the product mix after the acquirement of CSPM in 2024Q2. Product diversification will contribute to higher revenue of the Company. However, high risk aversion in 2025Q3 drove up the price and volume of precious metals, resulting in an increase in the weighting of precious metals compared to 2024.



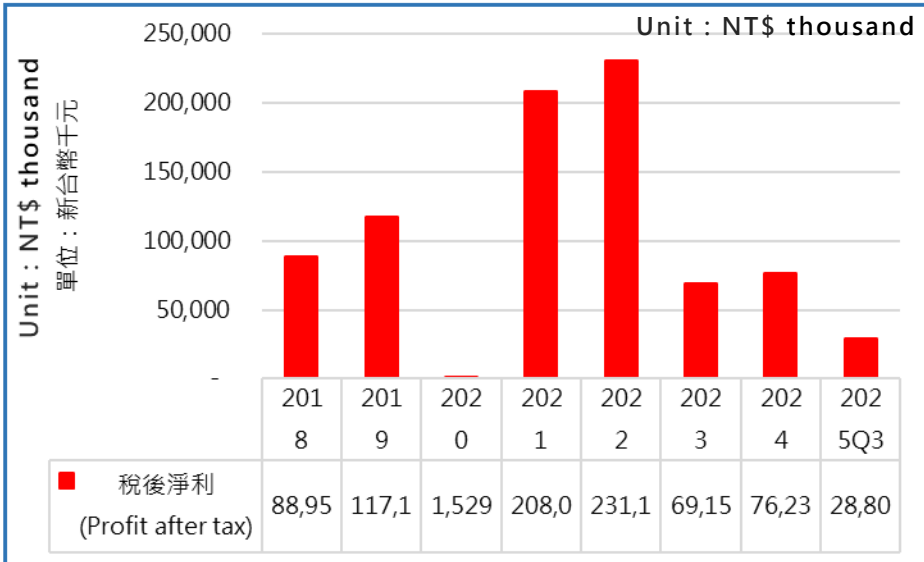
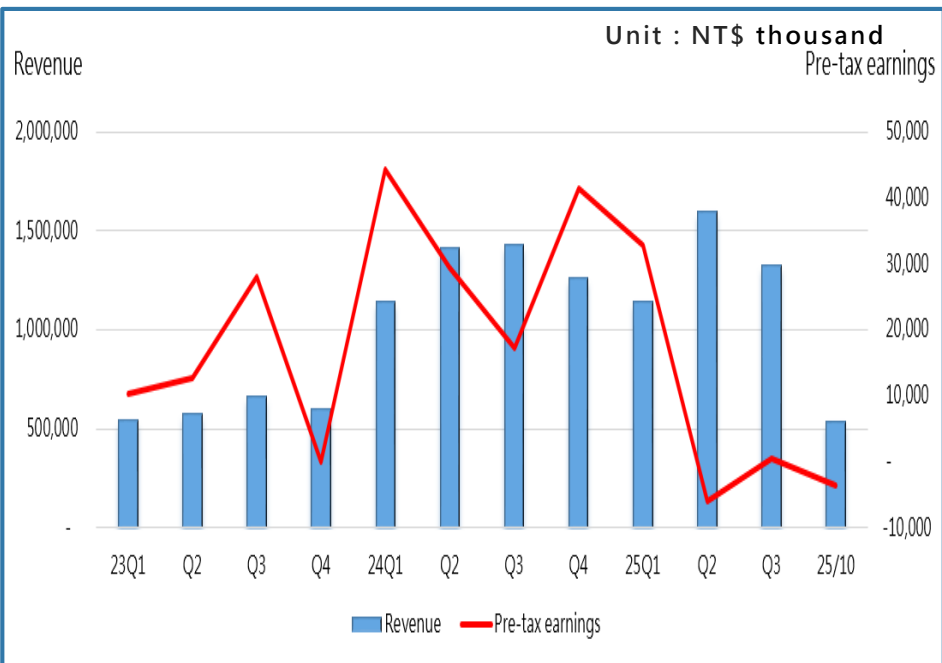
# I. 財務績效 Financial Performance



## - 合併營收及淨利 Consolidated revenue and earnings

鑫科材料 合併營收與稅前淨利  
TTMC Revenue and Pre-tax earnings

中鋼精材 稅後淨利  
CSPM Profit after tax



2025Q3營收新台幣4,088 百萬元；稅前淨利新台幣27百萬元。

2025/10月營收新台幣543百萬元。

2025Q3 Revenue : NTD 4,088 million ; Pre-tax earnings : NTD 27 million.

2025/10 Revenue : NTD 543 million.

2025Q3受關稅壁壘及中國整體市場消費力疲軟、原料供需失衡價格震盪，及競爭對手增加等影響，鈦、鎳產品市場行情持續走跌。當季稅後淨利新台幣28.8百萬元。

In Q3 2025, affected by tariff barriers, weak overall market consumption power in China, price volatility due to raw material supply and demand imbalance, and increased competition, the market price of titanium and nickel products continued to fall. Net profit after tax for the quarter was NT\$28.8 million.



# I. 中鋼精材整併 Mergement of CSPM -中鋼精材市況與發展 Market situation and development of CSPM



- ✓ 中國目前積極推動軍工、航太、新興綠能產業及半導體，高端應用需求蓬勃，但一般大宗民生鈦材產業如化工業，因內外部環境不佳，景氣預判趨向保守下行。地緣政治與關稅壁壘衍生外銷回流與需求不振，以及同業競爭，恐影響產品銷量與毛利。試圖透由增拓銷、固品質、增品項，適時調節庫存，抓取市場利基。

China is currently actively promoting military, aerospace, emerging green energy industries, and semiconductors, with burgeoning demand for high-end applications. However, in general bulk civil titanium material industries such as the chemical industry, due to poor internal and external environments, the economic outlook is trending toward conservative decline. Geopolitical factors and tariff barriers lead to export reflux and weak demand, as well as peer competition, which may affect product sales and gross profit. Attempts are being made to expand sales, solidify quality, increase product items, appropriately adjust inventory, and capture market niches.

- ✓ 為拓展產品品項經2024年底透過上下游資源整合，及鑫科技術挹注，成功建立新靶材精加工線。並於2025年1月正式接單生產，擴大業務量，增加營收與獲利。

To expand the CSPM product range through upstream and downstream resource integration at the end of 2024, and with the injection of TTMC Technology's expertise, a new sputtering target finishing line was successfully established. Orders were officially accepted for production in January 2025 to expand business volume and increase revenue and profit.



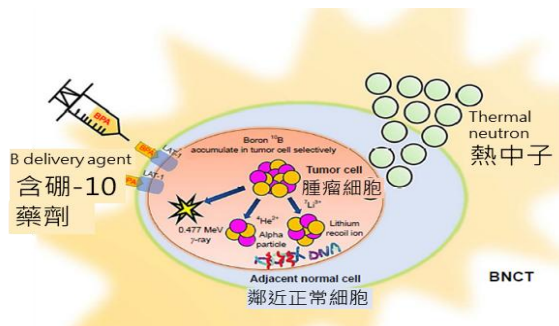
## -生醫材料 Biomedical materials

- ✓ 加速器型BNCT硼中子捕獲治療是利用低能量熱中子殺死腫瘤細胞卻又不嚴重影響正常組織細胞。為得到熱中子，加速器生成之高能中子需經調節器減速，中子調節器是由數種鋁基複合材料組合而成，鑫科獨家供應此調節器用生醫材料。

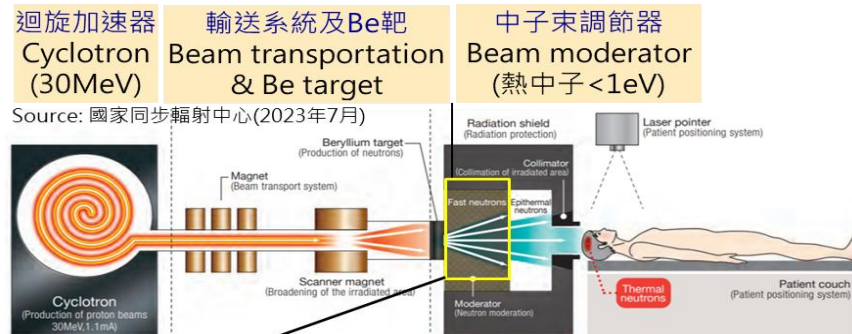
AB-Boron neutron capture therapy (BNCT) adopts the low energy thermal neutron (< 1eV) to kill tumor cells rather than normal cells. The high energy neutron must be deaccelerated through a moderator to get the thermal neutron. The moderator is mainly composed of various Al-base compounds, which are exclusively supplied by TTMC.

- ✓ 設備已於2024年啟用，陸續取得相關證照等；2025年已取得第二套設備(鋁基複材)訂單，預計可再取得第三套訂單。

The equipment has enabled in 2024, and the relevant certificates and licenses are also obtained. Second equipment(AB-BNCT) has been ordered in 2025 and a third equipment order is expected



Source: 科儀新知 · 第236期(2023年9月)



Neutron moderator is composed of Al-base compounds



## II. 重點產品 Product Highlights



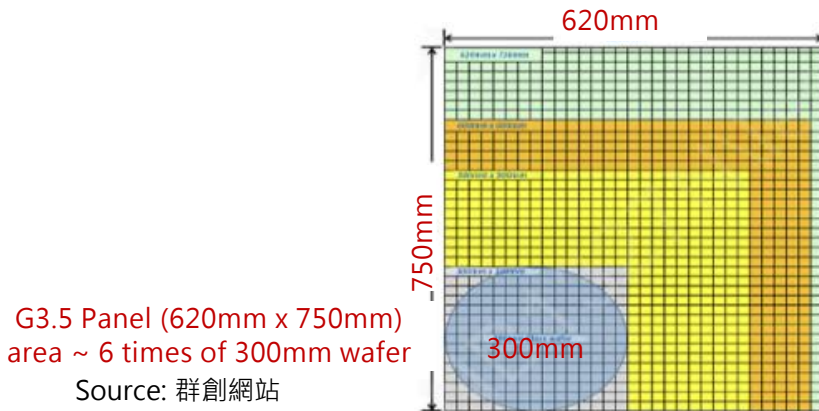
### - 面板級扇外型封裝載板 FOPLP Carrier

- ✓ 面板級扇外型封裝比晶圓級扇外型具更高載板利用率及更大面積。鑫科成功開發與樹脂熱膨脹匹配之大尺寸金屬載板(700mmx700mm)，滿足FOPLP製程嚴苛需求。為解決/提高客戶利用率與產品良率，持續進行製程精進；於2024-2025年配合顧客需求，協助重工延伸使用壽命，並穩定出貨。

FOPLP is superior to FOWLP in terms of higher carrier utilization ratio and more space for dies. A dedicated alloy carriers with size up to 700mmx 700mm featuring similar CTE to EMC are supplied to meet the severe requirement of FOPLP carrier. To address and improve the utilization and yield of product, the manufacturing process is continuously refined and fully met the required quantity and helping heavy industry extend service life from end user in 2025.

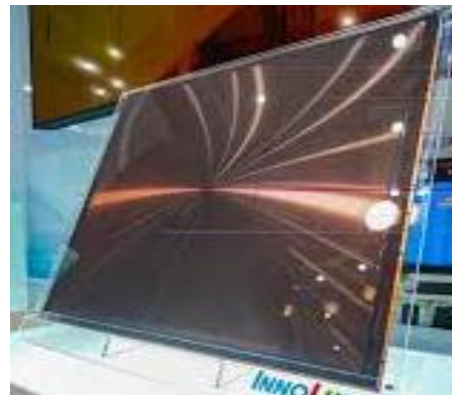
- ✓ 2025年持續穩定出貨，並推廣歐美大廠。

In 2025, the metal carrier plate is not only stable shipments, but also continuously promote to European and American customer.



G3.5 Panel (620mm x 750mm)  
area ~ 6 times of 300mm wafer

Source: 群創網站



World largest FOPLP (700mm x 700mm)  
area ~ 7 times of 300mm wafer

Source:三立新聞網(2023年9月)



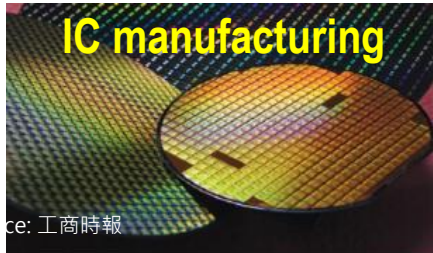
## II. 重點產品 Product Highlights

### - 半導體金屬靶材/蒸鍍材 SEMI Metals Targets/Slugs



- ✓ 先進IC生產製程分成前段-IC製造、中段-晶圓減薄、後段-IC封裝。

The advanced IC manufacturing process can be divided into three stages: front-end (FEOL)- IC manufacturing, Middle-end (MEOL) - wafer thinning, and back end (BEOL)- IC packaging.



- ✓ 半導體靶材及蒸鍍材銷售量及客戶數逐步增加，預估今年銷售額可較去年成長20%，客戶數由11家(2020)增至40家(2025Q3)。

The proportion of targets and evaporation materials used for semiconductor users and the number of customers are gradually increasing. Sales are expected to increase by 20% this year compared to last year and the number of customers has also grown from 11 to 40.

- ✓ 半導體應用由純矽跨足二、三類化合物。材料種類包括後段封裝用Cu, SUS, Ti，中段晶圓減薄用Ti, Ni-V, Ag，前段IC製造用Ag, Au, Al-Si，和光洋科以銅及鎳白金靶為主，有所區隔。

In addition to first-generation silicon semiconductors, it is also advancing into the field of second- and third-generation compound semiconductors. Its application areas include back-end packaging (Cu target, SUS target, Ti target), mid-end wafer thinning (Ti target, NiV target, Ag target) and front-end IC manufacturing (Ag target, Au target, Al-Si target), which is distinguished from the Cu alloy targets and Ni-Pt target of Solar Applied Materials Co.

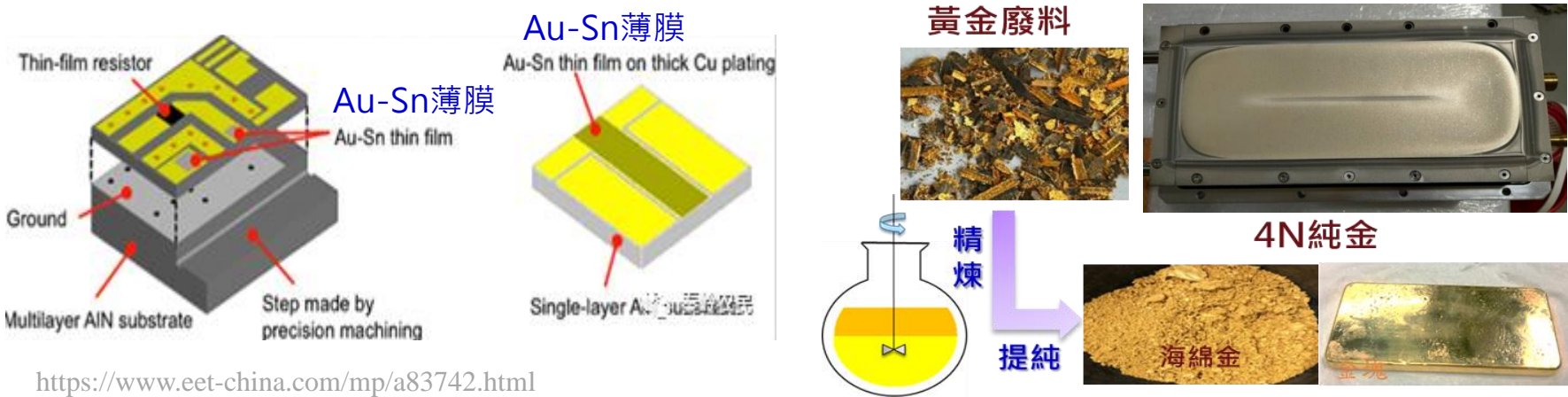
## -半導體金屬靶材/Au-Sn

- ✓ 為求提高恆溫的能力及散熱的效率等封裝品質，封裝的軟焊製程極為關鍵；為提升產品的使用壽命、可靠度，已廣泛採用Au-Sn合金作為電子封裝的焊料。

To improve the quality of the package, such as the ability to maintain constant temperature and the efficiency of heat dissipation, the soft soldering process of the package is the key. To enhance the lifetime and stability of ICs, AuSn alloy has been widely used as electronic packaging solder.

- ✓ 因Au-Sn靶材易脆難以熱機加工，鑫科成功開發專利特殊動態澆鑄製程來產製此靶材，其顯微組織細緻且均勻，已於客戶端完成初期上機驗證，進行產品驗證。另也建立貴金屬回收再生技術

Since Au-Sn target is quite brittle, it is hard to be thermomechanical processed. TTMC has successfully developed a patented special dynamic casting process to produce Au-Sn target with uniform and fine microstructure. The related validation of Au-Sn sputtering target is ongoing. In addition, the recycling and reusing process of Au-Sn scrap target has been established.



<https://www.eet-china.com/mp/a83742.html>



## II. 重點產品 Product Highlights



### - 循環經濟企業社會責任/Circular Economy (Corporate Social Responsibility)

- ✓ 循環經濟的新商業模式不僅關乎廢棄物回收與再利用，更涵蓋創新商業模式的發展，包括節能與資源回收，以及產品壽命延長等面向。

The new business model of the circular economy is not just about the waste recycling and reuse, but also the development of innovative business models, including energy-saving and resource recovery and product life extension.

- ✓ 鑫科於循環經濟已進行多年，於貴金屬、殘靶等等，皆進行相關製程規劃。政策包含資源回收、循環供應、壽命延長等等。材料部分則由貴金屬-銀金，持續擴展鈦銅等金屬。

TTMC has been engaged in circular economy initiatives for many years, implementing relevant process design for precious metals, and used sputtering targets. The policy of circular economy is resource recovery, circular supply chains, and extended lifecycle management. The materials of circular economy are expand metals silver, gold, titanium and copper.





# III. 特殊合金商機 Opportunity of Specialty Alloy

## -鈦材業務開拓 Open up Ti-related business



- ✓ 中鋼精材研製成功原僅日本才能製作銲接型銅箔陰極鈦輥，已完成示範線生產設備安裝，並於2025年第二季產出首捲，性能測試合格，預計最快2026第一季完成產品驗證，隔季開始量產。

CSPM has successfully developed welded titanium rollers used as copper foil cathode, which previously can only be produced in Japan. The demonstration line production equipment installation has been completed, and the first coil was produced in the second quarter of 2025. Performance tests have passed, and product verification is expected to be completed as early as the first quarter of 2026, with mass production starting the following quarter.



銅箔陰極鈦輥

Ti Roller used as  
Cu Foil Cathode

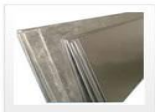


# III. 特殊合金商機 Opportunity of Specialty Alloy



- ✓ 中鋼精材技術純熟且良好服務，產品廣泛用於中國化工、機械、石化與核能等產業，然受原料價格下行與市場需求不振，為擴大業務量，積極開發半導體先進製程與3C等產業所需高值鎳基合金如C276極薄捲、抗高溫氧化合金與低膨脹鐵鎳合金(INVAR系產品)與新利基型半導體靶材(Ni-Cr)等產品開發，挹注公司運營。

CSPM possesses mature technology and excellent service. Its products are widely used in chemical, machinery, petrochemical, and nuclear energy industries in China. However, due to falling raw material prices and weak market demand, to expand business volume, the company is actively developing high-value nickel-based alloys needed for semiconductor advanced processes and 3C industries, such as ultra-thin C276 coils, high-temperature oxidation resistant alloys, low expansion iron-nickel alloys (INVAR series products), and new niche semiconductor sputtering targets (Ni-Cr) product development to inject capital into the company's operations.





# III. 營運展望 Operation Outlook



- 2026光電靶材需求在市場競爭與全球經濟仍待復甦下，出貨持平或微幅成長  
In 2026, the demand for optoelectronic targets will remain flat or increase slightly amid market competition and the global economy still waiting to recover
- 持續推廣半導體應用產品及拓展新客戶，成長潛力大，並積極與戰略合作夥伴拓展市場  
Continue to promote semiconductor application products and expand new customers, with great growth potential, and actively expand the market with strategic partners
- 面板級扇外型封裝載板除拓展更多產品應用，2026歐美兩大客戶均有新產線設置，可帶動新一波需求，且鑫科已建置完整生產線，提供優質且具成本優勢之產品  
In addition to expanding more product applications, two major customers in Europe and the United States will have new production lines in 2026, which can drive a new wave of demand. TTMC has built a complete production line to provide high-quality and cost-effective products



# III. 營運展望 Operation Outlook



- 持續擴大貴金屬零件洗淨規模及靶材回收再利用業務  
Continue to expand the scale of precious metal parts cleaning and target recycling and reuse business
- 多項國防與低軌衛星材料，品質已獲得客戶認可，可望逐年放量。  
The quality of a number of defense and low-orbit satellite materials has been recognized by customers and is expected to be increased year by year.
- 中鋼精材2026年將有多項鈦、鎳新產品上線，且完成110KV變電站設置，解決未來二期建設規劃用電問題，另外在半導體靶材的新業務也取得多家客戶認證，亦是未來新業務推動重點

In 2026, China Steel Precision Materials will launch a number of new titanium and nickel products, and complete the installation of 110KV substations to solve the problem of planned electricity consumption in the second phase of future construction. In addition, the new business of semiconductor targets has also obtained multiple customer certifications, which is also the focus of new business promotion in the future

# Thanks for Your Attention



## New Vision Of Materials Application