

FAVITE Inc.

Stock Code : 3535

2020 Investor Conference



Disclaimer

Favite's statements of its current expectations and estimates are forward-looking statements subject to significant known and unknown risks and uncertainties and actual results may differ materially from those contained or implied in the forward-looking statements. These forward-looking statements are not guarantees of future performance and therefore one should not place undue reliance on them. Except as required by law, we undertake no obligation to update any forward-looking statements, whether as a result of new information, future events, or otherwise.



- **Company Profile**
- **Market Overview**
- **Operational Focus**
- **Financial Report**
- **ESG**



■ Company Profile



Company Profile

2000

公司成立於工研院
創業育成中心。

2001

自動化工品圖檢測機榮
獲經濟部工業局科技
研究發展專案及新技
術計畫補助。

2002

發表彩色24bit
印刷電路板終檢用
檢測機。

2005

發表TFT-LCD Array AOI，
陸續獲得各面板大廠導入
使用。

2010

進軍中國大陸市場，進而
成為大中華地區各大面板
廠(G4.5~G10.5)主要AOI
關鍵供應商。

2013

發表高解析1um AOI，
獲業界知名面板廠成功
導入。

2014

發表OLED Mask AOI，
獲業界知名面板廠成功
導入。

2017

跨足半導體產業，發表自動Glass
Wafer檢查機，獲得國內知名半導
體廠成功導入。

2018

發表0.3um超高解析AOI，
獲得知名大廠導入使用。

2019

獲得經濟部主導性科專計畫，
開發應用於FOPLP的2um
RDL超細微線路AOI。

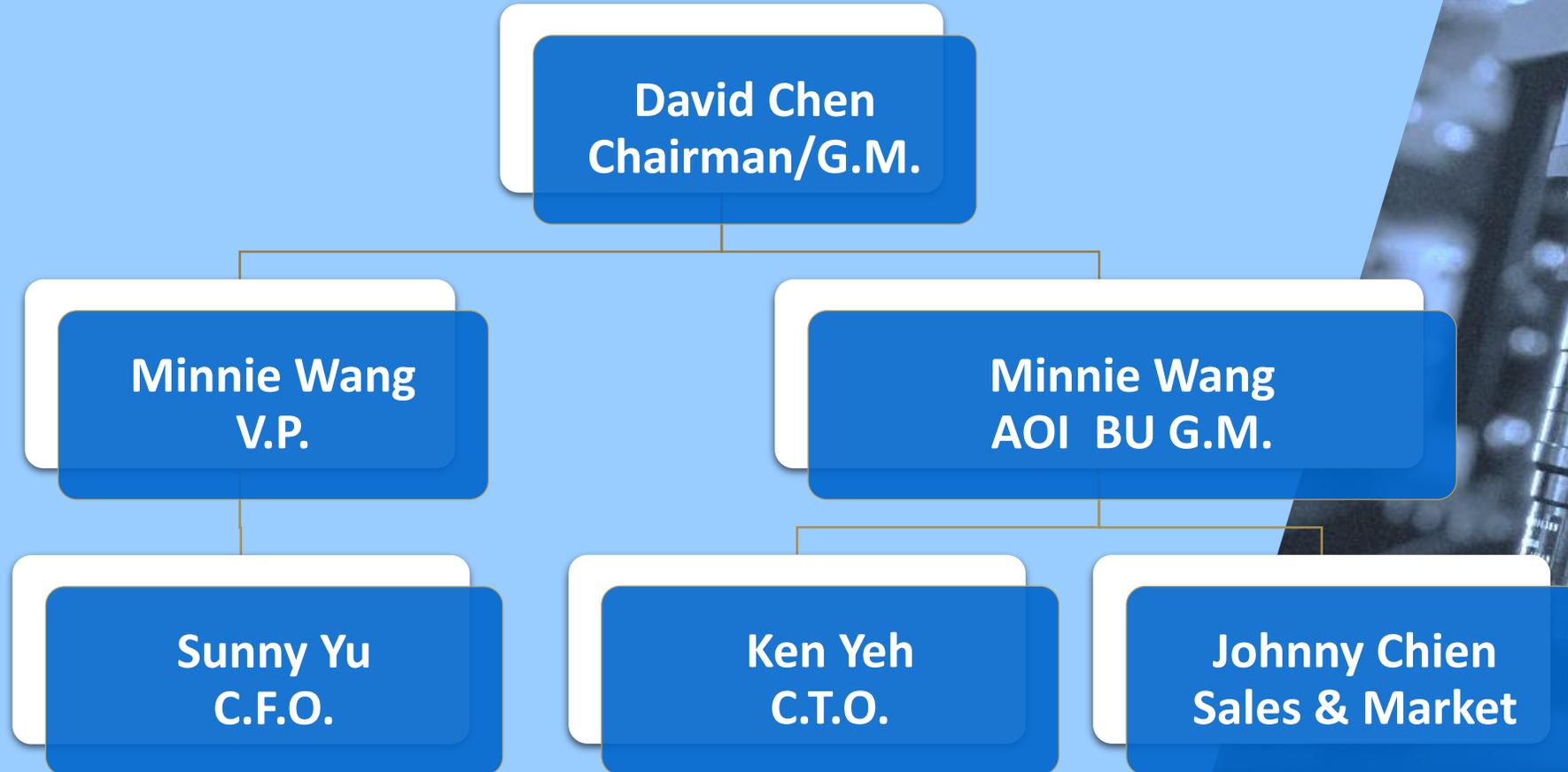
2020

Mini LED/Micro LED 新技術應
用，發表mm LED 檢查機，獲
得知名廠商成功導入。

FAVITE Inc. was established in 2000 and listed on the Taiwan Stock Exchange in January 2008. Over the years, we have continued to attach importance to R&D and patent establish, and have made excellent sales results in the **TFT LCD/LTPS /AMOLED** display industry. Recently FAVITE has started stepping into **Semiconductor, PCB, Mini/Micro LED and other professional fields**, providing customers automatic optical inspection (AOI) with high precision and quality as a complete solution for defect detection and yield monitoring on the factory production line.



Favite Management Team



Executive Summary

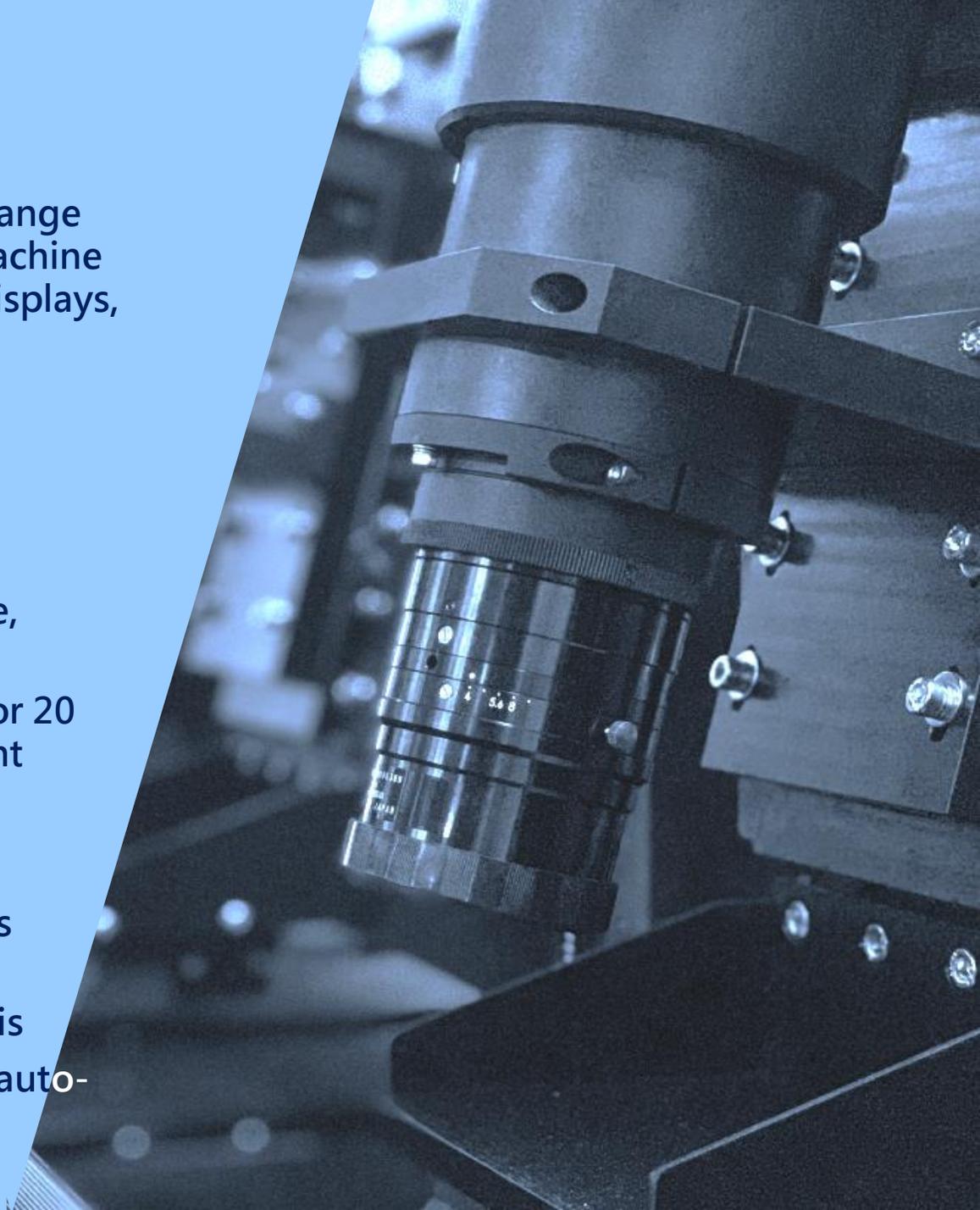
Favite Inc. established in 2000 and listed on the Taiwan Stock Exchange in 2008. The company provides AI intelligent, accurate and fast machine vision inspection solutions which have widely used in flat-panel-displays, semiconductors, PCBs and other industrial AOI/AVI fields.

Our market opportunity is from

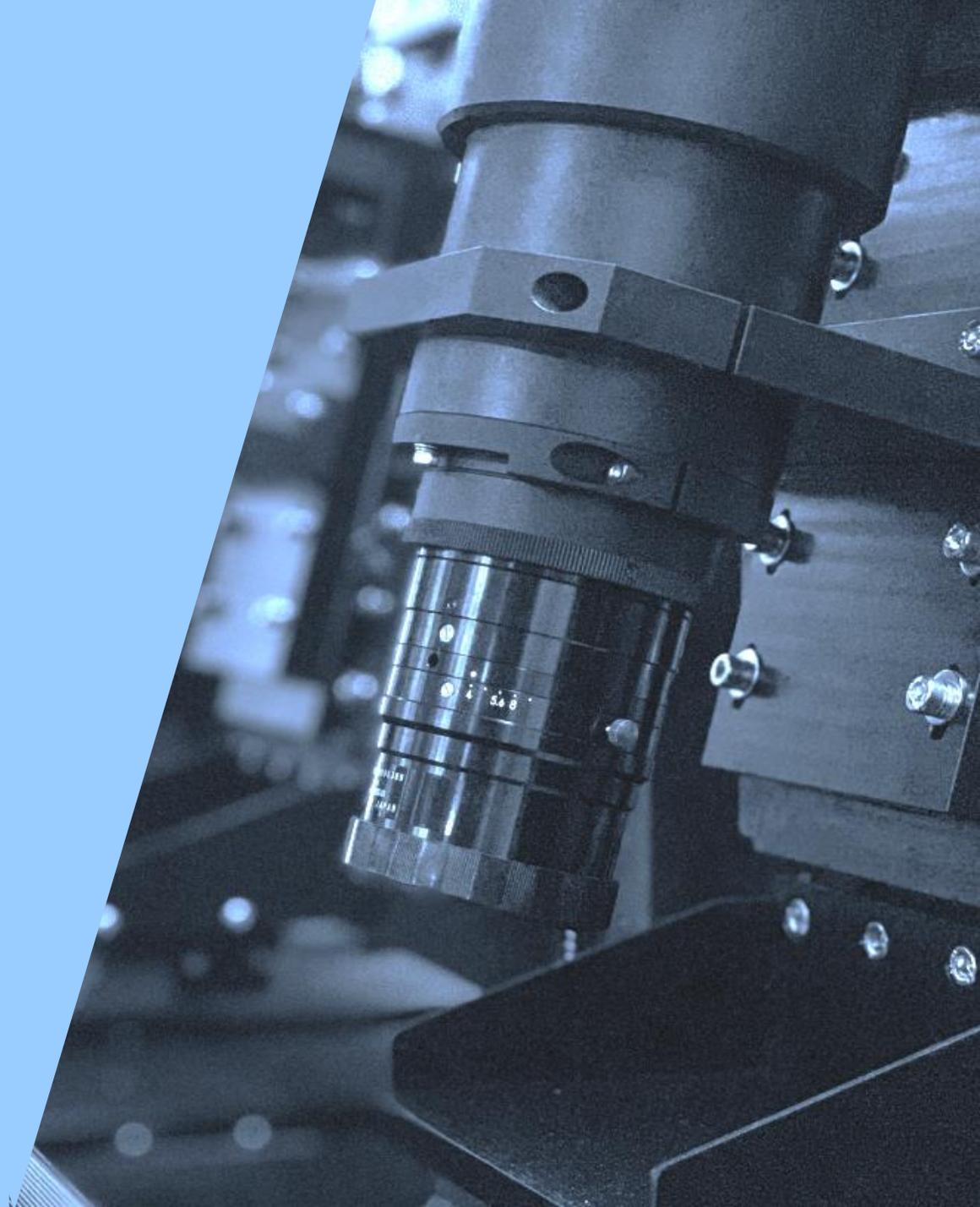
- Excellent quality demand: zero defect tolerance in industrial products
- Aging population: results in test manpower shortage
- Epidemic & U.S.-China trade war: made in Taiwan, local service, overseas service
- Concentrate on self-technology: focusing on machine vision for 20 years, providing professional testing and measuring equipment

Our target and direction of moving forward are

- Mini/Micro LED: unlimited in FPD, PCB or Semi industry
- AI application: more effectively analyze root cause of problems detected by AOI, to prevent issues before they happened
- FOPLP(Fan Out Panel Level Package): (1) FPD basis, (2)PCB basis
- SEMI: add AI function on most popular FPD industry product, auto-microscope-system, to promote to SEMI field



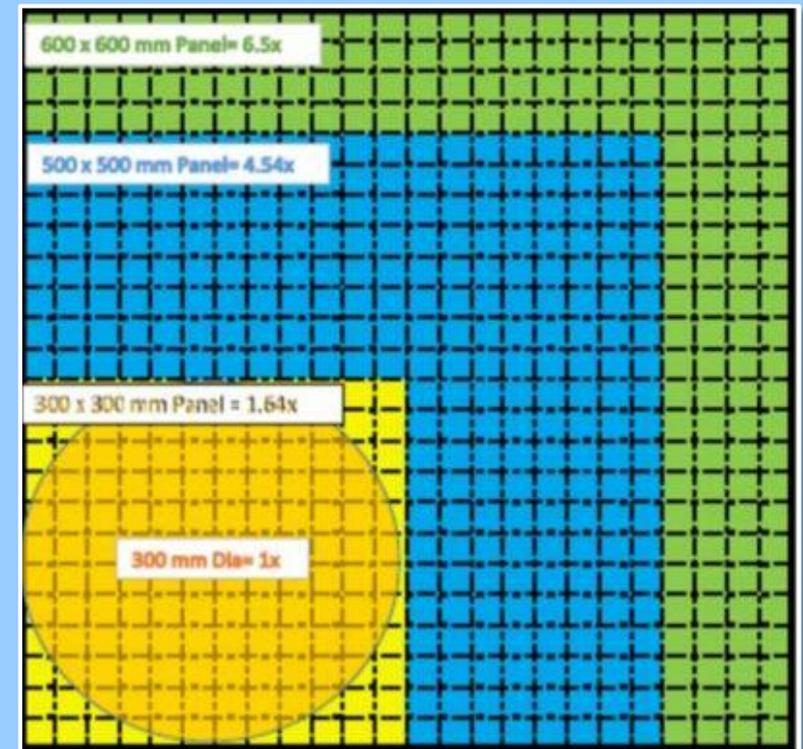
■ Market Overview



Market Overview

- FOPLP
- Mini/Micro LED – as backlight or direct display product
- IoT (Internet of Things)
- Beyond 5G – Taiwan is carrying on Beyond 5G LEO (Low Earth Orbit) Satellite Communication Projects

轉移效率與成本仍然是Micro LED的問題



Mini & Micro LED Difference

TFT-LCD、OLED、Micro LED 顯示大不同

TFT LCD

TFT LCD 是透過液晶層通電、分子旋轉，搭配彩色濾光片與背光源，讓每個畫素含有紅、藍、綠三原色，可混合出各式各樣的顏色光

OLED

OLED 則是由電流驅動有機薄膜自發光，可發出紅、藍、綠等單色光混色，顏色相較一般液晶螢幕更為鮮豔。

Micro LED

MicroLED 為 LED 陣列微小化，每一個 Micro LED 可視為一個像素 (Pixel)，可單獨驅動點亮，當整個模組變小了，亮度、畫質、反應速度都能有更好的提升。

Data source : Trendforce

| | Mini LED | Micro LED |
|------------|---------------------------|-----------------------|
| 尺寸 | 100~200µm | 30µm以下 |
| 應用 | LCD背光、小間距顯示屏 | 主動式發光顯示器、微投影顯示器 |
| 使用數量 | 直下式背光使用量高達上千顆、甚至上萬顆 | 數百萬顆(與畫素數有關) |
| 量產時程 | 最快落2018年 | 樂觀預估2年後、保守預估5年後 |
| 特色及優勢 | HDR、省電、薄型化、異型及曲面等 | 發光效率高、亮度高、對比值高、反應速度快等 |
| 與LCD顯示器價差 | Mini LED製成的LCD顯示器高出約20%以上 | 量產初期恐達3倍以上 |
| 與LCD顯示器關係 | 並存 | 競爭 |
| 與OLED顯示器關係 | 競爭 | 競爭 |
| 良率 | 至少8成以上(LED晶粒尺寸愈大，良率愈高) | 尚難估算，尤其作到15µm以下等級 |
| 驅動方式 | Driver IC | TFT、CMOS |
| 供應鏈地區業者 | 對台廠有利，因同時具有LCD、LED技術 | 對台廠有利，因同時具有TFT、LED技術 |

Data source : Digitimes

顯示技術進步花開兩枝，分化為不同的技術發展路徑

TRENDFORCE

LED Cinema Screen

2012: Micro LED (Sony Crystal LED 4K*)

2017: Micro LED (Sony Crystal LED 23")

2018: Micro & Mini LED (LuxView)

自發光Micro/Mini LED顯示器

2017: Self Emissive (Micro&Mini LED)

2018: Self Emissive (Micro&Mini LED)

高階LCD+Mini LED背光

2017: High-end LCD+Mini LED Backlight

2018: High-end LCD+Mini LED Backlight

Backlight (Mini LED)

2017: Backlight (Mini LED)

2018: Backlight (Mini LED)

2018-2023 Mini LED Display滲透率預測

TRENDFORCE

Ranking

- Video Wall**
拉高解析度，可望取代部分傳統小間距顯示器
- Automotive**
瞄準OLED效率/壽命等弱點是切入車用市場利基
- TV**
FALD背光的極致進化，成為高階電視的新選擇
- IT Product**
電競/專業用戶增加帶動整體滲透率提高

| Category | 2019E | 2020F | 2021F | 2022F | 2023F |
|--------------|-------|-------|-------|-------|-------|
| Head-Mounted | 0.0% | 0.0% | 0.1% | 0.4% | 1.2% |
| Wearable | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Smartphone | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Tablet | 0.0% | 0.2% | 0.6% | 0.9% | 1.3% |
| Notebook PC | 0.0% | 0.1% | 0.2% | 0.4% | 0.8% |
| Monitor | 0.0% | 0.2% | 0.4% | 0.9% | 1.4% |
| Automotive | 0.0% | 0.1% | 0.8% | 1.7% | 3.9% |
| TV | 0.0% | 0.1% | 0.3% | 0.9% | 1.9% |
| Video Wall | 0.1% | 0.5% | 3.2% | 5.4% | 9.8% |

Source: LEDinside, Aug 2019

技術總是在短期內被高估，但是在長期又被低估

Mini & Micro LED Marketing Forecast



(二) Comparison of LED types

| 比較項目 | 小間距LED | Mini LED | Micro LED |
|------|----------|-----------------|--------------------|
| 晶片尺寸 | 大於200微米 | 50~200微米 | 小於50微米 |
| 有無封裝 | 有 | 均可 | 無 |
| 光源 | 自發光 | 自發光; 背光源 | 自發光 |
| 終端應用 | 工程、商用顯示器 | 商用顯示器、消費性電子(背光) | 商用顯示器、消費性電子(AR、VR) |
| 應用尺寸 | 大於100英寸 | 5英寸以上 | 大於1.5英寸 |
| 驅動方式 | 驅動IC | 驅動IC、TFT基板 | TFT基板、CMOS |



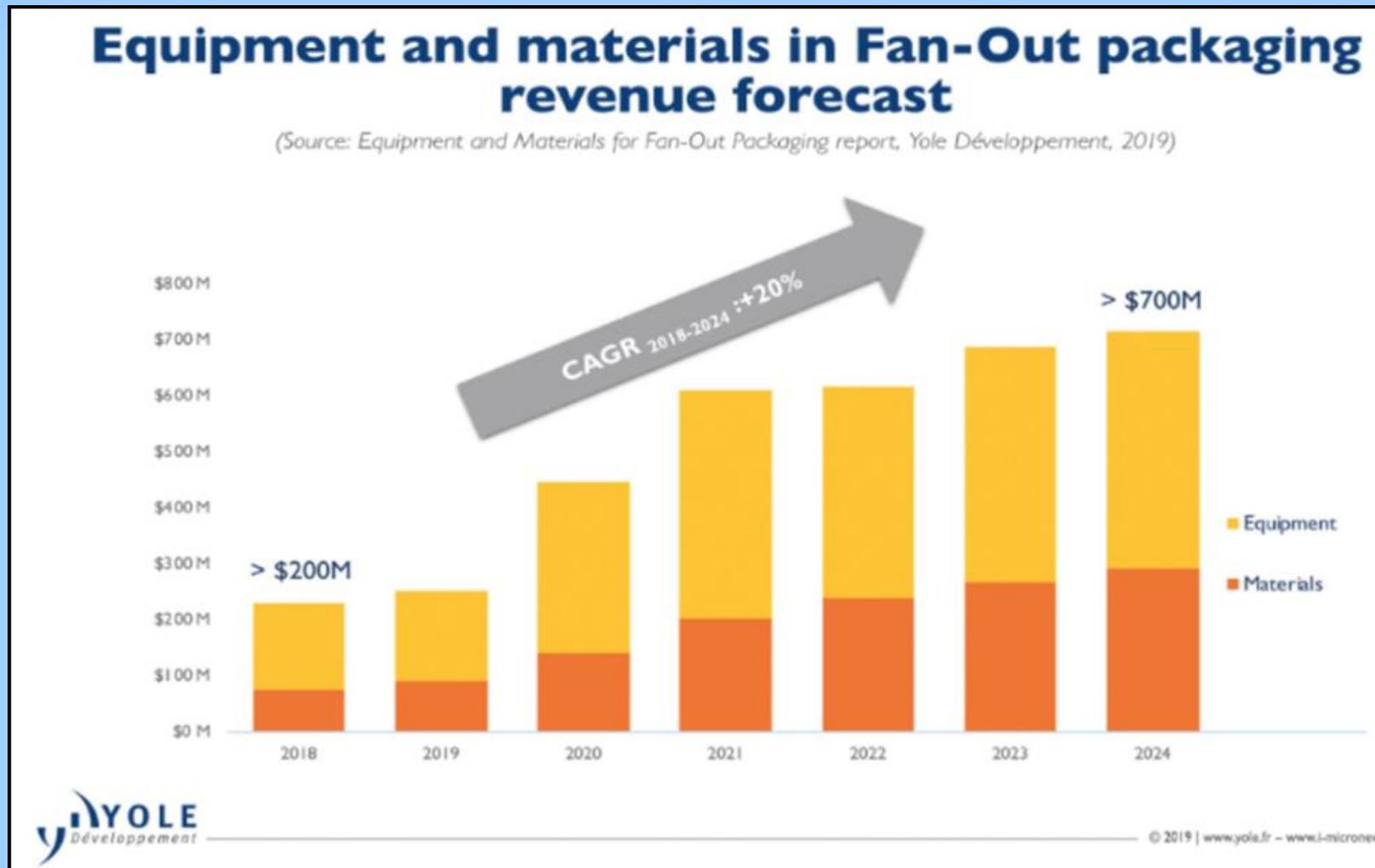
(三) Industry players

| | 藍寶石PSS基板廠 | LED晶片廠 | LED封裝廠 | PCB | SMT打件廠 | TFT背板廠 | 驅動IC廠 |
|----|-----------|--------|--------|-----|--------|--------|-------|
| 兆遠 | | 晶電 | 隆達 | 欣興 | 隆達 | 友達 | 聚積 |
| 安可 | | 隆達 | 榮創 | 嘉聯益 | 台表科 | 群創 | 聯詠 |
| 銳捷 | | 三安光電 | 國星光電 | 台郡 | | 京東方 | 立錡 |
| | | 華燦光電 | 瑞豐光電 | | | 深天馬 | |
| | | 乾照光電 | 鴻利智匯 | | | | |
| | | | 聚飛光電 | | | | |



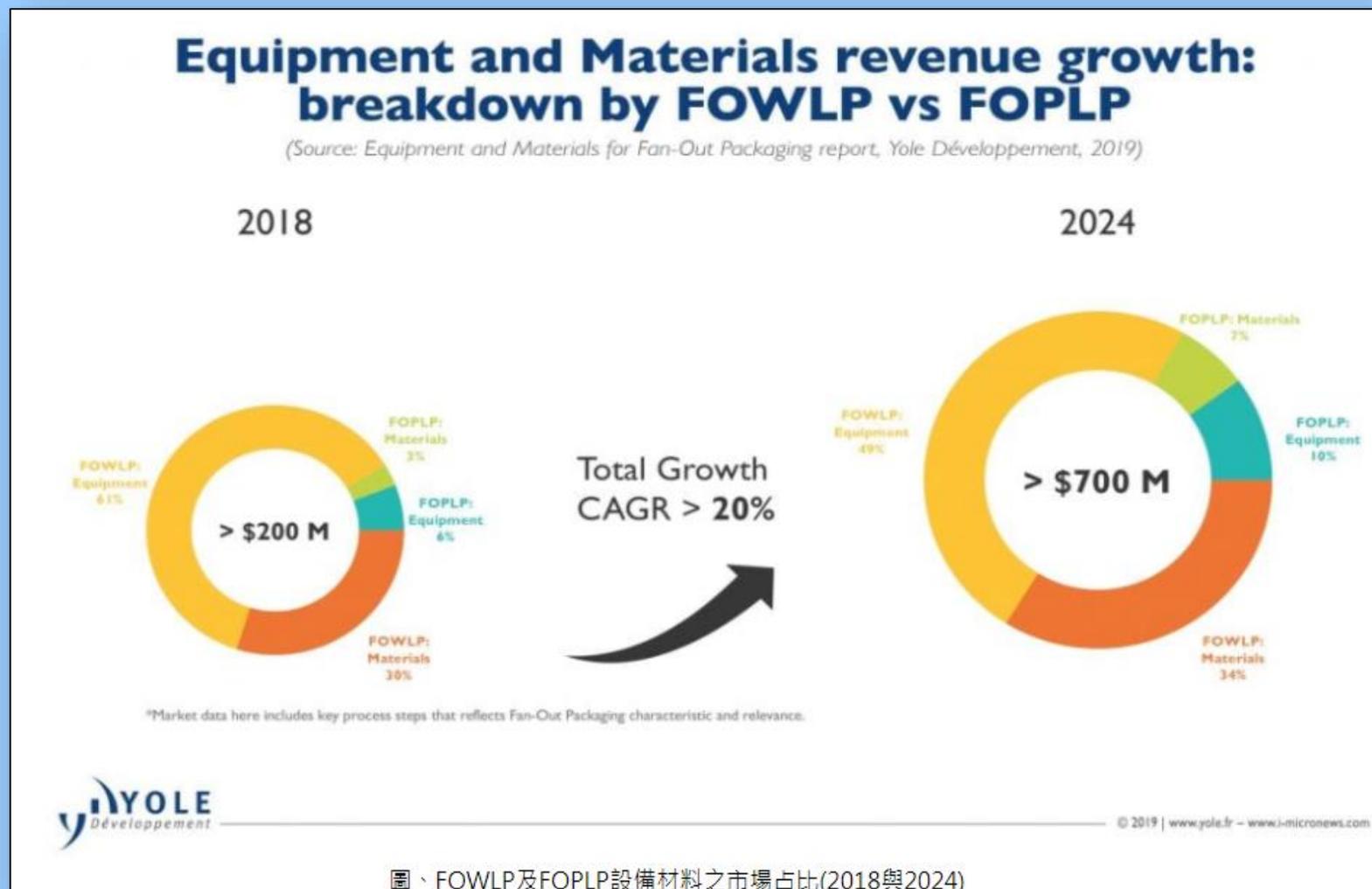
FOPLP Marketing Forecast

Fan Out Package Material and Equipment Marketing Forecast - **CAGR 2018-2024 : +20%**



FOPLP Marketing Forecast

Forecast that material of FOWLP, equipment and material of FOPLP will grow up **4%** respectively



圖、FOWLP及FOPLP設備材料之市場占比(2018與2024)

■ Operational Focus



Operational Focus



Flat Panel Display AOI

High-speed dynamic optical image system and advanced detection calculation software can meet the needs of various display product defect detection and product yield improvement.



RDL AOI

Applying special multi-channel optical image system, equipped with unique detection calculation software, can detect FOPLP / FOWLP multilayer RDL products.



Appearance Measurement/AOI

Provide professional customized design and service according to different customers' appearance measurement and re-inspection needs.



AI Defect Classifier & YMS

Real-time AI defect classification and judgment function which can combine with AOI to filter invalid defects and improve the hit rate of important defects, to minimize inspection manpower.



SEMI Wafer AOI

Provide professional customized inspection solutions for the quality inspection needs of different semiconductor customers of 8-inch and 12-inch wafer products.

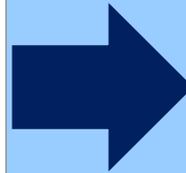
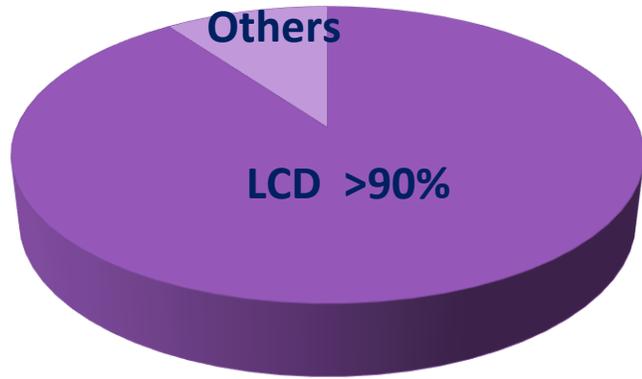


Multi-Function OM

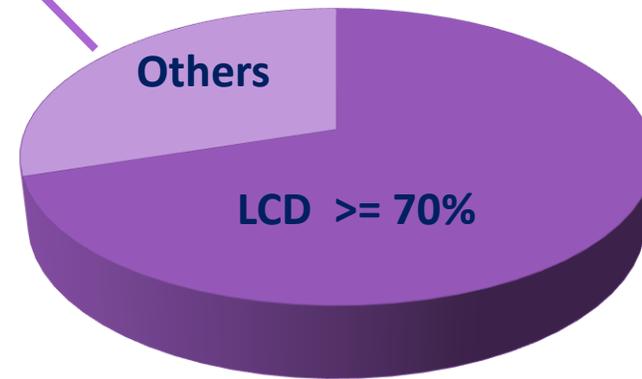
Provide customers with total solutions for all magnified observation needs.

Operation Focus – Proportion of revenue by field

2020 Favite proportion of revenue by field



2021 Favite proportion of revenue by field



- Mini/ Micro LED
- OLED
- Semi
- PCB

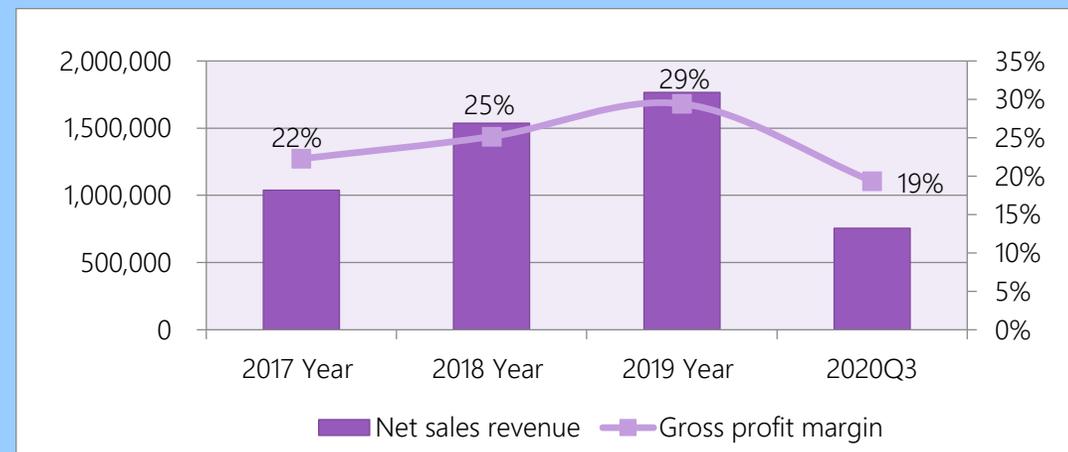
■ Financial Report



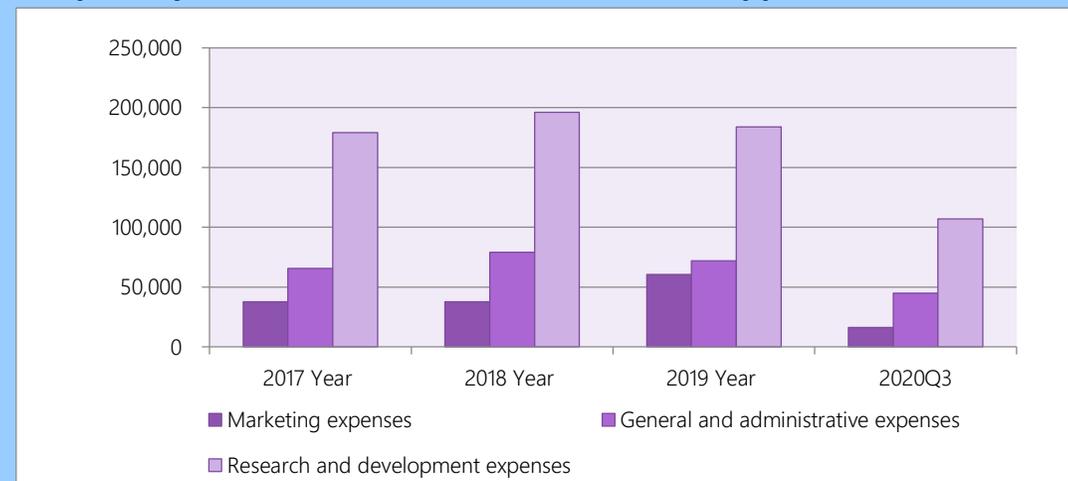
The comparison of profit and loss informations for the nine months ended September 30, 2020

| | Nine Months Ended September 30, 2020 | Nine Months Ended September 30, 2019 | YoY |
|---|--------------------------------------|--------------------------------------|-------|
| Net Sales Revenue | 754,439 | 1,572,563 | -52% |
| Gross Profit Margin | 19% | 29% | -34% |
| Operating Expenses | 131,478 | 284,855 | -54% |
| Operating Expense Ratio | 2% | 11% | -82% |
| Non-Operating Income and Expenses | (24,394) | 10,387 | -335% |
| Net Profit/(Loss) for The Period Attributable to Shareholders of the Parent | (13,866) | 185,007 | -107% |
| Net Profit/(Loss) ratio | -2% | 12% | -117% |
| Earnings/(Loss) Per Share | -0.18 | 2.34 | -108% |
| Return on Equity(%) | -1% | 19% | -108% |

Unit : In Thousands of New Taiwan Dollars,
Except Earnings(Loss) Per Share



Impact by COVID-19 and New-Taiwan-Dollar appreciation



Continue R&D investigating

- Step in AI, FOPLP, Mini/Micro LED technology to increase revenue and market competitiveness
- Reduce materials & simplify manufacturing processes through R&D study to increase gross profit margin

Actively promote products through exhibitions to enhance visibility

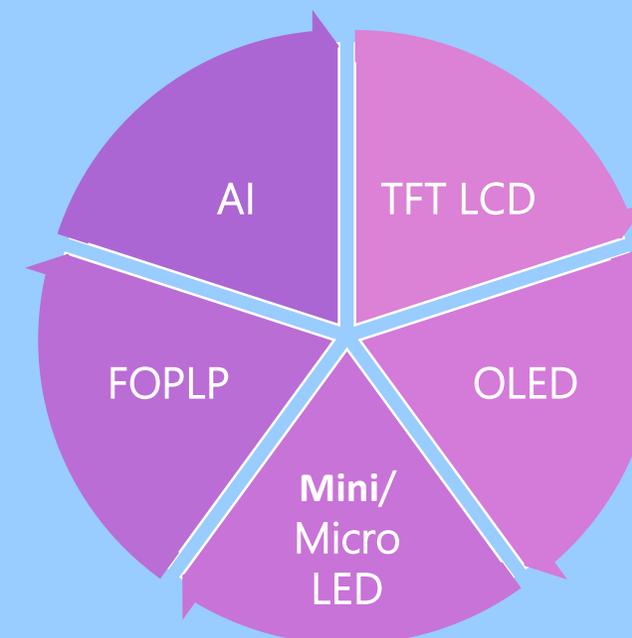
The comparison of profit and loss informations for the nine months ended September 30, 2020

| | 2020.09.30 | | 2019.09.30 | | YoY |
|-------------------------------------|------------------|-------------|------------------|-------------|------------|
| | Amount | % | Amount | % | |
| Cash and Cash Equivalents | 553,447 | 24% | 406,074 | 18% | 36% |
| Notes and Accounts Receivable | 732,816 | 32% | 830,819 | 37% | -12% |
| Inventories | 273,678 | 12% | 329,654 | 15% | -17% |
| Property, Plant and Equipment | 423,382 | 18% | 423,427 | 19% | 0% |
| Total Assets | 2,300,706 | 100% | 2,251,676 | 100% | 2% |
| Current Liabilities | 980,920 | 43% | 787,629 | 35% | 25% |
| Total Liabilities | 1,339,102 | 58% | 1,167,786 | 52% | 15% |
| Share Capital | 790,523 | 34% | 790,523 | 35% | 0% |
| Total Equity | 961,604 | 42% | 1,083,890 | 48% | -11% |
| Total Liabilities and Equity | 2,300,706 | 100% | 2,251,676 | 100% | 2% |
| Debts Ratio (%) | 58% | | 52% | | 12% |
| Current Ratio (%) | 183% | | 222% | | -18% |

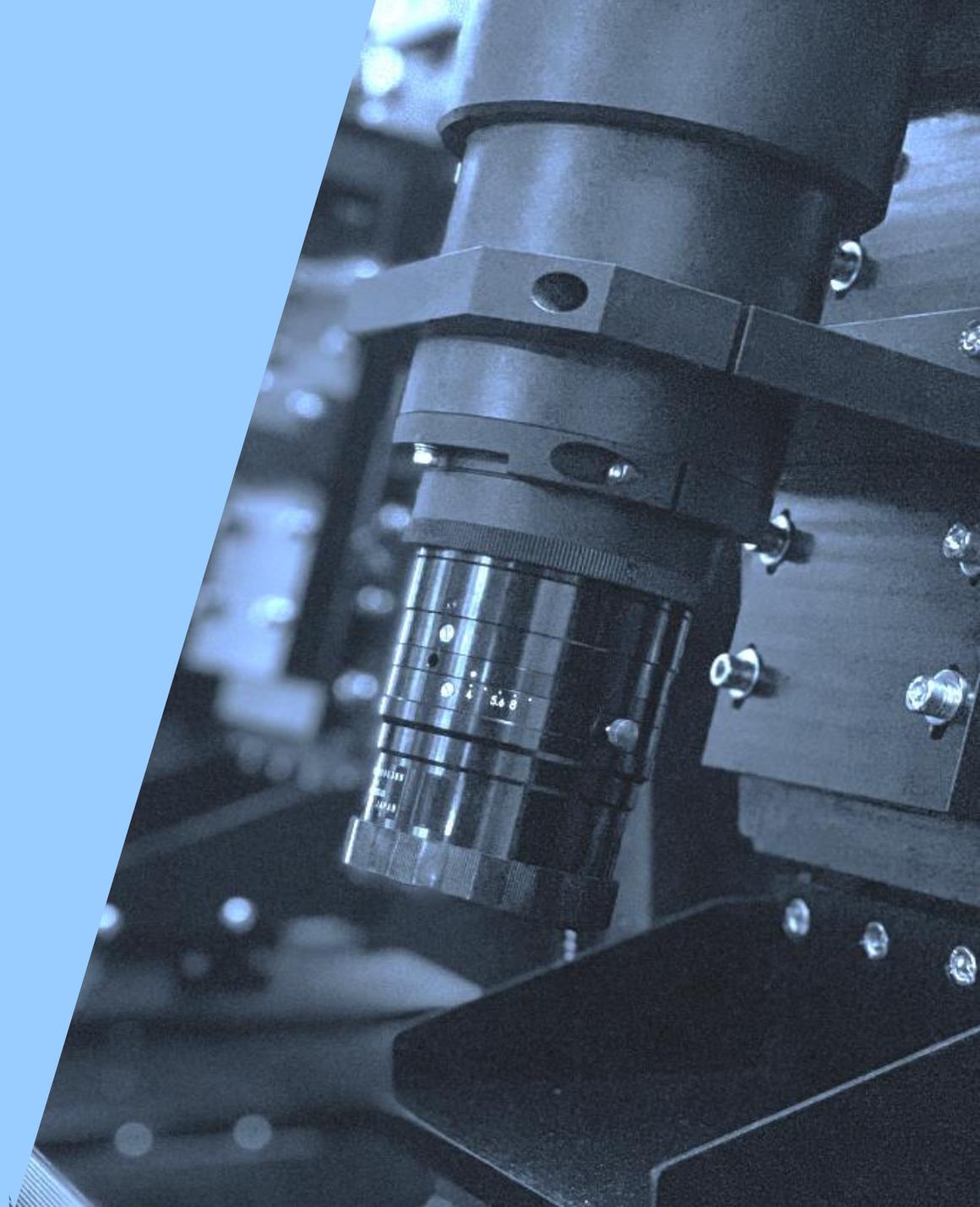
Unit : In Thousands of New Taiwan Dollars

Market opportunity and development direction

Enter different industries and different products to improve company's profitability, reduce company's debt ratio, accelerate asset flow, and increase total asset turnover.



■ ESG



Environmental, Social, and Governance

- Corporate culture with Integrity
- Company abide by the operational philosophies of honesty, transparency and responsibility, and compliance with laws so as to strengthen corporate governance by creating honest management

Corporate
Governance

- Competitive salary and benefit package
- Gender equality in employment
- Education training

Employee
Relation

- Reduce waste and carbon emission
- All products are compliant with RoHS directive
- Supplier management to assure in line with environmental protection standards

Environmental
Sustainability

- Donation for poor students to register
- Donate to MUST High-quality industrial cameras and lenses
- Sponsored a day trip to Pusin-ranch of Datong Nursery School

Social
Responsibility

FAVITE Inc.

Thank you

Stock Code : 3535

