



**PLAYNITRIDE**

**Investor Conference**

August, 2024

Dr. Charles Li, Founder and Chairman of PlayNitride (6854 TT)





# Disclaimer

The information provided in this presentation contains all forward-looking views and will not be updated as a result of any new information, future events, or the occurrence of any circumstances.

PlayNitride Inc. (the company) is not responsible for updating or revising the contents of this presentation. No representation or warranty, express or implied, that the information provided in this presentation material is correct, complete, or reliable, nor does it represent a complete description of the company, the state of the industry, or subsequent significant developments.





# Outline

**I. Company Overview**

**II. Market Overview**

**III. Product Applications**

**IV. Business Strategy and Deployment**

**V. Financial Performance**

**VI. Prospect & Planning**





# Company Overview



**PlayNitride** is a Taiwan-based company specializing in nitride semiconductor materials and applications. It was the first company listed on Taiwan's Innovation Board.

The company's main products are COC (chip-on-carrier) and MicroLED displays.

COC technology is to integrate MicroLED chips onto carrier and used in various mass transfer technologies, enabling frameless large TVs, transparent car displays, high-brightness wearables, and flexible MicroLED screens.

Founded

2014/02/25

IPO

2022/08/08

Market Cap

NT\$7.5 billion

Domestic Locations

Miaoli-Zhunan (Headquarters), Tainan, New Taipei

Overseas Location

USA - San Jose

Employee count

450+



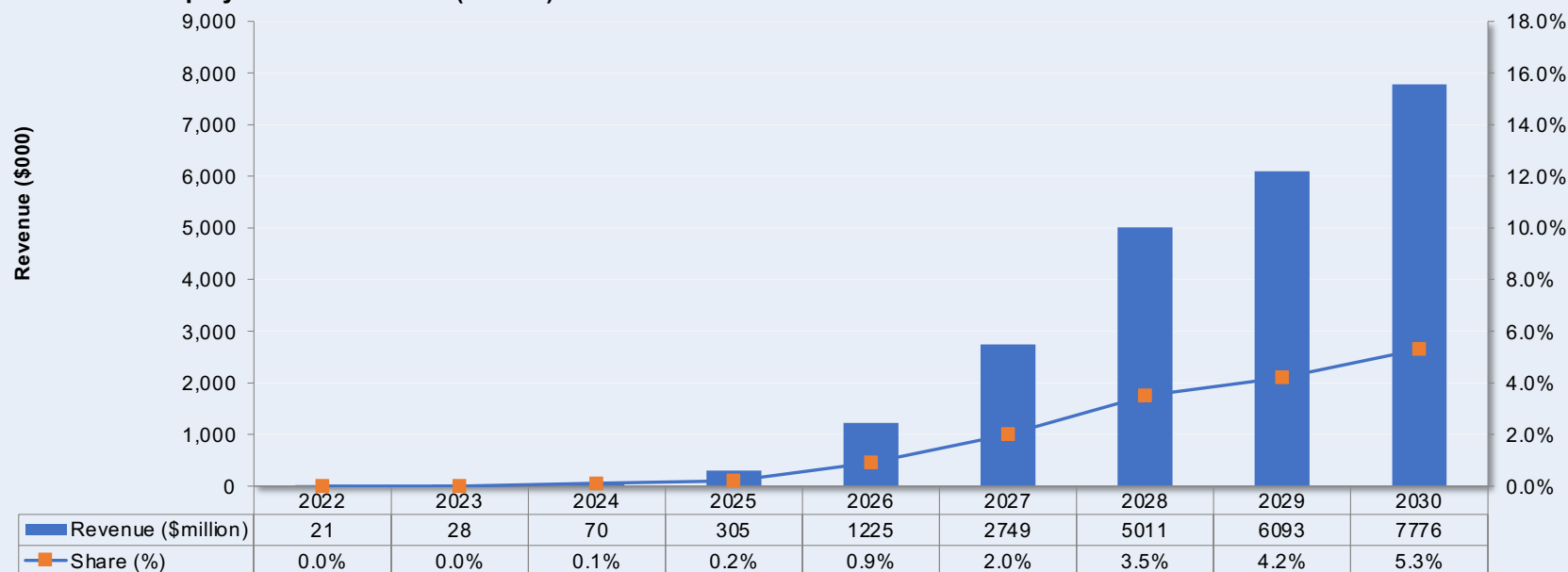


# Market Overview



# MicroLED Display Market: US\$7.8bn, 2030

MicroLED display revenue forecast (annual)



Annual revenue for MicroLED displays is about \$70.0 mn in 2024, and **the penetration rate will begin to climb from 2025 to 2028**. It is expected to reach \$7.8bn in 2030 to account for **5.3%** of the total Flat Panel Display (FPD) revenue.

(source: Omdia 2023/12 )





# Product Applications



# MicroLED in CES

## Samsung MicroLED TV

**Samsung Electronics unveiled its newest MicroLED TV Lineup in CES 2024.**

The 2024 MicroLED lineup offers new models ranging from 50 to 140-inches (50, 63, 76, 89, 101, 114 and 140-inches) to provide consumers with a breadth of options for unparalleled picture quality and screen experience. Thanks to its modular nature, MicroLED is not bound by shape, ratio and size, making it completely customizable to fit a consumer's desired set up. In addition, it comes without bezels, so regardless of configuration, the boundary between screen and real life is seamless.

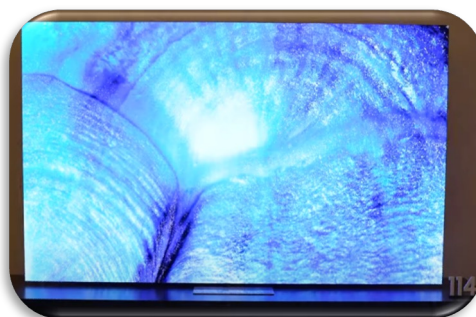
76"



140"



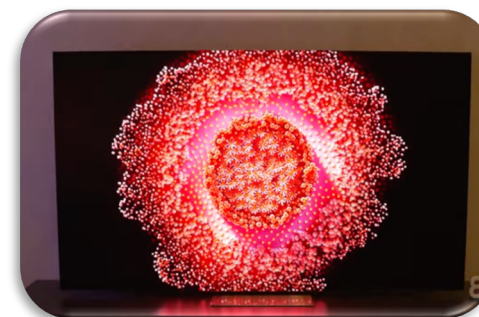
114"



101"



89"

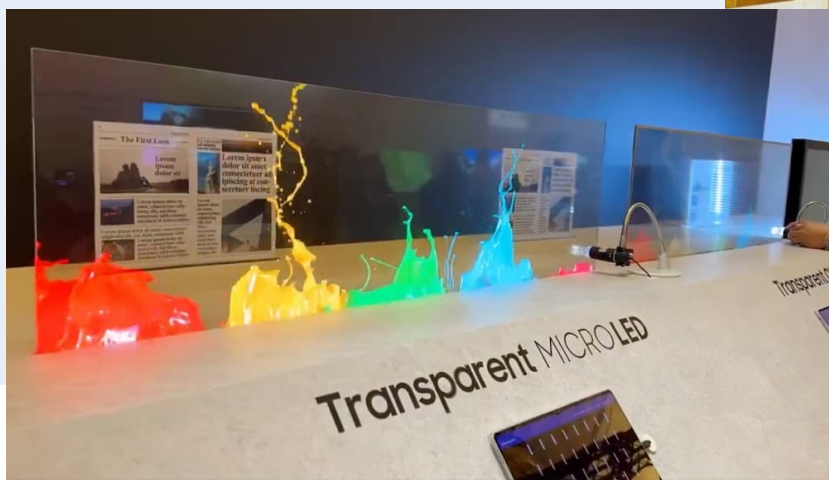


(source: SamMobile YouTube)



# MicroLED in CES

## Samsung Transparent MicroLED Display



(source: TechNews website)



(source: Tom's Guide website)



# MicroLED in CES



Size	30-inch
Tech	Micro LED
Resolution	960x540
Pixel pitch	0.69mm
Brightness	600cd/m <sup>2</sup>
LED type	RGB/flip chip

Source: Photos taken by Omdia at CES 2024



Size	17.3-inch
Tech	Micro LED
Resolution	1280x720
Pixel pitch	0.3mm
Brightness	>1,200cd/m <sup>2</sup>
Touch	TP cell = 0.5mm, 5 points



Size	13.5-inch
Tech	Micro LED
Resolution	1920x1080
Pixel pitch	<0.3um
Brightness	5,000cd/m <sup>2</sup>
Pixel density	163 PPI

© 2024 Omdia

## AUO Transparent MicroLED Display

(source: Omdia Report)



# MicroLED in CES



Interactive Transparent Window  
2024 CES Innovation Award



Rollable Rear Seat Entertainment  
2024 CES Innovation Award

## AUO Automotive MicroLED Display

(Source: AUO Website)



(source: TechNews website)



Continental creates world's first see-through car display in Swarovski crystal



2024 CES Innovation Award

# The outstanding performance of MicroLED displays at CES 2024



FORVIA's Skyline Immersive Display

2024 CES Innovation Award



- 9.6" Micro LED
- 229 PPI (1920x1080)
- 1,000 nits



CarUX Automotive MicroLED Display

(source: CarUX Website)





**166" 5K P0.833 Waterfall Display**  
(Seamless tiling by 324 modules)

## Large-sized MicroLED Display (Modular PCB)

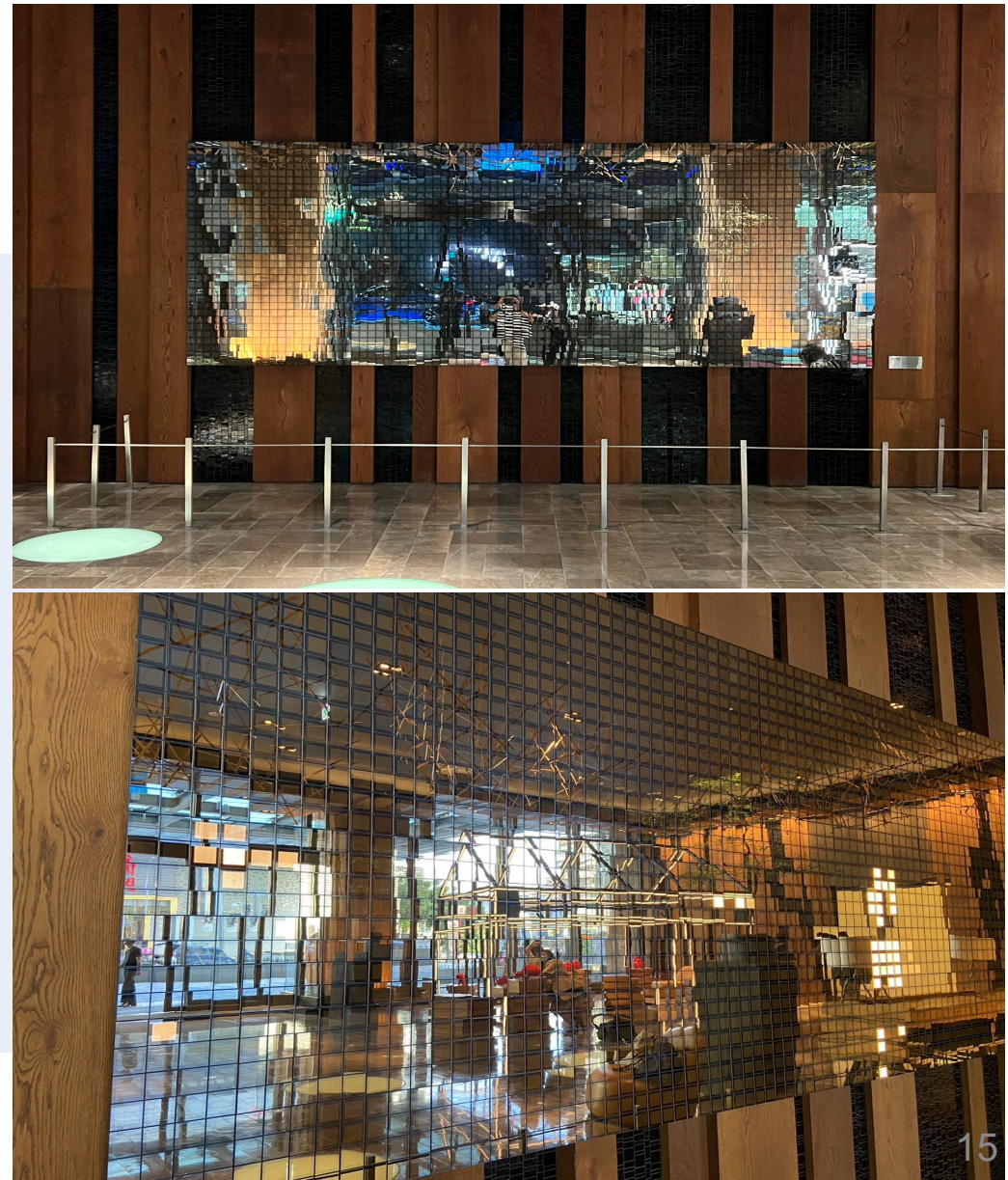


**89" 5K 32:9 P0.43 Curved Monitor**  
(Seamless tiling by 168 modules)



# Interactive Installation Art

Designed 10 years ago by Random International, this contemporary artwork "To Light You Fade", originally adopting OLED organic light-emitting materials, was re-interpreted by PlayNitride, spliced by 2688 panels with tens of millions of MircoLED, fully showing the beautiful mirror luster and dynamic gradient light and shadow, resurrecting this interactive installation art and injecting sustainable vitality into it.





## Wearable MicroLED Display



1.39" 338ppi MicroLED Circular Display

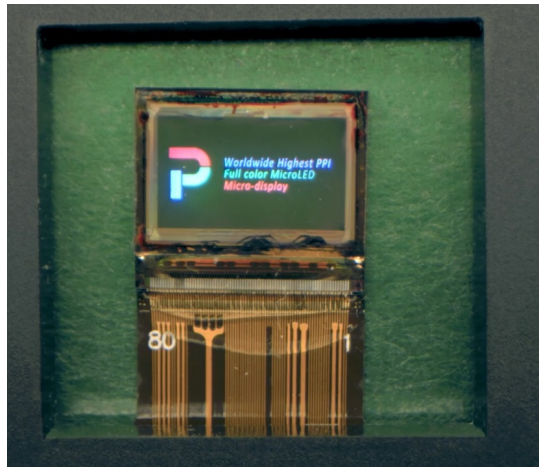




# MicroLED Is the Key for AR Glasses

## 0.49" MicroLED $\mu$ -display

- 1920\*1080 (FHD)
- 4536PPI
- Full Color
- >4,000,000 MicroLED 2.5 $\mu$ m chips



2023 SID  
Best AR/VR/MR Demo/Product



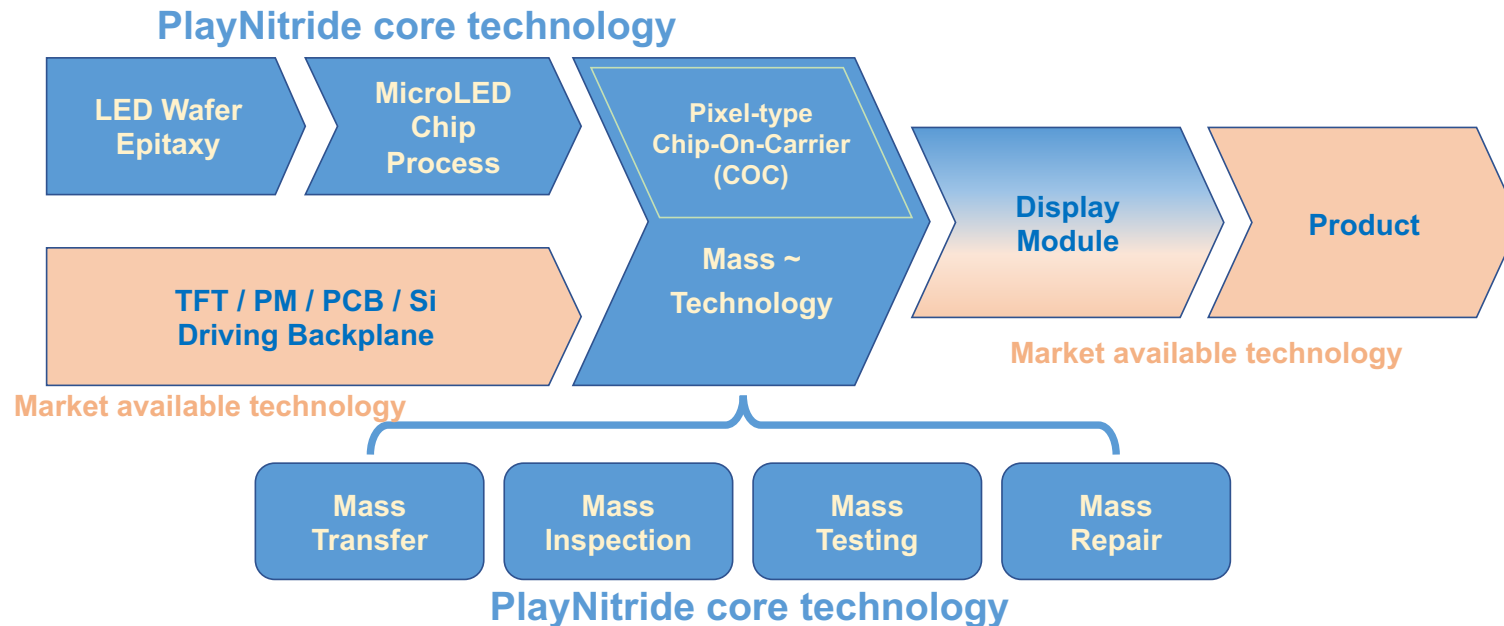




# Business Strategy and Deployment



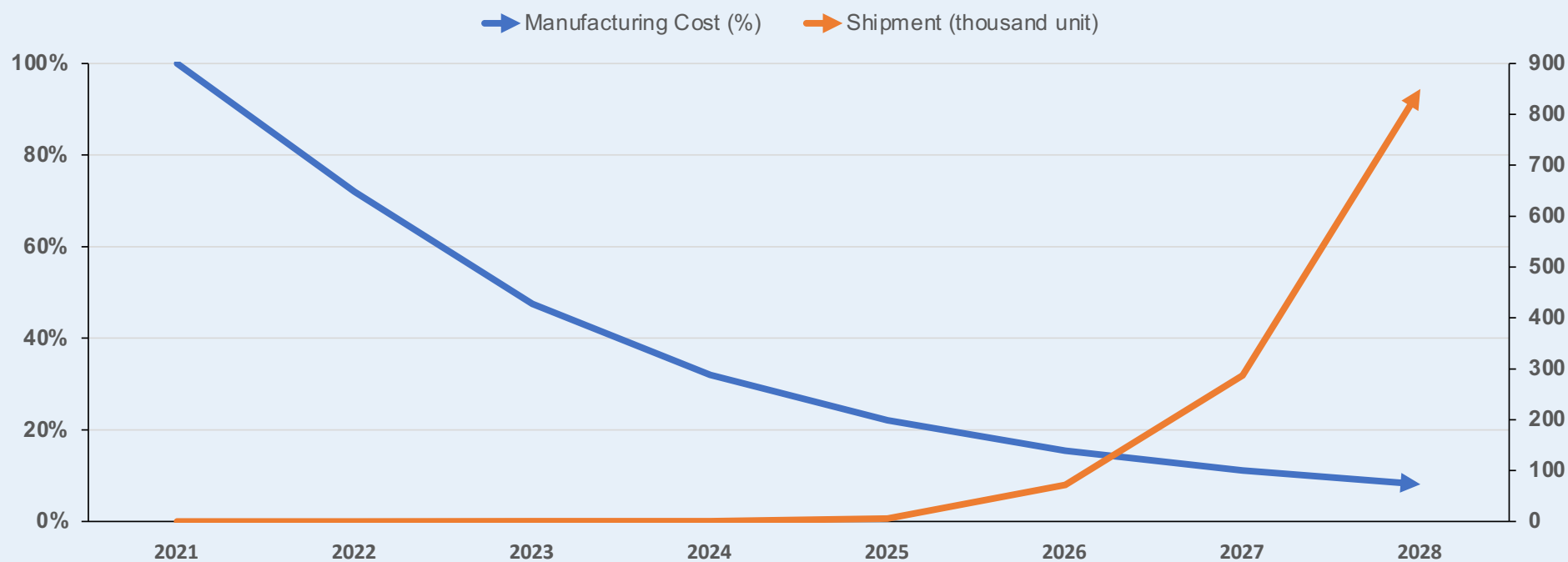
# We Facilitate The MicroLED Ecosystem



- PlayNitride is one of the few companies that owns and integrates the key technologies of MicroLED displays. We've completed technical know-how to quickly optimize production and solve new technical challenges.
- In each technical link, PlayNitride has a strong team to innovate and develop our proprietary technology.
- PlayNitride is in a leading position in the market,, while also extensively building its patent portfolio and establishing know-how.



# Reduce MicroLED Cost For Market Penetration



The Cost of 75-inch 3840x2160 LTPS/RGB MicroLED Display Cost vs. MicroLED TV shipment

(source: Omdia Report )



Consensus with partners has greatly shortened the time for new technology to reach the market.



Cost



Market Demand

Production Capacity

Cost

PLAYNITRIDE



Market Demand

Production Capacity



Micro LED technology enters into the triangle relationship of cost, production capacity and market demand.

Slow progress could shift the market toward competing technologies like OLED."



## Mass Transfer Equipment Development/Sales

### Turnkey Solution Construction Services

#### Technical Services

- Automotive Display POC
- AR/VR Display Co-development
- Transparent Display Co-development
- PCB-based Indoor Signage Co-development

#### COC

Over 90% market share, the only company in the world certified by the largest manufacturer of consumer electronics in Korea



## Business Deployment



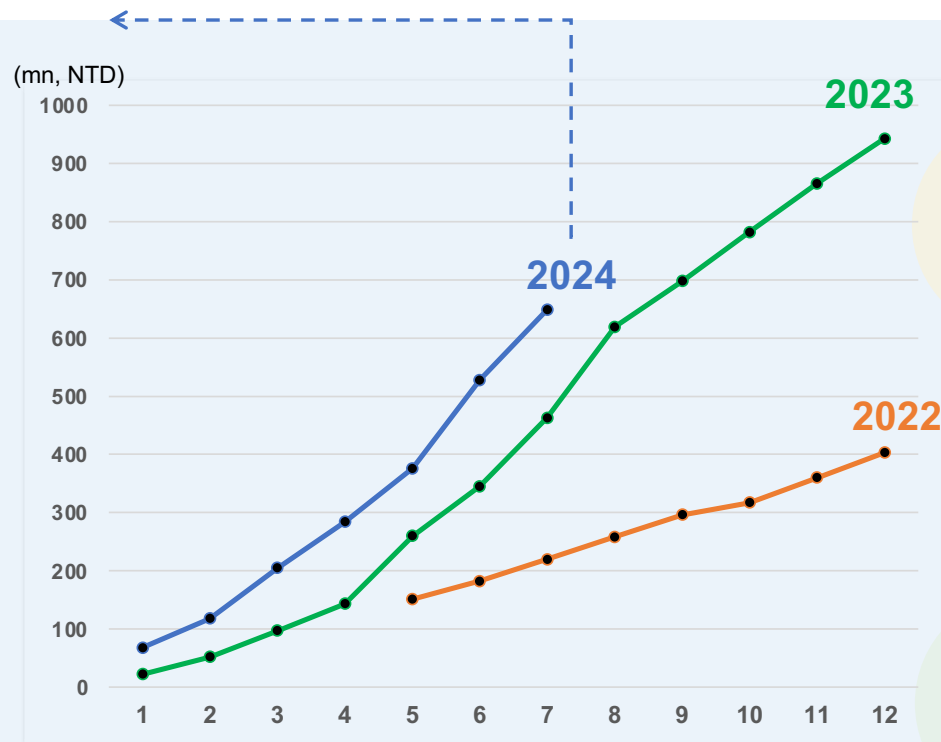


# Financial Performance



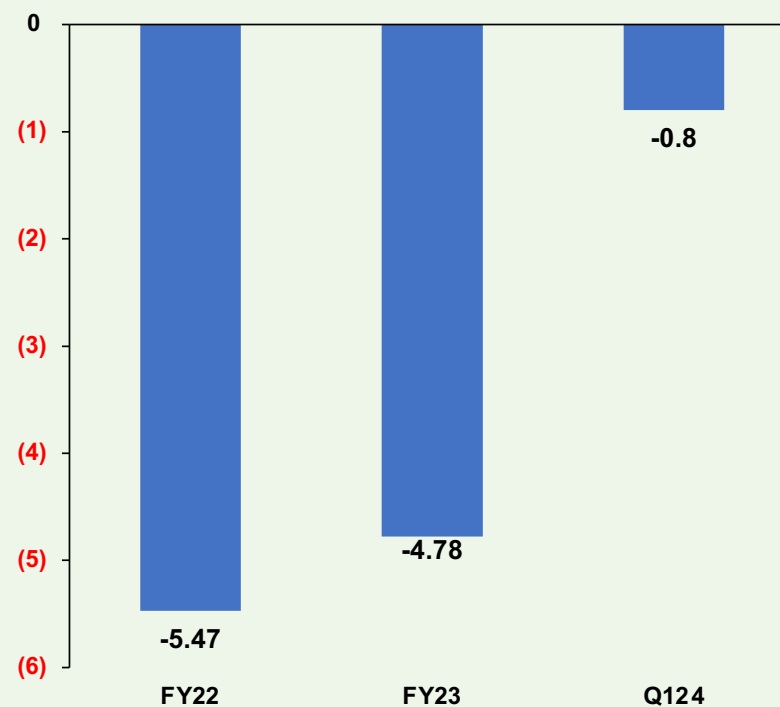
# Revenue and EPS

2024 cumulative revenue continues to surpass 2023.



Monthly Revenue  
(Cumulative Total)

- ✓ Revenue increases, maintaining the revenue momentum trend.
- ✓ Losses are gradually decreasing, and EPS continues to improve.

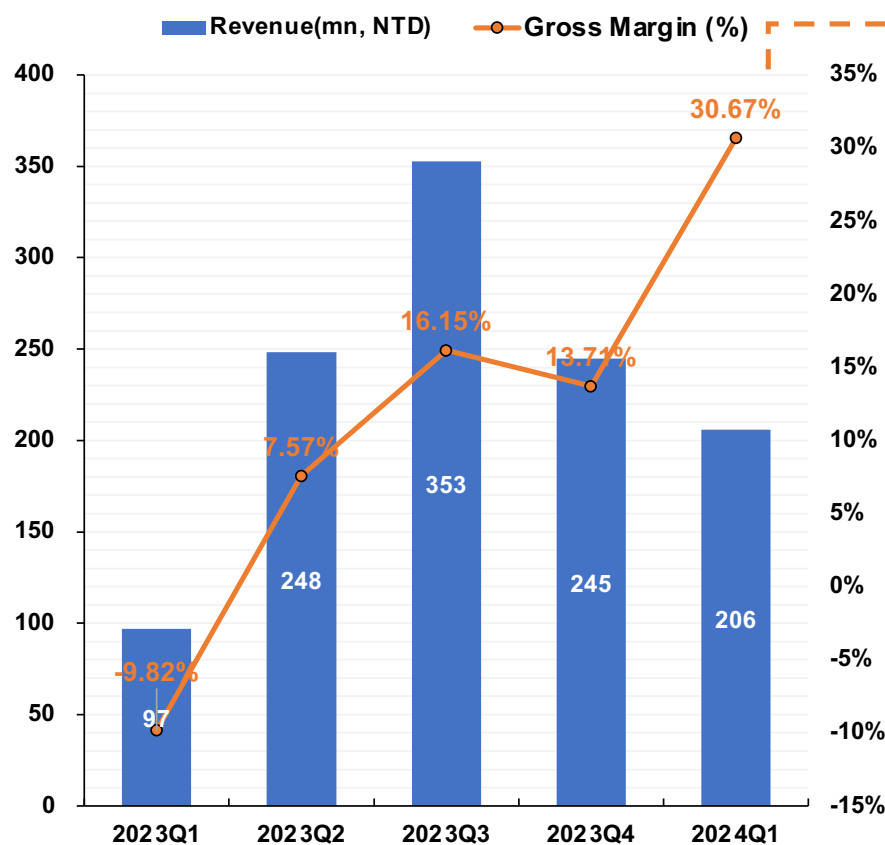


EPS

[Note] FX Gain : 2022 NTD 207million, 2023 (NTD 7.17 million)



# Gross Margin



Q1 gross margin increased significantly

- ✓ Manufacturing costs decreased
- ✓ Contribution from new business items/new customers





# Prospect & Planning



- **Add New Business Item**

In addition to COC, Turnkey Solution, and NRE, the sales of transfer equipment is to be added.

- **Diversify Customer Contributions**

Expanded sales team and U.S. subsidiary starts operation to develop and serve European/American/Asian markets.

- **Optimistic about Revenue Momentum**

Maintain the 2020-2023 revenue growth trend, continue to narrow losses, and move towards the road of break-even.

- **Continuous Investment in R&Ds**

Master the research and development of next-generation process technology and equipment, maintain a leading position, and accumulate future potentials. °

***“Ride the Wave of MicroLED,  
Leverage the Display Industry”***





**P**LAYNITRIDE

Q&A Session



Website