



# GlobalWafers (6488 TT) 3Q22 Earnings Call

November, 2022



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# Executive Comments

## ➤ Financial Highlights

### ● Revenue

- ✓ Q322<sup>1</sup> → NT\$18.1 billion, 2.9% QoQ, 17.5% YoY, record high!
- ✓ Since Q120<sup>2</sup>, GlobalWafers' revenue has increased sequentially!

(NT\$ mn)	Q419	Q120	Q220	Q320	Q420	Q121	Q221	Q321	Q421	Q122	Q222	Q322
Revenue	13,506	13,515	13,701	14,006	14,137	14,806	15,208	15,364	15,752	16,307	17,540	18,053

- ✓ 3Q22<sup>3</sup> → NT\$51.9 billion, 14.4% YoY  
Surpassed the 50 billion milestone and achieved record-breaking high!

### ● Gross Profit (%)

- ✓ Q322<sup>1</sup> → 43.7%, record high!
- ✓ 3Q22<sup>3</sup> → 43.3%, record high!
- ✓ Since Q221<sup>4</sup>, GlobalWafers' gross profit (%) has increased sequentially!

(%)	Q121	Q221	Q321	Q421	Q122	Q222	Q322
Gross Profit (%)	35.1%	36.7%	39.1%	41.3%	42.6%	43.6%	43.7%

1. Q322: Third quarter of 2022

2. Q120: First quarter of 2020

3. 3Q22: First three quarters of 2022

4. Q221: Second quarter of 2021



## ➤ Financial Highlights

### ● Operating Income (%)

- ✓ Q322<sup>1</sup> → 35.1%, the third highest in the history!
- ✓ 3Q22<sup>2</sup> → 35.9%, the highest in the history!

### ● Net Profit (%)

- ✓ Q322<sup>1</sup> → 28.3%, record high!
- ✓ 3Q22<sup>2</sup> → 18.4%

### ● EPS

- ✓ Q322<sup>1</sup> → NT\$11.74, record high!
- ✓ 3Q22<sup>2</sup> → NT\$22
- ✓ EPS would have increased to NT\$40.89 for the first three quarters of 2022 if excluding the realized loss of Siltronic shares measured at fair value through profit or loss and impacts from other non-operational factors (NT\$18.89), record high!

### ● Prepayment

NT\$ 38,205 mn (US\$ 1,203.3 mn)<sup>3</sup>, record high!

1. Q322: Third quarter of 2022  
2. 3Q22: First three quarters of 2022  
3. FX Rate: NTD:USD = 31.75



## ➤ Industry & Overview

### ● Global Economy

- ✓ According to IMF, global growth is forecast to slow from 6% in 2021 to 3.2% in 2022 and 2.7% in 2023, the weakest growth profile since 2001 except for the global financial crisis and the acute phase of the COVID-19 pandemic.
- ✓ Global inflation is forecast to rise from 4.7% in 2021 to 8.8% in 2022 but to decline to 6.5% in 2023 and to 4.1% by 2024.
- ✓ Russia's invasion of Ukraine and the capricious pandemic will weigh on the global recovery.

### ● Semiconductor Industry

#### ✓ Short-term

Declining consumer confidence drags down PC, smartphone and memory will cycle lower in 2H22, but automotive and datacenter segments continue to be strong.

#### ✓ Mid-term

2023 is believed to have flat growth.

#### ✓ Long-term

Improvements in macro-economic factors, coupled with balancing of chip inventories are expected to bring growth back in 2024, buoyed by positive mega trends in digitization.



## ➤ Industry & Overview

### ● Compound semiconductor

- ✓ Boosted by stimulus packages such as EV and net zero carbon emissions, compound semiconductors will scale up rapidly.
- ✓ The comprehensive compound semiconductor offering makes GlobalWafers well-positioned for upcoming boom.
  - SiC substrate:
    - N+ for power, Semi insulating (High resistivity) for RF
    - SiC epi wafer: SiC on SiC for power

### ● Automotive

Increasing demand for EV and the infotainment, autonomous driving technologies exacerbate the needs for semiconductor. However, rising geopolitical tensions bring more challenges to supply chain and the shortage is likely to continue.

### ● Inventory

Owing to weakening demand for consumer electronics, inventory pressure has increased. Automotive and industrial applications remain strong.



## ➤ Industry & Overview

### ● Utilization

- ✓ 200 & 300mm - Solid
- ✓ 150mm - Lower traction
- ✓ FZ & SOI materials - Strong traction

## ➤ RE100

- Following the self-commitment on 100% Renewable Energy by 2050 in its global operations, GlobalWafers strengthens its green promise by formally joining RE100.
- GlobalWafers' pledge is to achieve a 20% usage ratio of renewable energy by 2030, 35% by 2035, 50% by 2040, and finally the long-term goal of 100% renewable energy usage by 2050.
- GlobalWafers implements the profound experiences of Sino-American Silicon Products Inc., the parent company, in building solar power plants, along with signing Power Purchase Agreement (PPA) and purchasing Renewable Energy Certificates (RECs).

## ➤ Top Solar System Award

- Sunrise PV Four Co., Ltd, the subsidiary of GlobalWafers, is awarded the “Top Solar System Award – Best Ground Mounted PV System for 2022” by the Energy Bureau of the Ministry of Economic Affairs, Taiwan.



# Economic Moat





# Complete Product Offering

Semiconductors are integral for all technologies that shape and enable our daily life. Virtually all semiconductors are built on silicon wafers

GlobalWafers offers a complete product spectrum covering 3" to 12" wafers to meet the full range of customer needs and to avoid market fluctuations by production capacity adjustment.

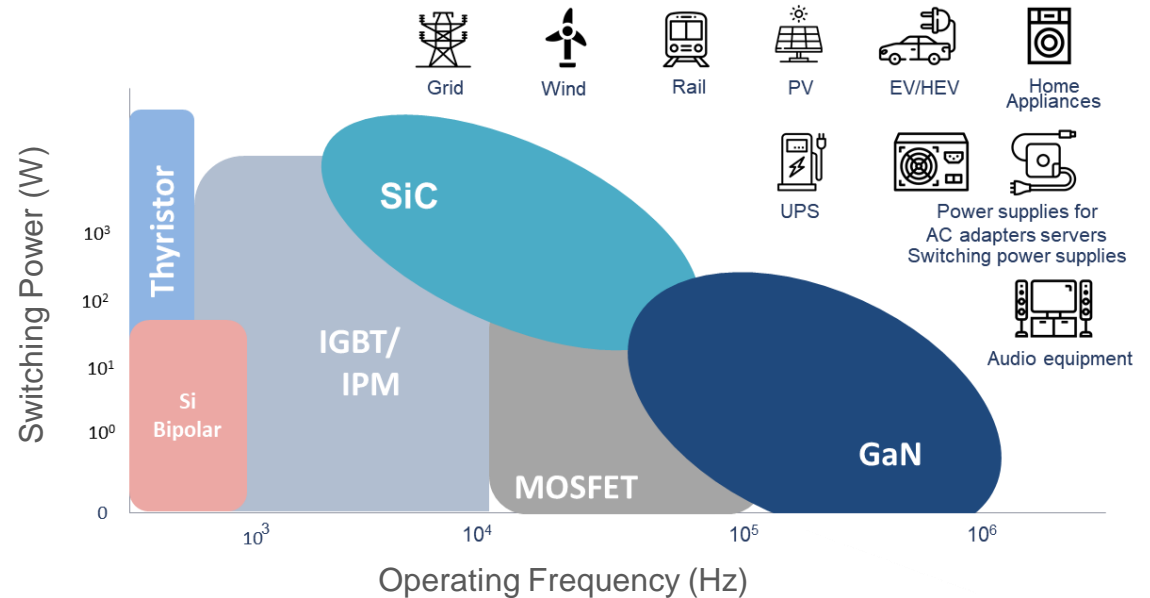
## GlobalWafers' Product Spectrum

- EPI Wafer
- Polished Wafer
- Non-polished Wafer
- FZ Wafer
- Annealed Wafer
- Diffused Wafer
- SOI Wafer
- SiC Wafer
- GaN/Si, GaN/SiC



## Applications

- Automotive
- Communications
- Computer
- Consumer
- Renewable Energy
- Gov / Mil



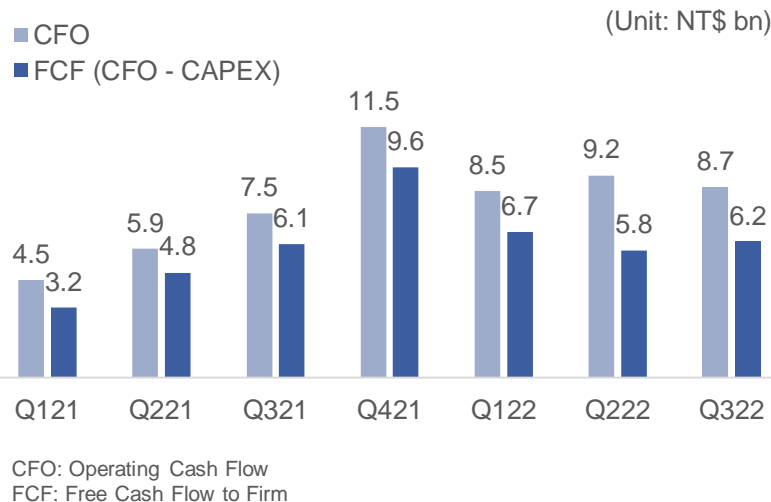
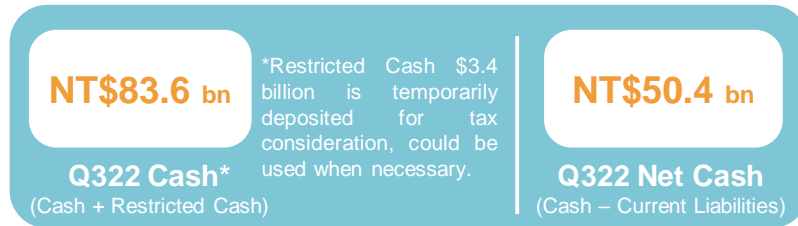
Source: Yole, GlobalWafers summary



# Robust Financial Structure (1)

## 01 Ample Cash

Abundant cash and strong capabilities in generating cash shows GlobalWafers' solid earning power even amid macroeconomic instability.



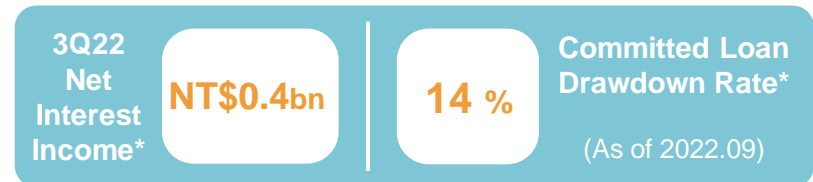
## 02 Low Funding Cost

GlobalWafers' CAPEX is backed by low-interest funding sources such as CB and ECB, which cushion GlobalWafers from the rate lifting and lay the groundwork for long-term growth.

	Amount	Fixed Interest	Maturity
CB 1 <sup>st</sup>	NT\$ 6.5 bn	0.62%	2026
CB 2 <sup>nd</sup>	NT\$12.5 bn	0.5% / 0.6%	2024 / 2026
ECB	US\$1 bn	-0.25%	2026

Dynamic asset allocation contributes to the optimum mix of assets in the evolving economic conditions. GlobalWafers' net interest income totals \$0.4 billion in 3Q22.

GlobalWafers' low committed loan drawdown rate is well-positioned for CAPEX in the coming years.



\*Net Interest Income: Including non-monetary net interest.

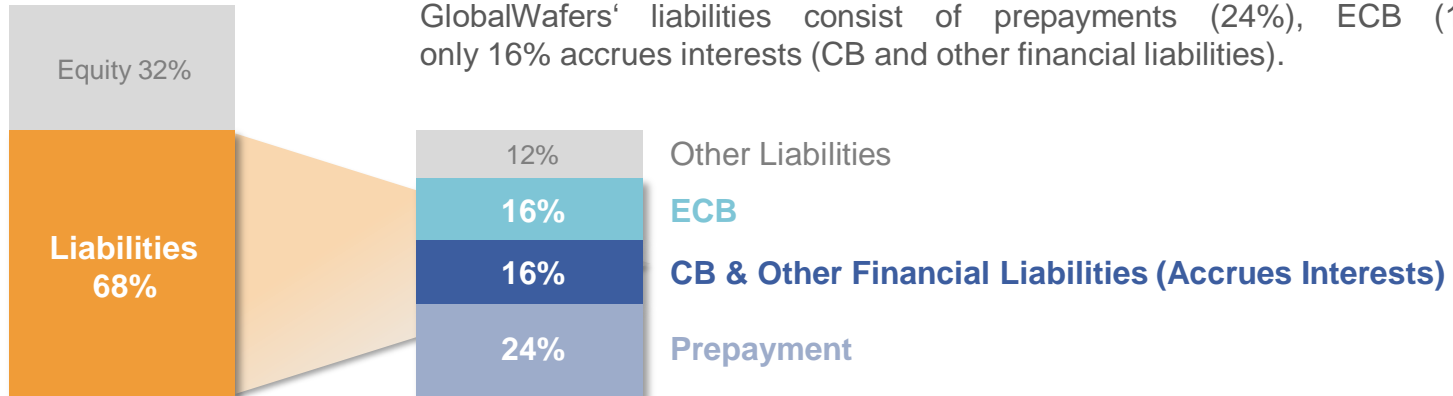
\*Committed Loan: Including bank guarantee.



# Robust Financial Structure (2)

## 03 Solvency & Liquidity

GlobalWafers' liabilities consist of prepayments (24%), ECB (16%); only 16% accrues interests (CB and other financial liabilities).



**Q322**  
Long-term Funds to Fixed Assets

**371%**

Equity + Non-current Liabilities

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Fixed Assets

GlobalWafers' capex projects are backed by diversified long-term funding which provides flexibility and reduces dependence on one capital source. Its stability empowers GlobalWafers to pursue sustainable growth.

**Q322**  
Current Ratio

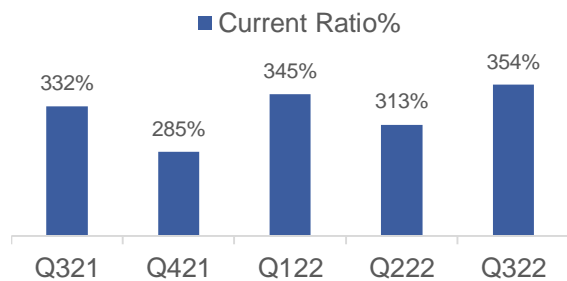
**354%**

Current Assets

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Current Liabilities

Current ratio is above 300%, strong liquidity demonstrates the ease to convert assets into cash.



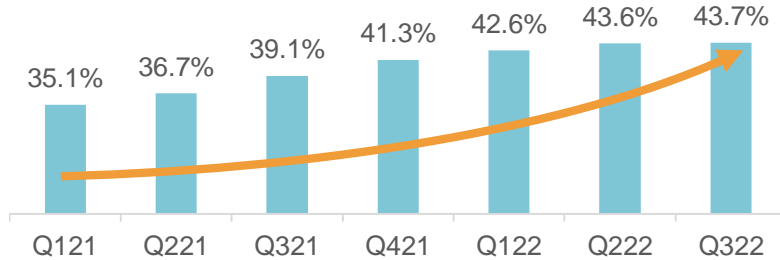


# Solid Profitability

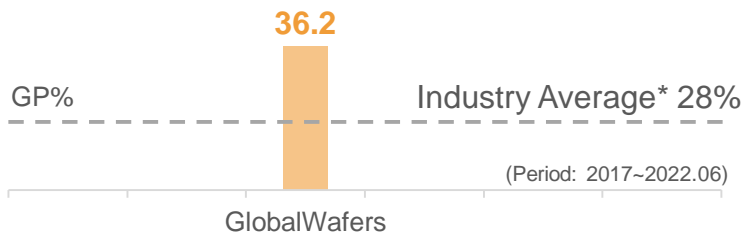
## 01 Gross Profit (%)

GlobalWafers' gross profit (%) has grown steadily, offering an encouraging sign of improved efficiencies.

**6 Consecutive Quarters of Gross Profit**



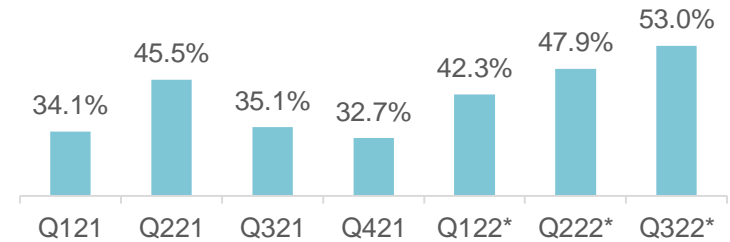
Compared to rivals, GlobalWafers maintains consistent gross profit ratio, effective in softening the impact of various sources of systematic risk.



\*Industry Average: The average of 3 peers, source from public information.

## 02 EBITDA (%)

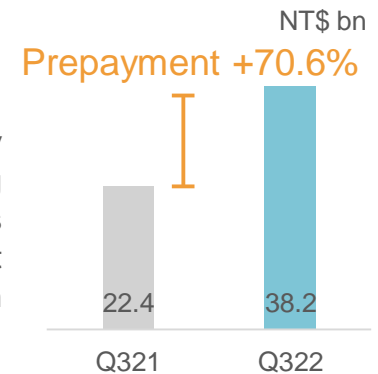
Excluding realized loss from Siltronic shares and other non-operational factors, GlobalWafers' EBITDA (%) shows good health of the core operations.



\*Other Non-operational Factors: Including the reversed differed tax liability of retained earnings for capex from Japan subsidiaries, but excluding the tax and employee dividends impact from valuation of Siltronic shares.

## 03 LTA Protection

GlobalWafers' capacity is locked by LTA. Strong bonding with customers serves as buffer against downward risks in volatile market.





# Industry Overview

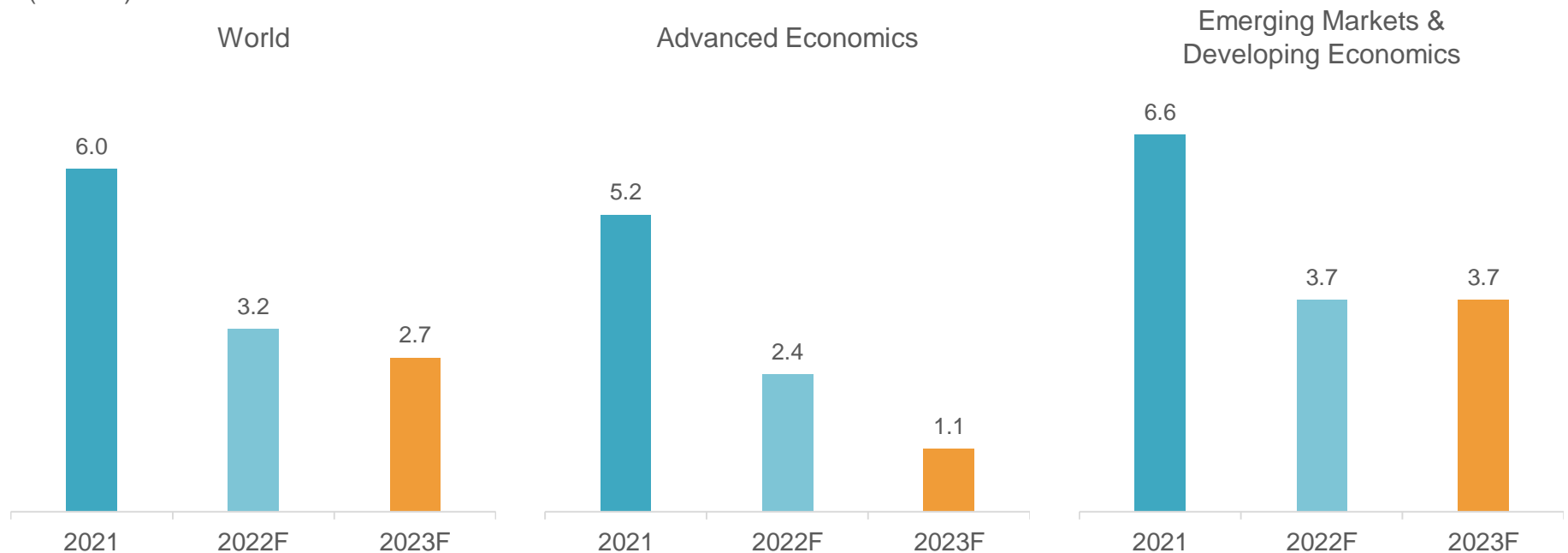


# Global GDP Growth Forecast

- The fragile world economy is facing the risk of another downturn due to the Russian-Ukrainian war, China's lockdown measures, and tight fiscal policies to cope with rising prices.
- Global growth is expected to slow from 6.0% in 2021 to 3.2% in 2022 and 2.7% in 2023. U.S., China and the European Union will face flat GDP growth in the coming years.

## World Economic Outlook

(Unit: %)



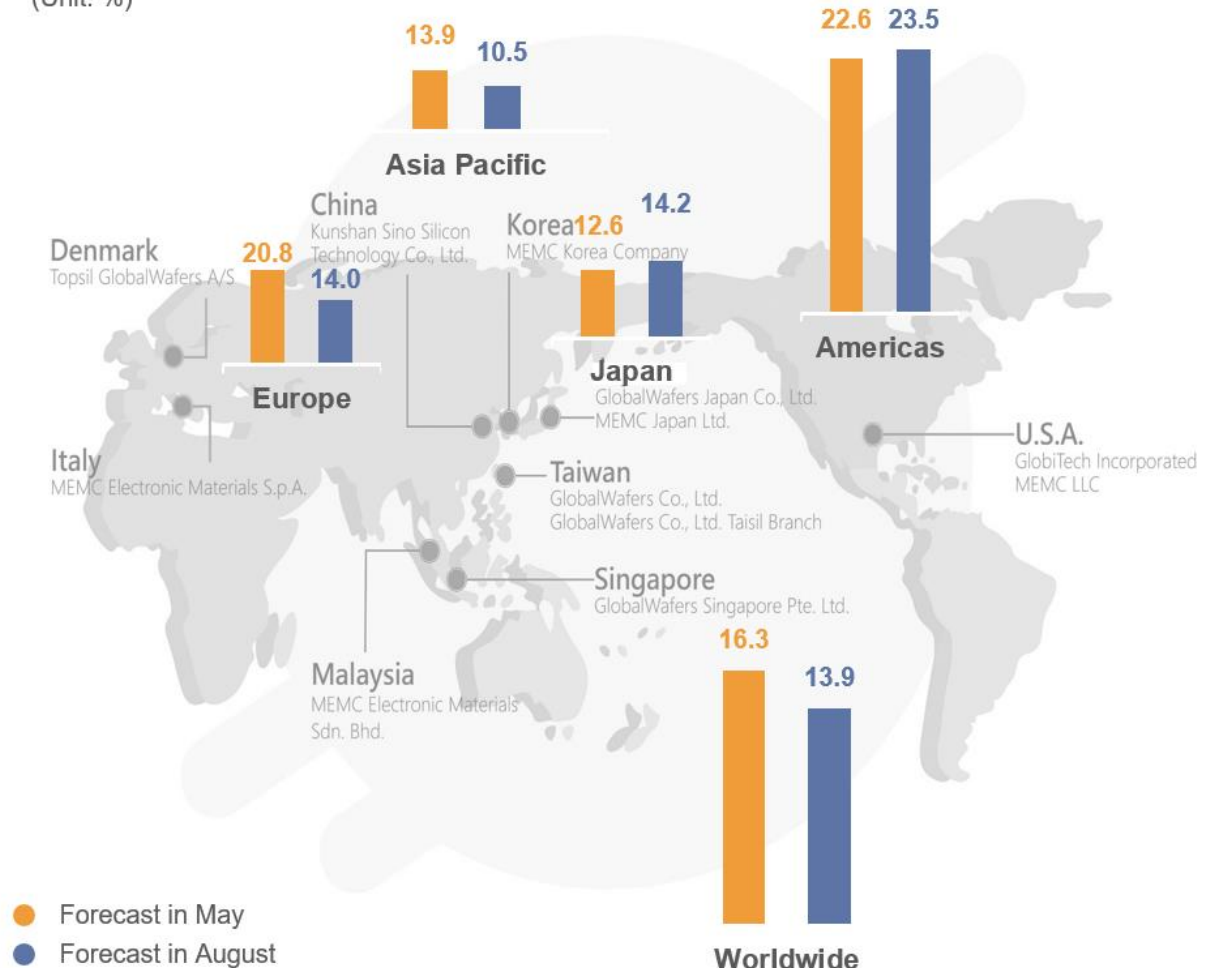
Source: IMF, October 2022.

# Worldwide Semiconductor Forecast

- WSTS has revised its 2022 worldwide semiconductor growth forecast down to 13.9% from 16.3% since rising inflation, ongoing supply chain disruptions, and inventory adjustment.
- Semiconductors continue to show double-digit growth across regions in 2022 because of strong resilience to market volatility.
- As the only wafer supplier who has operations in Asia, Europe and the US, the advantage of “proximity” will help GlobalWafers withstand geographic instability and supply greener with less mileage.

2022 Semiconductor Growth Forecast by Region

(Unit: %)



Source: WSTS, August 2022 & May 2022

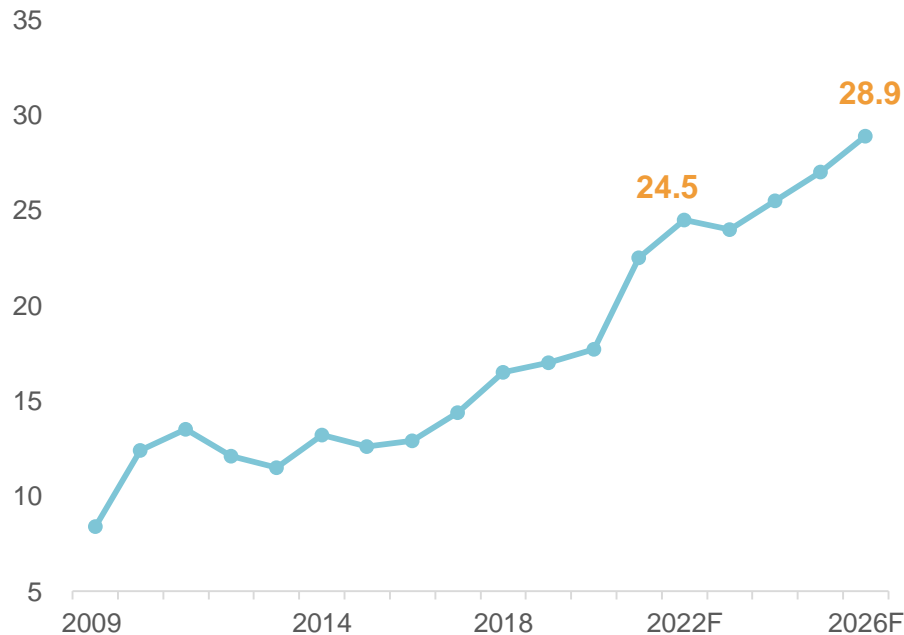


# Technology Advancement Drives Continuous Growth of Semiconductors

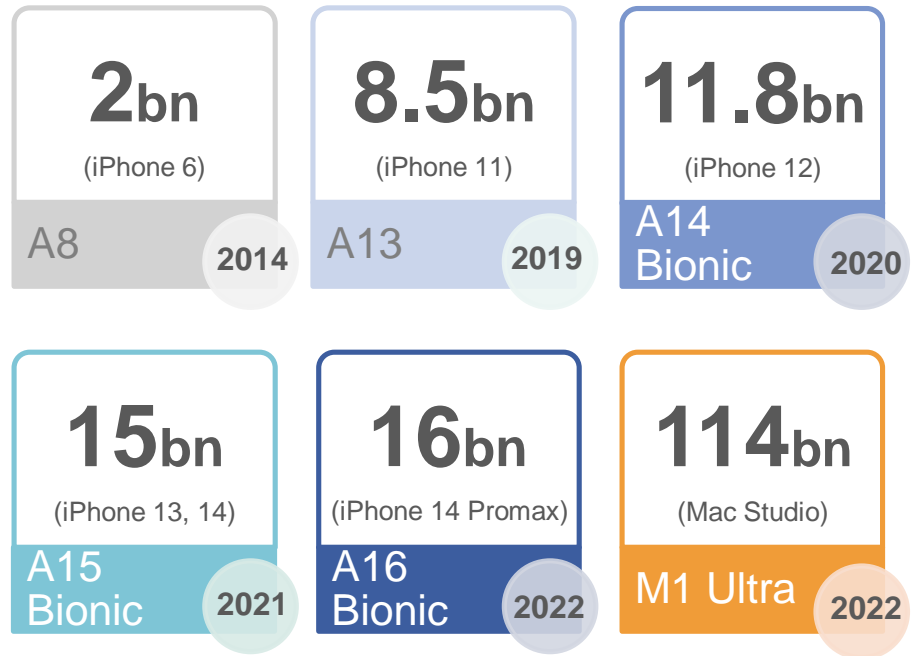
- Benefiting from advanced technologies such as automotive, 5G, and HPC, sales of power transistors will increase by 11% in 2022 and are expected to hit a record high for the sixth time in a row, reaching \$24.5 billion this year.

### Worldwide Power Transistor Sales (2009-2026F)

(Unit: bn)



### Transistor Count in Apple Chips



Source: IC Insights, October 2022, Apple spec





# Foundry Capacity Utilization Rate

- 12" fab overall production capacity utilization rate will be maintained at approximately 95% since the products are more diverse and spec upgrade have not been affected by broader short-term economic fluctuations.
- In the short term, the cooling of the consumer product market will soothe the tightness in the capacity utilization rate of wafer foundries, but in the long run, the semiconductor industry will be supported by HPC and EV and will reach nearly full-load under certain process node.

2H22 Foundry Capacity Utilization Rate

Wafer Size	Process Node	Major Products	2H22 UTR
8"	0.35um - 0.11um	DDI, CIS, PMIC, Power Discrete	90% - 95%
12"	90nm / 55nm	TDDI, CIS, Wi-Fi, MCU, PMIC, TCON IC	90% - 99%
	40nm / 28nm	AMOLED DDI, MCU, CIS/ISP, 4G RF Transceiver, Wi-Fi, TV SoC, TCON IC	90% - 99% with potential downside risk
	1Xnm	5G RF Transceiver, 4G AP, FPGA, ASIC, Wi-Fi, TV SoC, PCH	<b>95% - 100%</b>
	7nm - 4nm	CPU, GPU, ASIC, 5G AP, FPGA, AI Accelerator	<b>95% - 100%</b>

Source: TrendForce, July 2022

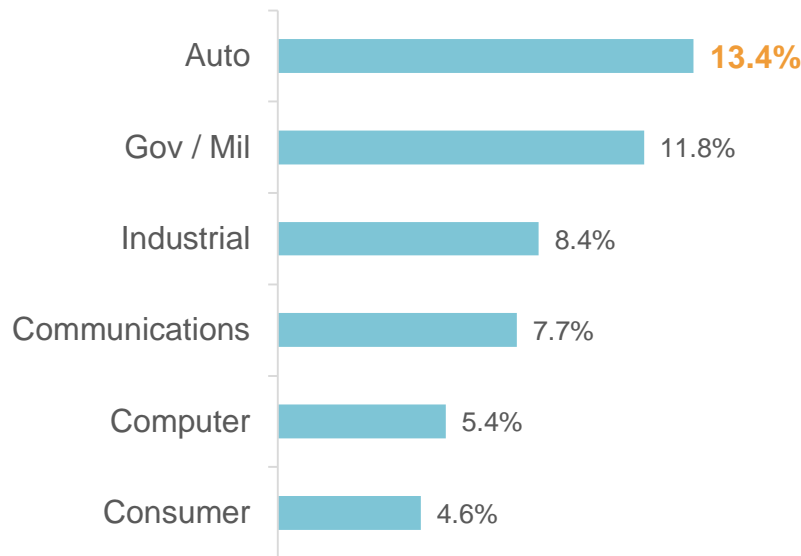


# The Era of Automotive

- IC End-use applications in the automotive market will witness the highest CAGR of 13.4% between 2021 and 2026. Growth in global sales of hybrid and fully electric vehicles, as well as new sensors, analog devices, controllers and optoelectronics being incorporated into most new vehicles are all adding to this growing trend.
- Government support and shifting consumer preferences will accelerate the EV growth trend, with BEVs and HEVs growing to nearly 90% market share by 2035.

IC End-Use Application CAGRs (2021~2026)

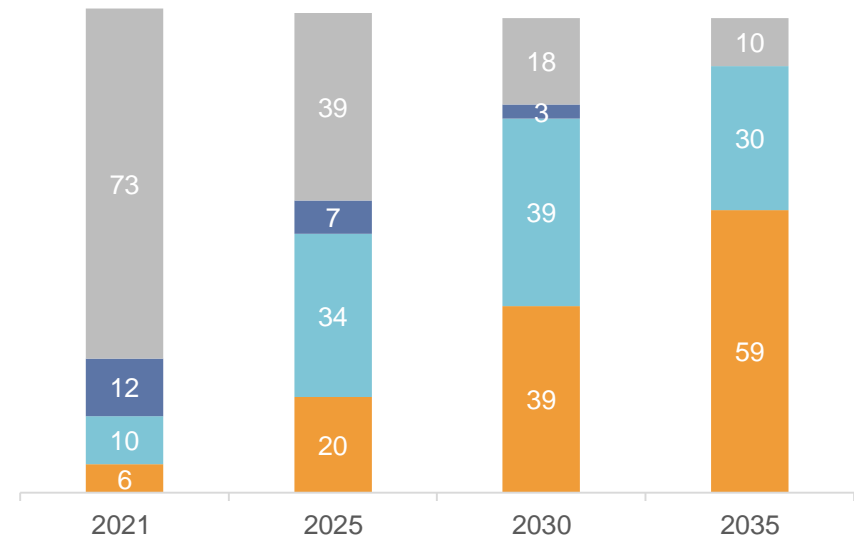
(Unit: %)



Global Projected Market Share for Automotive

Gasoline Diesel HEVs BEVs

(Unit: %)



Source: IC Insights, September 2022 & BCG, June 2022

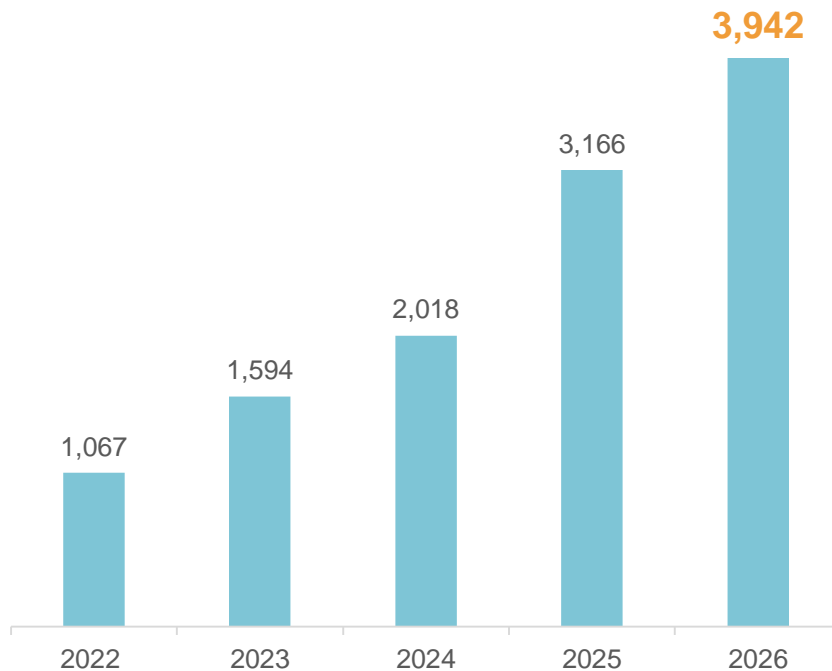


# SiC Power Component will Climb to US\$3.94 Billion by 2026

- It is estimated that the market size of SiC power components for vehicles will reach US\$1.07 billion in 2022, and will climb to US\$3.94 billion by 2026.
- The SiC utilization rate has extended from high-end automotive applications to mid-to-low-end vehicles, which will accelerate the process of automotive electrification.

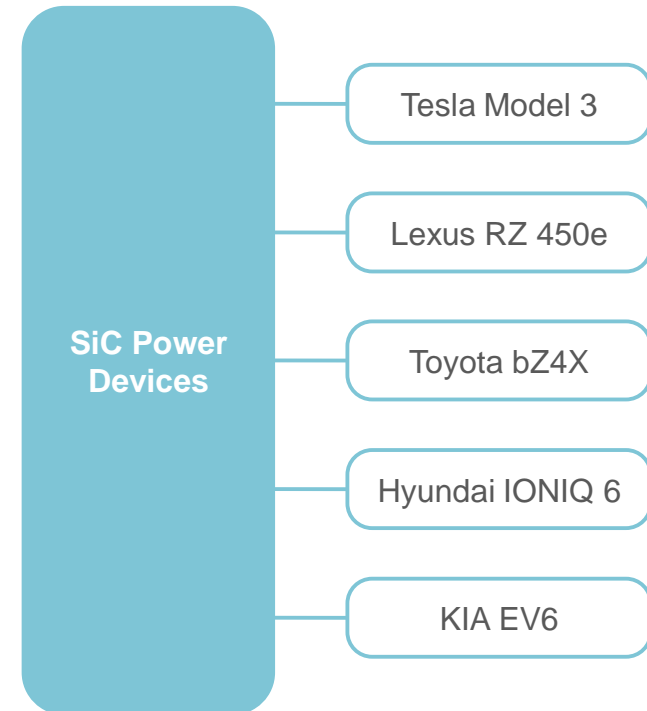
## Automotive SiC Power Component Market Forecast

(Unit: USD million)



Source: TrendForce, July 2022 & Digitimes, October 2022

## Popularization of SiC Power Devices





# Financial Statements



## Financial Highlight : Q322 vs. Q222 vs. Q321

(NT\$ mn)	Q322	Q222	Q321	QoQ	YoY
Revenue	18,053	17,540	15,364	2.9%	17.5%
Gross Profit %	43.7%	43.6%	39.1%	0.1%	4.6%
Operating Income	6,329	6,401	4,664	-1.1%	35.7%
Operating Income %	35.1%	36.5%	30.4%	-1.4%	4.7%
Net Profit	5,111	2,716	3,105	88.2%	64.6%
Net Profit %	28.3%	15.5%	20.2%	12.8%	8.1%
EPS	NT\$11.74	NT\$6.24	NT\$7.13	NT\$5.50	NT\$4.61
EBITDA* <sup>1</sup>	8,326	5,488	5,393	51.7%	54.4%
EBITDA %	46.1%	31.3%	35.1%	14.8%	11.0%
EBIT	6,814	3,983	3,939	71.1%	73.0%
ROE* <sup>2</sup> (annualized)	43.1%	23.6%	26.7%	19.5%	16.4%
ROA* <sup>3</sup> (annualized)	13.3%	7.3%	9.4%	6.0%	3.9%

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

2. ROE = Net Profit / Average Shareholders Equity

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



## Financial Highlight : 3Q22 vs. 3Q21 (Accumulated)

(NT\$ mn)	3Q22	3Q21	YoY
Revenue	51,899	45,378	14.4%
Gross Profit %	43.3%	37.0%	6.3%
Operating Income	18,621	12,874	44.6%
Operating Income %	35.9%	28.4%	7.5%
Net Profit	9,573	9,750	-1.8%
Net Profit %	18.4%	21.5%	-3.1%
EPS	NT\$22.00	NT\$22.40	-NT\$0.4
EBITDA* <sup>1</sup>	15,616	17,364	-10.1%
EBITDA %	30.1%	38.3%	-8.2%
EBIT	11,135	12,921	-13.8%
ROE* <sup>2</sup> (annualized)	26.7%	28.4%	-1.7%
ROA* <sup>3</sup> (annualized)	8.5%	11.2%	-2.7%

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

2. ROE = Net Profit / Average Shareholders Equity

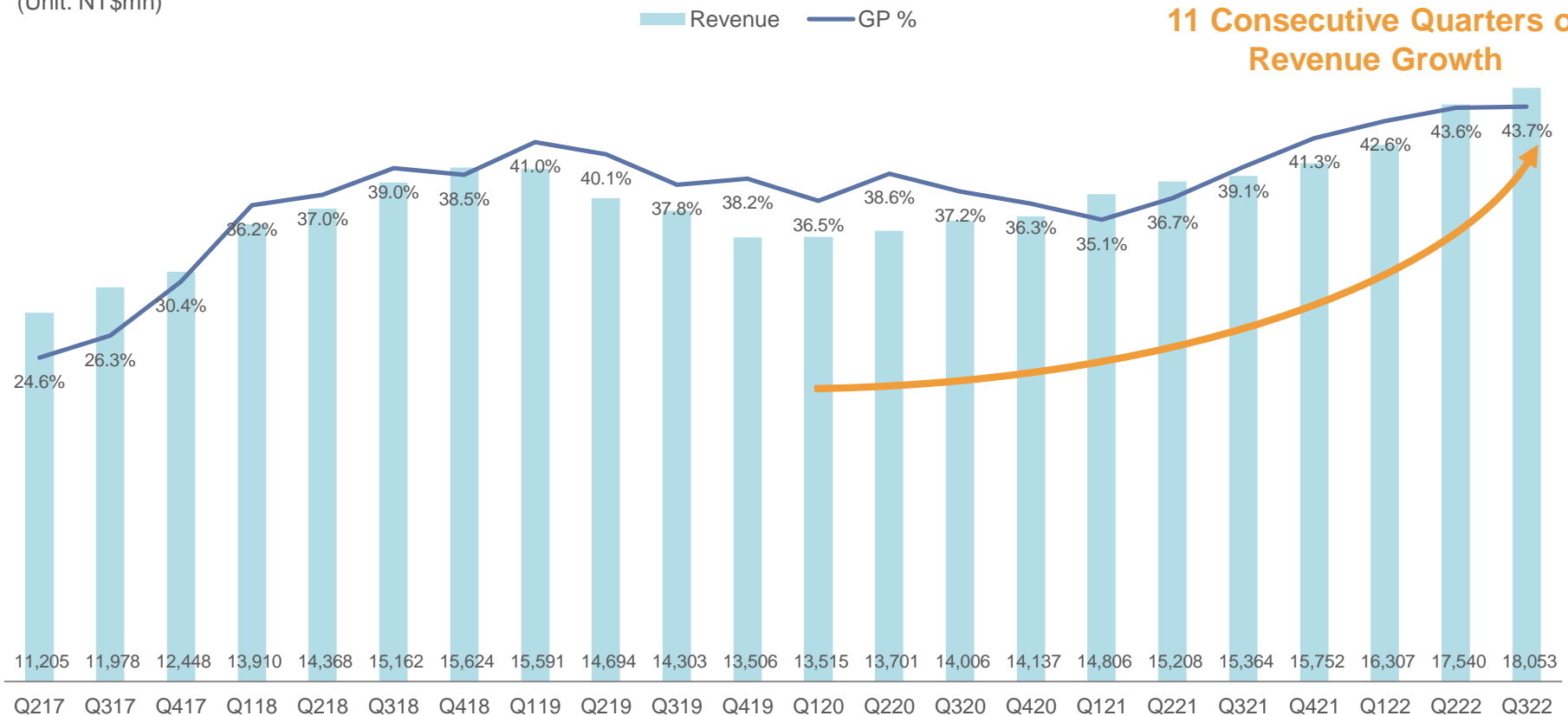
3. ROA = (Net Profit + Interest\*(1- Effective Tax Rate))/Average Asset



# Revenue & Gross Profit (%)

Revenue & Gross Profit (%)

(Unit: NT\$mn)



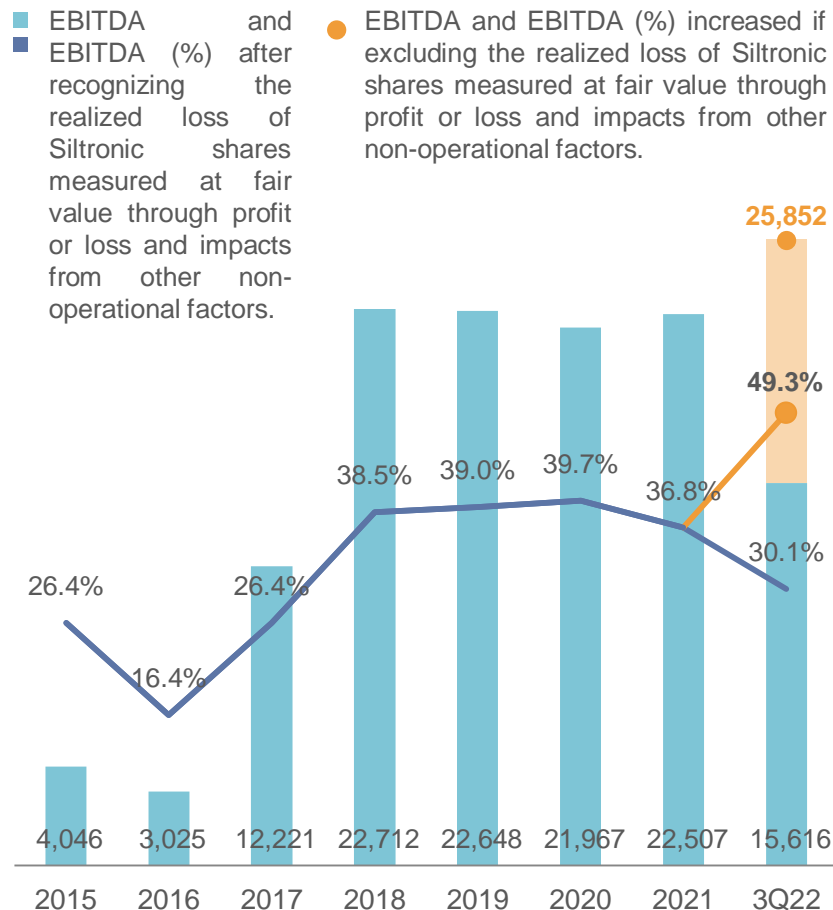
11 Consecutive Quarters of Revenue Growth



# EBITDA & EPS

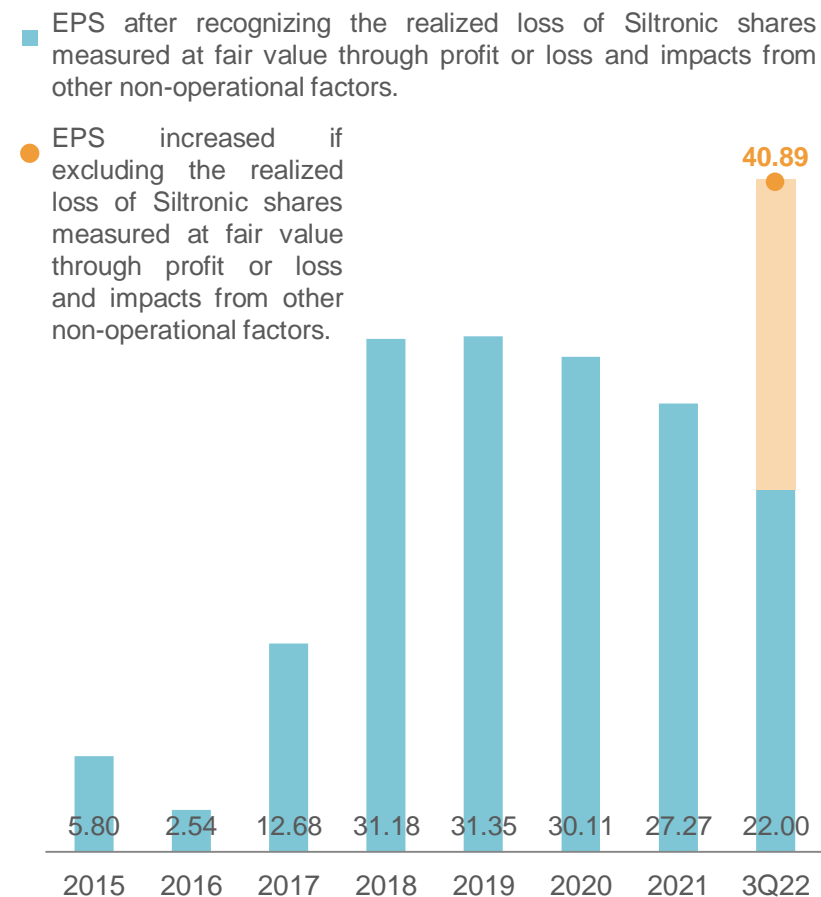
## EBITDA

(Unit: NT\$mn)



## EPS

(Unit: NT\$)







# Income Statement

## Income Statement

(NT\$m)	2019	2020	2021	Q122	Q222	Q322	3Q22 (Acc.)
<b>Revenue</b>	<b>58,094</b>	<b>55,359</b>	<b>61,131</b>	<b>16,307</b>	<b>17,540</b>	<b>18,053</b>	<b>51,899</b>
<i>Growth (%)</i>	-1.6%	-4.7%	10.4%	3.5%	7.6%	2.9%	14.4%
<b>Gross Profit</b>	<b>22,847</b>	<b>20,568</b>	<b>23,286</b>	<b>6,948</b>	<b>7,645</b>	<b>7,892</b>	<b>22,484</b>
<i>Gross Profit (%)</i>	39.3%	37.2%	38.1%	42.6%	43.6%	43.7%	43.3%
<b>EBITDA</b>	<b>22,648</b>	<b>21,967</b>	<b>22,507</b>	<b>1,802<sup>1</sup></b>	<b>5,488<sup>1</sup></b>	<b>8,326<sup>1</sup></b>	<b>15,616<sup>1</sup></b>
<i>EBITDA (%)</i>	39.0%	39.7%	36.8%	11.1%	31.3%	46.1%	30.1%
<b>Operating Income</b>	<b>17,897</b>	<b>15,287</b>	<b>17,693</b>	<b>5,891</b>	<b>6,401</b>	<b>6,329</b>	<b>18,621</b>
<i>Operating Income (%)</i>	30.8%	27.6%	28.9%	36.1%	36.5%	35.1%	35.9%
<b>Profit before Tax</b>	<b>18,554</b>	<b>16,615</b>	<b>16,445</b>	<b>304<sup>1</sup></b>	<b>4,015<sup>1</sup></b>	<b>7,018<sup>1</sup></b>	<b>11,337<sup>1</sup></b>
<i>Profit before Tax Margin (%)</i>	31.9%	30.0%	26.9%	1.9%	22.9%	38.9%	21.8%
<b>Net Profit</b>	<b>13,636</b>	<b>13,104</b>	<b>11,870</b>	<b>1,746<sup>1</sup></b>	<b>2,716<sup>1</sup></b>	<b>5,111<sup>1</sup></b>	<b>9,573<sup>1</sup></b>
<i>Net Profit (%)</i>	23.5%	23.7%	19.4%	10.7%	15.5%	28.3%	18.4%
<b>EPS (NT\$)</b>	<b>31.35</b>	<b>30.11</b>	<b>27.27</b>	<b>4.01<sup>1</sup></b>	<b>6.24<sup>1</sup></b>	<b>11.74<sup>1</sup></b>	<b>22.00<sup>1</sup></b>

1. Due to realized loss of Siltronic shares measured at fair value through profit or loss and impacts from other factors.



# Balance Sheet

## Balance Sheet

(NT\$mn)	2019	2020	2021	Q122	Q222	Q322
<b>Assets</b>						
Cash and cash equivalents	32,822	22,439	65,894	70,354	76,183 <sup>1</sup>	80,164
Account receivable	8,140	8,037	9,118	9,436	10,889	10,157
Inventories	6,849	7,208	7,295	7,496	7,553	8,012
Property, plant and equipment	34,697	37,111	33,943	34,995	33,792	34,625
Other assets	14,078	20,056	34,395	27,525	26,912	25,278
<b>Total assets</b>	<b>96,586</b>	<b>94,852</b>	<b>150,645</b>	<b>149,806</b>	<b>155,329</b>	<b>158,235</b>
<b>Liabilities</b>						
Short-term loan	9,886	9,871	6,264	6,384	6,210	6,252
Account payable	3,837	3,895	4,340	3,953	4,103	3,805
Long term loan	0	0	45,125	45,204	45,284	43,820
Other liabilities	37,789	36,930	49,284	46,978	54,843	54,267
<b>Total liabilities</b>	<b>51,513</b>	<b>50,697</b>	<b>105,013</b>	<b>102,520</b>	<b>110,440</b>	<b>108,145</b>
<b>Shareholder equity</b>	<b>45,073</b>	<b>44,155</b>	<b>45,632</b>	<b>47,286</b>	<b>44,889</b>	<b>50,091</b>

1. Increase in LTA prepayment and EBITDA



# Q&A



# Thank You

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