

MA-tek (3587. TWO) IR Conference

Diversification & Globalization

超前布局

ROE Maximization

追求獲利

2024/09/19

閎康科技

Materials Analysis Technology Inc.



Safe Harbor Notice

- 1 MA-tek' s statements of its current expectations are forward-looking statements subject to significant risks and uncertainties and actual results may differ materially from those contained in the forward-looking statements.
- 2 Information as to those factors that could cause actual results to vary can be found in MA-tek' s Annual Report and such other documents as MA-tek may file with, or submit to, the Taipei Exchange from time on time.
- 3 Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events, or otherwise.

2024 H1 FINANCIAL REVIEW



Go Global to Maximize ROE

2020

- 榮獲《天下雜誌》快速成長百強企業。
- 通過德國聯邦資訊安全局 (BSI) ISO/IEC 15408 CC EAL6 資訊安全現場認證。

2021

- 謝詠芬董事長榮獲《哈佛商業評論》台灣最佳女性 CEO。
- 通過 2021 年臺灣智慧財產管理制度 TIPS A 級驗證。
- 謝詠芬董事長榮獲潘文淵基金會 ERSO Award 獎項。



2023

- 英國《金融時報》發布 2023 亞太地區高成長企業排名，共 500家企業入榜，台灣占 15 家，閎康科技榮譽入榜。
- 閎康科技董事長謝詠芬榮獲《哈佛商業評論》2023 台灣最佳上市櫃女性 CEO 30 強。
- 獲頒 2022 年經濟部 TIPS 智財管理 A 級證書。
- 榮獲第17 屆 (APEA) 傑出企業獎、卓越企業領袖獎。

2024

- 榮獲2024外資精選台灣100強 Taiwan FINI 100。
- 榮獲2024年《富比士》亞洲最佳中小企業。
- 榮獲納入 MSCI 全球中小型指數成份股。

2020

2021

2022

2023

2024

2022

- 通過 2022 年智財揭露與揭露制度輔導審查。
- 上海閎康榮獲「浦東研發機構」、「上海專精特新企業」雙重認定。
- 榮獲新竹北區國稅局 111 年度電子發票績優營業人。



Global Manufacturing Market Trend



North America & Europe
Dominate Equipment & Material
Wafer fabrication rely on Asia

Europe – Chips Act (€43 Billion)
USA – Chips Act (\$52 Billion)



Asia

Asia Dominates Foundry & OSAT

Korea – K-Semiconductor Belt Strategy

Japan – National Project (Rapidus)

China – Made in China 2025

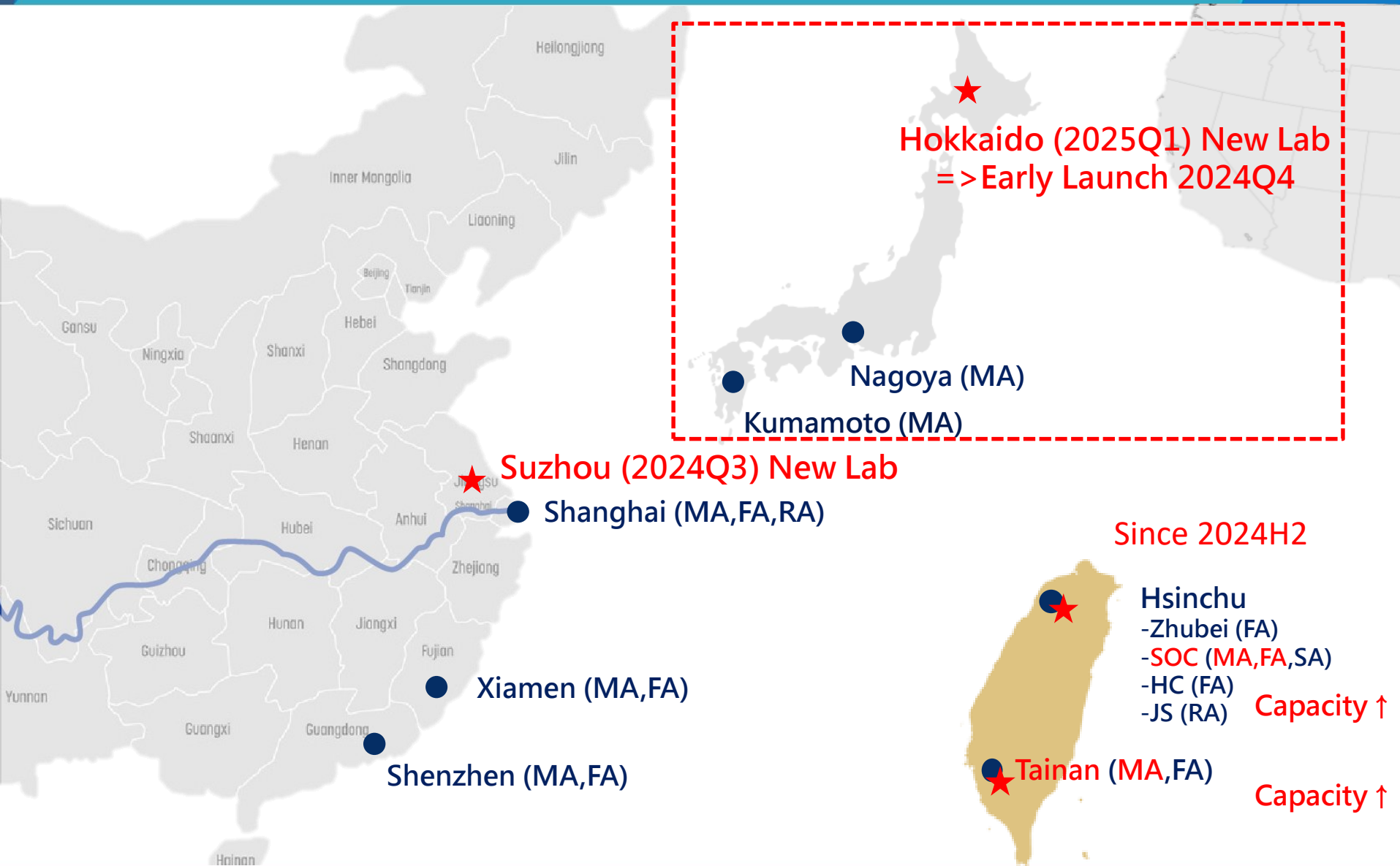
Taiwan – Chip Act

MA-tek Following the
"Global Expansion" Strategy

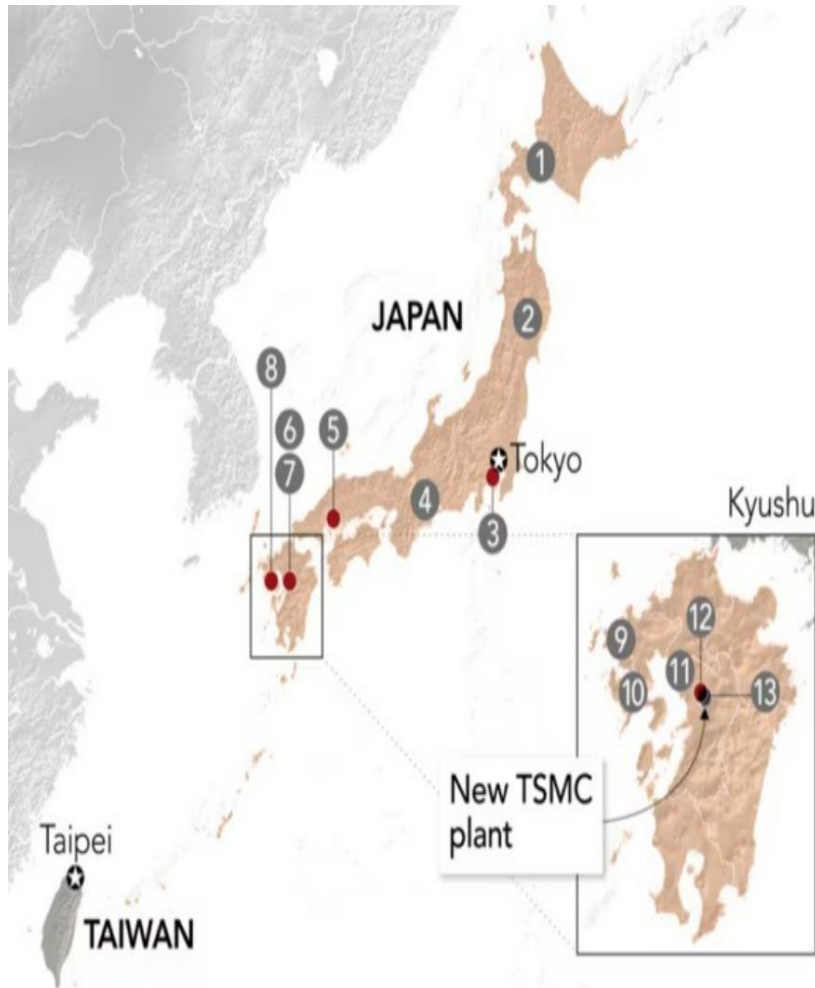
2024H2 ~ 2025 Outlook - Taiwan



2024H2 ~ 2025 Outlook - Japan



Global Market - Japan

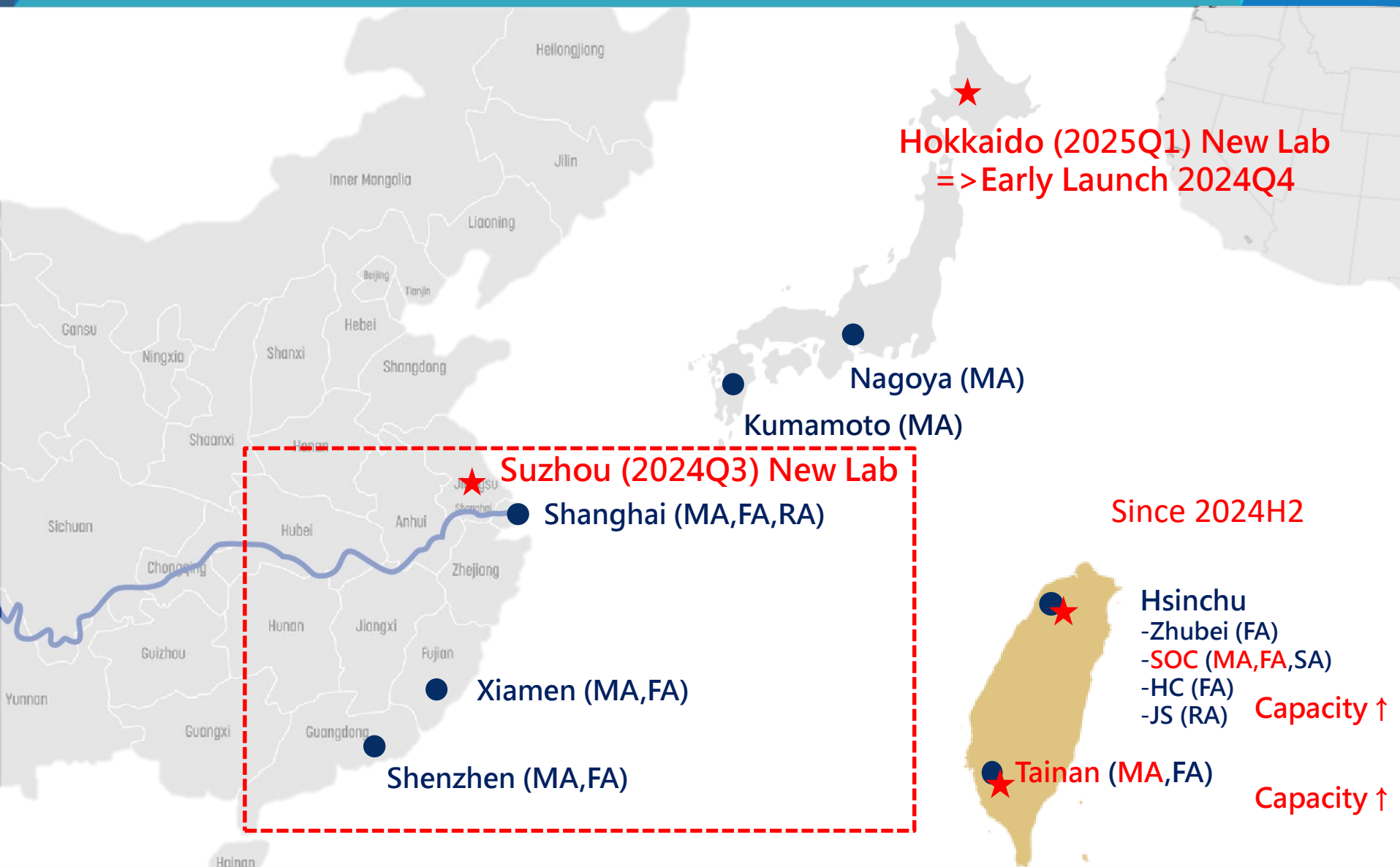


Recent Major Chip Investments in Japan

	Foreign	Company (Announced)	Sector	Investment
Chipmakers	①	Rapidus (2022)	Logic	\$33 billion*
	⑥	TSMC (2021)	Logic	\$20 billion**
	⑦ ⑧	Sony Group (2021)	Sensors	Undisclosed
	② ④	Kioxia†/ Western Digital (2024)	Memory	\$4.9 billion (Combined)
	⑤	Micron (2023)	Memory	\$3.7 billion
	③	Samsung (2023)	R&D	\$280 million
Domestic suppliers	⑨ ⑩	Sumco (2021)	Materials	
	⑪	Ebara (2022)	Equipment	
	⑫	Tokyo Electron (2022)	Equipment††	
	⑬	Tokyo Ohka Kogyo (2023)	Materials	

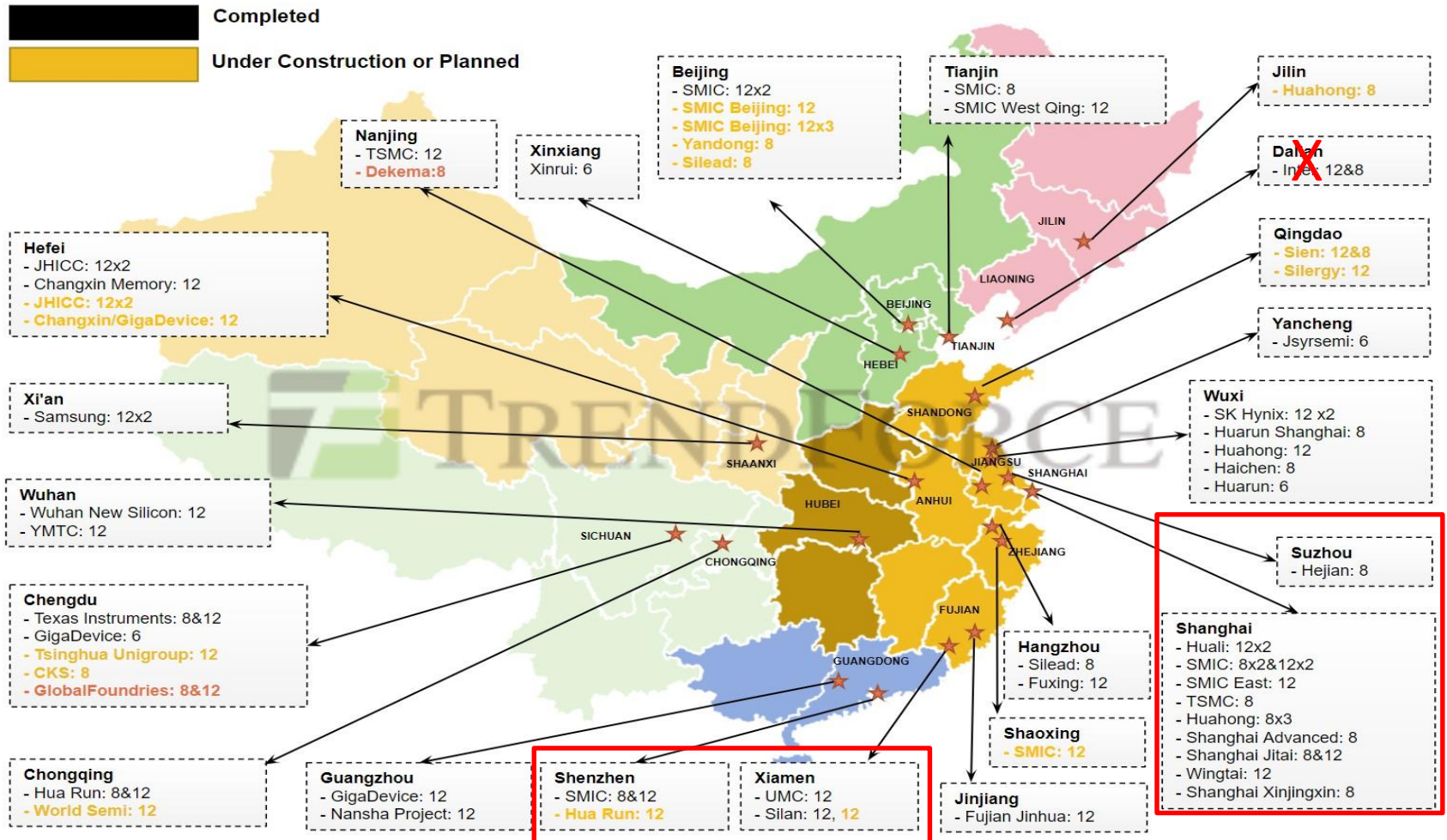
Source : Nikkei Asia

2024H2 ~ 2025 Outlook - China



Global Market - China

High Demand of RD & Testing in China Semiconductor Market



Source : Trendforce

ESG – Continuous Long-term Efforts

閎康 (3587TT / 3587.TW)

GICS 產業別：Professional & Commercial Services

證交所產業類：其他電子業

SASB 產業別：Professional & Commercial Services

ESG 評等摘要

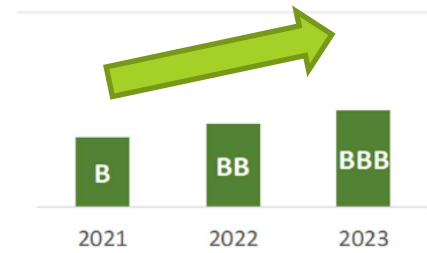
最新 ESG 評等 (最近更新日期: 2024 年 1 月 2 日)

上市櫃ESG評等 ¹ :	經濟 (E)	環境 (E)	社會 (S)	揭露 (D)
BBB	31-50%	51-70%	31-50%	31-50%

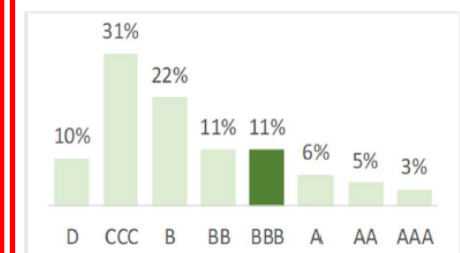
資料來源：國立臺北大學企業永續發展研究中心，國泰證期研究部整理。

註 1：AAA 表示所有受評鑑公司標準化後總分的前 5%；AA-BBB 表示 5-42.5%；BB-CCC 表示 42.5-95%；D 表示 95-100%。根據永續報告書(2022 年版)與公開資訊進行企業永續績效評鑑，2023 年評鑑之上市櫃公司共有 864 家。

ESG 評等歷史紀錄



服務業 236 家 ESG 評等分布情形



資料來源：國立臺北大學企業永續發展研究中心，國泰證期研究部整理



本 ESG 分析報告同時考量 SASB 重大議題，此產業 SASB 重大議題如下，詳細分析內容請見「[經濟\(E\)、環境\(E\)、社會\(S\)及揭露\(D\)各構面之分析](#)」



Caring for Disabled Groups



Local Support



Charity Donation



Support of Diversified Education



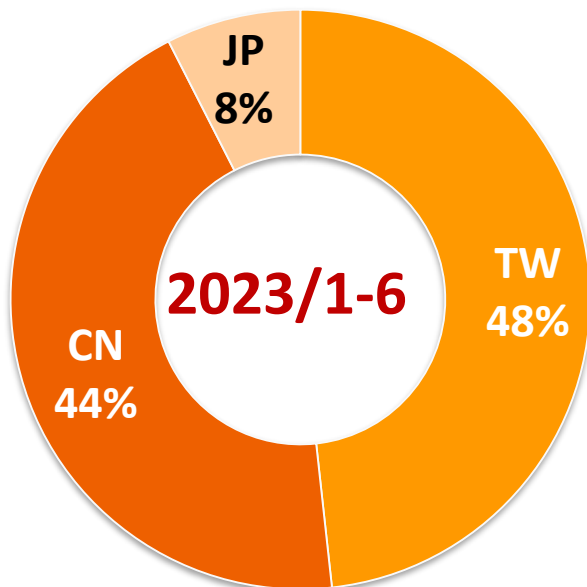
Industry-Academia Cooperation



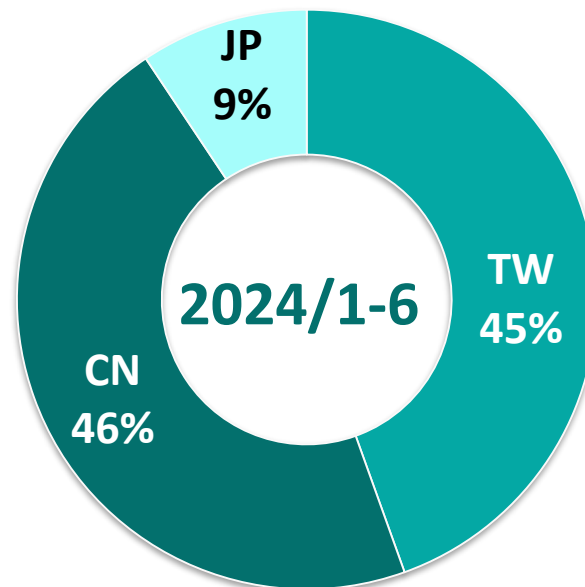
Y2024 H1 Revenue YoY + 5%

Revenue comes from **higher Margin Market**

Unit : NT\$K



2023/1-6	
Taiwan	1,136,435
China	1,041,587
Japan	176,890
Consolidated	2,354,912

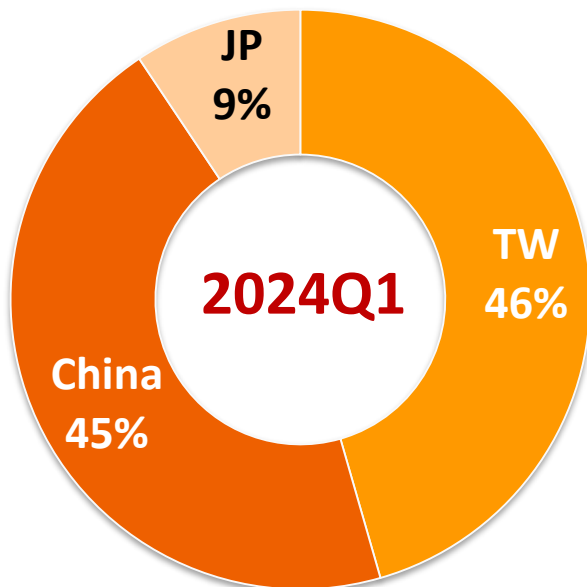


2024/1-6		
Taiwan	1,101,468	-3%
China	1,140,852	+10%
Japan	231,893	+31%
Consolidated	2,474,213	+5%

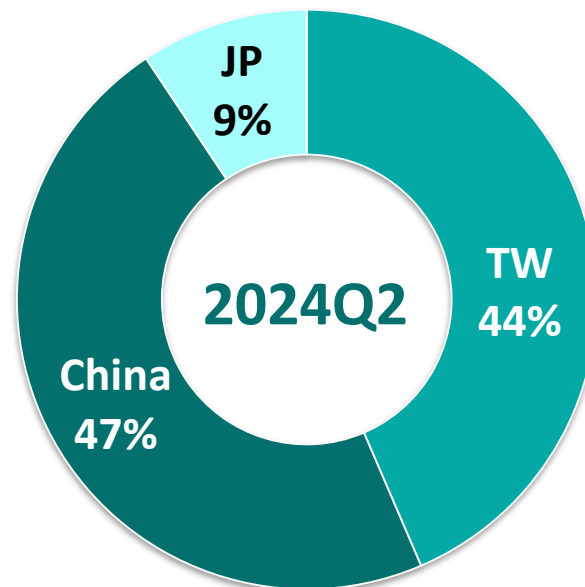
Y2024 Q2 vs. Q1 Revenue QoQ + 5%

Revenue comes from **higher Margin Market**

Unit : NT\$K



2024Q1	
Taiwan	549,053
China	543,408
Japan	113,155
Consolidated	1,205,616



2024Q2		
Taiwan	552,415	+1%
China	597,444	+10%
Japan	118,738	+5%
Consolidated	1,268,597	+5%

Consolidated Income Statement -2024H1 vs. 2023H1

Unit: NT\$K

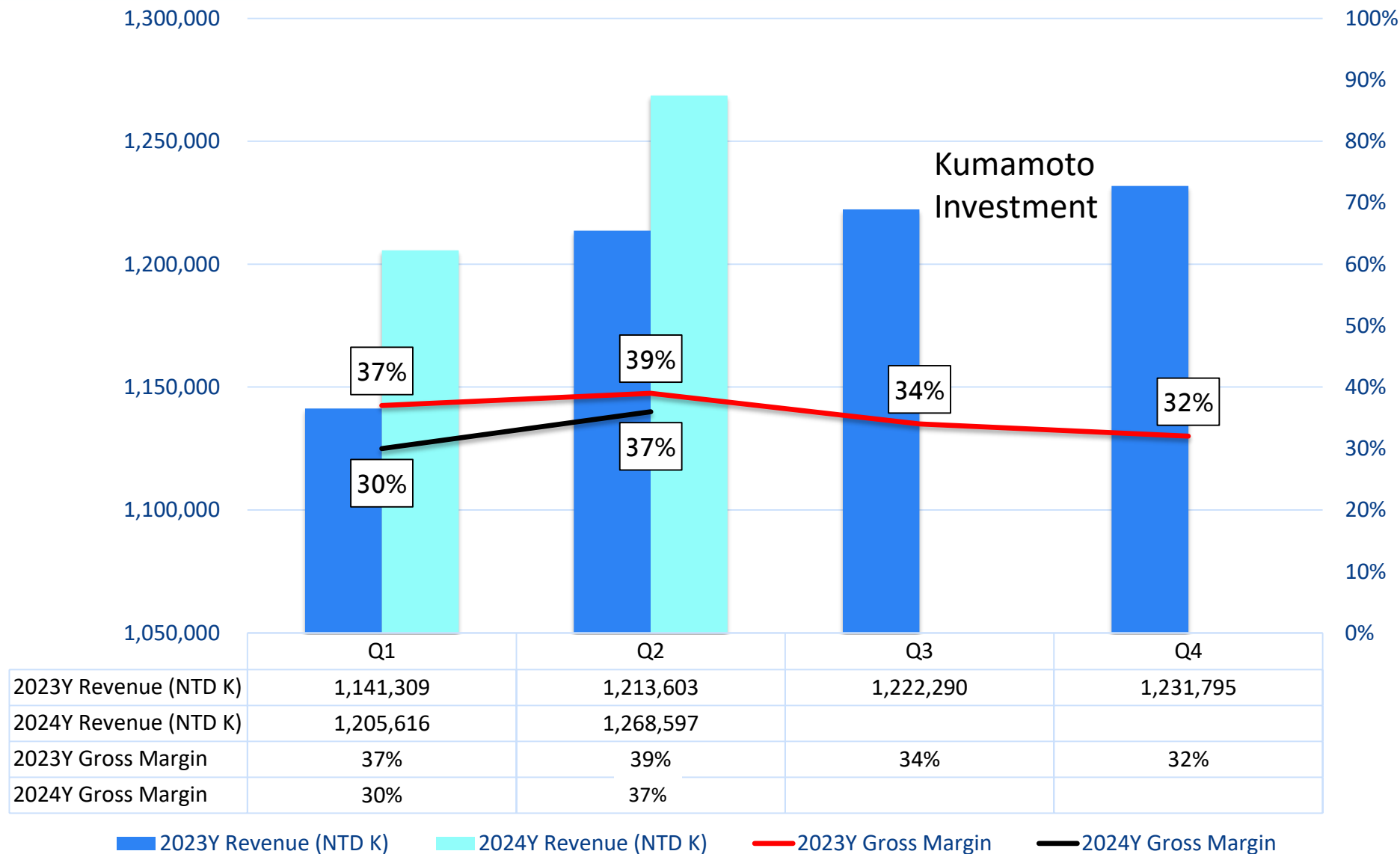
	2024/1-6	%	2023/1-6	%	Diff	Diff%
Revenue	2,474,213	100%	2,354,912	100%	119,301	5%
Operating Cost	1,648,630	67%	1,461,794	62%	186,836	13%
Gross Margin	825,583	33%	893,118	38%	(67,535)	-8%
Operating Expenses	433,183	18%	443,438	19%	(10,255)	-2%
Selling Expenses	110,679	4%	110,794	5%	(115)	0%
Administration Expenses	199,863	8%	182,915	8%	16,948	9%
R&D Expenses	142,038	6%	137,224	6%	4,814	4%
Reversal of expected credit loss	(19,397)	-1%	12,505	1%	(31,902)	-255%
Operating Income	392,400	16%	449,680	19%	(57,280)	-13%
Non-operating Income (Expenses)	17,148	1%	8,605	0%	8,543	99%
Income before Tax	409,548	17%	458,285	19%	(48,737)	-11%
Tax	(52,207)	-2%	(99,889)	-4%	(47,682)	-48%
Net Income	357,341	14%	358,396	15%	(1,055)	0%
Profit (loss), attributable to:						
Profit (loss), attributable to owners of parent	357,341	14%	358,396	15%	(1,055)	0%
EPS	5.41		5.81		(0.40)	

Consolidated Income Statement -2024Q2 vs. 2024Q1

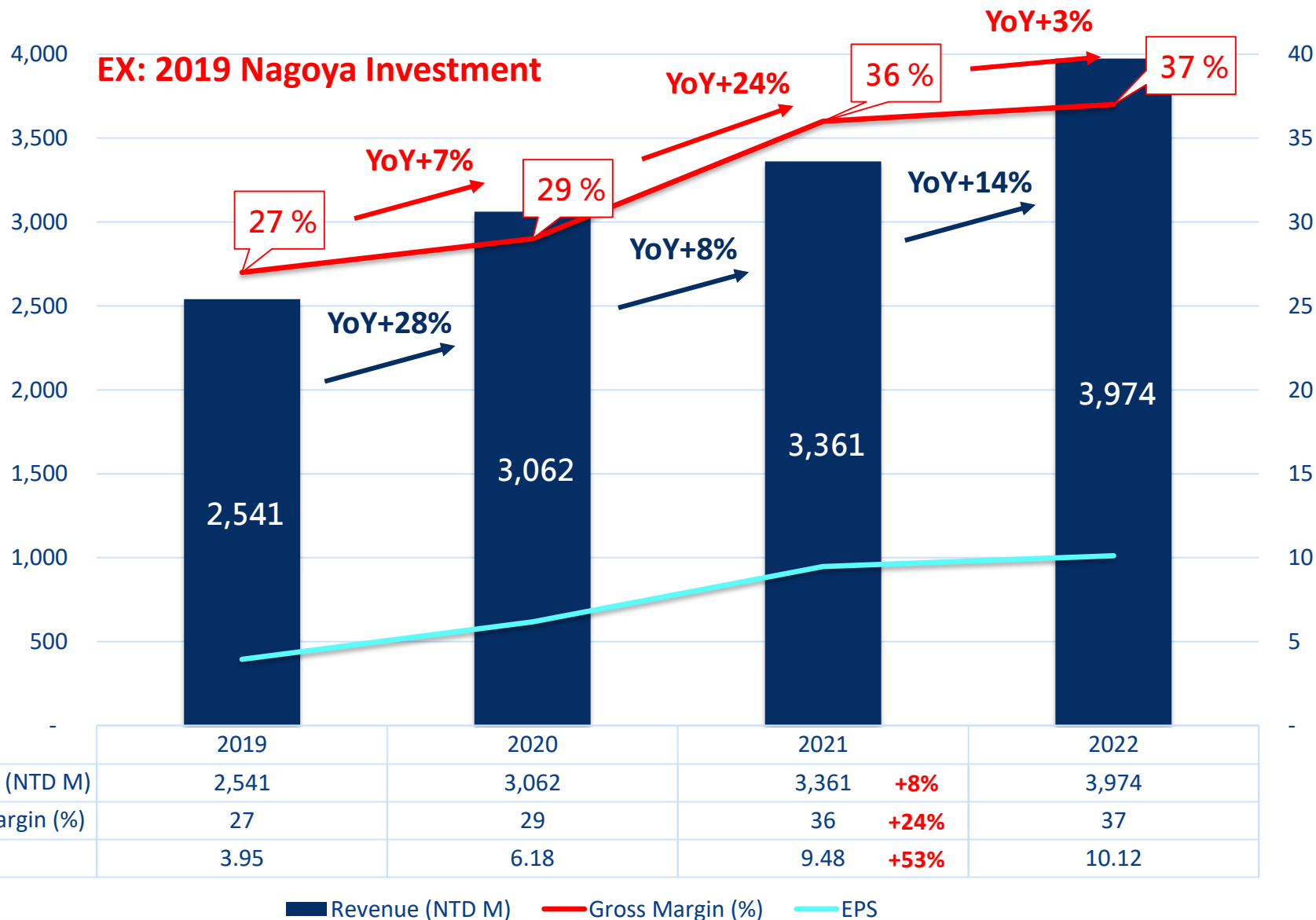
Unit: NT\$K

	2024Q2	%	2024Q1	%	Diff.	Diff%
Revenue	1,268,597	100%	1,205,616	100%	62,981	5%
Operating Cost	805,437	63%	843,193	70%	(37,756)	-4%
Gross Margin	463,160	37%	362,423	30%	100,737	28%
Operating Expenses	229,323	18%	203,860	17%	25,463	12%
Selling Expenses	55,334	4%	55,345	5%	(11)	0%
Administration Expenses	102,776	8%	97,087	8%	5,689	6%
R&D Expenses	77,074	6%	64,964	5%	12,110	19%
Reversal of expected credit loss	(5,861)	0%	(13,536)	-1%	7,675	100%
Operating Income	233,837	18%	158,563	13%	75,274	47%
Non-operating Income (Expenses)	(349)	0%	17,497	1%	(17,846)	-102%
Income before Tax	233,488	18%	176,060	15%	57,428	33%
Tax	(14,937)	-1%	(37,270)	-3%	(22,333)	-60%
Net Income	218,551	17%	138,790	12%	79,761	57%
Profit (loss), attributable to:						
Profit (loss), attributable to owners of parent	218,551	17%	138,790	12%	79,761	57%
EPS	3.30		2.11			

Revenue & Margin Trend from 2023Q1

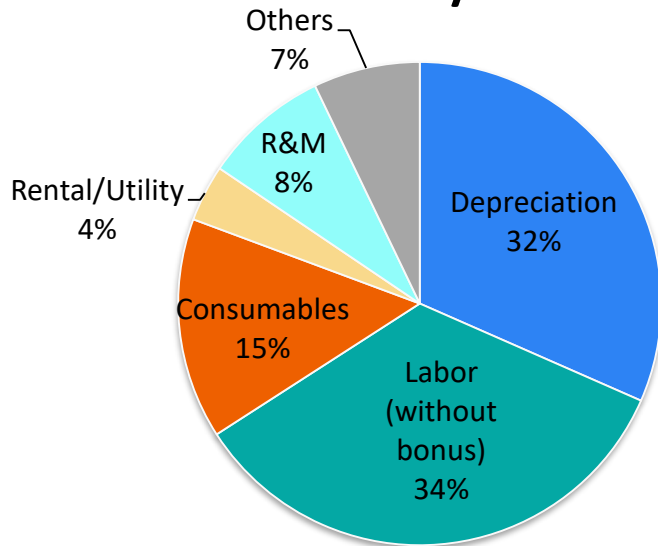


Revenue & Margin Trend from 2018Y

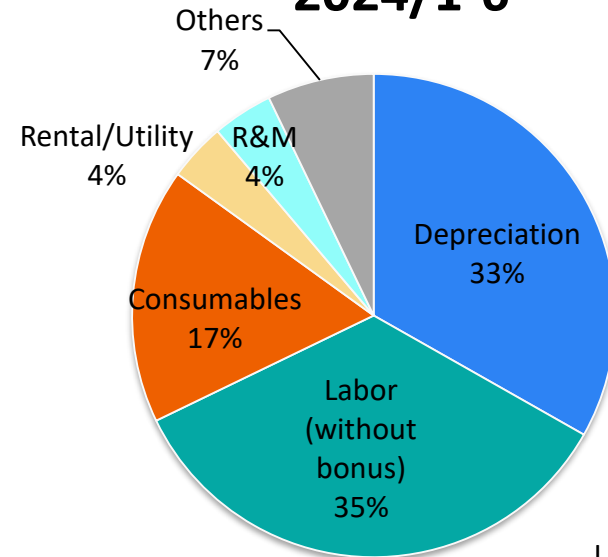


2024H1 vs. 2023H1 C.O.G.S Breakdown

2023/1-6



2024/1-6



Unit: NT\$K

	2023/1-6	%	2024/1-6	%	YoY	Notes
Depreciation	461,674	32%	547,460	33%	+19%	New Equipment Purchase including: Talos 、 Helios and SIMS
Labor (without bonus)	501,557	34%	570,851	35%	+14%	Engineer increase from 1,005 to 1,084 (2023Q2→2024Q2)
Consumables	215,975	15%	282,153	17%	+30%	RA Revenue Increase in 2024Q1
Rental/Utility	55,351	4%	63,735	4%		
R&M	122,925	8%	66,676	4%	(56,249)	
Others	104,313	7%	117,756	7%	13,443	
Total Cost	1,461,794	100%	1,648,630	100%	186,836	

+13%

Consolidated Balance Sheet 2024Q2

Unit:

	2024.6.30	%		2024.6.30
Current Assets	3,512,694	45%	Current Liabilities	2,184,766
Cash & cash equivalents	2,003,538	26%	Short-term borrowings	132,114
Accounts Receivable	1,251,100	16%	Accounts Payable	767,419
Other current assets	258,056	3%	Dividends payable	591,706
			Current tax liabilities	205,684
			Lease liabilities - current	91,670
			Current portion of L-T borrowings	274,256
Non-current Assets	4,300,628	55%	Other current liabilities	121,917
PP&E	3,619,282	46%	Non-current Liabilities	1,182,311
Right-of-use assets	335,339	4%	Bonds payable	468,585
Tool prepayment	156,862	2%	Long-term borrowings	453,562
Other non-current assets	189,145	2%	Lease liabilities - noncurrent	256,037
			Other non-current liabilities	4,127
			Total liabilities	3,367,077
			Total equity attributable to owners of p	4,446,245
			Non-controlling interests	0
Total Assets	7,813,322	100%	Shareholders' Equity	4,446,245

Cash Rich

Consolidated Statement of Cash Flow

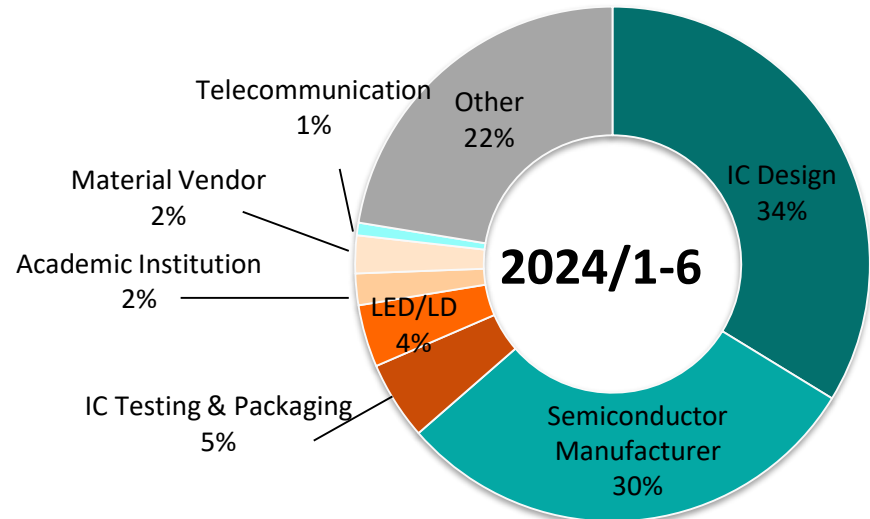
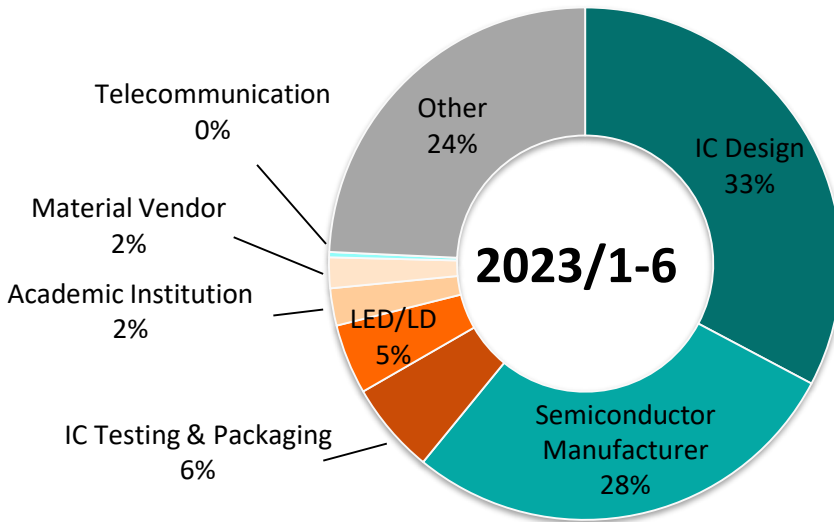
2024H1 vs. 2023H1

Unit: NT\$K

	2024/1-6	2023/1-6
Cash flows from Operating Activities	866,086	913,989
Cash flows from Investing Activities	(764,962)	(684,548)
Additions to property, plant and equipment	(896,570)	(702,983)
Proceeds from sale of property, plant and equipment	3,196	22,475
Other investing activities	128,412	(4,040)
Cash flows from financing activities	(136,257)	(130,385)
Increase in bank loans	(79,253)	(753,625)
Other financing activities	(57,004)	(57,365)
Effects of exchange rate change on cash	44,161	(43,274)
Net increase (decrease) in cash and cash equivalents	9,028	55,782
Cash and cash equivalents at beginning of year	1,994,510	1,652,033
Cash and cash equivalents at end of year	2,003,538	1,707,815

Strong Cash Inflow

Revenue Breakdown by Industry



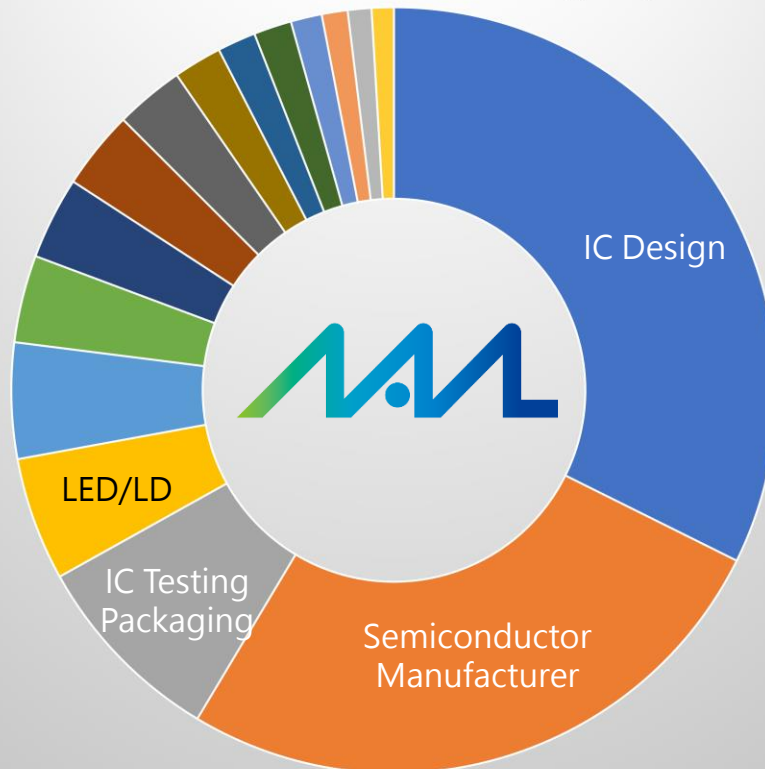
Unit : NT\$K

2023/1-6	%	Industry	2024/1-6	%	
771,357	33%	IC Design	834,877	34%	+13%
662,699	28%	Semiconductor Manufacturer	738,441	30%	+20%
136,299	6%	IC Testing & Packaging	121,927	5%	-19%
104,194	5%	LED/LD	96,849	4%	
55,366	2%	Academic Institution	49,085	2%	
45,550	2%	Material Vendor	58,626	2%	
7,864	0%	Telecommunication	19,581	1%	
571,584	24%	Other	554,827	22%	
2,354,912	100%	Total	2,474,213	100%	

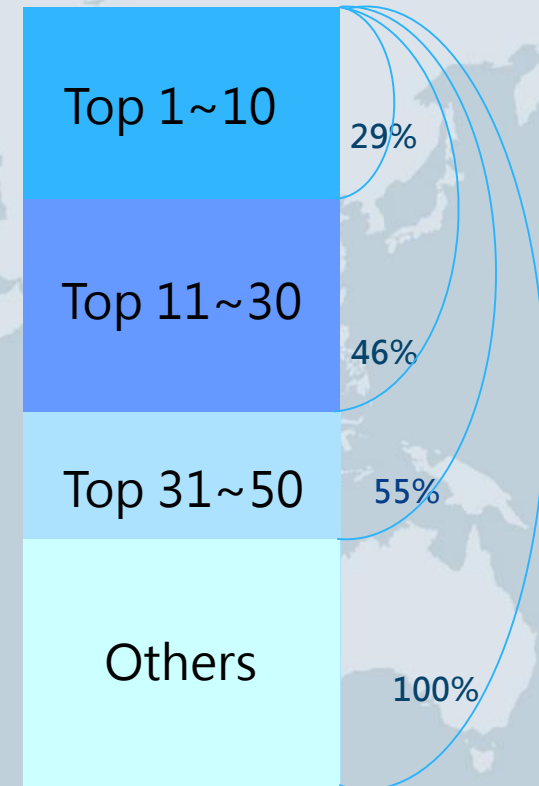
Fully Diversified Customer Base

Dedicated to achieving balanced distribution among clients across various industries, with a strong capacity to withstand impacts from the external environment.

MA-tek Client Category



Total Customer Numbers > 8500
2024H1



2024 H2~2025 OUTLOOK



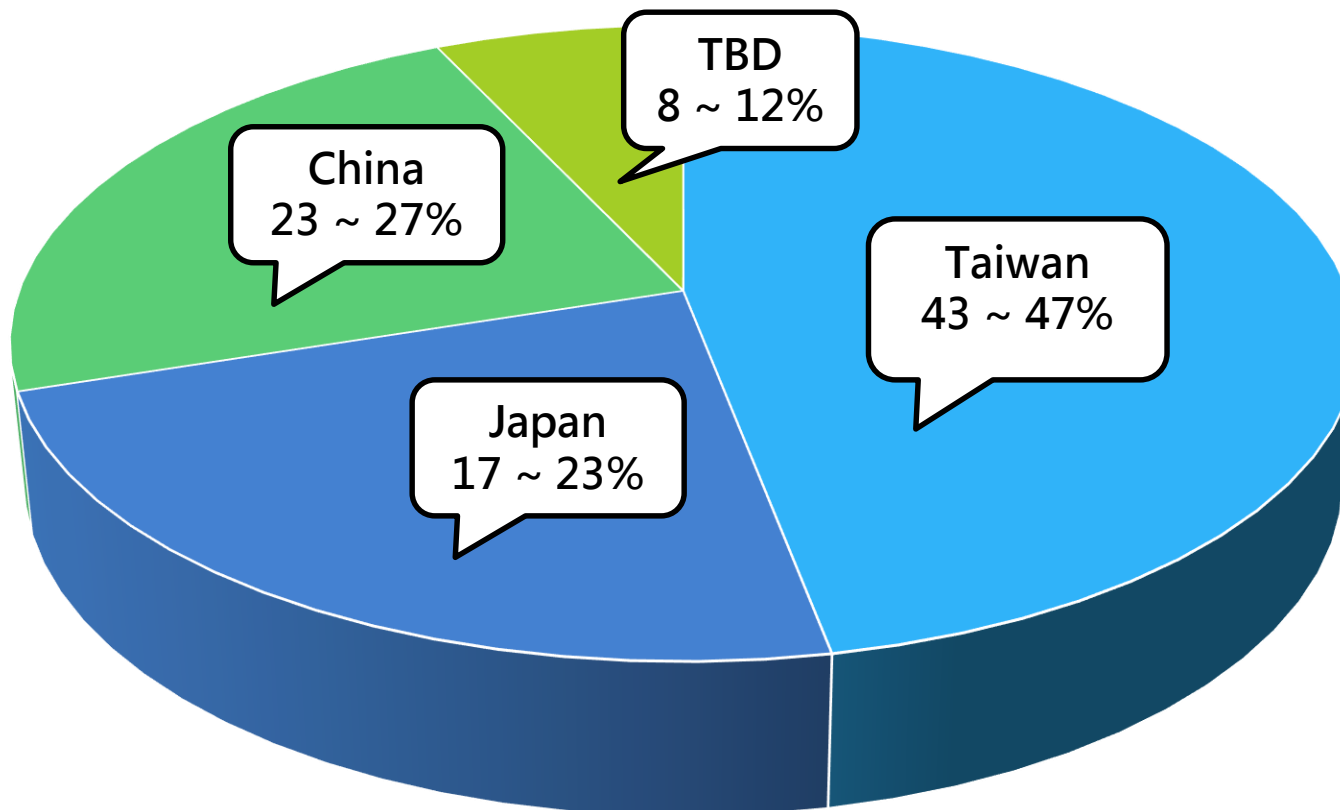
MA-tek Future Profit Engine

– Diversification & Globalization

- **Diversification in Technology**
 - CoWoS 、 FOPLP 、 SiPh 、 EV 、 Cyber Security 、 LEO 、 Nanopharmaceuticals
- **Diversification in Customers**
 - Semiconductor 、 Optoelectronic 、 Memory 、 Equipment 、 Automotive
- **Globalization to High Margin Markets**
 - Aim to Global Tier-one players & expand globally in high margin markets

2024 Capex Allocation-By Regions

2024Y Capex Plan



Overseas Capital Expenditure > 50%

2024 Capex Allocation-By Service

Other

IT/Lab

10%

RA

*Reliability
Testing*

10%

FA

Failure Analysis

20~25%

MA

High Demand in MA

Materials Analysis

50~60%

Artificial Intelligence & Global Market Share

INDUSTRY TRENDS



Future Developing Trend of Semiconductor Industry Application



關鍵優勢+策略布局
搶進下世代產業契機

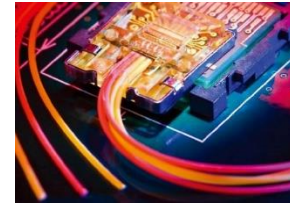


- 先進設備投資
- 豐沛核心技術
- 國際大廠客戶
- 全球服務據點
- 產業聯盟合作
- 產學研發合作
- 專利智財布局

CoWoS+FOPLP+SiPh > 10%



人工智慧
AI/HPC
(RA, FA, MA)



矽光子
Silicon Photonics
(RA, FA, MA)



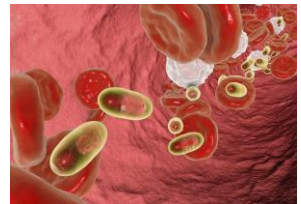
電動車
Electric Vehicle
(RA, FA, MA)



安全晶片
Cyber Security
(EFA)



低軌衛星
Low-Earth Orbit
(RA, FA)



奈米生醫
Nanopharmaceuticals
(MA)

(圖片來源: 網路)

未來布局

MA-tek Analysis Technology Road Map 1/2

-CoWoS、FOPLP、SiPh、EV

產業別	關鍵技術或構件	MA-tek 核心檢測能量 (既有)	MA-tek 強化未來布局 (發展中)
AI/ HPC	- 先進製程 (FinFET & GAAFET) - 先進封裝 (CoWoS, FOPLP, 2.5D/3D IC etc.)	- 奈米探針量測及樣品製備(<5nm) - Cs-TEM 次原子級影像分析 - PV-TEM 奈米缺陷精確定位觀察 - 淺接面與超淺接面成份分析 - TKD 奈米凸塊晶粒結構分析 3D-TEM 斷層掃描奈米結構觀察	- Y110-113 產學研發合作 (26 案) - 加入指標性 AI 產業聯盟 (評估中) - 布局先進製程專利 (14 篇) - 持續先進分析設備投資
矽光子 SiPh	- CPO 封裝 - 光子積體電路 - 半導體雷射元件 - SiGe 量子點	- CL 低溫陰極螢光分析 3D X-ray 非破壞性檢測 - 矽光子大面積雷射精準對位切割 - VCSEL/DML/EML 結構分析 - 光波導與光耦合器結構分析	- Y110-113 產學研發合作 (8 案) - 國際矽光子異質整合聯盟 HiSPA 會員 - 光電科技工業協進會 PIDA 會員 - 外部策略合作-光學特性檢測 (評估中)
電動車 EV	- 半導體功率元件 - 寬能隙材料 - 高密度鋰電池 - 微感測元件	- 高功率(3000V)元件 FA 亮點偵測 - B1506A 功率元件電性測試 - AEC-Q 車用電子可靠度驗證資格 - 功率元件結構及材料分析	- Y110-113 產學研發合作 (23 案) - 加入汽車電子協會 AEC 會員 (申請中) - 高功率元件應用研發聯盟會員 - 鋰電池檢測設備與環境 ((評估中) - 寬能矽材料磊晶缺陷分析 (開發中)

MA-tek Analysis Technology Road Map 2/2

-Cyber Security、LEO、Nanopharmaceutics

產業別	關鍵技術或構件	MA-tek 核心檢測能量 (既有)	MA-tek 強化未來布局 (發展中)
安全晶片 Cyber Security	- 資訊安全認證 - EFA 電性分析	- ISO15408 安全晶片檢測認證資格 5G 與 IoT 晶片的分析檢測 - 奈米級探針電性量測 - 安全晶片失效分析 (InGaAs、EMMI、線路修補、FIB/TEM 等)	- Y113 產學研發合作 (1 案) - 車聯網聯盟 CCC 會員 - 外部策略合作 - 晶片電路佈局萃取技術
低軌衛星 LEO	- 航太檢測規範 - 輻射分析及腔體封裝檢測 - 航太元件可靠度驗證設備及環境	- 航太元件環境可靠度測試 (溫度循環、溫度衝擊、HAST 高溫高濕加速壽命測試等) - 航太功率元件、5G/6G 通訊晶片及 RF 元件等檢測分析	- Y110-113 產學研發合作 (7 案) - 外部策略合作 - 輻射分析 (評估中) - 腔體封裝 (Cavity Package) 元件檢測 (評估中)
奈米生醫 Nanopharmaceutics	- 液態奈米藥劑原位分析 - 生醫樣品製備	- K-kit 液態樣品分析獨家專利技術 - 生醫樣品製備 (樹脂包埋、超薄切片、負染、臨界點乾燥等) - 高對比生醫樣品電鏡影像分析 - 生醫樣品冷凍電鏡觀測技術	- Y110-111 產學研發合作 (2 案)。 - K-kit 發明專利 (23 篇)。 - 全球 K-kit 通路商共 14 家 (美、歐、日、韓、大陸)。 - 與國內大學及生技公司合作推廣。

Q & A



Your comments shall be welcome and appreciated.