



Tongtai (4526)

Tongtai Machine & Tool Co., Ltd.

———— "AI Industry Chain" Investor Conferences and Industry Seminar ————

Time August 21, 2024 (Wednesday) 14:00 - 14:40

Location Taipei 101, 1st Floor, Taiwan Stock Exchange Press Conference Room

TGROUP



TRPEC

quicktech

PCI

ANGER MACHINING

CERIMATEC

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1

Introduction to Tongtai Machine & Tool Co., Ltd.

2

Group Strategy and Market Overview

3

Key Financial Indicators Overview

4

Recent Exhibition Highlights

Introduction to Tongtai Machine

About Us

Tongtai Key Terms and Value Proposition

TRANSFORM
TOGETHER



1969 Establishment	3 Factories	660 Employees	4526.TW Listed on the Taiwan Stock Exchange	NTD 2.56 billion Share Capital
Kaohsiung Headquarter	60+ Overseas Agents	200+ Patent		NTD 7.621 billion 2023 Consolidated Revenue

Trust

“To become a leading global provider of top-tier machinery and processing solutions in the industry and the most trusted partner for our customers.”



Technology

“Integrating machinery and technology services to be the premier provider of solutions that assist customers in advancing towards smart manufacturing.”

Historical Development

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Establishment of Tongtai Machine

- Focused on the development of various specialized machines
- Founder Mr. Ryozo Yoshii



Cross-Border Development Collaboration

- In collaboration with Japan's Ando Electric, we are developing the CPD dual-axis PCB drilling machine



Large Japanese Enterprise OEM

- In collaboration with Japanese companies Aisin, Kiryu, and Hitachi Seiki, we manufacture horizontal machining centers and vertical lathes under contract



Stock Listing and Expansion

- Listed on the Taiwan Stock Exchange
- Stock Code 4526
- Established Suzhou Tongyu Machine Tool Co.,Ltd
- Rapid Expansion in Market and Product Lines



Acquisition of Asia Pacific Elite Corp.(TW)

- Expand Large Five-Axis Machining Products
- Enhance Competitiveness in the Aerospace Industry



Acquisition of Honor Seiki Company Limited(TW)

- Experts in Large Vertical Lathes, expanding into the Energy and Transportation Markets



Brand Strengthening

- Redesign the Company Logo
- Define the Brand Identity



Transformation·Advance

- Integration of Group Resources
- Collaborating with Clients to Advance into Smart Manufacturing
- Dual Axis Transformation with DX & GX

TRANSFORM TOGETHER

1969

1980

1982

1986

1998

2003

2004

2005

2006

2007

2010

2015

NOW

Introduction of Japanese Technology

- Technical Collaboration with Aisin Seiki and Hitachi Seiki

Enter the Electronics Industry Chain

- Investment in Control Technology Co., Ltd. and Strategic Alliances
- Establishment of an Electronics Division for Developing PCB Processing Equipment

Headquarters Relocation and Capacity Expansion

- Relocation to the Kaohsiung Luzhu Science Park
- Fully Air-Conditioned Factory

Acquisition of Quick-Tech Machinery Co.,Ltd.(TW)

- Specializing in Small-Size Multi-Tasking Lathes, Expanding into the Hardware and Medical Markets



Acquisition of PCI(FR)&ANGER(AT)

- Enhance the Group's Product Competitiveness and Distribution Network Integrity in the European Automotive and Aerospace Markets
- Enter the Automotive Industry Tier 1 Supply Chain



\$10B

\$5 B

\$0 B

Product Strategy Overview

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S

Standardized Equipment



O

Specialized Equipment



I

System Integration & Smart Manufacturing



Integrate more products and technologies to address additional manufacturing challenges faced by users

- Standard Specifications
- Standard Options
- Custom Options



- Particular Workpieces
- Particular Industry



- I1: Turnkey Projects and Testing
- I2: Controllers, Sensors, and Intelligent Functions
- I3: Single Machine/Complete Line/Factory Automation and Smart Solutions

Introduction to Key Products

The most comprehensive product line, spanning metal/non-metal processing and the electronics and semiconductor industries

Vertical Machining Center
Horizontal Machining Center



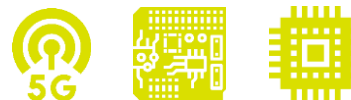
Five-Axis Machining Center



PCB Drilling Machine
PCB Laminating Machine



Laser Processing Equipment

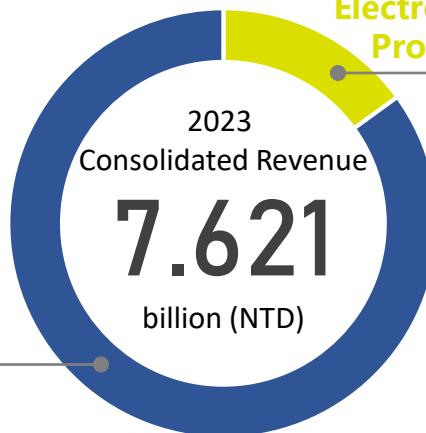


Electronics/Semiconductor
Processing Equipment

Vertical CNC Lathe
Horizontal CNC Lathe



Metal and Non-Metal
Processing Equipment



Specialized Machine/Specialized
General-Purpose Machine



Multi-Function Lathe Center



Five-Axis Multi-Tasking
Turning Center



Ultrasonic Assisted
Machining Center



Metal Powder Bed Fusion
Additive Manufacturing
Equipment



Powder Spray
Additive Manufacturing and
Multi-Process Equipment

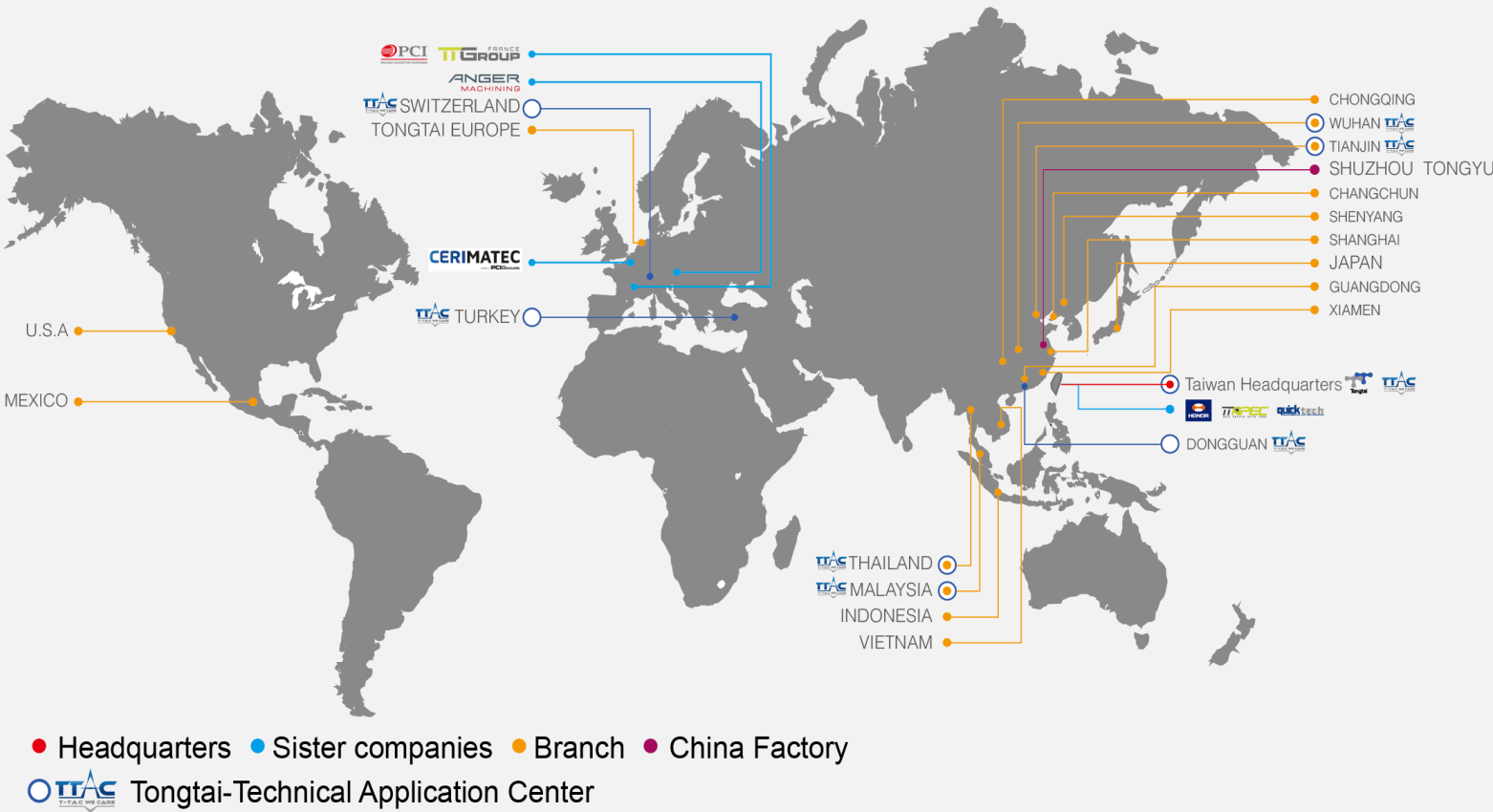


Binder Jet Sand Mold
Forming Additive
Manufacturing Equipment



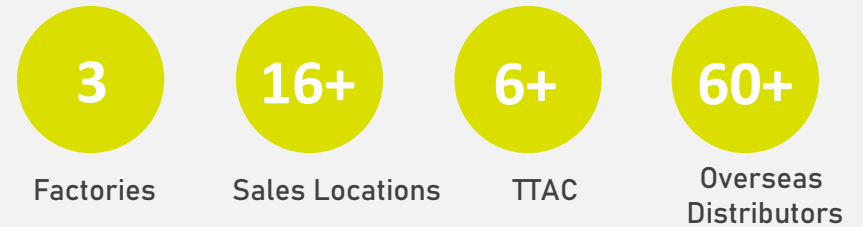


Tongtai Machine Global Network



Global Network

Tongtai Machine operates 3 manufacturing factories, 16 direct sales locations and subsidiaries, 6 technical application centers (TTAC), and has over 60 overseas distributors. This extensive network enables us to provide you with the fastest and most professional sales and maintenance services



Shenzhen TTAC



Tianjin TTAC



Wuhan TTAC



Thailand TTAC



Turkey TTAC



Switzerland TTAC

Transformation · Advance

Strengthen DX and GX Dual Axis Transformation, and Promote and Implement ESG

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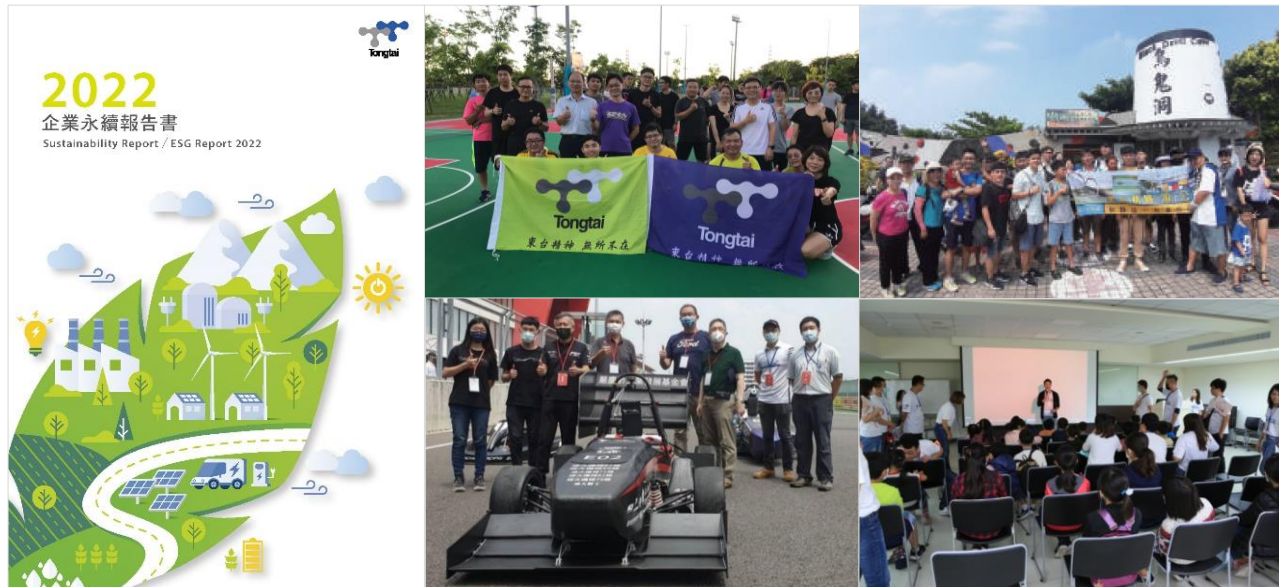
Carbon Reduction Ambitions

Tongtai's carbon reduction achievements contribute 1.452°C to global warming, meeting the Paris Agreement's requirement of staying below 1.5°C. Among thousands of companies in Taiwan, we are ranked 58th, demonstrating exceptional carbon reduction results



Employees and Society

Tongtai values employee rights, providing education and training while fostering a supportive work environment. At the same time, we actively engage in social welfare and collaborate extensively with the industry, government, and academic institutions to create a better future together



Honors and Awards

- Top 100 Taiwan Brands
- Ministry of Economic Affairs' Industrial Excellence Award
- Emerging Mid-sized Enterprise" or "Promising Mid-sized Company
- National Brand Yushan Award
- Taiwan Excellence Award
- Tool Machine Research and Development Innovation Award
- Workplace Equality Excellence Award
- Kaohsiung Model Leadership Award
- Ding-Ge Award for Smart Manufacturing Transformation



Group Strategy & Market Overview

Group Organization Overview

Tongtai Machine (TW)

Suzhou Tongyu Machine(CN)

- Tongtai Brand
- Production and Sales Sites in China

100%

Asia Pacific (TW)

- Large 5-Axis Machining Centers
- Strengthening Aerospace Industry Competitiveness

99.83%

Quick-Tech Machinery (TW)

- Specializing in Small-Scale Multi-Tasking Lathes
- Expand into Hardware and Medical Markets

99.14%

Honor Seiki (TW)

- Experts in Large Vertical Lathes
- Expanding into Energy and Transportation Markets

44.88%

Anger (AT)

- Enhancing Competitiveness in the European Automotive and Aerospace Markets
- Entering Tier 1 Suppliers

100%

PCI (FR)

- Enhancing Competitiveness in the European Automotive and Aerospace Markets
- Entering Tier 1 Suppliers

100%

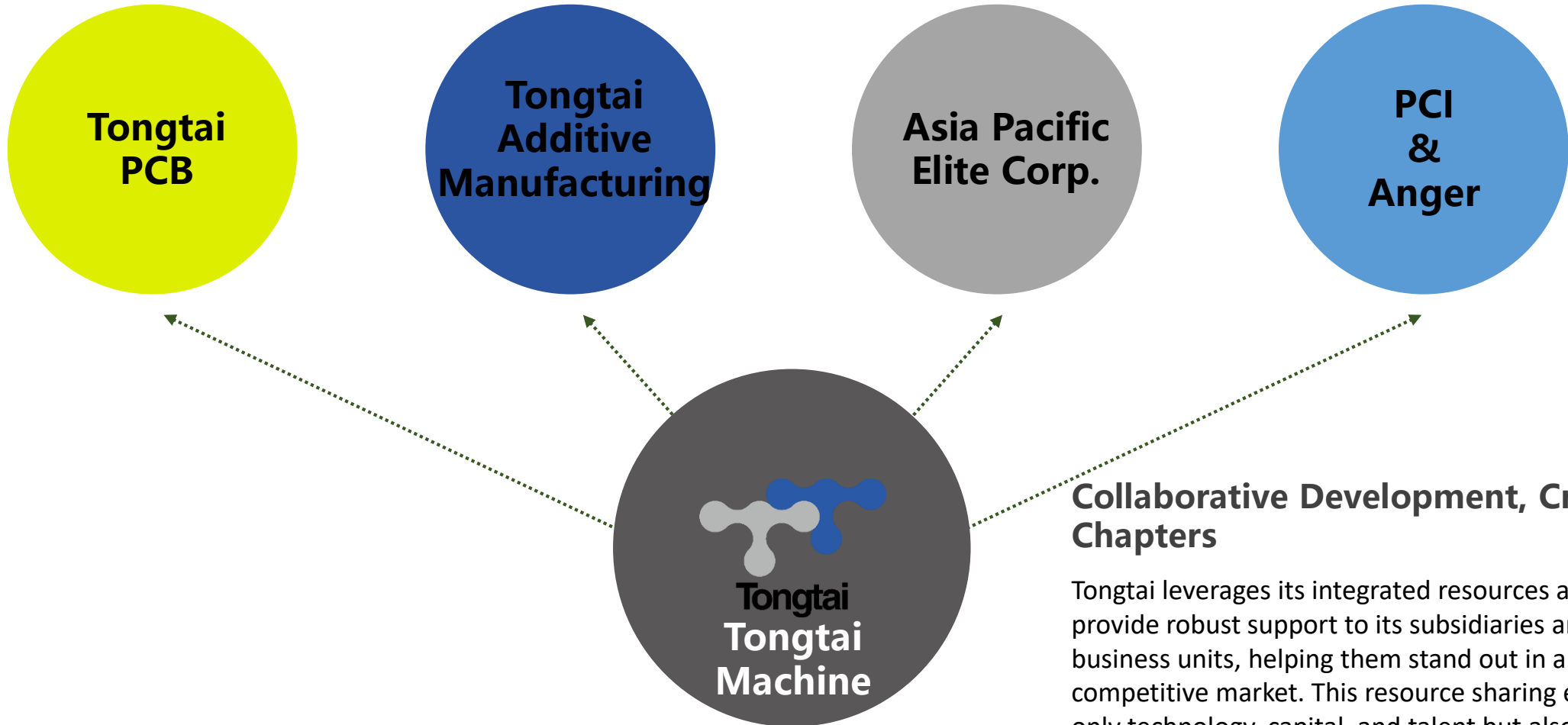
Cerimatec (FR)

- Providing Integrated Automation and Smart Manufacturing Solutions with Hardware and Software

100%

Resource Sharing, Creating New Opportunities

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Collaborative Development, Creating New Chapters

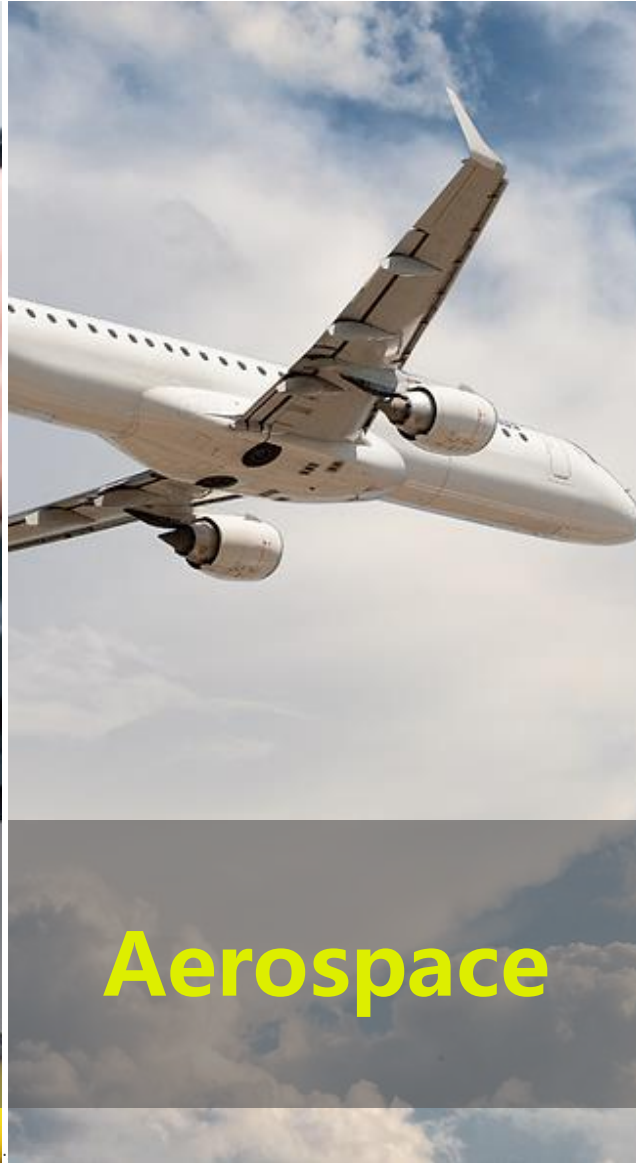
Tongtai leverages its integrated resources and strengths to provide robust support to its subsidiaries and emerging business units, helping them stand out in a highly competitive market. This resource sharing encompasses not only technology, capital, and talent but also management experience and brand value. The resulting strong synergistic effect opens up broader market opportunities, achieving a strategic goal where one plus one is greater than two.

Industry Focus Overview

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Automobile



Aerospace

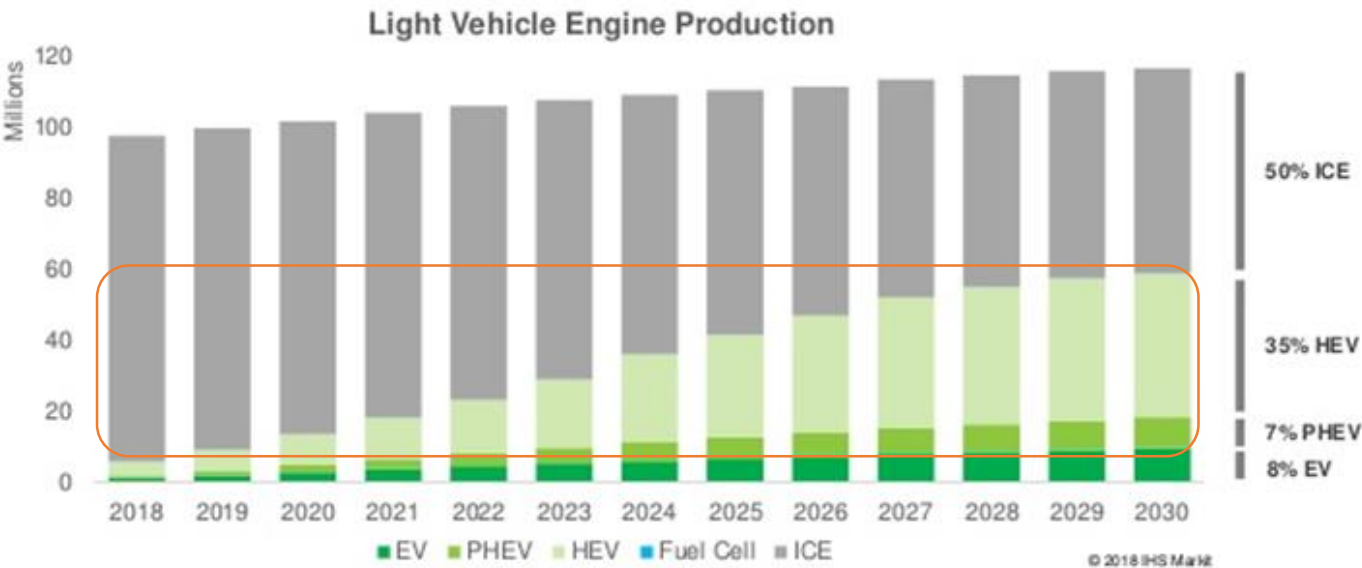


Medical



**Electronic
Semiconductors**

EV vs ICE growth, a gradual take over



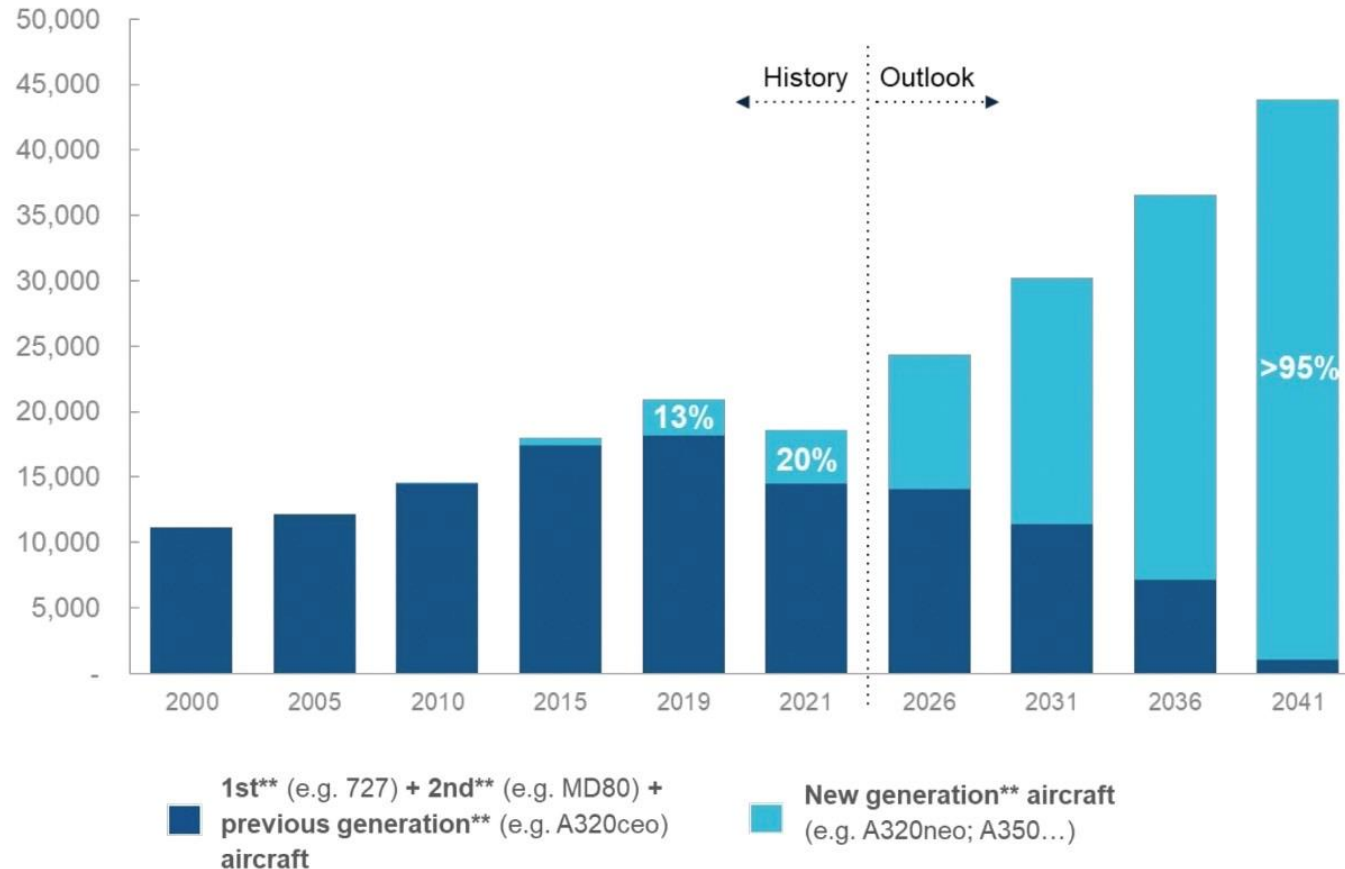
- Pure electric vehicles are still under development, while hybrid electric vehicles (HEV & PHEV) are capturing key growth opportunities. Tongtai continues to focus on local production needs for engines, chassis, brake systems, and wheel hubs.
- With the increasing electronic integration in automotive interiors, Tongtai is targeting the processing needs for critical alloy components.
- Geopolitical tensions have led to shorter supply chains, prompting Tongtai to concentrate on overseas manufacturing facilities for key clients and to strengthen its presence in Southeast Asia.

Data Source: IHS Markit · Marklines

Global Aerospace Market

By 2041, nearly 95% of aircraft are expected to be replaced by new models.

Number of passenger aircraft in service*

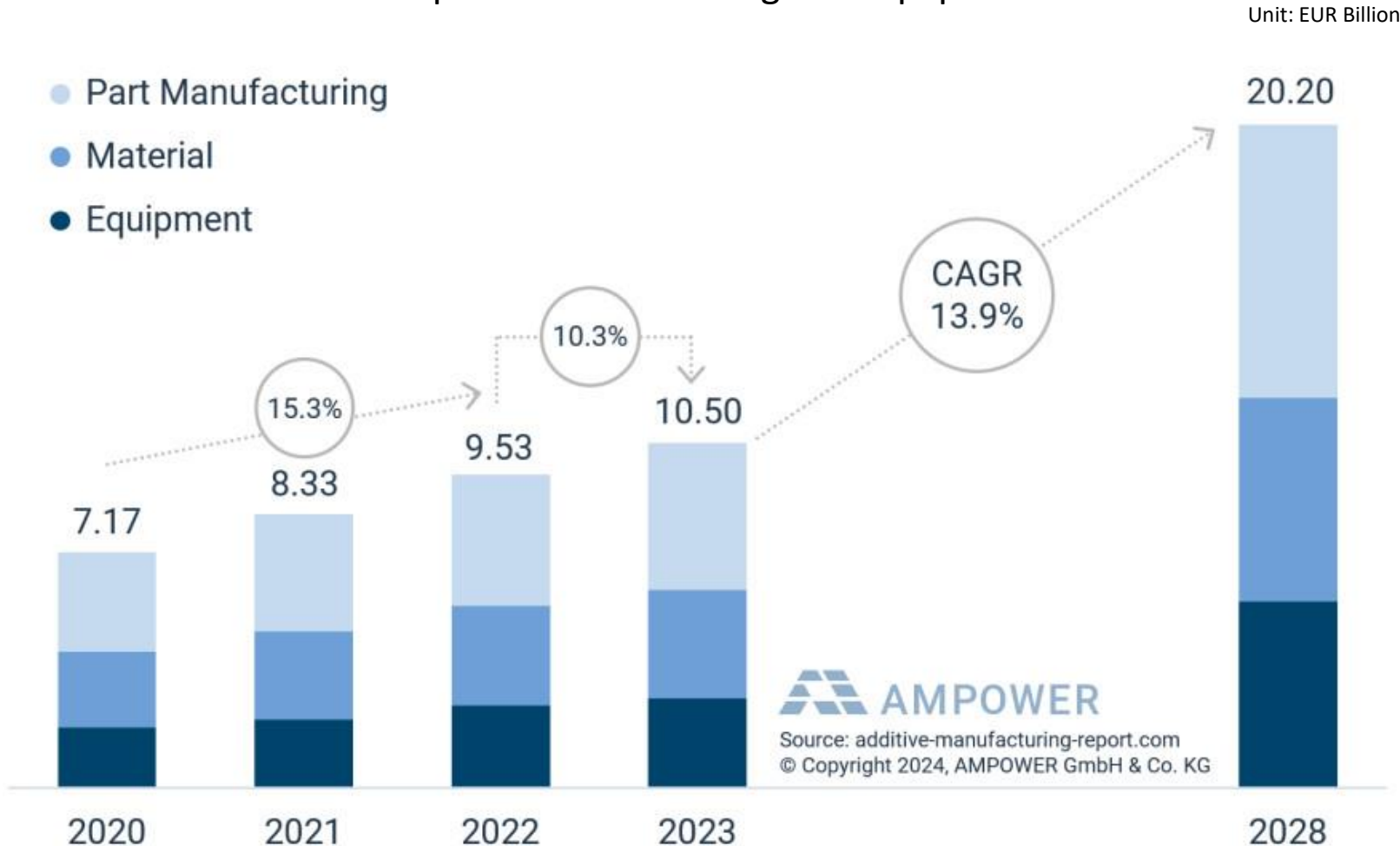


- Asia Pacific Elite Corp. (APEC) continues to deepen its presence in the United States, Japan, South Korea, India, and Taiwan.
- They will participate in the JIMTOF exhibition in Japan this November, with expectations for increased success in the high-end five-axis mold processing market in Japan.
- APEC is cautiously optimistic about this year's business outlook, with stable market demand and order intake. They anticipate growth in both revenue and profitability compared to 2023.

Data Source: Airbus

Global Additive Manufacturing Market

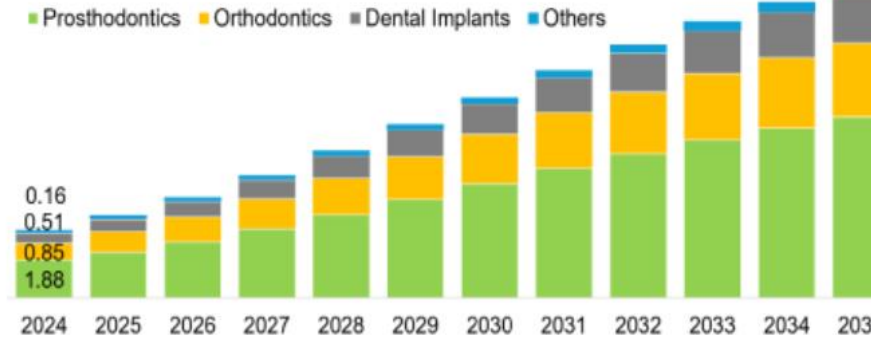
With Tongtai's core technological strengths, there is potential for development in workpiece manufacturing and equipment sales.



Data Source: Ampower

Additive Manufacturing Industry Layout: Equipment Focused on Healthcare

Dental 3D Printing Market By Application Area, 2024-2035 (USD Million)



USD 3.40 Million
Value in 2024

15.10% CAGR
2024 - 2035

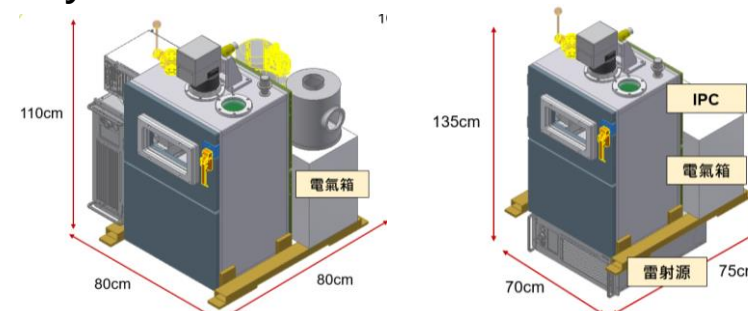
USD 15.80 Million
Value in 2035

- The application of 3D printing in dental products is growing annually, with projections reaching \$15.8 million by 2035.
- Tongtai is addressing the demand for miniaturized dental solutions by developing customized and highly automated small-scale dental machinery.

01

Dental Metal Machinery Sales Center

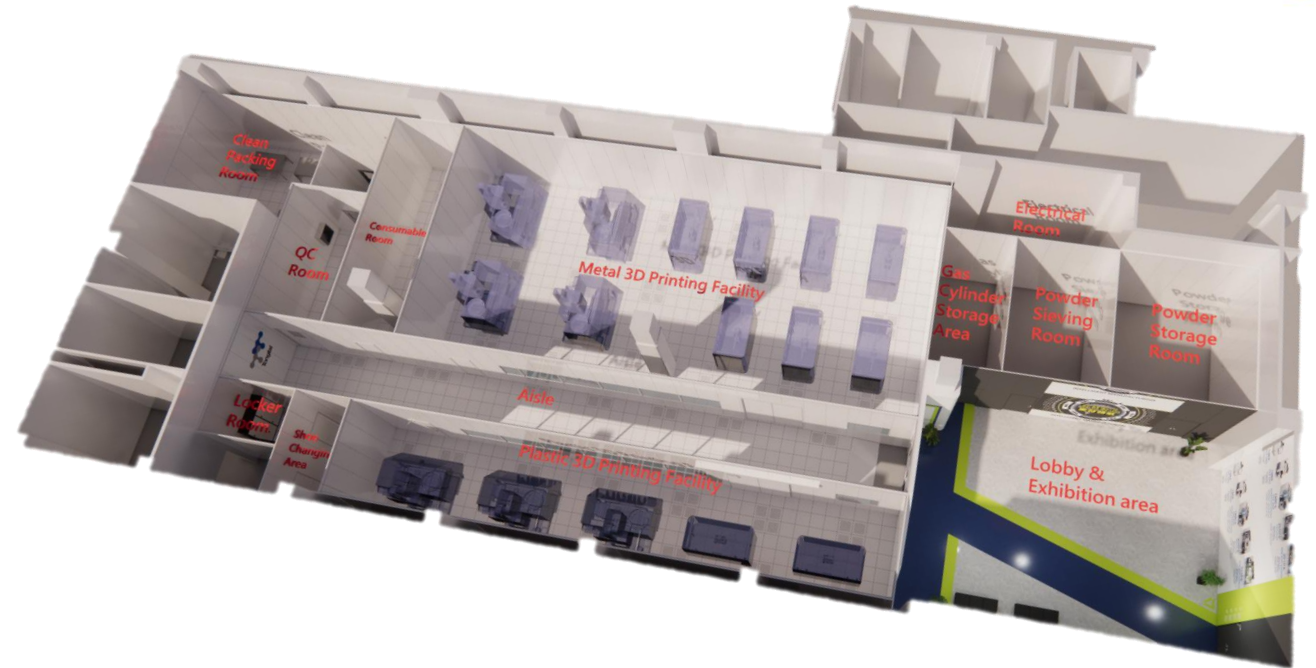
Developing customized and highly automated small-scale dental machines



Data Source: Roots Analysis

Additive Manufacturing Industry Layout: Parts Production

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02

Digital Manufacturing Service Center

Integrating machinery, optics,
electronics, and software to
provide comprehensive solutions

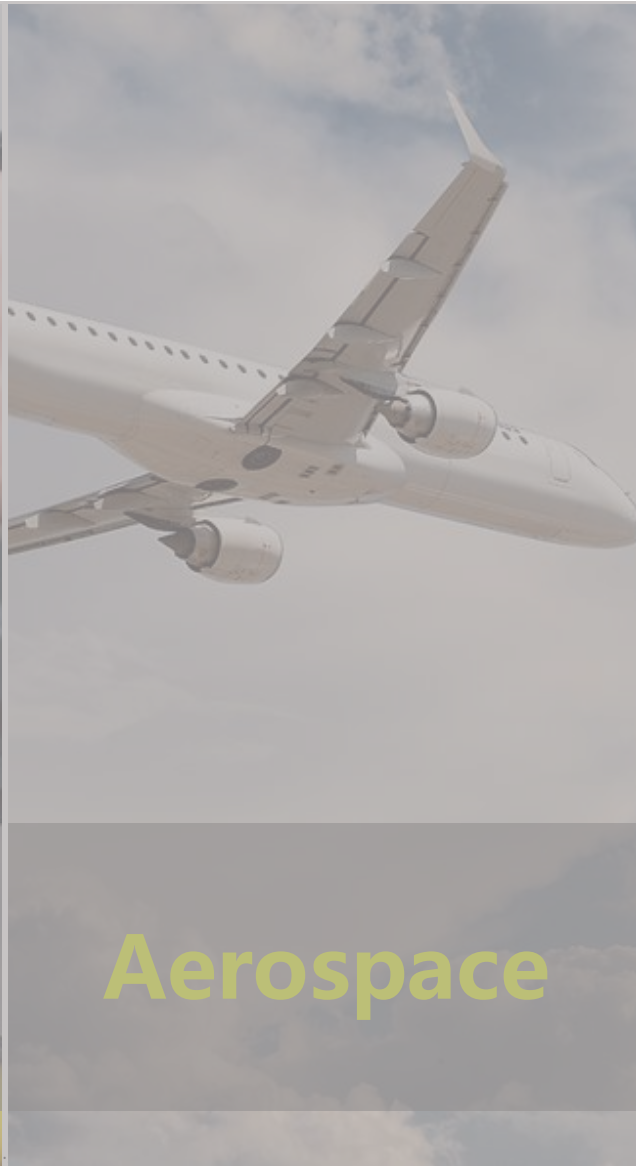
- To provide a comprehensive solution for additive manufacturing (AM) customers, Tongtai is establishing a full-service digital manufacturing center. The center will focus on the dental, semiconductor, and mold markets, and is expected to be operational by the fourth quarter of 2024.
- The service center will feature a total of 13 machines for both metal and non-metal processes.

Industry Focus Overview

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Automobile



Aerospace



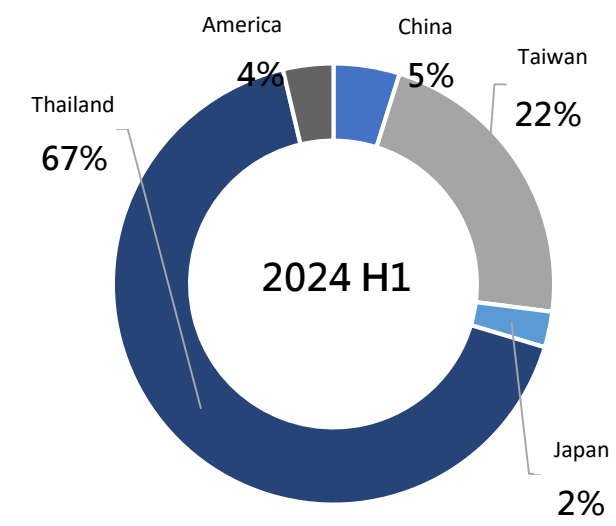
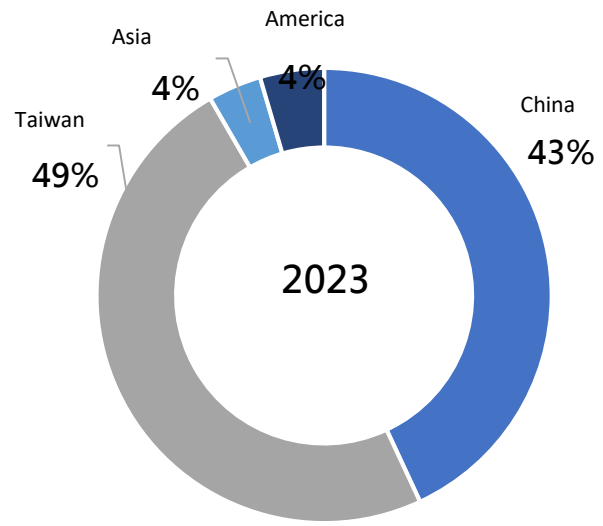
Medical



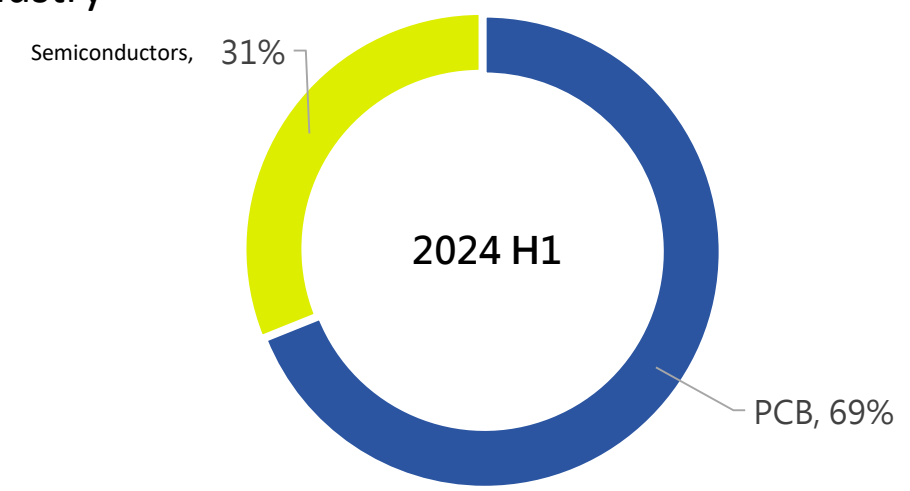
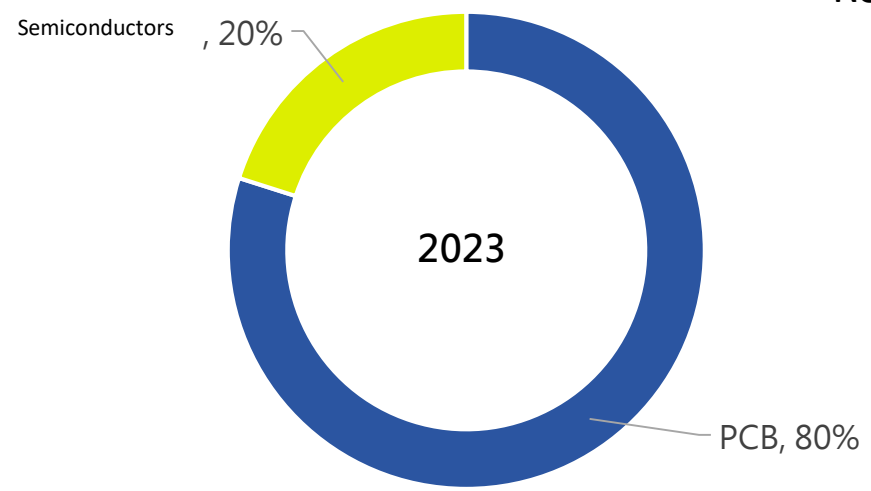
**Electronic
Semiconductors**

Two-Pronged Approach: PCB and Semiconductors

Revenue by Region



Revenue by Industry



Global PCB Market:

Focus on Rapid Growth of PCBs and Server Boards

Unit: USD Billion

Product	Item	2018	2019	2020	2021	2022	2023 E	2024 F	2025 F	2026 F	2027 F	2028 F	2023~2028 CAGR
RPCB	Market Value	33.225	31.969	32.674	40.641	38.720	34.292	35.659	37.554	39.240	40.724	42.005	4.1%
	Global Market Share	53.2%	52.1%	50.1%	50.2%	47.4%	49.3%	48.9%	48.5%	48.0%	47.3%	46.5%	
FPC+ SMA	Market Value	12.359	12.195	12.483	14.058	13.842	12.191	12.649	13.225	13.828	14.458	15.117	4.4%
	Global Market Share	19.9%	19.9%	19.1%	17.4%	16.9%	17.5%	17.3%	17.1%	16.9%	16.8%	16.7%	
HDI	Market Value	9.222	9.008	9.874	11.811	11.763	10.536	11.095	11.806	12.563	13.369	14.226	6.2%
	Global Market Share	14.8%	14.7%	15.1%	14.6%	14.4%	15.2%	15.2%	15.3%	15.4%	15.5%	15.7%	
IC Substrate	Market Value	7.554	8.139	10.188	14.410	17.415	12.498	13.568	14.772	16.083	17.511	19.065	8.8%
	Global Market Share	12.1%	13.3%	15.7%	17.8%	21.3%	18.0%	18.6%	19.1%	19.7%	20.4%	21.1%	
Total		62,396	61,311	65,219	80,920	81,740	69,517	72,971	77,358	81,715	86,062	90,413	5.4%
YoY		6.0%	-1.7%	6.4%	24.1%	1.0%	-15.0%	5.0%	6.0%	5.6%	5.3%	5.1%	

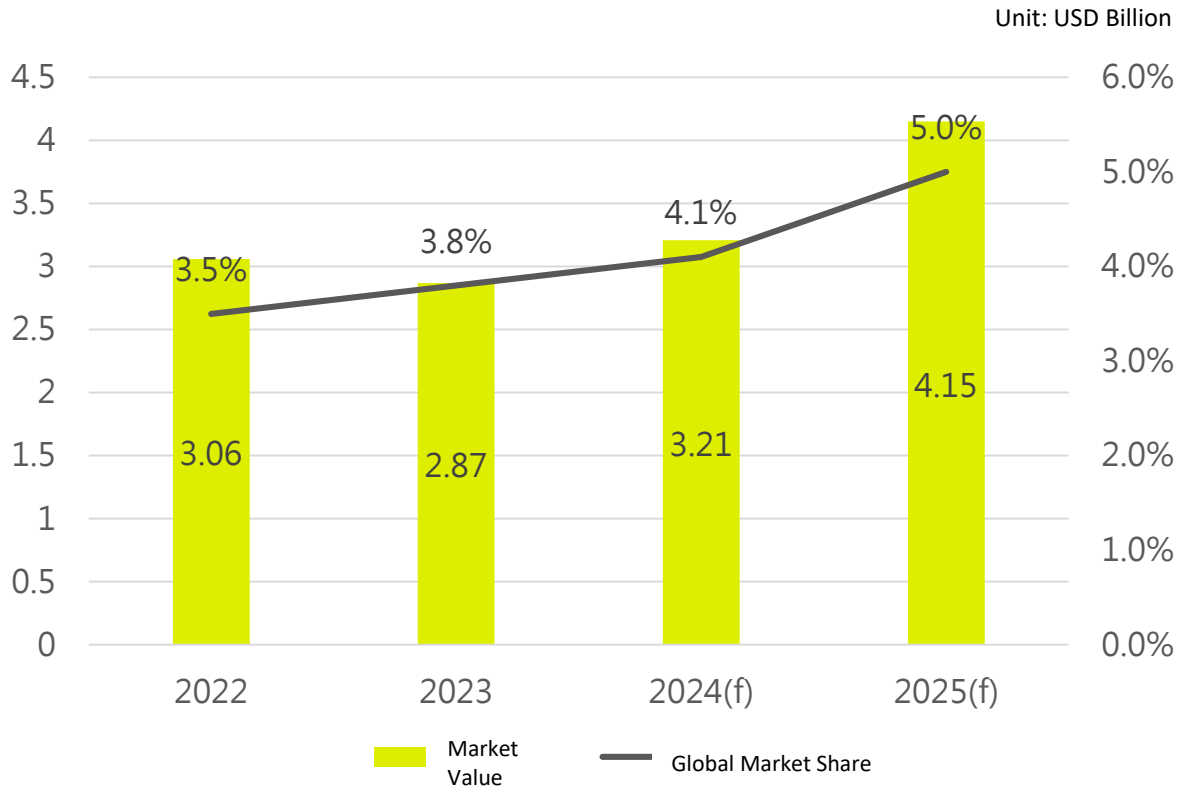
- The growth of the AI industry has driven the expansion of high-performance computing equipment, servers, data centers, and other infrastructure, thereby increasing the demand for PCBs and server boards.

Data Source: TPCA

The proportion of Southeast Asia is growing year by year



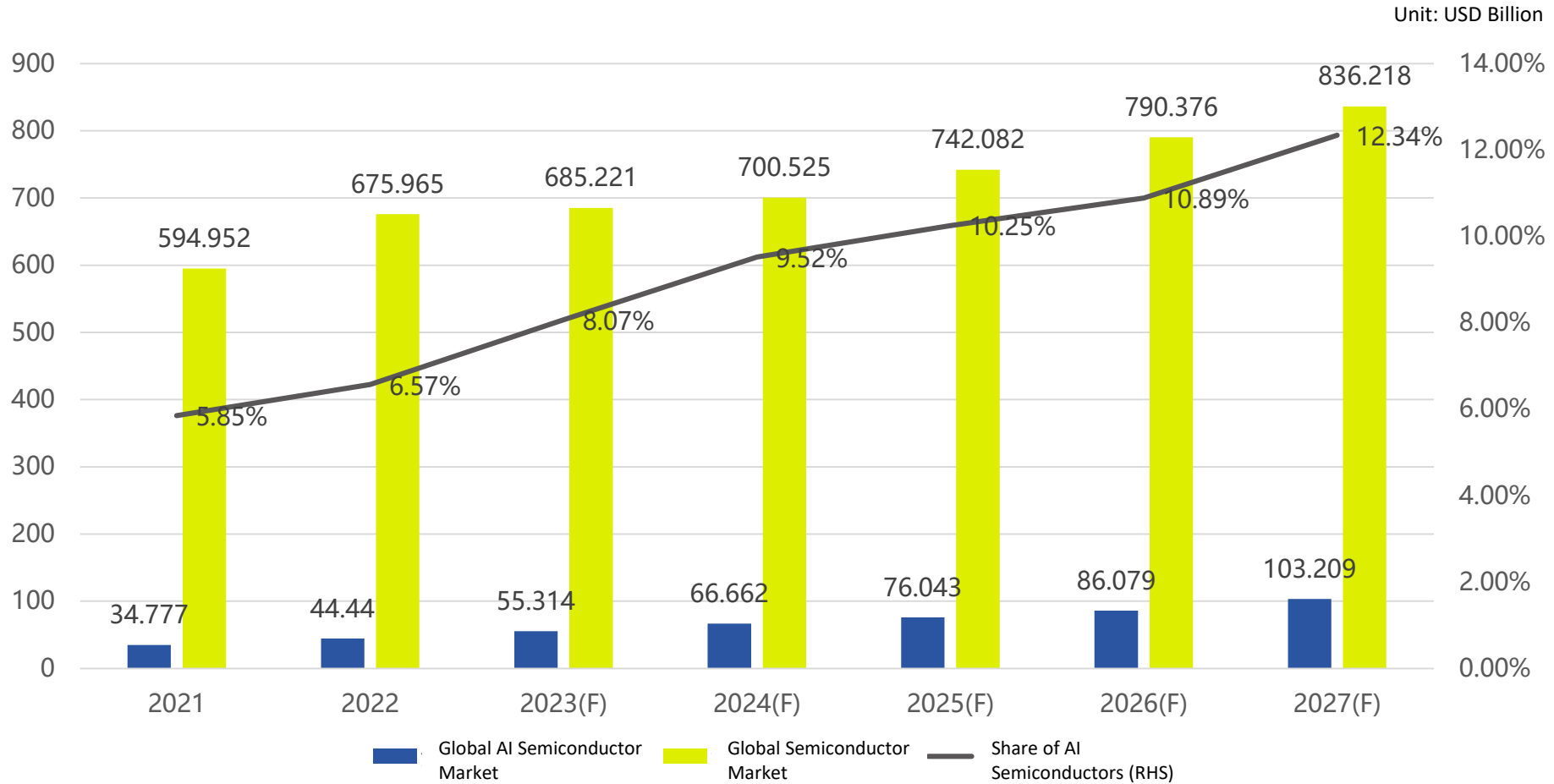
Forecast for Thailand's PCB Market Value



- In 2023, Thailand's PCB local production value is estimated to account for approximately 3.8% of the global market (THPCA forecasts that Thailand will become the fourth-largest PCB producer by 2030).
- Controller suppliers of Tongtai will establish an office at Tongtai Thailand, expected to be completed by the end of this year. Additionally, Tongtai will set up a service center in Prachinburi, Thailand, to facilitate key customer services.
- In response to the China+1 trend, the focus is on key customers setting up overseas manufacturing facilities and expanding presence in Thailand and other Southeast Asian countries.

Data Source: TPCA

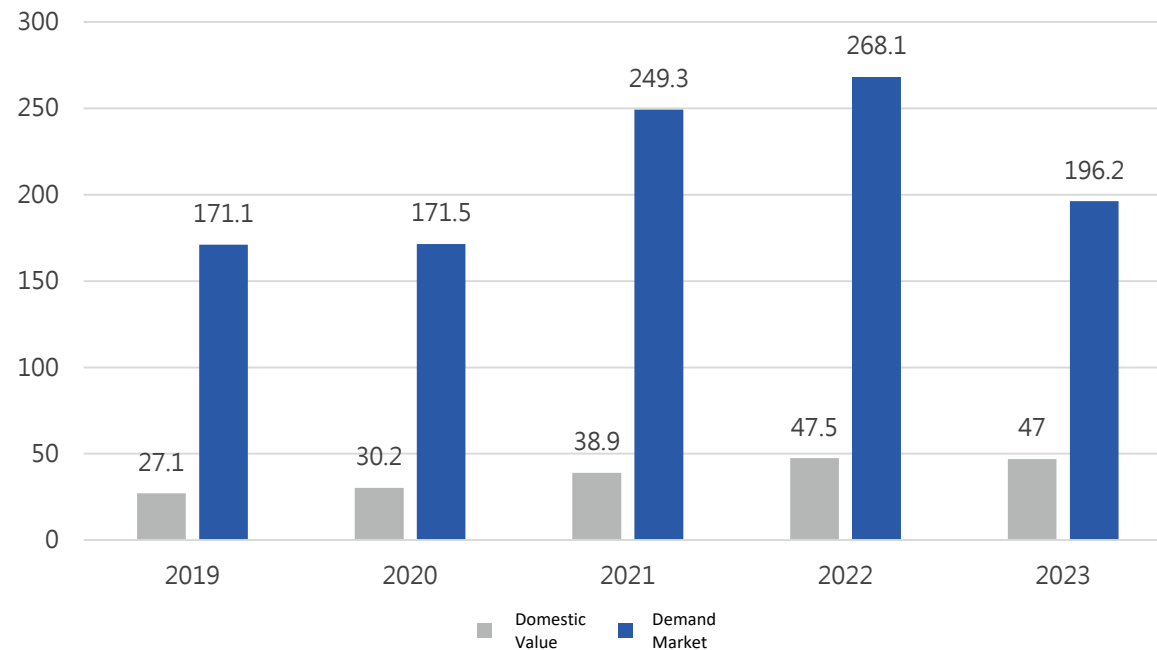
Worldwide Semiconductor and AI Market Trends



Data Source: Gartner

Niche Market for Semiconductor Equipment Taiwanese Manufacturers

Domestic Value and Market for Semiconductor Equipment in Taiwan Over the Past 5 Years (Unit : USD '00 million)

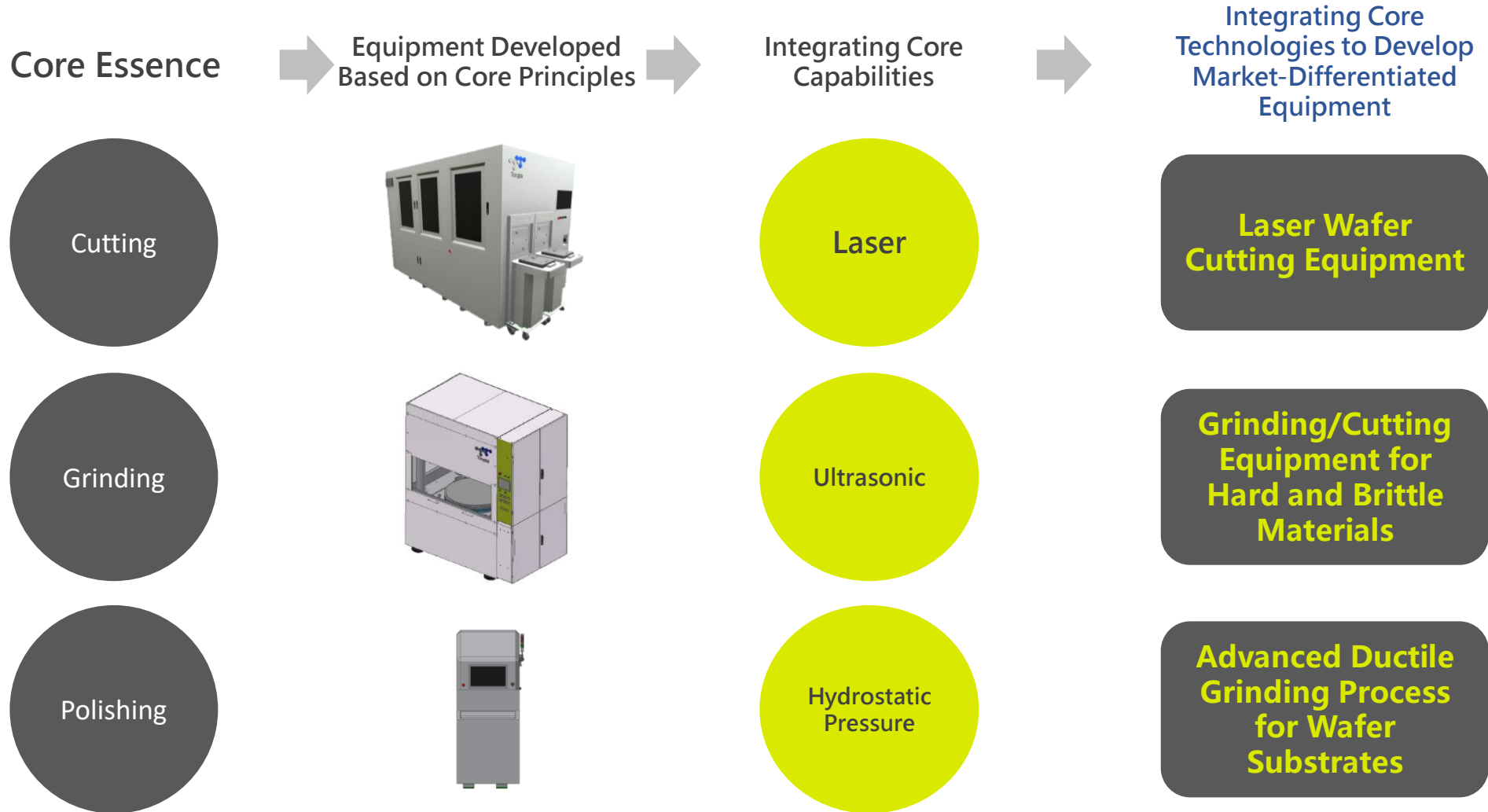


Domestic market still offers entry opportunities for Taiwanese manufacturers

The value of Taiwan's semiconductor equipment industry has shown significant growth in recent years, reaching NT\$141 billion (approximately USD 4.7 billion) in 2023. However, this still falls short compared to the market demand of USD 19.62 billion.

Data Source: SEMI, Taiwan Electronics Association, Metal Center

Core Technological Strength in Semiconductor Development



Tongtai's Semiconductor Industry Layout

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Semiconductor Equipment Parts

- OEM of Key Components for Exposure, Etching, and Other Equipment

Semiconductor Process Consumables

- Consumable Processing (e.g., E-Chucks, Shower Heads, etc.) Consumable Processing Equipment Solutions (e.g., Targets, Quartz Rings, etc.)

Semiconductor Processing Equipment

- Semiconductor Front-End Equipment Manufacturing Partners in Taiwan (from components to assemblies to complete machines)
- Expanding business opportunities in core processes such as cutting, grinding, and polishing
- Advanced packaging processes leading to machining and laser equipment

Product

Machine

- THL、TMS

- GT、HS、TMV、VTX、VL

PCB

- TWG、TFC

Additive Manufacturing

- AMP、AMH、AMS

Key Financial Indicators Overview

H1 2024 Group Consolidated Operating Performance

Unit:NTD/Mio

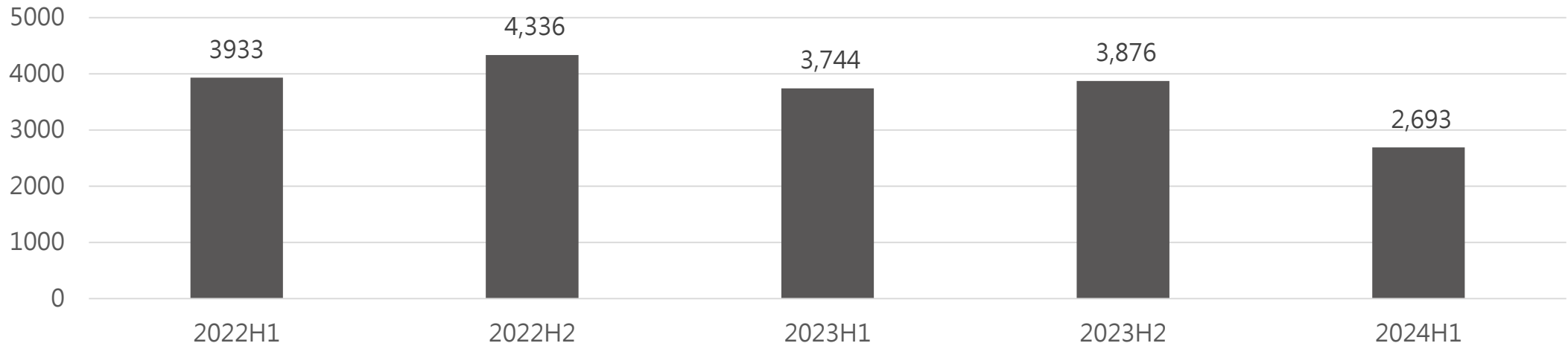
	2024 H1		2023 H1		2023	
	Amount	%	Amount	%	Amount	%
Revenue	2,693	100%	3,744	100%	7,621	100%
Gross Profit	398	15%	821	22%	1,554	20%
Operating Profit (Loss)	(371)	(14%)	(1)	0%	(156)	(2%)
Non-Operating Income and Expenses	86	3%	14	0%	249	3%
Net Profit (Loss) After Tax	(246)	(9%)	19	1%	121	2%
EPS (NTD)	(0.97)		(0.09)		0.20	

- The consolidated financial data for the FY2023 includes the consolidated entity, Honor Seiki Company Limited. However, it has not been included from December 2023 onwards.

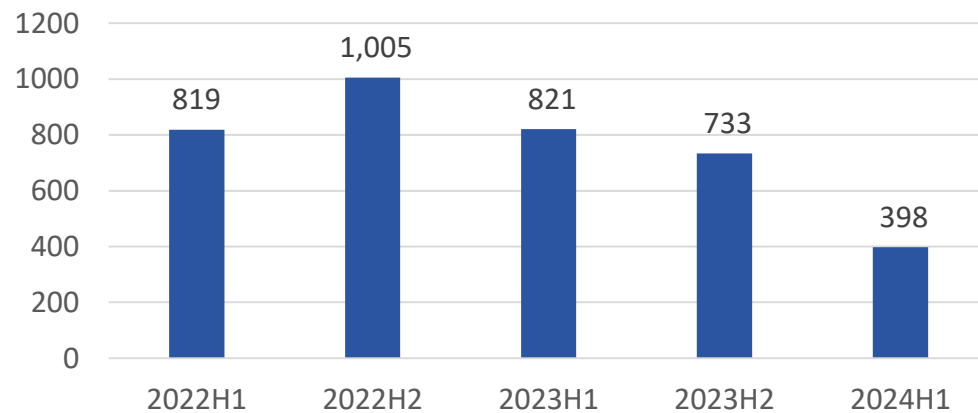
H1 2024 Group Consolidated Operating Performance

Revenue

Unit:NTD/Mio

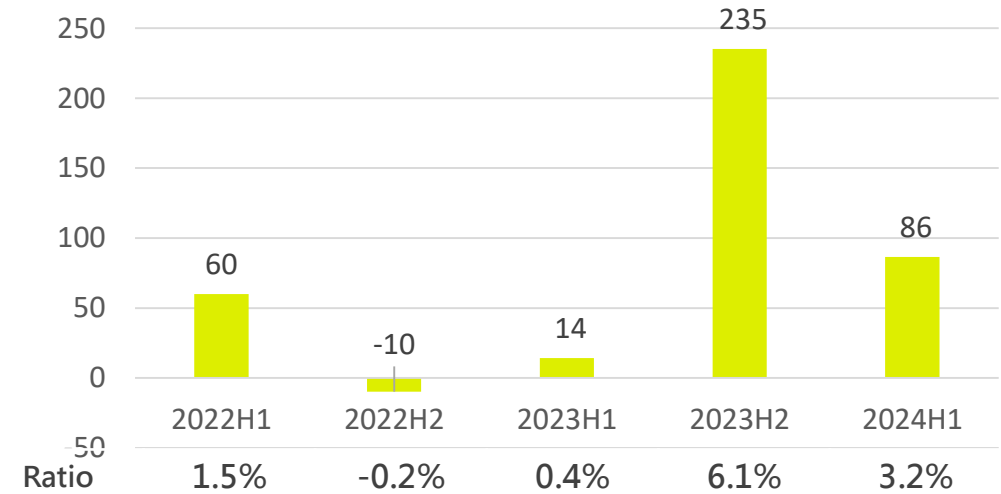


Gross Profit



Period	Gross Profit Margin
2022H1	20.8%
2022H2	23.2%
2023H1	21.9%
2023H2	18.9%
2024H1	14.8%

Non-Operating Income and Expenses



Recent Exhibition Highlights

Exhibition Highlights

Exhibitions: By the end of 2024, 8 events will be held around the world.

Month	Country	Category	Exhibition Name
Aug	Taiwan	Machine	In-House Exhibition – Industry Elite Group
	Taiwan	PCB	SEMICON Taiwan 2024 – International Semiconductor Exhibition
Sep	USA	Machine	IMTS 2024 – Chicago Machine Tool Show
	China	Machine	12th Wuhan International Machine Tool Show
Oct	Taiwan	PCB	TPCA Show Taipei 2024 – International PCB Exhibition
Nov	Japan	Machine	JIMTOF 2024 – Japan International Machine Tool Fair
	China	Machine	DME – Dongguan International Machine Tool Exhibition
Dec	China	PCB	HKPCA Shenzhen – International Electronics Circuit Exhibition

2024 SEMICON Taiwan

Wafer Planarization Solutions

Wafer Thinning Grinder, Wafer Packaging Planarizer, Laser Drilling Machine/Engraving Machine

2024 TPCA Show Taipei

AI Servo Board Drilling & Automation Solutions

Comprehensive Automated Drilling Process Solutions

THANK YOU

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