



Industry Leading Provider of Outsourced Semiconductor Assembly, Test & Bumping Services

### **Safe Harbor Notice**

❖ This presentation contains certain forward-looking statements. These forward-looking statements may be identified by words such as 'believes,' 'expects,' 'anticipates,' 'projects,' 'intends,' 'should,' 'seeks,' 'estimates,' 'future' or similar expressions or by discussion of, among other things, strategy, goals, plans or intentions. These statements include financial projections and estimates and their underlying assumptions, statements regarding plans, objectives and expectations with respect to future operations, products and services, and statements regarding future performance. Actual results may differ materially in the future from those reflected in forward-looking statements contained in this document, due to various factors. Actual results may differ materially in the future from those reflected in forward-looking statements contained in this document, due to various factors, including the ongoing impact of COVID-19. Further information regarding these risks, uncertainties and other factors are included in the Company's most recent Annual Report on Form 20-F filed with the U.S. Securities and Exchange commission (the "SEC") and in the Company's other filings with the SEC.



## **Group Snapshot**

### **Overview**

Footprint in Taiwan & China

☐ Founded: 1997

☐ Headquarters : Hsinchu, Taiwan

☐ Ticker Symbol: TWSE: 8150.TW

**NASDAQ: IMOS (ADS)** 

**☐** Market Cap.¹: 32,180.4MNTD

 $(1,129.9MUSD^2)$ 

☐ Employee<sup>1</sup>: 5,475



Shanghai, China Unimos (JV with YMTC)

Hsinchu, Taiwan ChipMOS Taiwan

Tainan, Taiwan ChipMOS Taiwan



Hsinchu Tainan



Shanghai

Memory

Test

Assembly

**Test** 

Assembly

**Mixed-Signal** 

Test

Assembly

**Display Driver** 

Gold bump

COG/COF

**Business Focus** 

Taiwan and Global customers

China domestic market and YMTC's NAND project



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<sup>(1)</sup> As of March 31, 2021

<sup>(2)</sup> The exchange rate was NT\$28.48 against to US\$1.00

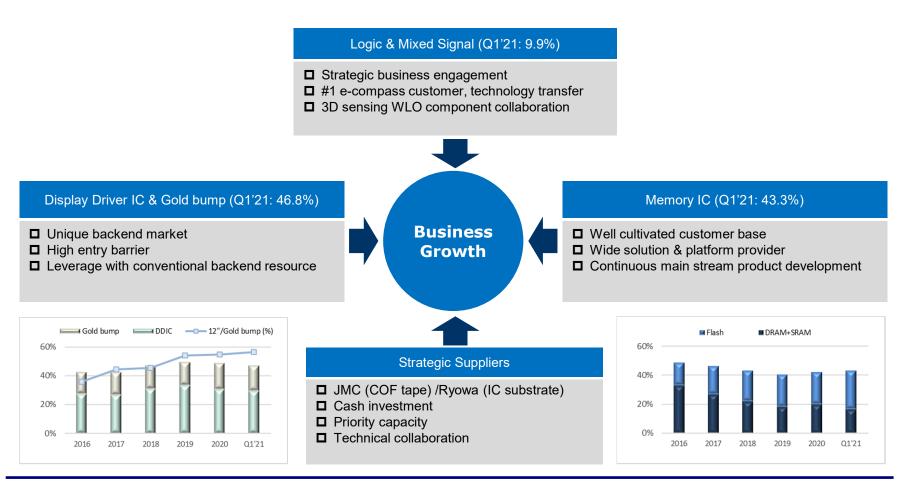
# **ChipMOS Footprints**





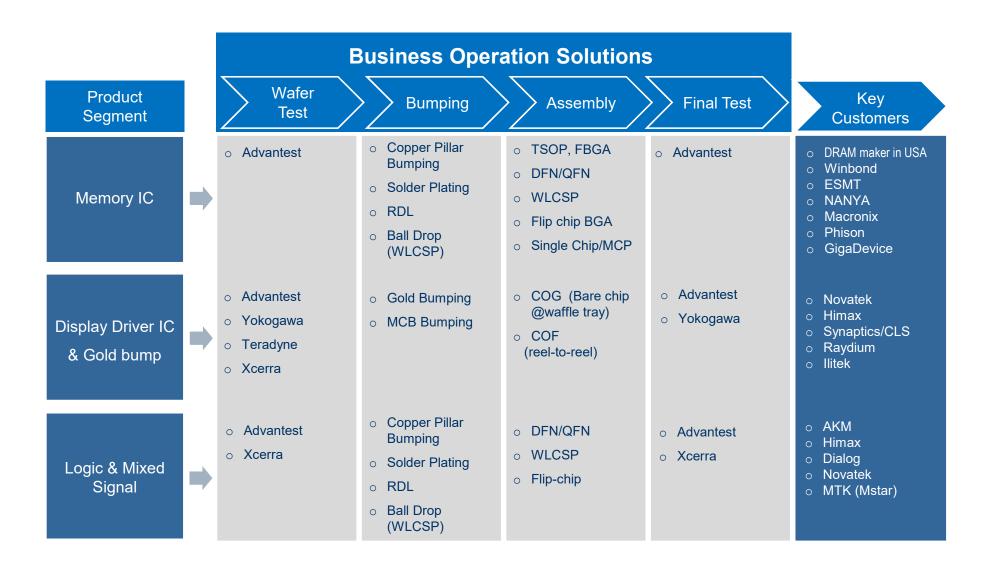
## **Positioned in Specialized OSAT Markets**

- □ Providing turnkey solutions for niche OSAT markets
- □ Owning specialized teams and resources to support customer in the fields
- Growing with operation performance and strategic alliance including customers and suppliers





### **Business Operation Solutions for Customers**





## **Diversified Product Application**

### **Content Performance of Q1'21**

**Smart Mobile** 

36.5%

- Smart phone
- Wearable

UHD/4K TV

TV

15.5%

- 8K TV
- OLED TV
- NB/Tablet

Computing

12%

- PC / server
- SSD

**Auto/Industrial** 

13%

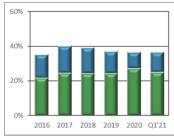
- In-car infotainment
- ADAS / sensor
- industrial PC

Consumer

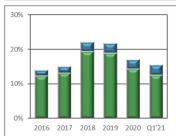
23%

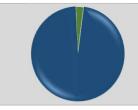
- Game
- Smart speaker
- DSC, STB
- TWS

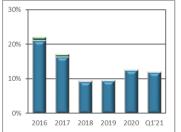




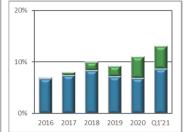




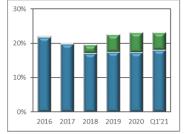
















Memory & Mixed-signal



### **Utilization**

Q1'21: 81% Q4'20: 78% Q1'20: 77% Q1'21: 95% Q4'20: 97% Q1'20: 81%

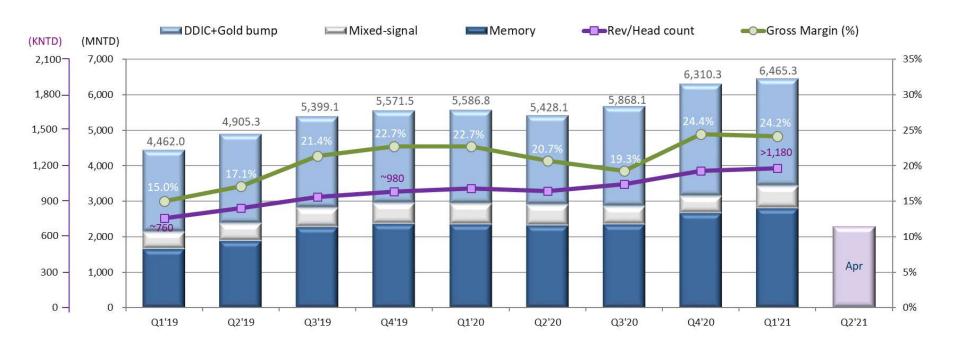
Q1'21: 81% Q4'20: 80% Q1'20: 75% Q1'21: 88% Q4'20: 86% Q1'20: 83% Q1'21: 86% Q4'20: 85% Q1'20: 79%

**Assembly Bumping** Overall **Testing** LCD Driver 100% 90% 86% 85% 80% 76% 76% 70% 70% 60% 50% Q1'19 Q4'19 Q1'20 Q2'20 Q3'20 Q4'20 Q1'21 Q2'19 Q3'19



## **Quarterly Revenue & Gross Margin**

- Revenue
  - Q1'21: 6,465.3MNTD (QoQ +2.5 %, YoY +15.7 %) a quarterly record high
  - Apr'21: 2,283.4MNTD (MoM -2.6 %, YoY +23.1 %)
- ☐ Gross Margin: Q1'21 24.2% (QoQ -0.2ppts, YoY +1.5ppts)
- □ Quarterly revenue per head count: increased 20.6% from Q4'19 to Q1'21



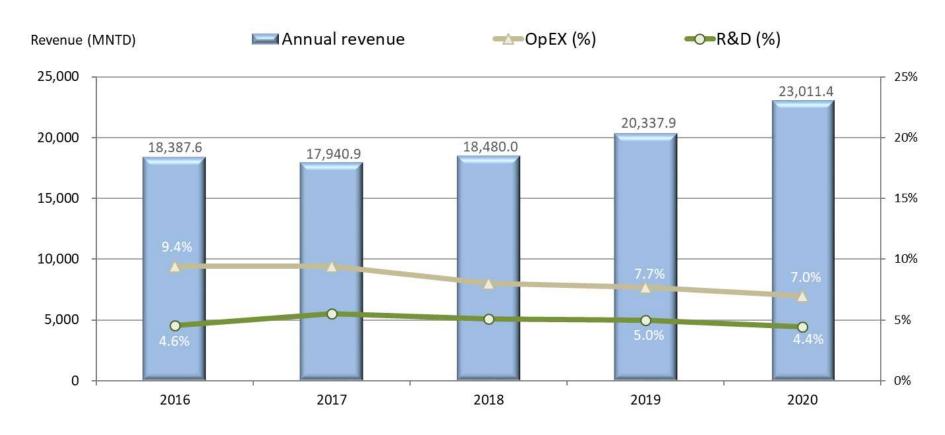


# Reduce OpEx & Maintain R&D

□ OpEx: Reduce from 9.4% (2016) to 7.0% (2020)

**Q1'21: 6.6%** 

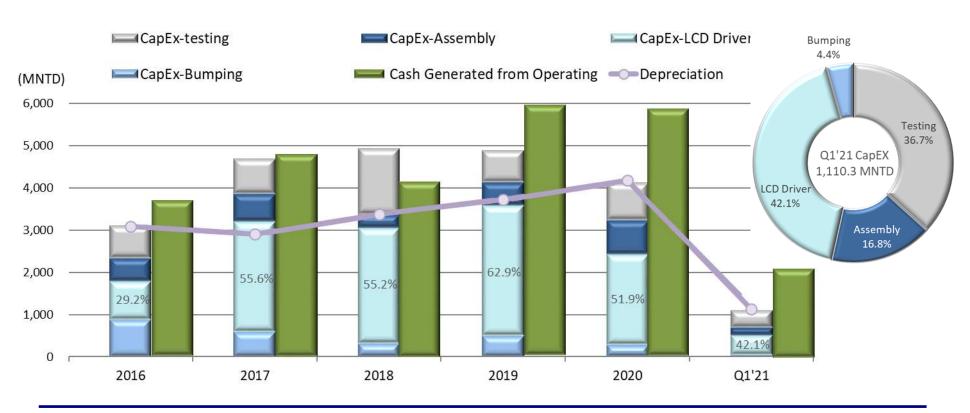
■ R&D: Maintain 4.4~5%





# **CapEx & Depreciation**

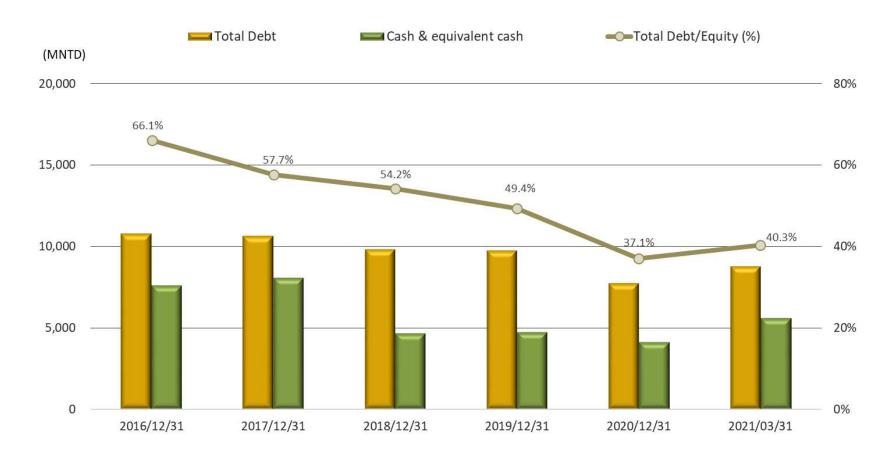
- □ CapEx: 1,110.3MNTD (LCDD 42.1%, Testing 36.7%, Assembly 16.8%)
- □ Depreciation: 1,127.0MNTD
- □ Cash Generated from Operating: 2,021.9MNTD





# **Healthy Debt and Cash Level**

□ ~21BNTD of Cash & equivalent cash and Unused credit lines up to Mar/31'21

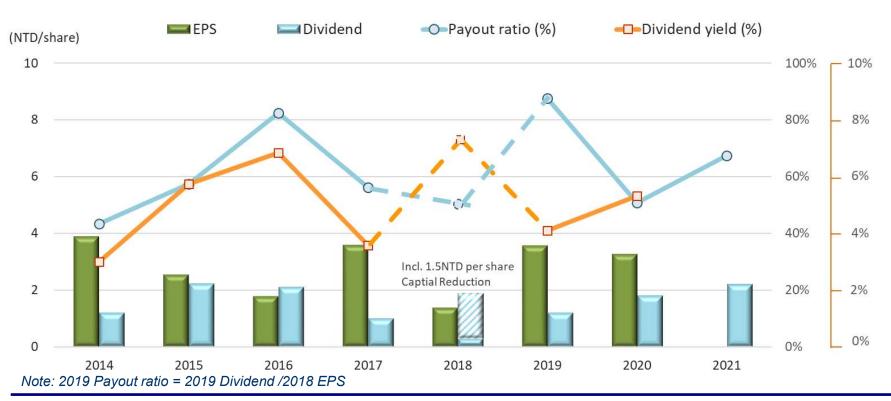


Note: Total debt to Equity = (ST loan + LT loan)/ Equity



# Stable Payout and High Dividend Yield

- □ Q1'21 EPS: 1.32NTD
- Payout ratio (2014~2020): > 40%, average: ~61%
  - 2021 pending dividend: 2.2NTD, payout ratio 67.5%
- □ Dividend yield (2014~2020): > 3%, average: ~5.2%
- □ ~5.6BNTD of unappropriated retained earnings up to Mar/31'21

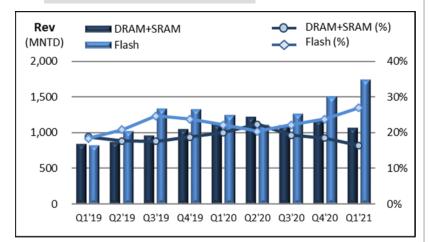


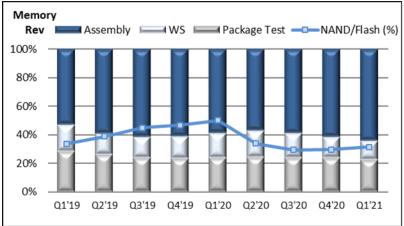


## **Operation Performance**

### **Memory IC**

Q1'21: 43.3%





### Key Message

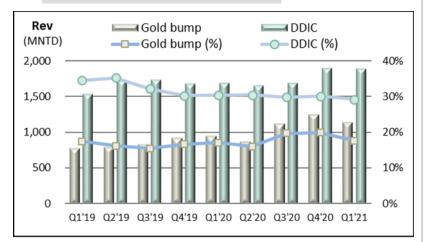
- □ QoQ +4.8%, YoY +18.6%
- ☐ Semiconductor supply chain tightness & capacity shortages remain in 2Q21
- ☐ OSAT capacity continuing tight and strategically adding assembly capacity to meet strong demand
- Expected OSAT ASP increasing
- ☐ DRAM+SRAM: 16.4%
  - Demand likely to gain vs Q1'21 with customers re-stocking
- ☐ Flash: 26.9% (QoQ ~16%)
  - Anticipate bolstered momentum continuing
  - NAND Flash represented about 31.5% of Q1 Flash revenue



# **Operation Performance (Cont'd)**

### **DDIC & Gold bump**

Q1'21: 46.8%





### Key Message

- □ QoQ -4.0%, YoY +14.2%
- ☐ Semiconductor supply chain tightness & capacity shortages remain in 2Q21
- ☐ Continuing to closely monitor the wafer supply status
- ☐ Large/Middle Panel Display (TV, Tablet/NB):
  - Gaining more allocation share and improving the COF UT
- ☐ Small Panel Display (Smart phone):
  - Increased capacity and keep high UT level
  - TDDI: Represented around 31% of Q1 DDIC revenue
  - OLED: Represented about 3% of Q1 DDIC revenue

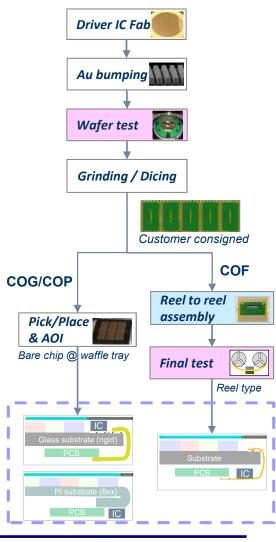


# Leverage DDIC Growth by Higher ASP Product Penetration

- TV: 8K emerging; more DDIC quantity consumption
- TDDI: ~3x wafer testing time compared to discrete DDIC
- □ OLED: Longer testing time and high end test platform using
- □ COF: **Integrating** more functions **solution**

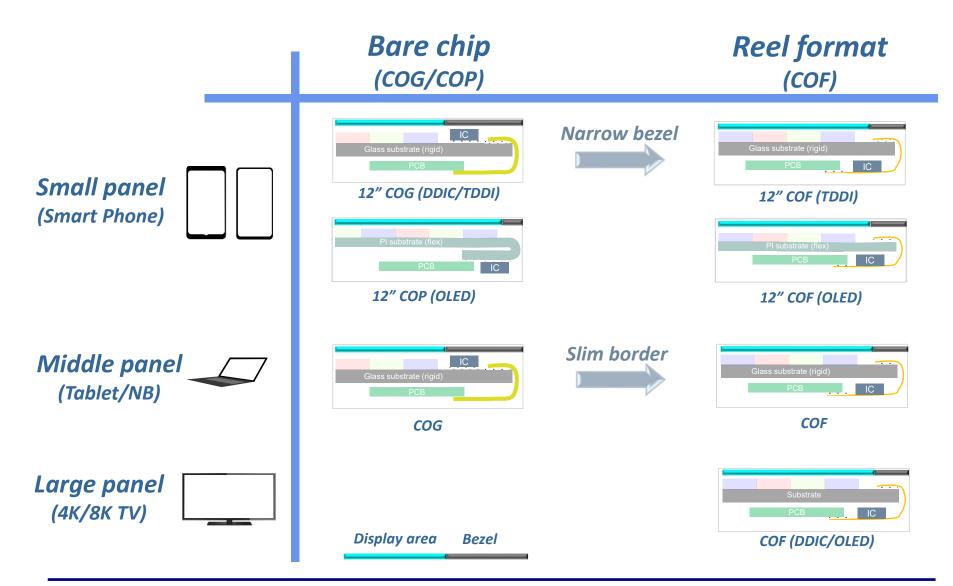
### **HD Panel Penetration Integrating Solution** 12" COF 12" COG OLED **Growth rate TDDI** 12" COP 2" COF **OLED** 4K & 8K TV X1 test **TDDI** X2 tests 8" COF **UHD TV** 4K/8K TV 12" COG Mobile phone **OSAT** price index DDIC

### **DDIC OSAT Flow**





# **Display Driver IC vs Panel Comparison**





### **Corporate Holding Structure**

- Except for being the investors of Unimos, there are no other legal relationship between ChipMOS and Tsinghua Unigroup/YMTC.
- ☐ The technology transfer between ChipMOS and Unimos had been completed. ChipMOS no longer provides any technology to Unimos.
- ☐ Unimos becomes a long-term investment of ChipMOS and recognized profit/loss pro rata. ChipMOS is not responsible for the business performance of Unimos.



- Note:
- 1. ChipMOS Shanghai already changed company name to Unimos since Jul/4'18.
- 2. Unigroup transferred the equity of Unimos to YMTC (Yangtze Memory Technologies Co. Ltd.) since Dec. 2019



## **ChipMOS ESG Performance**

■ Environmental 環境面

國家企業環保獎金級獎 暨 榮譽環保企業獎座

Gold grade of National Enterprise Environmental Protection Award & Honorary Environmental Protection Enterprise Award

- ✓ Renewable energy (Solar energy generation)
  - **7,126**户家庭每月用電量 8年再生能源(太陽能)累計發電數
- √ Water resource recycle (Process recycling water)

**3,218座國際標準泳池** 12年製程回收水成果

√ CO2 reduction

45座大安森林公園

8年來節能減碳成效

■ Social 社會面

人才發展品質管理系統 銀牌(TTQS)

Silver grade of Talent Quality-Management System (TTQS)

Excellent Gender Equality in Employment

推動職場工作平權優等 108年榮獲竹科/南科園區管理局肯定

- ✓ Grant university student 14,620,000元 7年產學合作青年培育總投入
- ✓ Family group insurance 21,427,416元

2019年家庭式團保支付總額

■ Governance 治理面

台灣TOP50

永續企業獎

Top 50 Taiwan Corporate Sustainability Awards of 2019 Taiwan Corporate Sustainability Awards (TCSA)

- ✓ Board of Directors
  Independent Director 56%
  Female Director 2 seats
  獨立董事過半;女性董事 2席
- ✓ Sustainable Value Creation **3**年 連續3年榮獲TCSA台灣永續獎

Awarded TCSA Corporate Sustainability for 3 consecutive years

✓ 108年度績優營業人

獲財政部北區國稅局肯定

Please visit ChipMOS CSR web site to get more information, https://www.chipmos.com/Chinese/csr/overview.aspx



# **Sustainability Approach – UN SDGs Linkage**

企業

領導品牌 Leading Brand



全球第2

液晶顯示器驅動 IC 封裝測試產能



卓越品質

封裝測試解決方案



客戶信賴

產出高市佔率的 TDDI產品 環境永續 Green Manufacturing





8 項方案,總減碳量 3,262 公噸 CO<sub>2</sub>e



8年發電數可供近

7,126 戶家庭

發展再生能源 綠色影響力

2019 年 3 場實務經 驗分享

公司治理 Governance



#### 董事會職能

56% 獨立董事 22% 女性董事



#### 資訊揭露透明

經營多元溝通平台, 公開訊息 75 則以上 Corporate Commitment

實踐方針 Guideline

1個 社会

環境 保護 **S**ocial Participation

ー供應鏈夥伴 Supplier Partnership



支持在地採購

在地採購支出比例 為 53%



### 永續成長

與供應商緊密溝通,供應商 RBA 稽核平均符合度達 90% 以上

以客為尊 Customer Orientation



#### 最佳合作夥伴

屢獲客戶肯定,長 期穩定合作



#### 客戶滿意度

連續3年達目標3.5分以上(滿分5分)

### **Environmental Protection**

社會共融 Social Engagement



#### 擴大影響力

8 項環境保護計畫, 與供應商齊參與



#### 攜手學校 / 社福機構

培育青年及關懷孩童 共 571 人次



#### 保障勞工權益

100% 遵守人權及法令政策



社會

參與

#### 整體獎酬

兼具市場競爭力與 內部公平性



友善職場 Friendly Workplace

#### 員工發揮所長

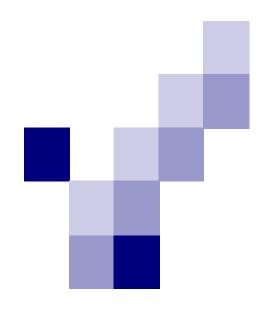
舉辦 1,046 梯次訓練課程, 穩健紮根員工專業



#### 全方位健康職場

辦理健康促進活動 29 場次, 落實健康管理



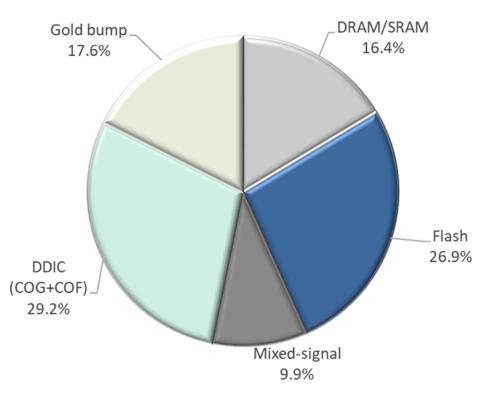


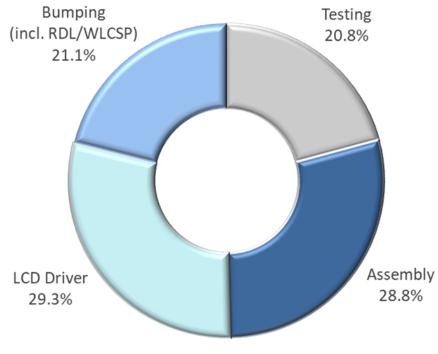
# **Q1'21 Financial Results**

## Q1'21 Revenue Breakdown

### **Product Segment**

### **Manufacturing Site**







# **Consolidated Operating Results Summary**

| (NT\$ Millions)   | Q1'21   | Q4'20   | Q1'20   |
|---|---------|---------|---------|
|   |         |         |         |
| Revenue   | 6,465.3 | 6,310.3 | 5,586.8 |
| Profit Attributable to the Company                        | 959.1   | 686.4   | 712.7   |
| EPS Attributable to the Company - Basic (NT\$)            | 1.32    | 0.94    | 0.98    |
| Earnings per ADS equivalent - Basic (US\$) <sup>(1)</sup> | 0.93    | 0.66    | 0.69    |
| Depreciation & Amortization                               | 1,127.0 | 1,059.8 | 1,004.9 |
| CapEx   | 1,110.3 | 1,760.1 | 1,138.2 |
| EBITDA <sup>(2)</sup>                                     | 2,286.7 | 2,219.4 | 1,905.0 |
| Return on Equity (%) <sup>(3)</sup>                       | 18.0%   | 13.4%   | 14.3%   |

### Notes:

- (1) The exchange rate was NT\$28.48 against to US\$1.00
- (2) EBITDA = Operating Profit + Depreciation & Amortization
- (3) Annualized return on equity to the Company for the quarter



## **Consolidated Statements of Comprehensive Income**

Selected Items from Consolidated Statements of Comprehensive Income

| (NT\$ Millions)  | Q1'21   | Q4'20   | QoQ      | Q1'20   | YoY     |
|--|---------|---------|----------|---------|---------|
| Revenue  | 6,465.3 | 6,310.3 | 2.5%     | 5,586.8 | 15.7%   |
| Gross Profit   | 1,561.6 | 1,541.4 | 1.3%     | 1,270.7 | 22.9%   |
| Gross Margin   | 24.2%   | 24.4%   | -0.2ppts | 22.7%   | 1.5ppts |
| Operating Expenses   | -424.6  | -412.8  | -2.9%    | -395.9  | -7.2%   |
| Operating Profit   | 1,159.7 | 1,159.6 | 0.0%     | 900.1   | 28.8%   |
| Operating Profit Margin                                      | 17.9%   | 18.4%   | -0.5ppts | 16.1%   | 1.8ppts |
| Non-operating Income (Expenses) <sup>(1)</sup>               | 25.3    | -277.6  | 109.1%   | -4.3    | 688.4%  |
| Profit Attributable to the Company                           | 959.1   | 686.4   | 39.7%    | 712.7   | 34.6%   |
| EPS Attributable to the Company - Basic (NT\$)               | 1.32    | 0.94    | 40.4%    | 0.98    | 34.7%   |
| Weighted Average Shares Outstanding (in thousands) - Basic   | 727,240 | 727,240 | 0.0%     | 727,240 | 0.00%   |
| EPS Attributable to the Company - Diluted (NT\$)             | 1.30    | 0.94    | 38.3%    | 0.97    | 34.0%   |
| Weighted Average Shares Outstanding (in thousands) - Diluted | 737,356 | 730,106 | 1.0%     | 731,001 | 0.9%    |

#### Note (1):

QoQ: Difference mainly due to the decrease of foreign exchange loss of NT\$152M and the increase of share of gain of associates accounted for using equity method of NT\$142M.

YoY: Difference mainly due to the increase of the share of gain of associates accounted for using equity method of NT\$69M, the decrease of interest expense NT\$13M and partially offset by the increase of foreign exchange loss NT\$55M.



## **Consolidated Statements of Financial Position & Key Indices**

### Selected Items from Consolidated Statements of Financial Position

|                              | Q1'2     | <u>!</u> 1 | Q4'20    |        | Q1'20    |        |  |
|------------------------------|----------|------------|----------|--------|----------|--------|--|
| (NT\$ Millions)              | Amount   | %          | Amount   | %      | Amount   | %      |  |
|                              |          |            |          |        |          |        |  |
| Current Assets               | 14,101.4 | 38.0%      | 12,356.1 | 35.2%  | 15,543.1 | 40.7%  |  |
| Non-current Assets           | 23,009.3 | 62.0%      | 22,724.7 | 64.8%  | 22,691.0 | 59.3%  |  |
| Total Assets                 | 37,110.7 | 100.0%     | 35,080.8 | 100.0% | 38,234.1 | 100.0% |  |
|                              |          |            |          |        |          |        |  |
| Current Liabilities          | 5,942.7  | 16.0%      | 5,620.0  | 16.0%  | 4,510.8  | 11.8%  |  |
| Non-current Liabilities      | 9,407.3  | 25.4%      | 8,629.1  | 24.6%  | 13,412.8 | 35.1%  |  |
| Total Liabilities            | 15,350.0 | 41.4%      | 14,249.1 | 40.6%  | 17,923.6 | 46.9%  |  |
|                              |          |            |          |        |          |        |  |
| Total Equity                 | 21,760.7 | 58.6%      | 20,831.7 | 59.4%  | 20,310.5 | 53.1%  |  |
| Total Liabilities and Equity | 37,110.7 | 100.0%     | 35,080.8 | 100.0% | 38,234.1 | 100.0% |  |
|                              |          |            |          |        |          |        |  |
| Key Indices                  |          |            |          |        |          |        |  |
| A/R Turnover Days            | 77       |            | 73       |        | 75       |        |  |
| Inventory Turnover Days      | 41       |            | 40       |        | 44       | 44     |  |



# **Consolidated Statements of Cash Flows**

| (NT\$ Millions)  | Q1'21    | Q1'20    |
|--|----------|----------|
|  |          |          |
| Cash and Cash Equivalents at Beginning of Period       | 4,113.7  | 4,704.1  |
| Net Cash Generated from (used in) Operating Activities | 2,021.9  | 732.3    |
| Net Cash Generated from (used in) Investing Activities | -1,511.7 | -1,433.1 |
| Net Cash Generated from (used in) Financing Activities | 966.6    | 3,507.0  |
| Effect of Exchange Rate Change on Cash                 | 0.3      | 1.9      |
| Cash and Cash Equivalents at End of Period             | 5,590.8  | 7,512.2  |
|  |          |          |
|  |          |          |
| Free Cash Flow <sup>(1)</sup>                          | 922.3    | 553.4    |

Note (1):

Difference mainly due to the increase of operating profit of NT\$260M and the depreciation expenses of NT\$122M.



# **Company Website**

■ https://www.chipmos.com