



GlobalWafers Co., Ltd.
環球晶圓股份有限公司

**Global Family,
Global Solutions!**

GlobalWafers (6488TT)

Q2 2024 Earnings Call

2024/08/06





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01

Executive Comment



Executive Comments

➤ Financial Highlights

● Revenue

- ✓ Q224 → NT\$15.3 billion, 1.6% QoQ, third highest over the same period !
- ✓ 1H24 → NT\$30.4 billion, -16.7% YoY, third highest over the same period !

● Gross Profit (%)

- ✓ Q224 → 32.3%
- ✓ 1H24 → 33.3%

● Operating Income (%)

- ✓ Q224 → 22.0%
- ✓ 1H24 → 24.1%



➤ Financial Highlights

● Net Profit (%)

- ✓ Q224 → 18.8%
- ✓ 1H24 → 21.1%

● EPS

- ✓ Q224 → NT\$ 6.02
- ✓ 1H24 → NT\$14.04

● Prepayment

- ✓ NT\$34.9 billion (US\$ 1.1 bn)³

Note:

1. Q224: Second quarter of 2024
2. 1H24: First half year of 2024
3. FX Rate: NTD:USD = 32.45, including guarantee



➤ Industry & Overview

● Global Economy

- ✓ Global economic growth is projected to remain steady in 2024, with a slight uptick in 2025. A “soft landing” from the pandemic appears likely as growth remains resilient despite inflation, although risks from trade tensions and geopolitical conflicts continue to persist.

● Semiconductor Industry

- ✓ The performance of chips, particularly high-bandwidth memory (HBM) chips, has consistently improved due to advancements in advanced packaging technologies utilizing 2.5D and 3D architectures, necessitating greater wafer usage.
- ✓ The widespread adoption of AI-driven electronic devices, along with the onset of the AI-powered device replacement cycle, is likely driving increased demand for peripheral ICs and sensors.
- ✓ With inventory levels gradually depleting and downstream customers ramping up production capacity in 2025, the semiconductor industry is expected to recover in the second half of 2024 and maintain an optimistic outlook for 2025.



➤ Global Expansion

● Expansion in United States and Europe

- ✓ GlobalWafers' US sites (GlobalWafers America (GWA) and MEMC LLC) are eligible for up to **\$400 million** to establish **the first fully integrated 12" silicon wafer production line in the US in over 20 years**, as well as **the nation's only 12" SOI wafer facility**, addressing a critical semiconductor supply chain gap and reducing reliance on imported wafers.
- ✓ GlobalWafers Italy site (MEMC S.p.A.) has secured up to **€103 million** to construct **Europe's most advanced 12" semiconductor wafer facility**, addressing a major gap in the European supply chain, which has been largely dependent on imports for wafers needed in advanced technology platforms.
- ✓ Following expansion, GlobalWafers will offer a **one-stop solution from ingot to epitaxy across three continents** — Asia, US, and Europe, with **12" fabs in major semiconductor markets**, including the US, Italy, Japan, Korea, and Taiwan. This will enhance flexibility, address macro and geopolitical challenges, reduce the environmental impact of shipping, and leverage proximity to blue-chip customers.



➤ ESG

● Corporate Governance Evaluation

- ✓ GlobalWafers has maintained **top 5% corporate governance** among all Taiwan-listed companies for **6 consecutive years**.
- ✓ According to CommonWealth Magazine, GlobalWafers was once again honored as one of the top 100 companies in 2023.
 - Ranked **8th by revenue** among 72 semiconductor companies
 - Ranked **10th in net profit** among 1,350 manufacturing firms
- ✓ GlobalWafers' Danish site, Topsil GlobalWafers A/S, has implemented a 10MWh solar farm and aims to be **the first semiconductor crystal manufacturing facility to use 100% self-generated green electricity** by Q4 2024.
- ✓ GlobalWafers has also achieved a board composition comprising **half independent director** and **over one-third female representation**, advancing diversity and gender equality. The Company remains committed to enhancing corporate governance and fulfilling ESG responsibilities.



02

Industry Overview



Global GDP Growth Forecast

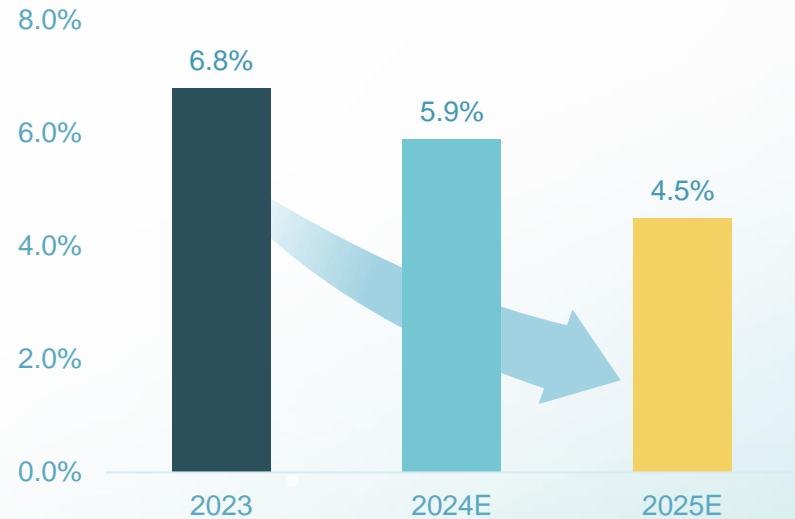
- Global economic growth is projected to hold steady at 3.2% in 2024, rising slightly to 3.3% in 2025. A 'soft landing' from the pandemic remains likely as growth shows resilience against inflation, though risks from trade tensions and geopolitical conflicts persist.
- Global consumer confidence and business activity are improving but remain below pre-pandemic levels. However, inflation is expected to moderate slowly, as central banks remain cautious about policy easing.

2024 & 2025 Economic Outlook

3.2% → 3.3%

GDP growth projection
for 2024 and 2025

Global Inflation Projection¹



Source: IMF, July 2024

Note:

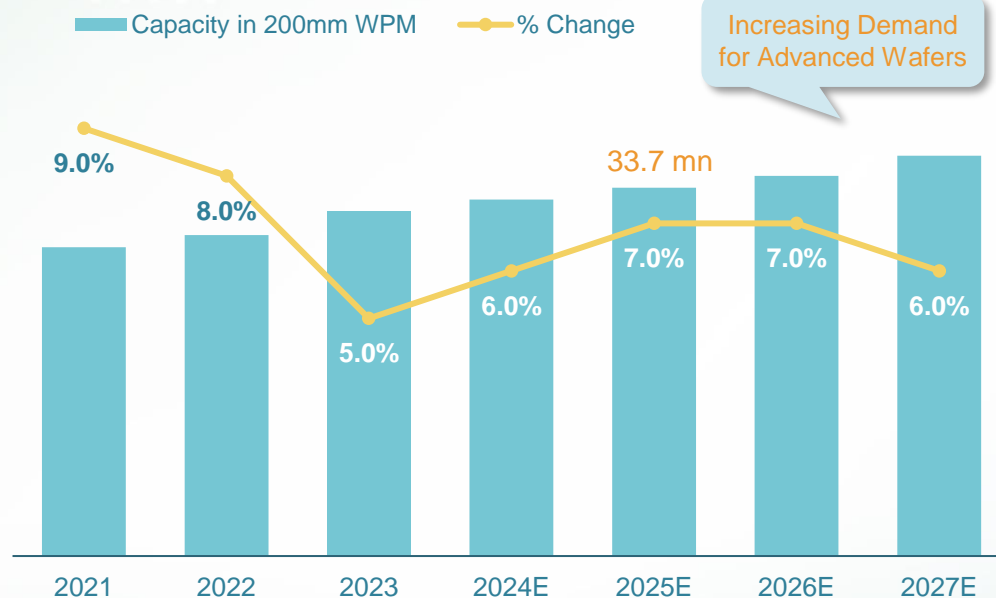
1. The rate of inflation is the percentage change in the average consumer price index (CPI)



Global Semiconductor Fab Capacity

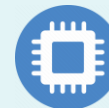
- Specialty and advanced packaging with 2.5D and 3D architectures are gaining market share due to smaller nodes and increased investments in chiplets and high-bandwidth memory (HBM).
- The rise in global semiconductor fab capacity to a record 33.7 million WPM¹ by 2025 drives demand for high performance wafers. GlobalWafers allocates its entire NT 100bn capex to advanced and specialty products, aligning with market trends and positioning the company well.

Global Semiconductor Fab Capacity² Projections



Note:
1. Refers to Wafers Per Month
2. Front End, including Fab/EPI
Source: SEMI, June 2024

GlobalWafers allocates each of its dollars to advanced and specialty products



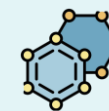
Large-Size Wafers

→ 12" PW & 12" EPI



Specialty Wafers

→ 8" FZ & 12" SOI



Compound Semiconductors

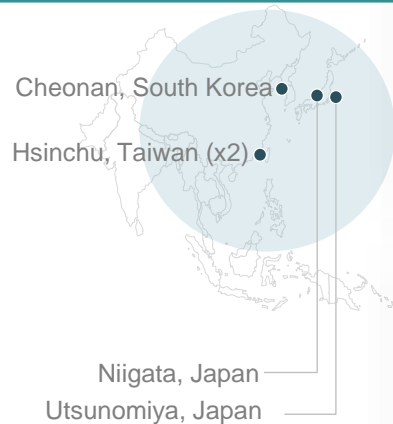
→ SiC & SiC EPI & GaN on Si

Semiconductor Market Forecast

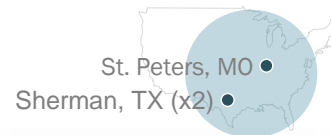
- WSTS projects that global sales will grow to \$611.2 billion in 2024, up 16% year-over-year, and \$687 billion in 2025, up 12.5%, driven primarily by significant increases in the Memory and Logic sectors.
- In 2025, all regions are positioned for sustained growth, with the Americas and Asia Pacific expected to achieve double-digit year-over-year increases.
- GlobalWafers' expansions in Asia, the US, and Europe, combined with its broad range of applications and specifications, are expected to capture market recovery momentum.

GlobalWafers Capacity Expansion Regions

Asia



US

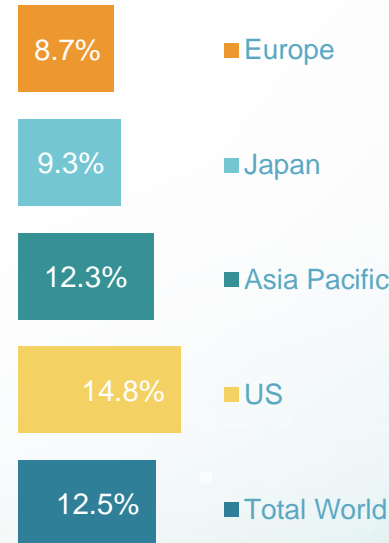


Europe

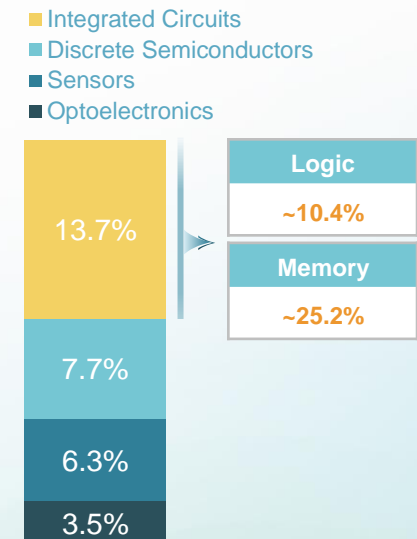


Global Semiconductor Market Forecast in 2025 (Year on Year Growth in %)

(By Region)

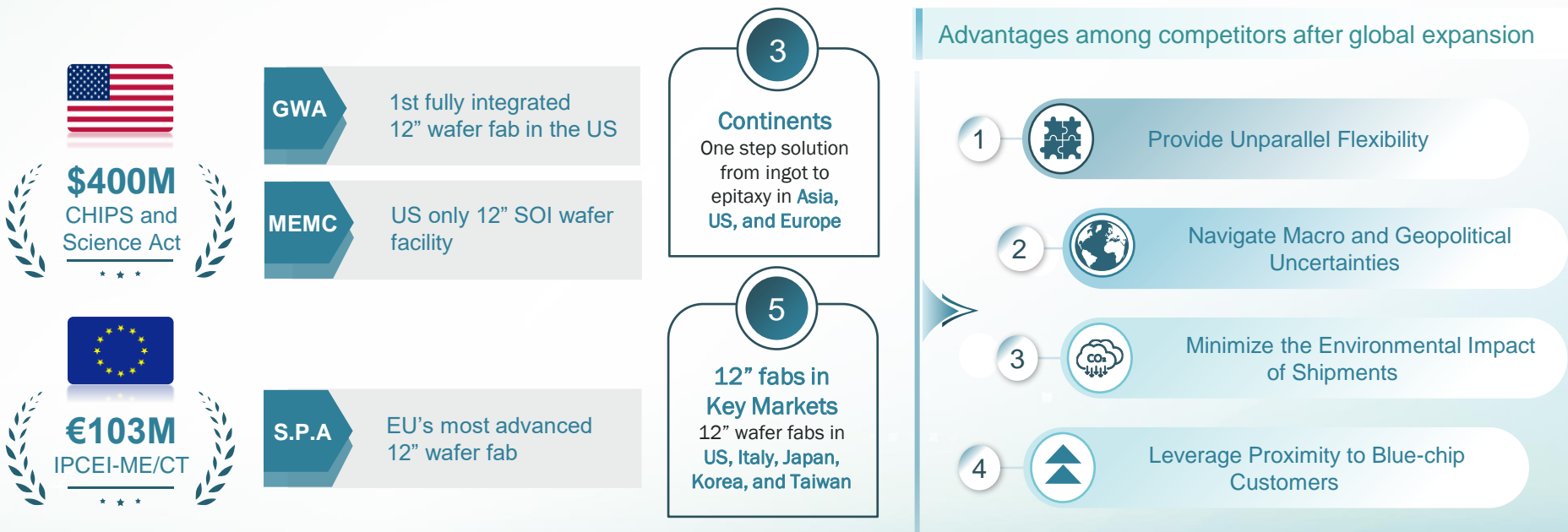


(By Product)



Secured Subsidies for Global Expansion

- GlobalWafers' US sites (GWA & MEMC LLC) could receive up to \$400 million under the CHIPS and Science Act to establish **the first fully integrated 12" silicon wafer production line built in the US in over 20 years** and **the country's only 12" SOI wafer facility**, addressing a critical semiconductor supply chain gap and reducing high reliance on wafer imports.
- GlobalWafers' Italy site (MEMC S.p.A.) secured up to **€103 million** under IPCEI-ME/CT to build **Europe's most advanced 12" semiconductor wafer production facility** in Italy. This will **bridge a significant gap in the European semiconductor supply chain**, which has been heavily dependent on imports for wafer used in advanced technology platforms.
- After expansion, GWC will provide **a full solution from ingot to epitaxy across three continents with 12" fabs in key semiconductor markets**, enhancing flexibility, addressing macro and geopolitical challenges, reducing shipping's environmental impact, and leveraging proximity to blue-chip customers.

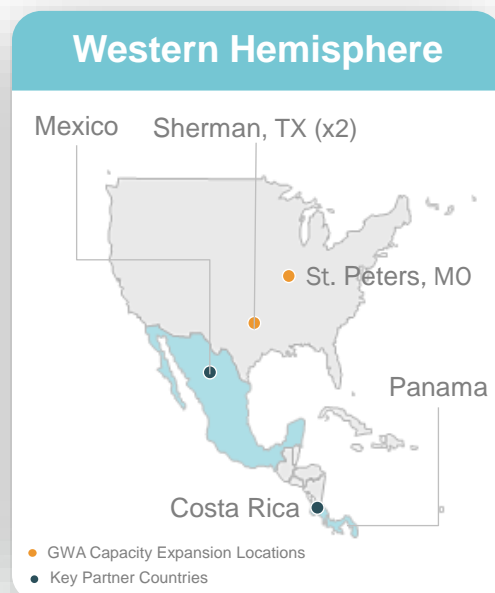




GWC's U.S. Sites Will Likely Become Key Hubs in the Western Hemisphere's Semiconductor Ecosystem

- The U.S. Department of Commerce anticipates up to **\$1.6 billion** in funding for innovation across R&D areas through the CHIPS ITSI¹ Western Hemisphere Semiconductor Initiative to develop domestic ATP² for semiconductors and enhance capabilities in key partner countries, starting with **Mexico, Panama, and Costa Rica**.
- GWC's US sites (GWA, GlobiTech & MEMC LLC) will likely become **key hubs in the Western Hemisphere's rapidly developing semiconductor ecosystem** under the CHIPS ITSI Western Hemisphere Semiconductor Initiative.
- With this Initiative, it will bolster regional capabilities and set a precedent for inclusive economic growth and global technological advancement, furthering the Americas Partnership for Economic Prosperity objectives by supporting a semiconductor-focused multilateral platform.

CHIPS ITSI Western Hemisphere Semiconductor Initiative



1

To develop domestic ATP for semiconductors and enhance capabilities in key partner countries

2

To bolster regional growth, advance technology, and support the Americas Partnership through a semiconductor platform



Our U.S. Sites will likely become key hubs in the Western Hemisphere's semiconductor ecosystem

Note:

1. Refers to International Technology Security and Innovation
2. Refers to assembly, testing, and packaging

Source:

1. DIGITIMES, July 2024

2. U.S. Department of State, July 2024

Advanced Packaging Technologies

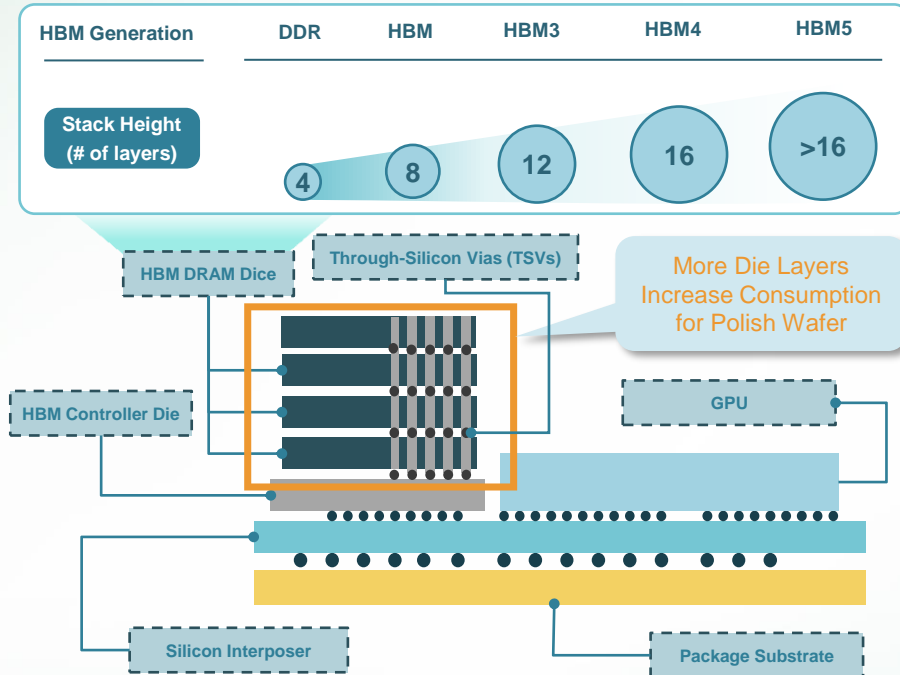
Driving Wafer Consumption



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- Chips performance, especially the high bandwidth memory (HBM) chips, have continuously improved thanks to innovation in advanced packaging technologies incorporating 2.5-3D architecture.
- As the number of die layers increases, together with the inclusion of a base wafer underneath the structure, silicon wafer consumption is expected to further expand.

HBM Advanced Packaging Schematic Representation

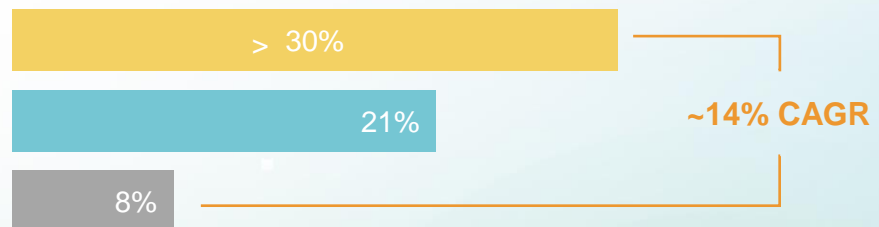


Estimated HBM Share of DRAM Bit Capacity and Market Value Proportion, 2023-2025

Output out of total DRAM ■ 2025 ■ 2024 ■ 2023



Revenue out of total DRAM ■ 2025 ■ 2024 ■ 2023



Source:
1. Lawrence Berkeley National Laboratory, February 2024
2. SEMICON Taiwan, September 2024
3. TrendForce, May 2024



Financial Highlight : Q224 vs. Q124 vs. Q223

(NT\$ Mn, except EPS)	Q224	Q124	Q223	QoQ	YoY
Revenue	15,326	15,087	17,896	1.6%	-14.4%
Gross Profit %	32.3%	34.3%	37.7%	-2.0p.p.	-5.4p.p.
Operating Income	3,367	3,968	5,210	-15.1%	-35.4%
Operating Income %	22.0%	26.3%	29.1%	-4.3p.p.	-7.1p.p.
Net Profit	2,879	3,533	4,789	-18.5%	-39.9%
Net Profit %	18.8%	23.4%	26.8%	-4.6p.p.	-8.0p.p.
EPS ¹	NT\$6.02	NT\$8.10	NT\$11.00	-NT\$2.08	-NT\$4.98
EBITDA ^{*2}	4,600	5,882	7,691	-21.8%	-40.2%
EBITDA %	30.0%	39.0%	43.0%	-9.0p.p.	-13.0p.p.
EBIT ³	2,614	4,025	6,057	-35.1%	-56.9%
ROE ^{*4} (annualized)	14.2%	20.5%	32.7%	-6.3p.p.	-18.5p.p.
ROA ^{*5} (annualized)	5.9%	7.5%	11.2%	-1.6p.p.	-5.3p.p.
Capex ⁶	12,699	10,438	8,994	-	-
Depreciation	1,981	1,852	1,629	-	-

1. EPS = Net Profit Attributable To The Shareholders of The Company / Weighted-average Number of Ordinary Shares Outstanding During The Period
2. EBITDA = Net Profit + Tax + Interests + Depreciation + Amortization
3. EBIT = Net Profit + Tax + interests
4. ROE = Net Profit / Average Shareholders Equity
5. ROA = (Net Profit + Interest*(1- Effective Tax Rate))/Average Asset
6. Capex = Ending Property, Plant & Equipment - Beginning Property, Plant & Equipment + Depreciation



Financial Highlight : 1H24 vs. 1H23

(NT\$ Mn, except EPS)	1H24	1H23	YoY
Revenue	30,413	36,512	-16.7%
Gross Profit %	33.3%	39.2%	-5.9p.p.
Operating Income	7,334	11,312	-35.2%
Operating Income %	24.1%	31.0%	-6.9p.p.
Net Profit	6,412	9,789	-34.5%
Net Profit %	21.1%	26.8%	-5.7p.p.
EPS ¹	NT\$14.04	NT\$22.49	-NT\$8.45
EBITDA ^{*2}	10,482	15,598	-32.8%
EBITDA %	34.5%	42.7%	-8.2p.p.
EBIT ³	6,639	12,359	-46.3%
ROE ^{*4} (annualized)	16.3%	34.5%	-18.2p.p.
ROA ^{*5} (annualized)	6.5%	11.7%	-5.2p.p.
Capex ⁶	23,137	14,110	-
Depreciation	3,832	3,230	-

1. EPS = Net Profit Attributable To The Shareholders of The Company / Weighted-average Number of Ordinary Shares Outstanding During The Period

2. EBITDA = Net Profit + Tax + Interests + Depreciation + Amortization

3. EBIT = Net Profit + Tax + interests

4. ROE = Net Profit / Average Shareholders Equity

5. ROA = (Net Profit + Interest*(1- Effective Tax Rate))/Average Asset

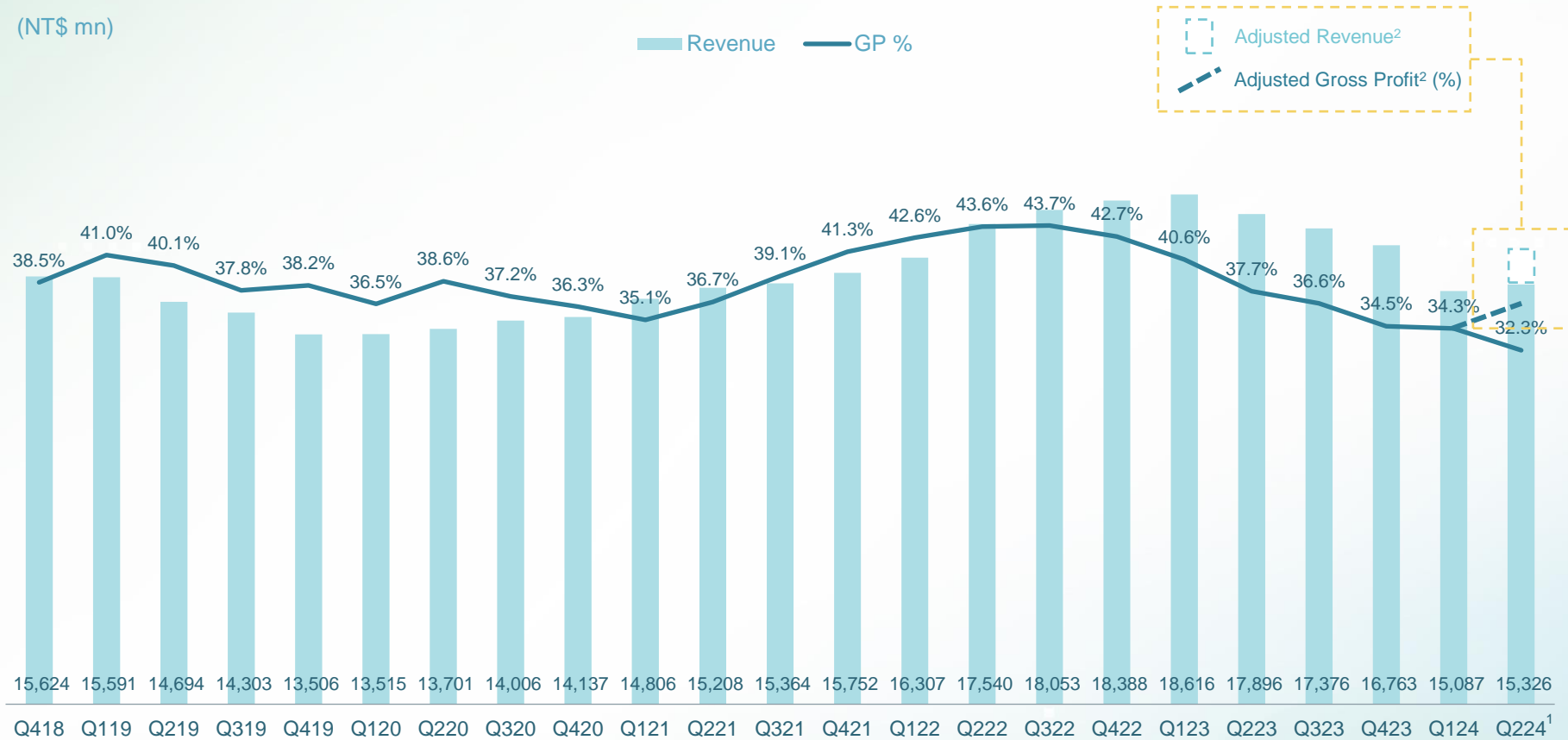
6. Capex = Ending Property, Plant & Equipment - Beginning Property, Plant & Equipment + Depreciation



Revenue & Gross Profit (%)

Revenue & Gross Profit (%)

(NT\$ mn)



- Note:
1. Q224 Gross Profit decreased: Mainly due to depreciation, cyberattack, power cost and other minor factors
 2. Adjusted Revenue & Gross Profit excluding impact of hacker attack



EBITDA & EPS

EBITDA

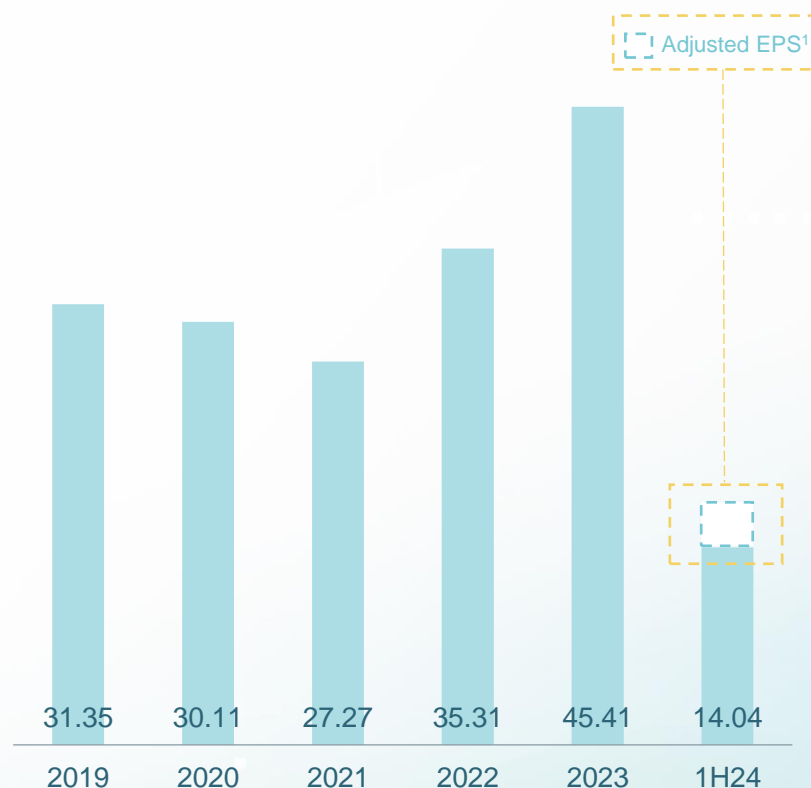
(NT\$ Mn)

■ EBITDA — EBITDA to Revenue



EPS

(NT\$)



Note:

1. Adjusted EPS excluding impact of hacker attack



Income Statement

Income Statement

(NT\$ Mn)	2022	2023	Q124	Q224	1H24
Revenue	70,287	70,652	15,087	15,326	30,413
<i>Growth (%)</i>	<i>15.0%</i>	<i>0.5%</i>	<i>-10.0%</i>	<i>1.6%</i>	<i>-16.7%</i>
Gross Profit	30,342	26,441	5,168	4,951²	10,119²
<i>Gross Profit (%)</i>	<i>43.2%</i>	<i>37.4%</i>	<i>34.3%</i>	<i>32.3%²</i>	<i>33.3%²</i>
EBITDA	25,526¹	30,630	5,882	4,600	10,482
<i>EBITDA (%)</i>	<i>36.3%</i>	<i>43.4%</i>	<i>39.0%</i>	<i>30.0%</i>	<i>34.5%</i>
Operating Income	24,983	20,059	3,968	3,367	7,334
<i>Operating Income (%)</i>	<i>35.5%</i>	<i>28.4%</i>	<i>26.3%</i>	<i>22.0%</i>	<i>24.1%</i>
Profit before Tax	20,107¹	26,496	4,558	3,531	8,089
<i>Profit before Tax Margin (%)</i>	<i>28.6%</i>	<i>37.5%</i>	<i>30.2%</i>	<i>23.0%</i>	<i>26.6%</i>
Net Profit	15,367¹	19,770	3,533	2,879	6,412
<i>Net Profit (%)</i>	<i>21.9%</i>	<i>28.0%</i>	<i>23.4%</i>	<i>18.8%</i>	<i>21.1%</i>
EPS (NT\$)	35.31¹	45.41	8.10	6.02	14.04³

Note:

1. Due to the valuation of realized gains/loss on Siltronic shares measured at fair value through profit or loss and impacts from other factors
2. Q224 Gross Profit decreased: Mainly due to depreciation, cyberattack, power cost and other minor factors
3. In conjunction with the capital increase, the number of shares is calculated on a weighted average basis, so EPS is not a constant equation.



Balance Sheet

Balance Sheet

(NT\$ Mn)

2022

2023

Q124

Q224

Assets

Cash and cash equivalents	80,491	26,165	35,672	44,178 ¹
Account receivable	10,160	10,116	10,061	9,783
Inventories	8,535	9,359	10,737	11,056
Property, plant and equipment	39,487	72,251	82,399	94,434
Other assets	30,823	71,097	63,914	75,373

Total assets

169,496 188,988 202,783 234,825

Liabilities

Short-term loan	6,544	40,000	36,630	45,786 ²
Account payable	4,176	5,027	5,189	4,049
Long-term loan	42,780	14,542	29,007	28,664
Other liabilities	61,672	62,966	60,436	65,537 ³

Total liabilities

115,172 122,534 131,262 144,036

Shareholder equity

54,324 66,454 71,521 90,789⁴

Cash-related other assets include:

(NT\$ Mn)

Q224

Deposits in banks held for three months or more 25,233

Restricted cash 16,347

*Restricted cash is temporarily deposited for tax consideration, could be used when necessary.

Note:

1. Q224 Cash and cash equivalents increased: Mainly due to the issuance of Global Depositary Shares (GDSs)
2. Q224 Short-term loan increased: Mainly due to the expansion of both greenfield and brownfield facilities
3. Q224 Other liabilities increased: Mainly due to the dividend payout
4. Q224 Shareholder equity increased: Mainly due to the issuance of new shares from GDSs issuance, leading to an increase in Additional Paid-In Capital (APIC)



04

ESG

ESG Highlights: Sustainable Environment – GHG & Power

- The Company introduced ISO 50001 and achieved a 4.0% (47,027 MWh) reduction in total electricity consumption and a 1.1% (approximately 6,197 tons CO₂e) decrease in CO₂ emissions in 2023.
- Despite rising revenue for three consecutive years, GlobalWafers reduced both Electricity Consumption Intensity¹ and Greenhouse Gas (GHG) Emission Intensity² in 2023, showcasing energy conservation and economic benefits from environmentally friendly practices.

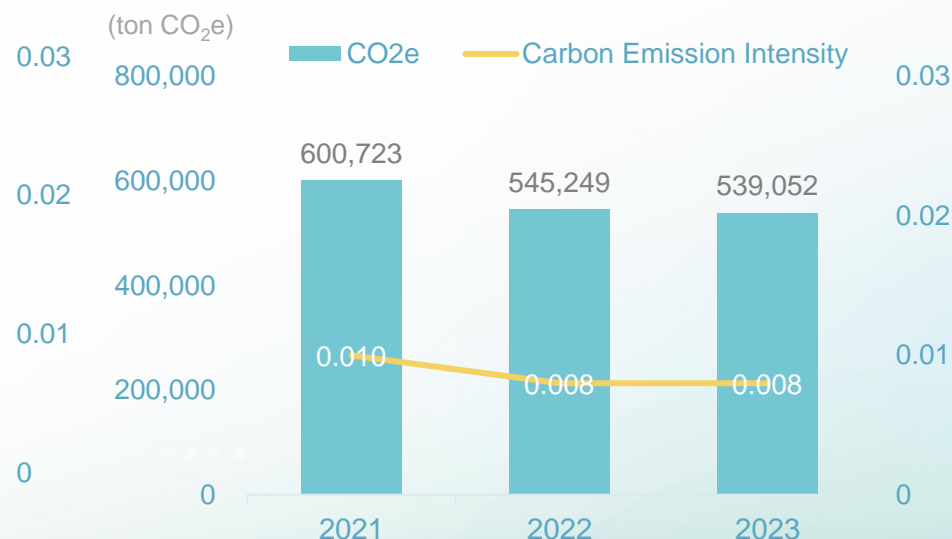
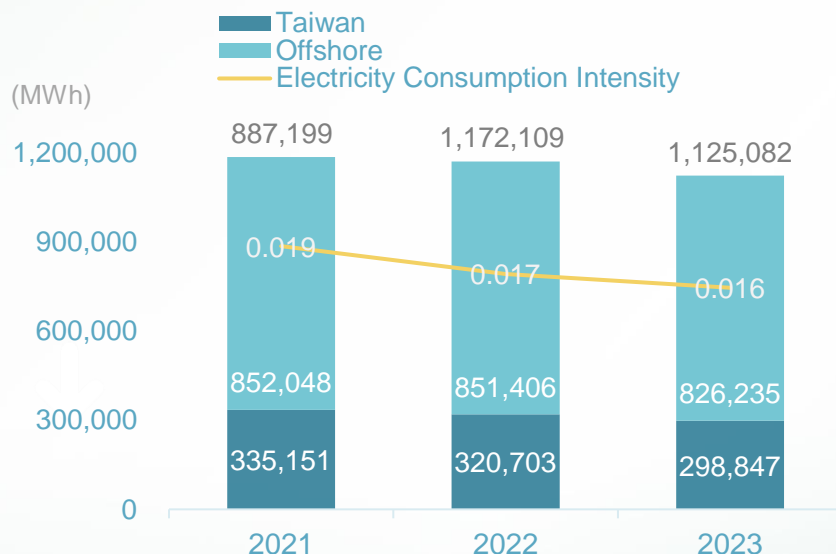
Total GHG Emission & Power Emission, 2021-2023



↓ **47,027 MWh / 4.0%**
(2023 vs. 2022)



↓ **6,197 tons CO₂e / 1.1%**
(2023 vs. 2022)

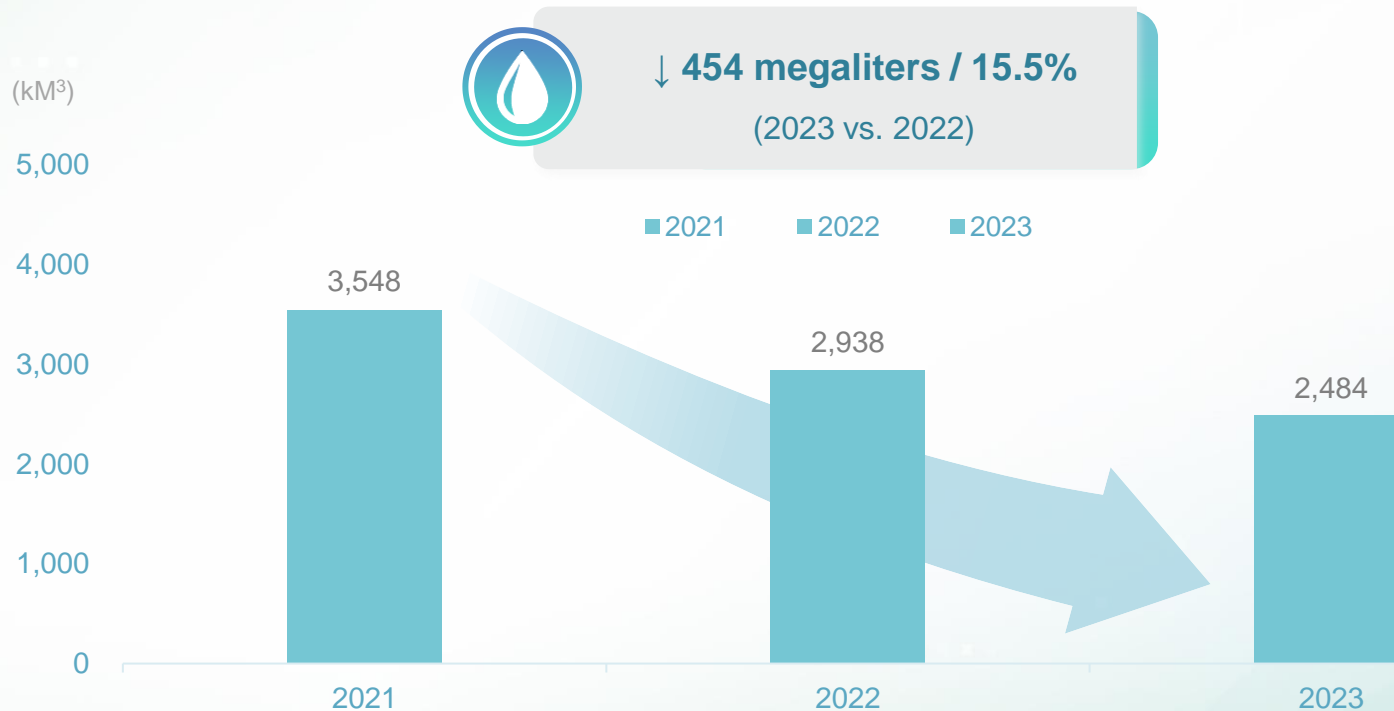


1. Electricity Consumption Intensity = MWh / Consolidated revenues(NTD thousands)
2. GHG Emission Intensity = ton CO₂e / Consolidated revenues(NTD thousands)

ESG Highlights: Sustainable Environment – Water

- Despite capacity expansion, for three consecutive years, water consumption consistently decreased, with a 15.5% (454 megaliters) reduction in 2023 compared to 2022.
- Despite the global water scarcity crisis, the Company optimizes water usage, minimizes consumption, maximizes revenue, maintains uninterrupted shipments, and continuously adjusts operations to develop eco-friendly business models.

Water Consumption Quantity, 2021-2023





ESG Highlights: Sustainable Environment – Solar Farm

- GlobalWafers' Danish site, Topsil GlobalWafers A/S, has successfully implemented a 10MWh annual production solar farm, on track to become **the first semiconductor crystal manufacturing facility to utilize 100% of its self-generated green electricity** by Q4 2024.
- Topsil will share surplus energy generated by the solar farm with local partners, contributing to RE100 initiatives and fostering a circular economy model within the community.



Denmark

TOPSIL

RE 100



ESG Highlights: Corporate Governance

- GlobalWafers has been consistently recognized in **top 5% for corporate governance** among all Taiwan listed companies for **six consecutive years**.
- According to Commonwealth Magazine, GlobalWafers ranked among the top 100 companies in 2023, **8th by revenue** among semiconductor firms¹ and **10th in net profit** among manufacturing companies² in Taiwan.
- GlobalWafers' board now comprises **50% independent directors** and **over one-third female representation**, surpassing regulatory requirements and enhancing diversity and gender equality.

Corporate Governance Award



2023 Commonwealth Magazine Ranking

Profitability



Top 1%

Manufacturing



Top 5%

Semiconductor

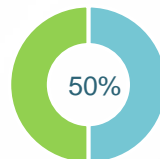


~Top 10%

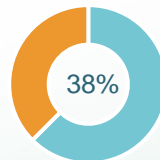
Board of Directors Accomplishment

1/2

Independent directors



Female directors



> 1/3

#10

#67

#8

1. 76 semiconductor companies was selected in 2023
2. 1,350 manufacturing firms was included in 2023



ESG Highlights: Social Welfare

- GlobalWafers supports disadvantaged families, children, and people with disabilities in remote areas through donations and volunteer services focused on improving living conditions, education, and environmental protection.
- To encourage employees to participate in social welfare, GlobalWafers matches every dollar donated by employees with an additional dollar (GlobalWafers will donate the same amount as the employee donates).

Social Welfare Activities & Resources Invested in 2023



Turkey-Syria Earthquake Relief Donation Event

Donation to World Vision Taiwan totaling **NT\$921,000**



Early Intervention Fundraising Project

Donation to Syin-Lu Social Welfare Foundation totaling **NT\$250,800**



Support for the Development of Domestic Culture & Arts

GlobalWafers invested **NT\$5 million** with The Alliance Cultural Foundation in the Paul Chiang Art Center, attracting **72,006 visitors** from December 2, 2023, to March 10, 2024





04

Q&A



GlobalWafers Co., Ltd.
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Thank You



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