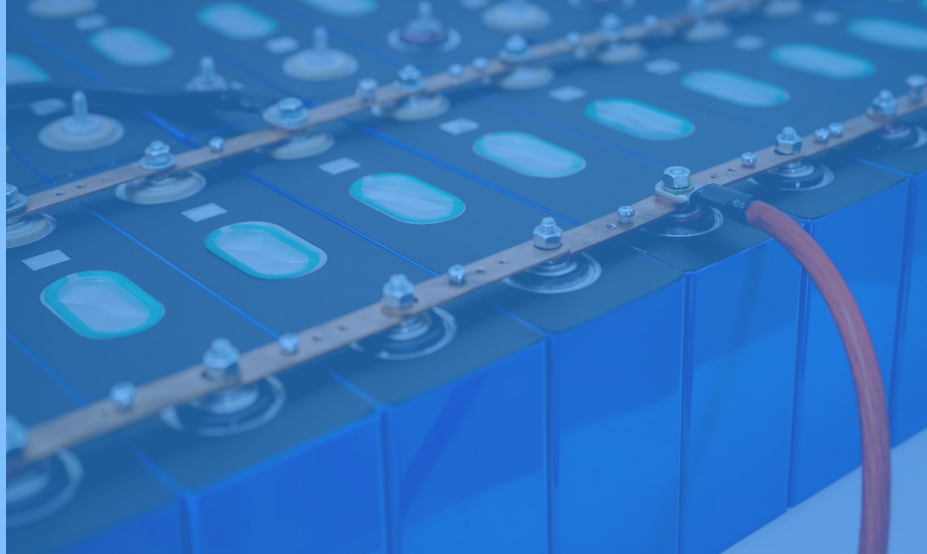




法人說明會

2024/8/22

系統電
Sysgration Ltd.
(TPEX: 5309)



Outline

1 2024/1H營運績效

2 事業成長策略

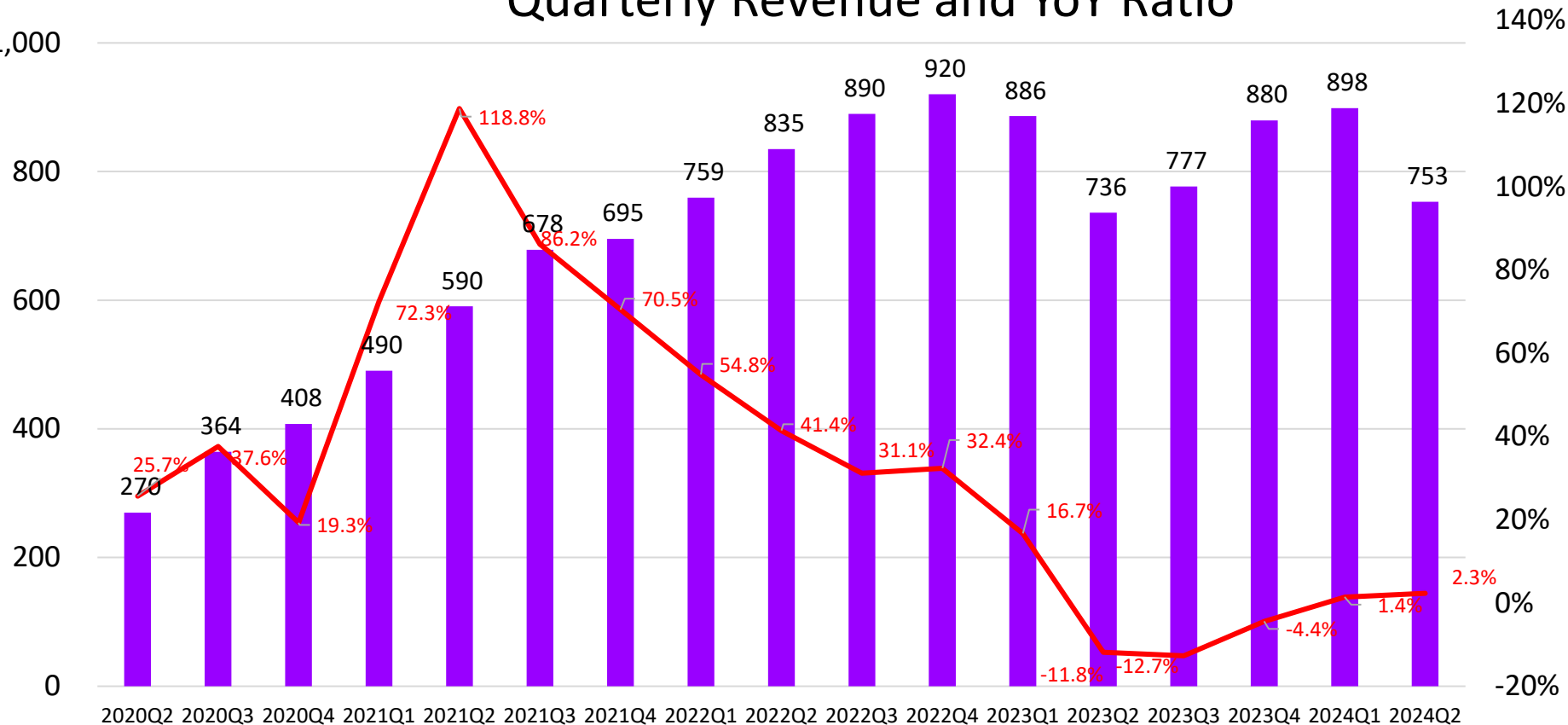
3 美國設廠進展



2024/1H 營運績效

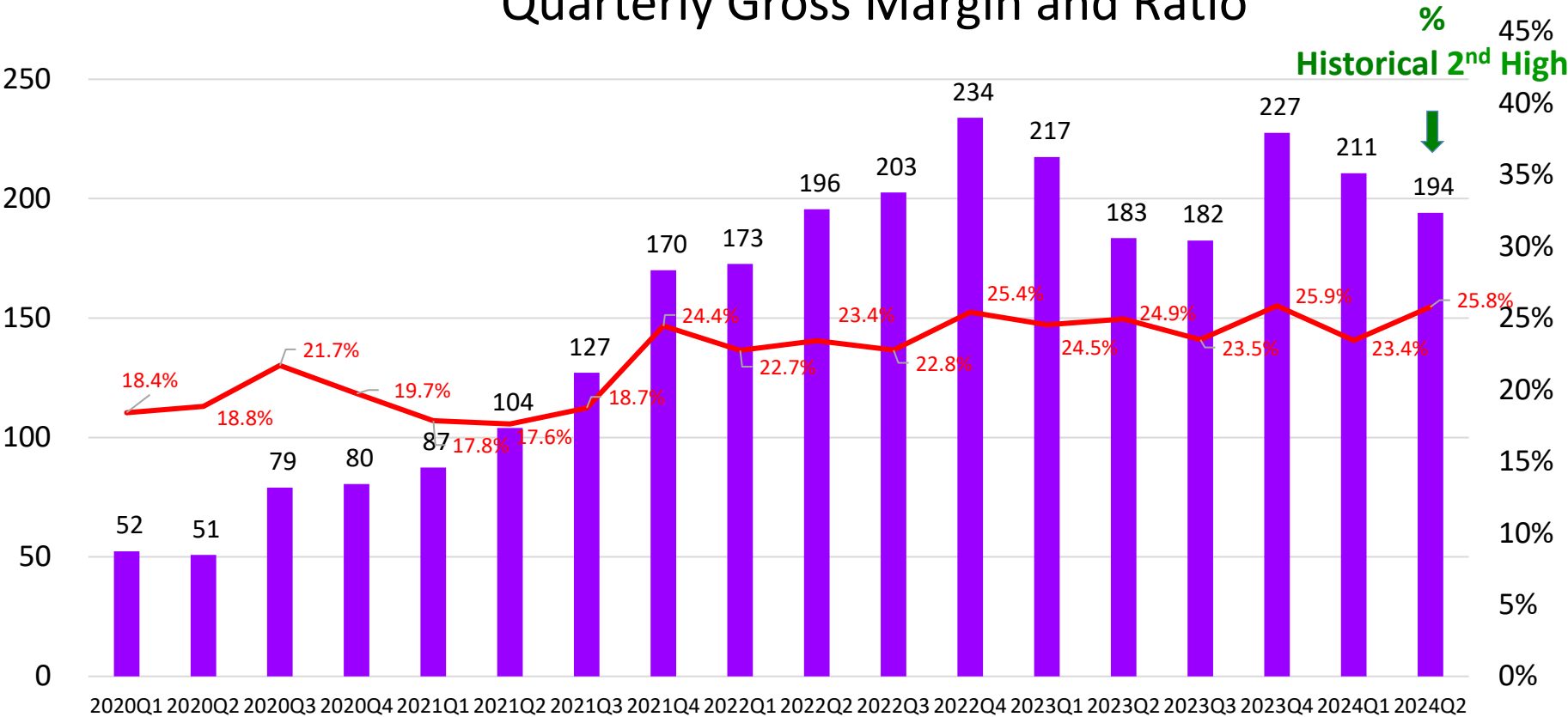
NT\$ M

Quarterly Revenue and YoY Ratio



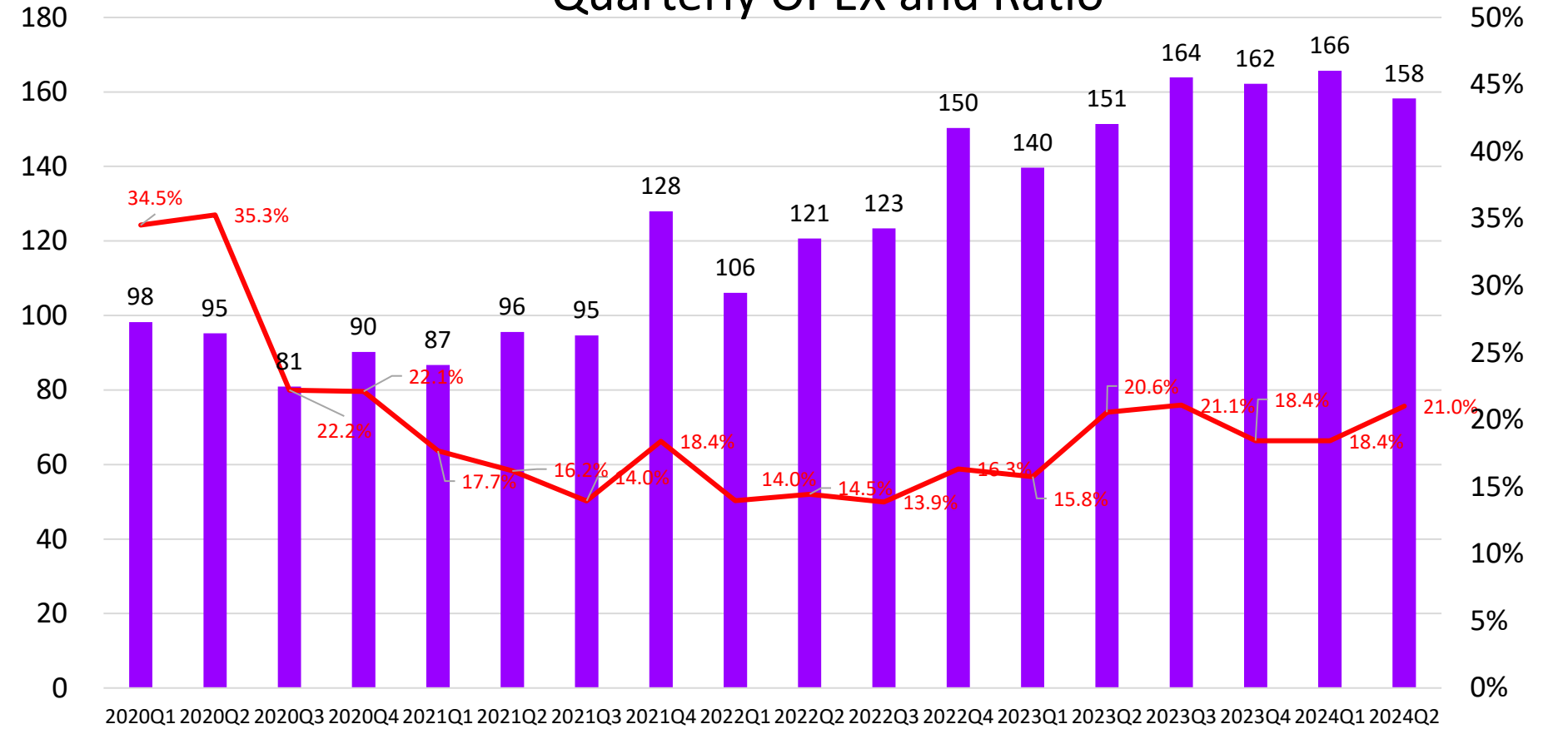
300 NT\$ M

Quarterly Gross Margin and Ratio



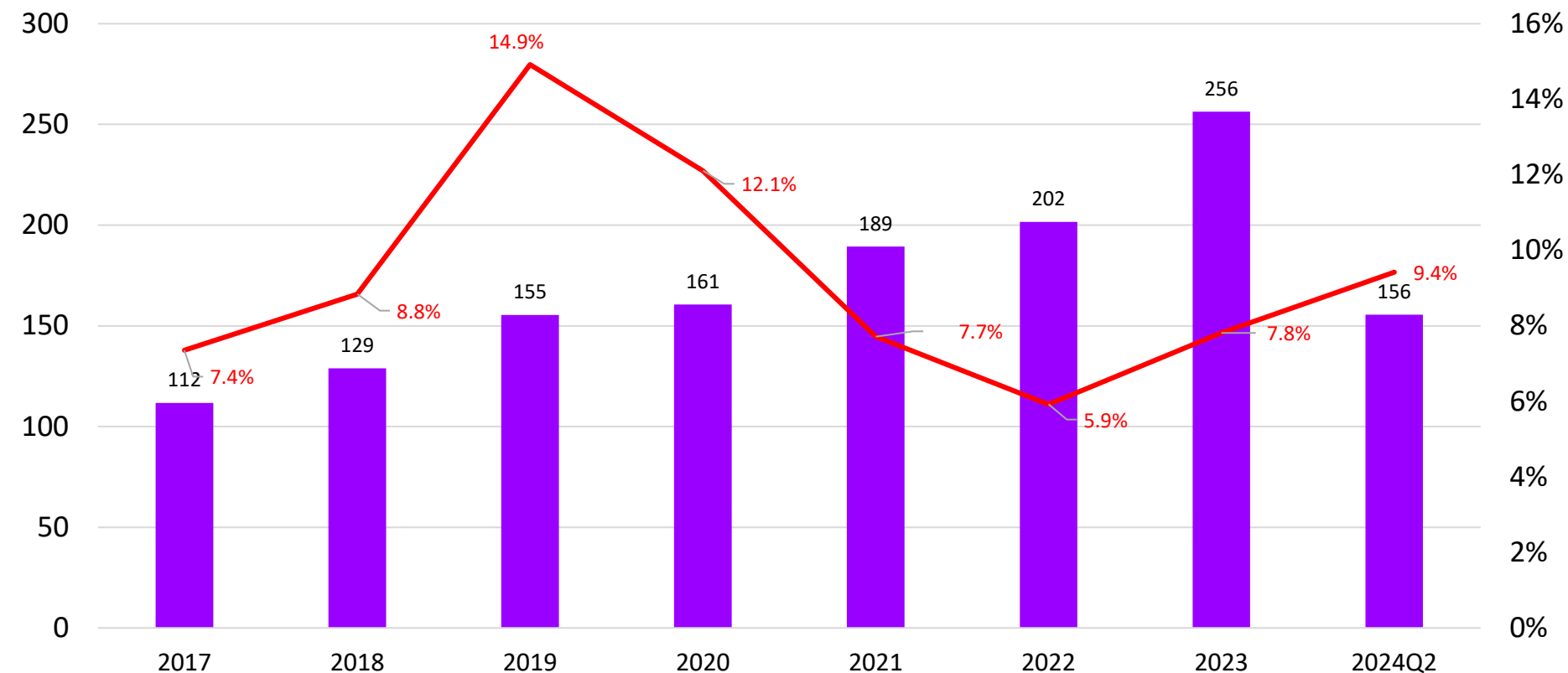
NT\$ M

Quarterly OPEX and Ratio



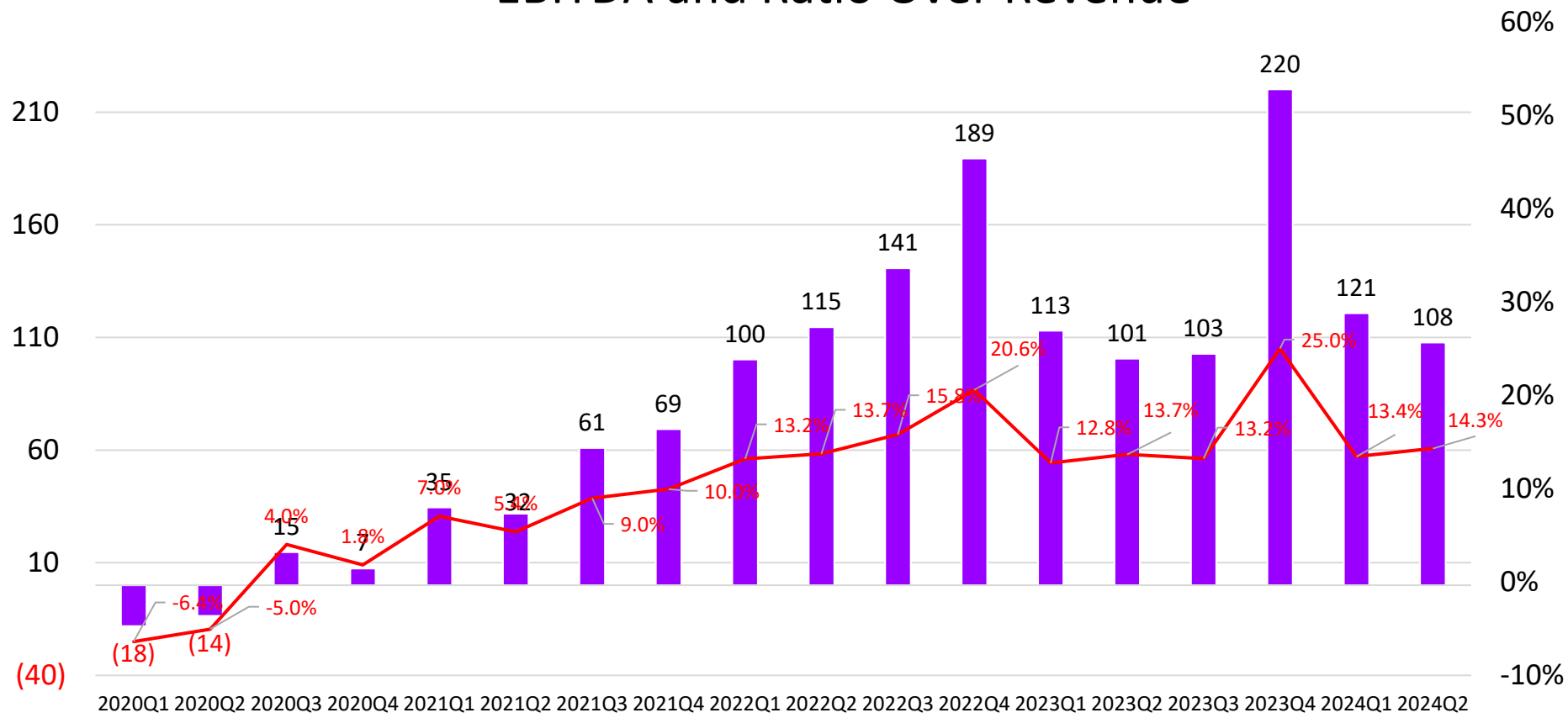
NT\$ M

RD Expense and Ratio



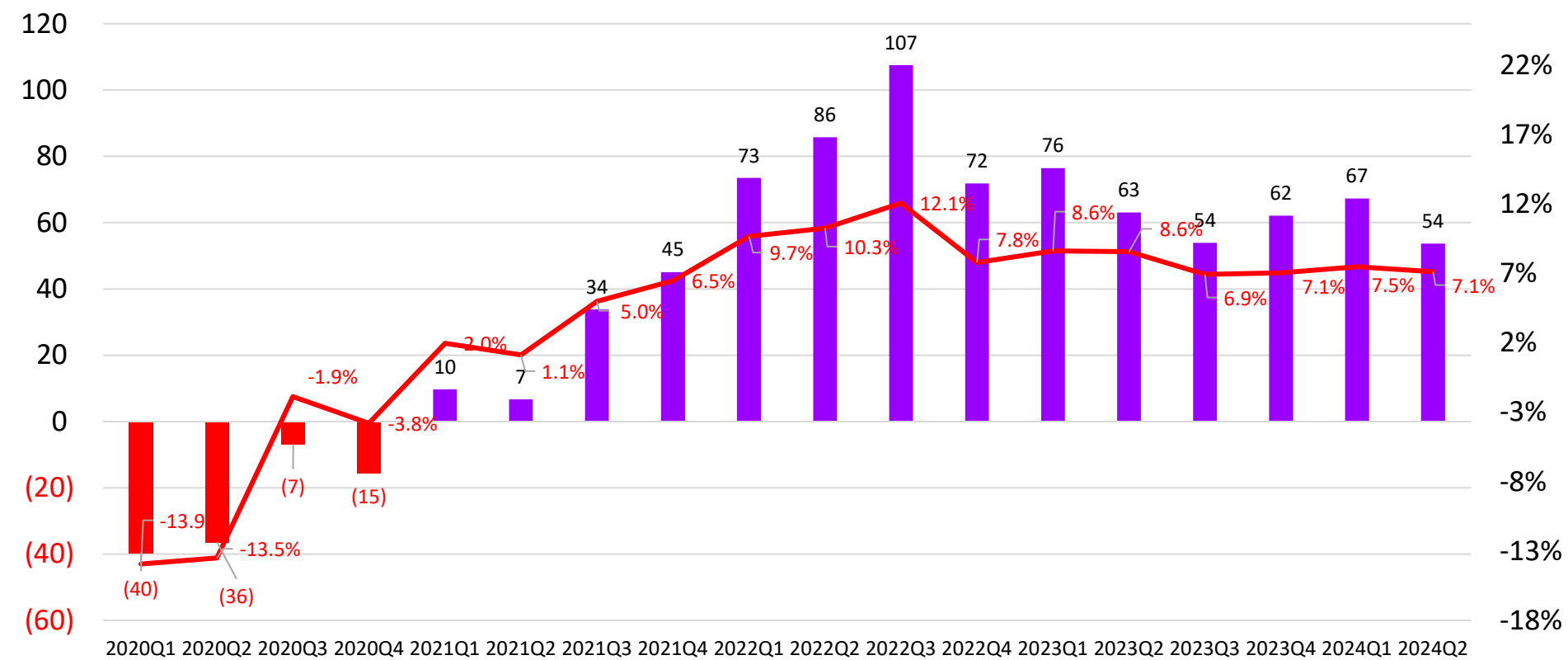
NT\$ M

EBITDA and Ratio Over Revenue



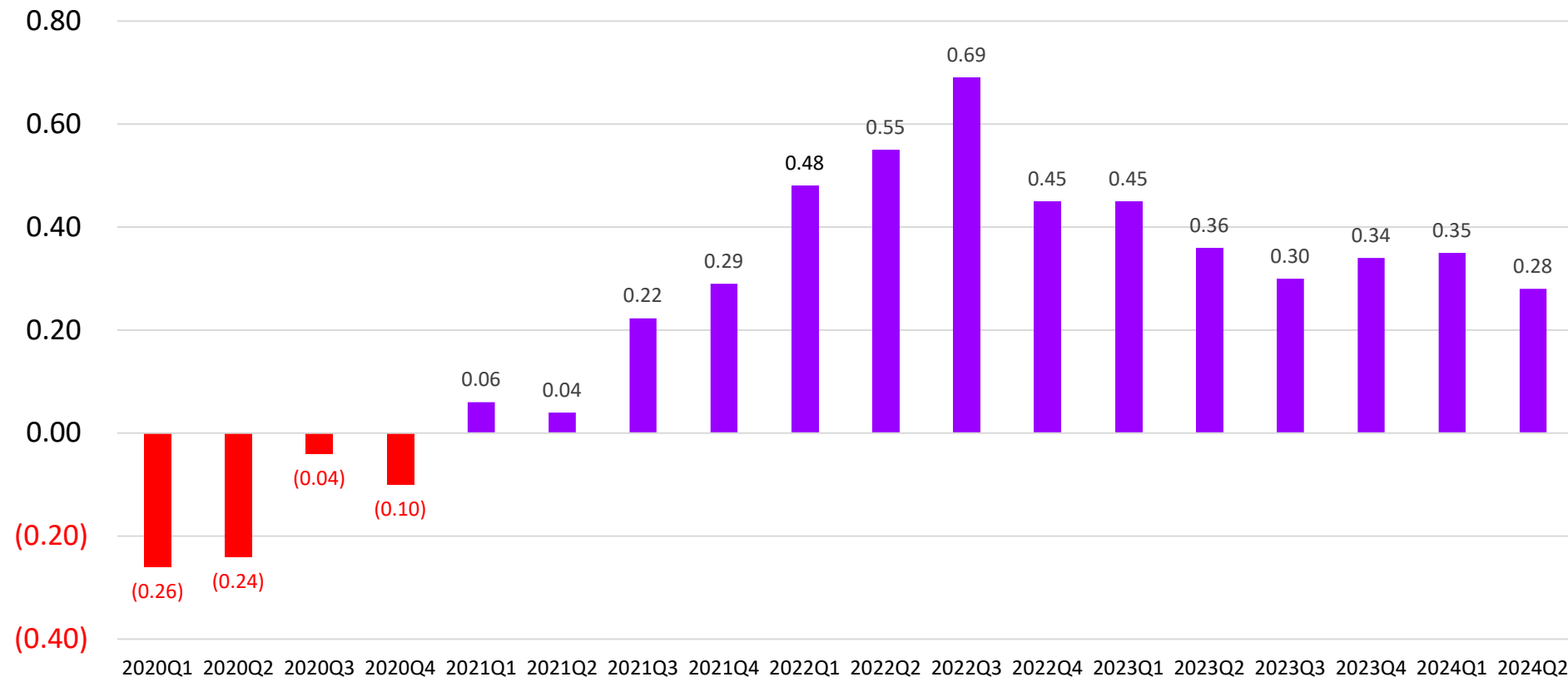
NT\$ M

Quarterly P/L after Tax and Ratio



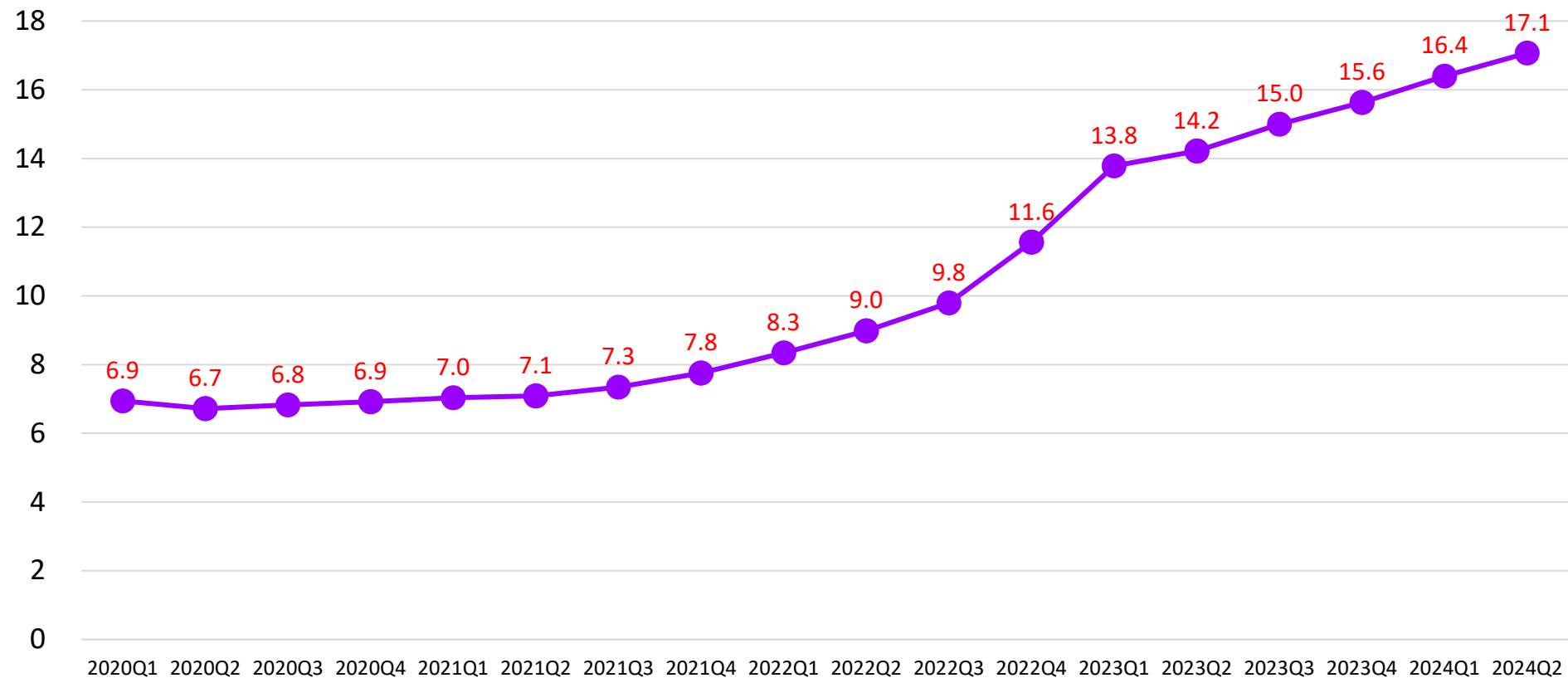
NT\$/Share

Quarterly EPS



NT\$/Share

Net Worth Per Share

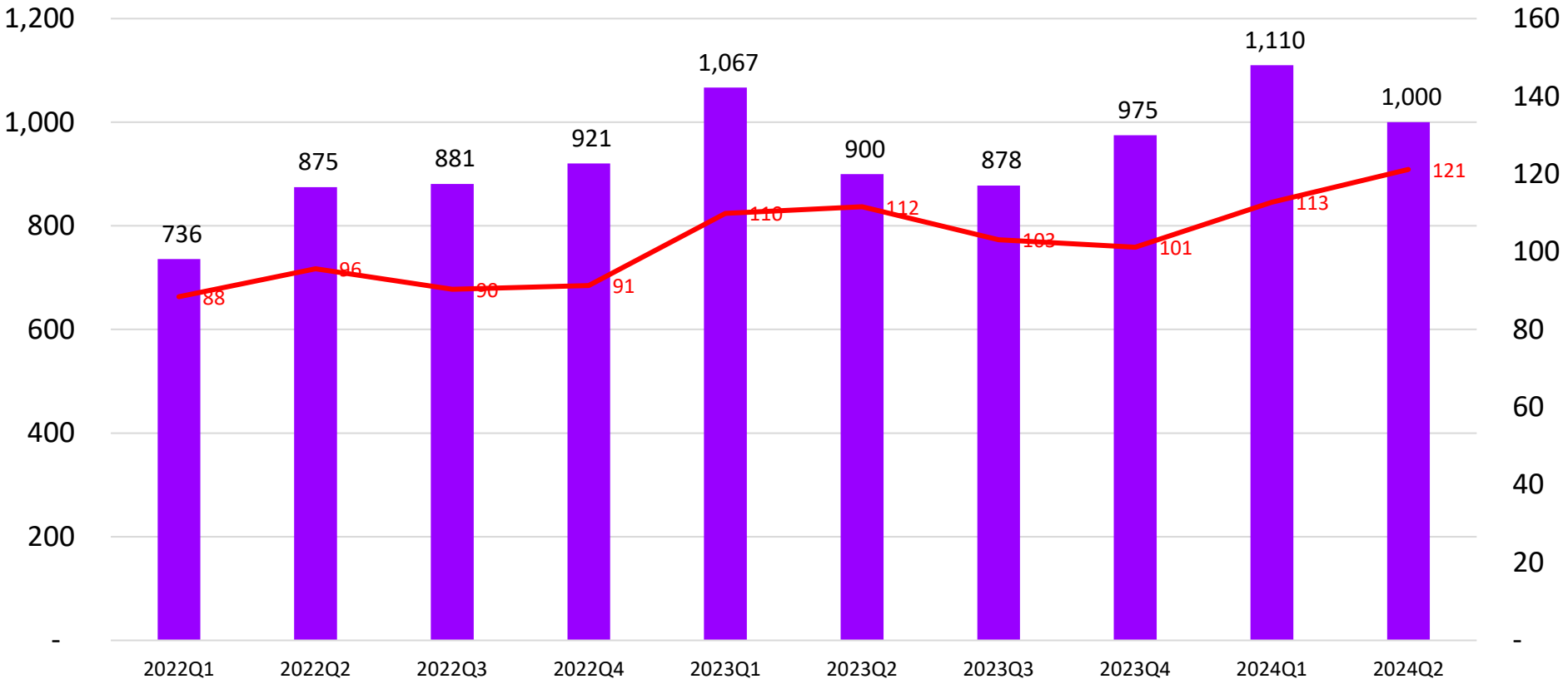


應收帳款周轉

NT\$ M

AR Collection

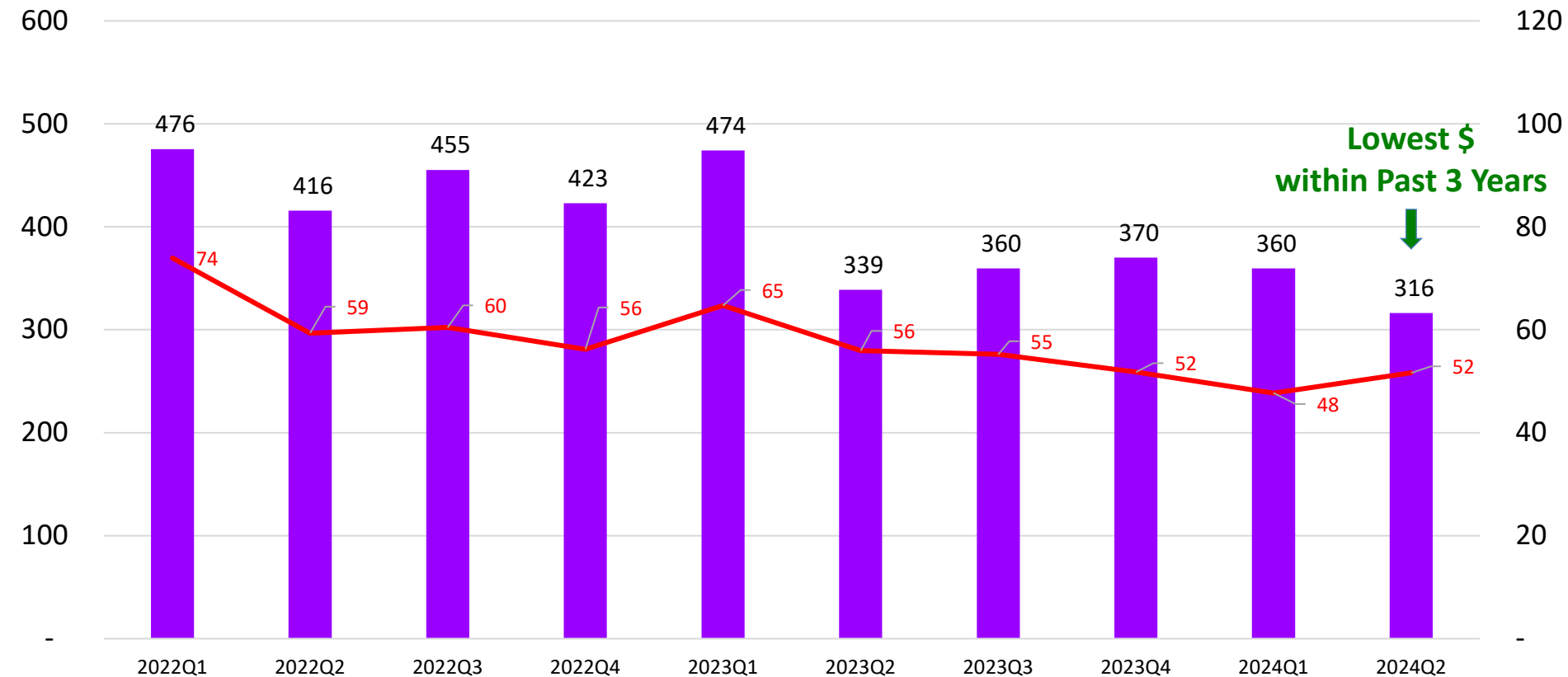
Days



NT\$ M

Inventory

Days





事業成長策略



TPMS

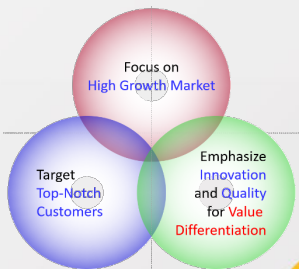


IPC



LIB Pack

未來成長動力

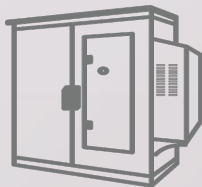


TPMS

- OE
- Replacement
- Fleet

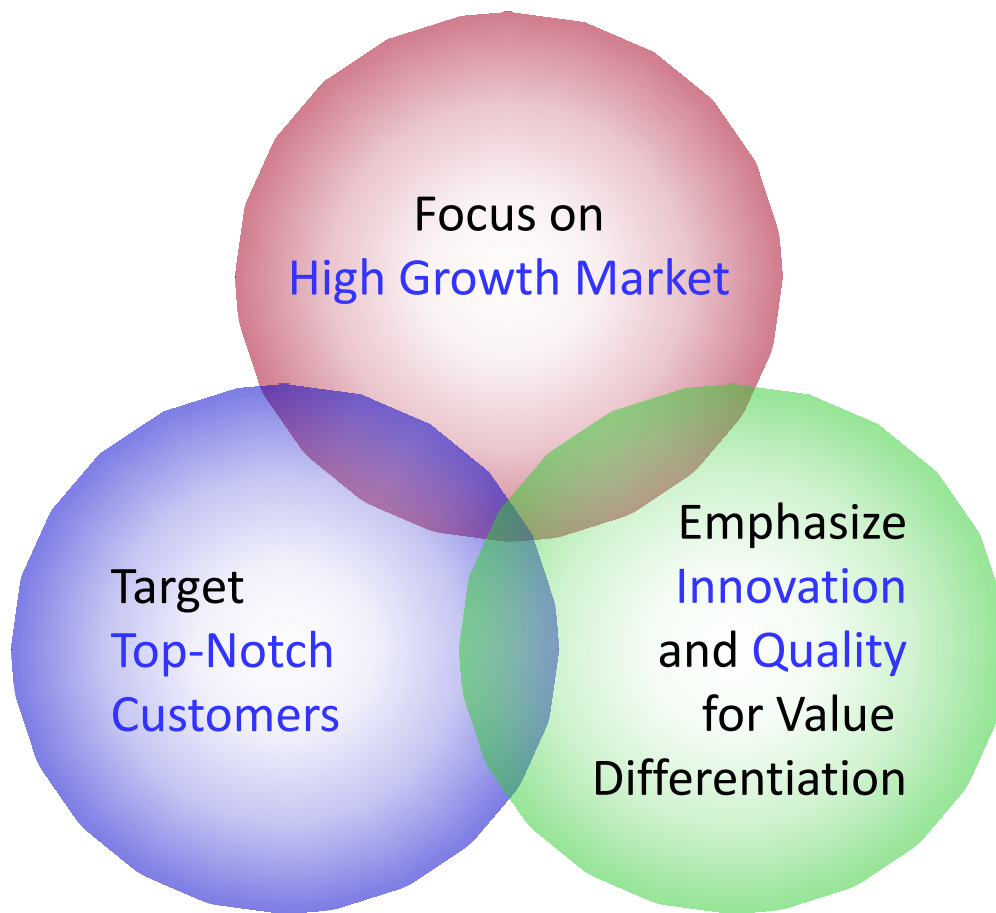
- Semiconductor Fab
- Community
- Data Center

LIB Pack



IPC

- Commercial & Industrial Vehicle
- Rugged Portable/Wearable
- AI-Driven

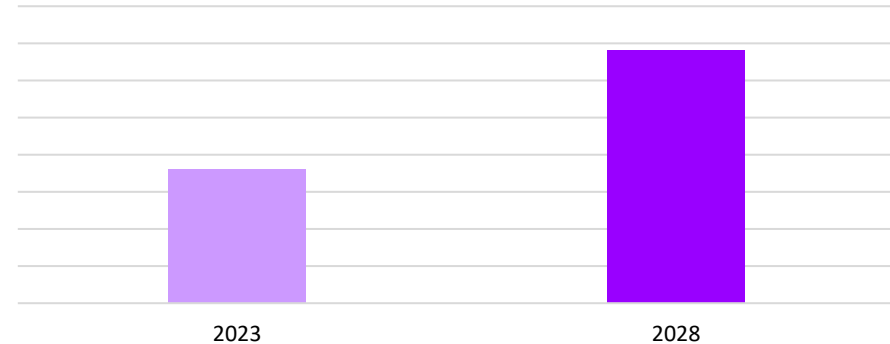


胎壓偵測器成長趨勢

- ◆ 2023~2028 CAGR > 13%.
- ◆ Largest Market: North America.
- ◆ Fastest Growing Market: Asia-Pacific.
- ◆ New Geopolitical Growth Opportunity in North America and Europe OE Makers.



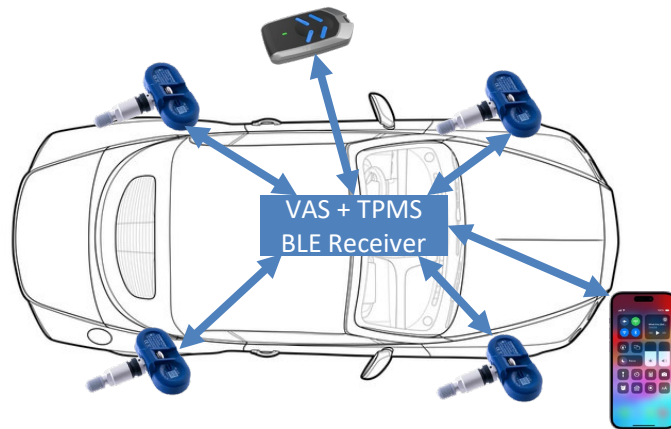
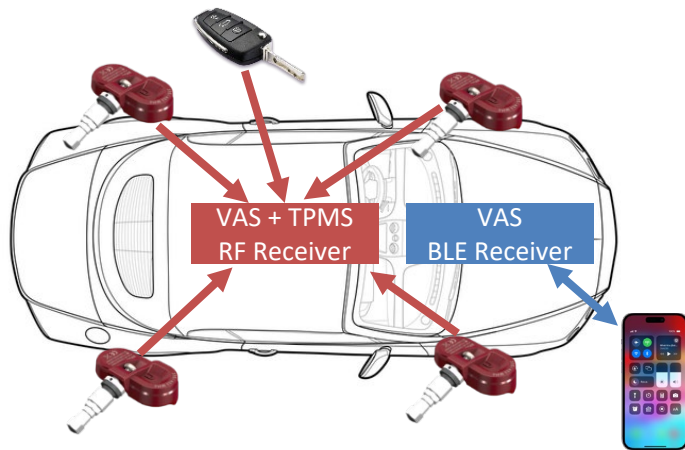
Automotive TPMS Market Size
CAGR > 13%



Data Source: www.mordorintelligence.com/industry-reports/automotive-tpms-market

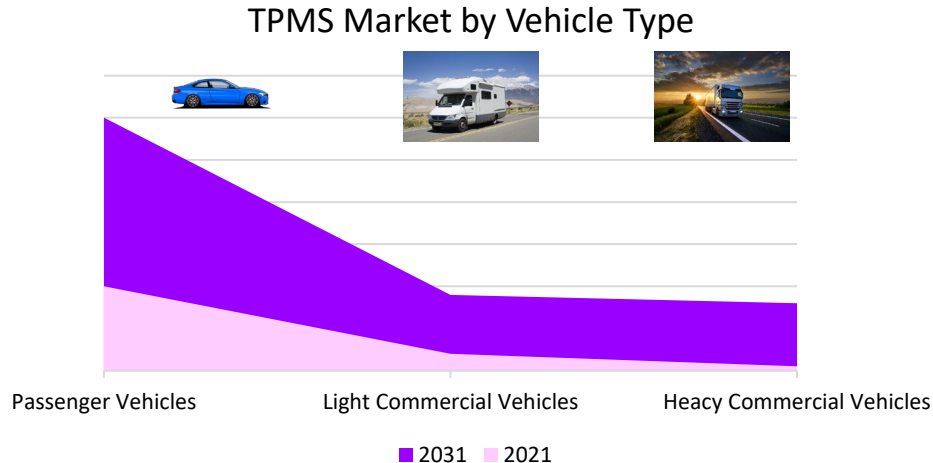
藍牙方案成為全球胎壓偵測器成長趨勢

- ◆ Market Preference on ADAS Plays a Significant Role in TPMS Growth.
- ◆ “Phone as A Key” Drives VAS (Vehicle Access System) from RF to BLE/UWB.
- ◆ Adopting BLE TPMS Helps Automakers to Eliminate the Dedicated RF Receiver.
- ◆ Technology Matures to Reach Good Performance/Price Ratio for Mass Adoption.



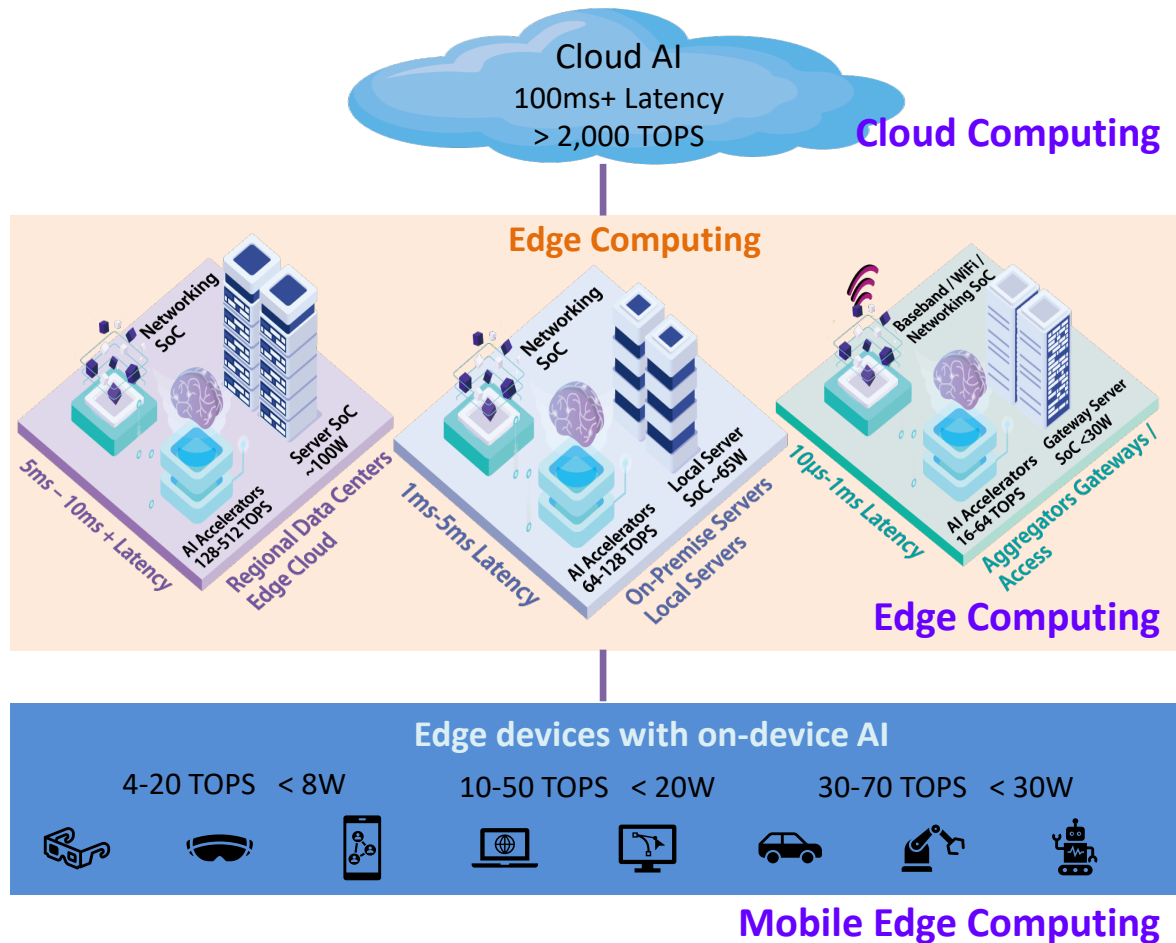
商用車胎壓偵測器成長機會

- ◆ TPMS Become a Compulsory Fitment for Commercial Vehicle across Europe:
 - on M1, M2, M3, N1, N2, N3, O3, and O4 vehicles (trucks, trailers, buses, coaches)
 - from 2022/7: new type approvals, and
 - from 2024/7: all new vehicles for registration.
- ◆ BLE TPMS Excellent for Commercial Vehicles and Fleets. Margin is Most Lucrative.
- ◆ A US Truck OE is evaluating BLE TPMS for their FCEV Truck.
- ◆ Top Tire Makers are adapting BLE TPMS as part of their Fleet Solution.



Data Source: <https://www.alliedmarketresearch.com/tire-pressure-monitoring-system-market-A07166>

AI新走向: 邊緣運算與移動式邊緣運算



**Cyber Physical System
Digital Twin**

Example:

Jarvis supports Tony Stark on building models, simulation, and prototyping.

**AI Assistance
Co Pilot**

Example:

Jarvis supports Tony Stark as co-pilot assistant during battles.

AI AMR

Example:

Lots of Mark xx Armors fight together with Tony Stark during battles.

AI伺服器與邊緣運算成長趨勢

Market	Server	PC	Laptop	Smartphone	Industrial PC
Current Value (2024)	USD 153.9 billion	USD 201.8 billion	USD 120.84 billion	USD 493.08 billion	USD 6.05 billion
Projected Growth (2030)	USD 200 billion	USD 300 billion	USD 179 billion	USD 735 billion	USD 9.94 billion
CAGR	11.40%	6.0% - 7.8%	6.0% - 7.3%	6.85%	7.30%
Impact of AI	Enhanced data processing, predictive maintenance, AI-driven analytics	Enhanced productivity, security, performance, and user experience	Enhanced productivity tools, customization, and security features	Enhanced user experience, smart assistants, AI-driven features	Smart manufacturing, predictive maintenance, real-time analytics
AI-Driven Market Value Projection (2030)	USD 230 billion	USD 350 billion	USD 200 billion	USD 790 billion	USD 15.8 billion
Sources	IDC, Expert Market Research, Technavio	IDC, Gartner, Future Market Insights	Canalys, Fortunly, Cognitive Market Research	IDC, Canalys, Market Data Forecast	Maximize Market Research, Future Market Insights

- ◆ Computing power demanded by AI gradually shifts from Cloud Servers to **Edge Computing** and **Smart Devices** (on-device AI).
- ◆ With the rise of edge computing, **Distributed AI Models** become increasingly important. These models run on **Multiple Edge Devices** and work collaboratively to enhance computing efficiency and system reliability.
- ◆ **Federated Learning** is a distributed machine learning approach which allows devices to train models locally and share only **Model Updates** but not **Raw Data**, thus preserving data privacy and gaining more attention.

垂直市場趨勢

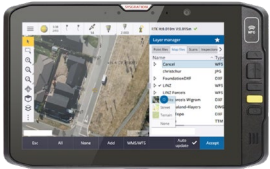
- ◆ USA President Biden signed a \$1.2 trillion infrastructure investment and jobs act covering:
 - Environmental restoration and green infrastructure.
 - Transportation infrastructure and safety facilities.
 - Public utility infrastructure.
 - Electric vehicles and infrastructure.
- ◆ U.S. Department of Agriculture (USDA) has earmarked funds to support AI in Precision Agriculture, which allocated additional funds to Agricultural Research Service (ARS) to develop AI tools that help farmers manage crops and resources effectively, including AI-Driven analytics for improving Agricultural Productivity and Sustainability.

AI增值應用場景垂直市場

Rugged AloV Computing & Control



Rugged Handheld AIoT Device

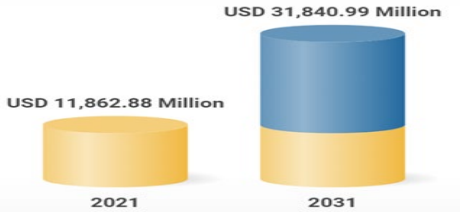


Enterprise Wearable AIR Device



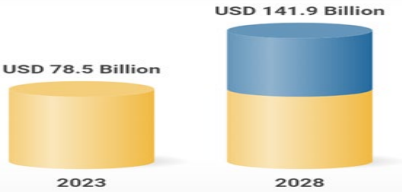
Global Autonomous Construction Market

Market forecast to grow at a CAGR of **10.4%**



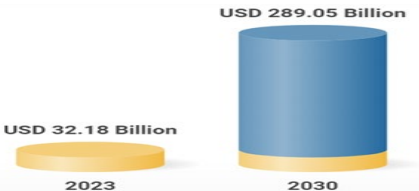
Global Geospatial Analytics Market

Market forecast to grow at a CAGR of **12.6%**



Global Augmented Reality Market

Market forecast to grow at a CAGR of **36.8%**





- Global No.1 Enterprise AR Head Mount Device/Smart Glasses.
- 41 of Fortune 100 Companies have deployed RealWear devices.



Telehealth



Remote Assist

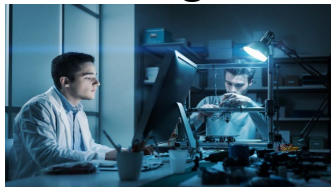


Vision Picking

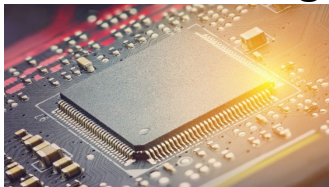


AR SOP

Design



Manufacturing



Distribution



Service



AI Integration



自主移動機器人(AMR)成長趨勢

◆ Expected to see substantial growth over the next decade:

- Expert Market Research: \$3.96B in 2024 → \$9.47B by 2029, CAGR 18.5%.
- Coherent Insights: \$2.96B in 2023 → \$8.47B by 2030, CAGR 16.2%.

◆ Key Application Areas:

- Manufacturing (75% of AMR revenue in 2022, based on Grand View Research).
- Logistics.
- Warehouses.
- Fulfillment centers.



自主運送機器人(ADR)成長趨勢

◆ Expected to see substantial growth over the next decade:

- Polaris Market Research: \$0.19B in 2023 → \$2.15B by 2032, CAGR 30.7%.
- Mordor Intelligence: \$1.09B in 2024 → \$3.15B by 2029, CAGR 23.6%.

◆ Market Segmentations:

- Regions: Mostly North America
- Applications: Food, Pharmacy, Grocery, Post
- Load Capacity: 10Kg, 50Kg
- # of Wheels: 3, 4, 6



Energy Storage Systems (ESS)



Energy Brick



ESS Battery Rack



Container ESS

Booming for AI Demands...

Active Power



AI Data Center BBS/BBU



Volume Up from 2025



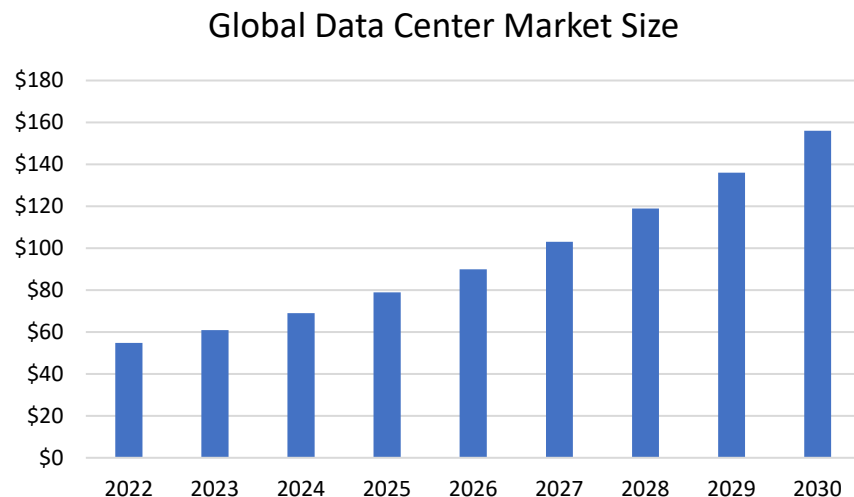
Telecom SMR Battery Rack



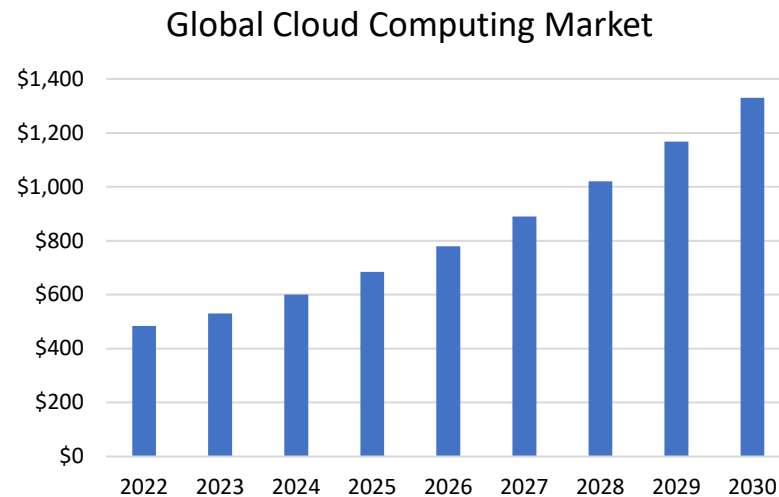
AC UPS Battery Rack



Global DC colocation market size was **US\$55B** in 2022, with **14.2%** CAGR from 2023~2030.



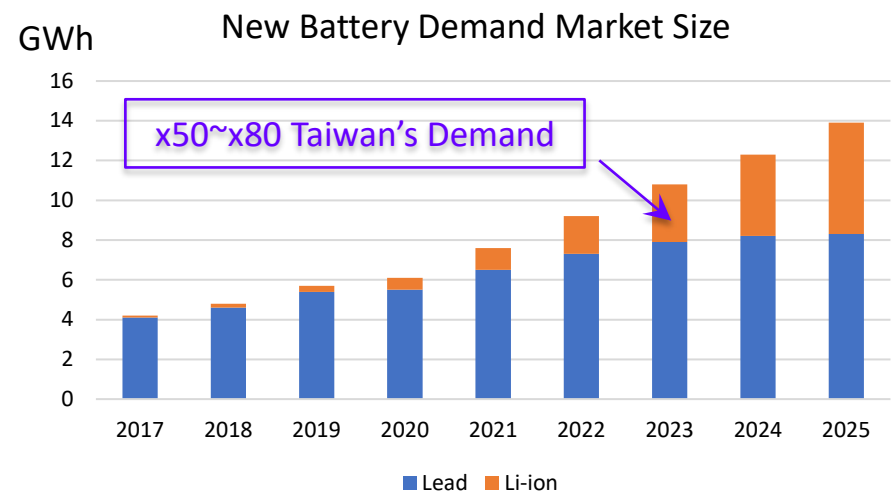
Global cloud computing market size was **US\$484B** in 2022, with **14.1%** CAGR from 2023~2030.



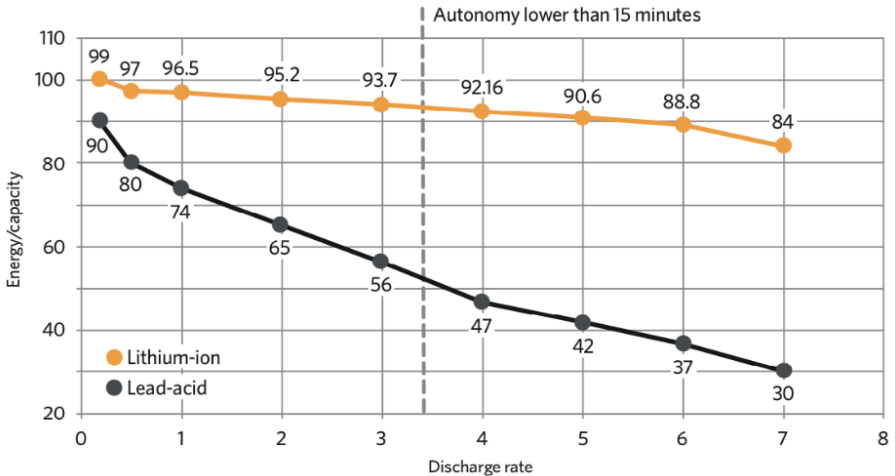
With 10% Lead-Acid to LIB Transformation Rate, around US\$700M LIB Business in 2022.

Source <http://www.grandviewresearch.com>

Annual Battery Demands in US/EU CAGR (2023~2025): Total 13.4%, LIB 38.9%



Telecom & Data Center Market



Lead-Acid vs Li-Ion Battery Discharge Efficiency

<https://www.cibsejournal.com/technical/battery-technology-vrla-or-li-ion-batteries/>

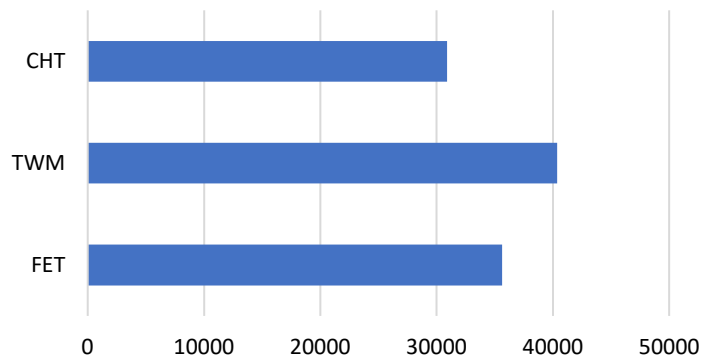
<https://www.datacenterknowledge.com/business/intel-make-altera-unit-standalone-business#close-modal>

電信基地台SMR市場趨勢



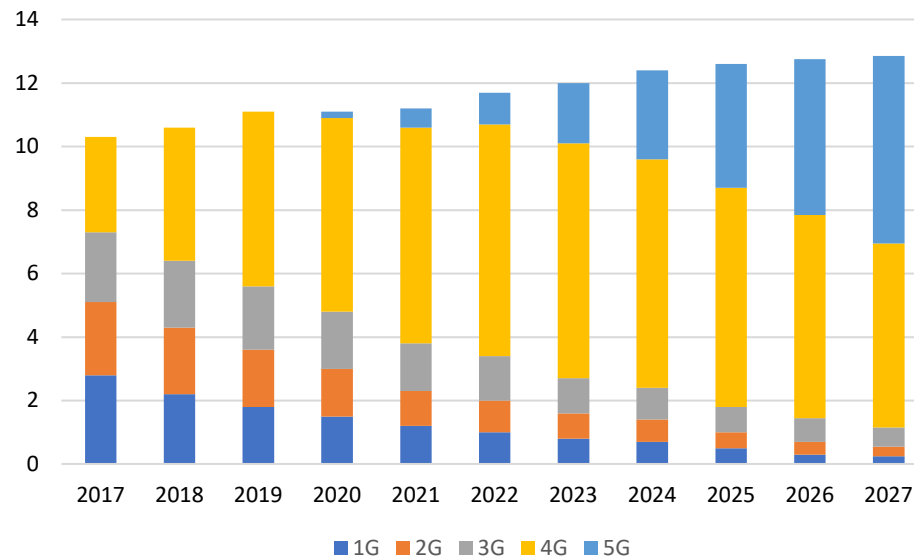
Li-Ion Battery Pack for Base Stations

of Taiwan 4G Base Stations (2022/03)



- 100K+ Base Stations for Taiwan 4G Services
- In Average 270 People/Unit

Billions # of Worldwide Phone Users for Each Generation



30M+ Base Stations in 2023



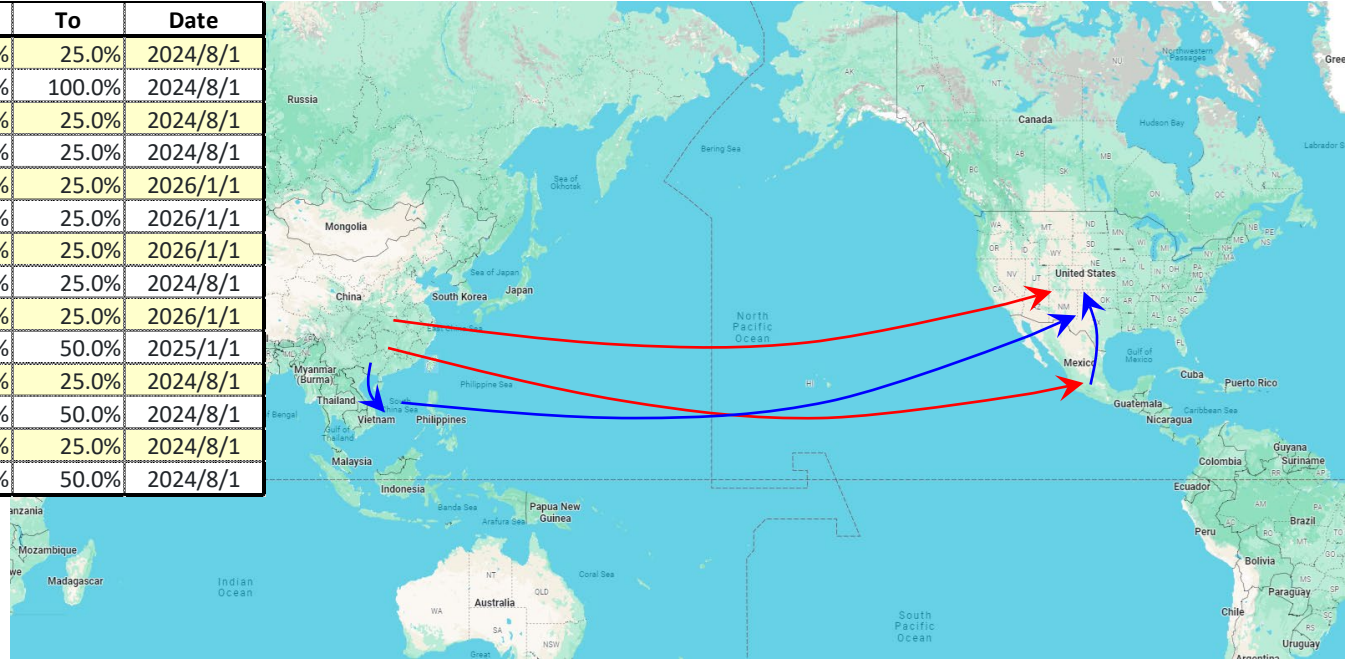
美國設廠進展

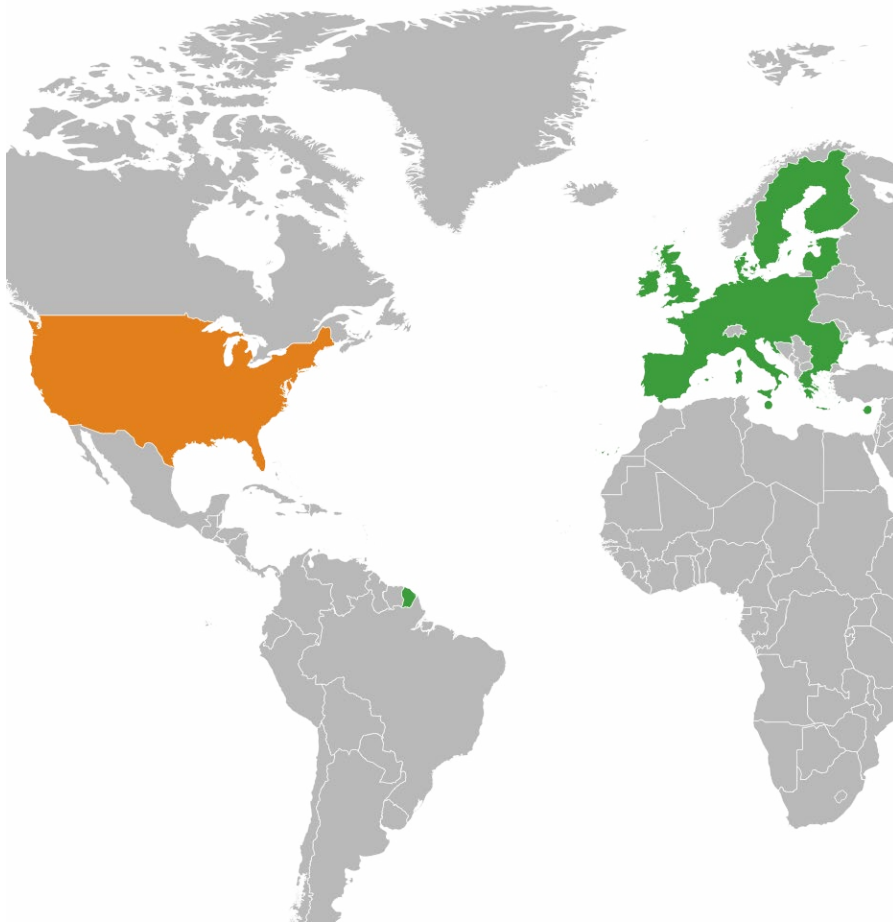


美墨關稅新政策

- ◆ 2024/4/22 Mexico Reinstates Tariff Hikes 5%~50% on 544+ Goods.
- ◆ 2024/5/14 US Tariff Increases on Chinese Imports, ~\$18B of Goods.

Category	From	To	Date
Battery Parts	7.5%	25.0%	2024/8/1
Electric Vehicles	25.0%	100.0%	2024/8/1
Facemasks	0 ~ 7.5%	25.0%	2024/8/1
Lithium-Ion EV Batteries	7.5%	25.0%	2024/8/1
Lithium-ion non-EV Batteries	7.5%	25.0%	2026/1/1
Medical Gloves	0 ~ 7.5%	25.0%	2026/1/1
Natural Graphite	0.0%	25.0%	2026/1/1
Other Critical Minerals	0.0%	25.0%	2024/8/1
Permanent Magnets	0.0%	25.0%	2026/1/1
Semiconductors	25.0%	50.0%	2025/1/1
Ship-to-Shore Cranes	0.0%	25.0%	2024/8/1
Solar Cells and/or Modules	25.0%	50.0%	2024/8/1
Steel and Aluminum Products	0 ~ 7.5%	25.0%	2024/8/1
Syringes and Needles	0.0%	50.0%	2024/8/1





SYSGRATION

Global Footprint

Headquarter with majority of R&D located in Taipei, Taiwan.

Multiple production bases including 2 located in China, 1 Taiwan, and 1 in US.

Each factory is fully equipped for full system production (from PCBA SMT/DIP to full unit Assembly/Test/Packing).

Flexible to allocate production resources to meet different logistic needs.



Sysgration Headquarter

Location: Neihu, Taipei,
Taiwan

Sales, R&D, PM, SCM



Sysgration Nankang Factory (NKS)

Location: Nankang,
Nantou, Taiwan

TPMS, IPC, ESS



Sysgration US

Location: Texas, US

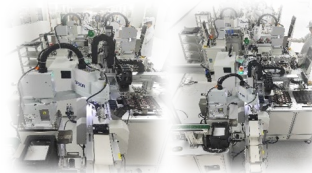
**PCBA, TPMS,
IPC, AR, BBU/ESS**



High Speed SMT Line



Auto Insertion Line



Automatic Production Line



Sysgration Huizhou Factory (HZS)

Location: Huizhou,
Guangdong, China

TPMS



Sysgration Zhenjiang Factory (ZJS)

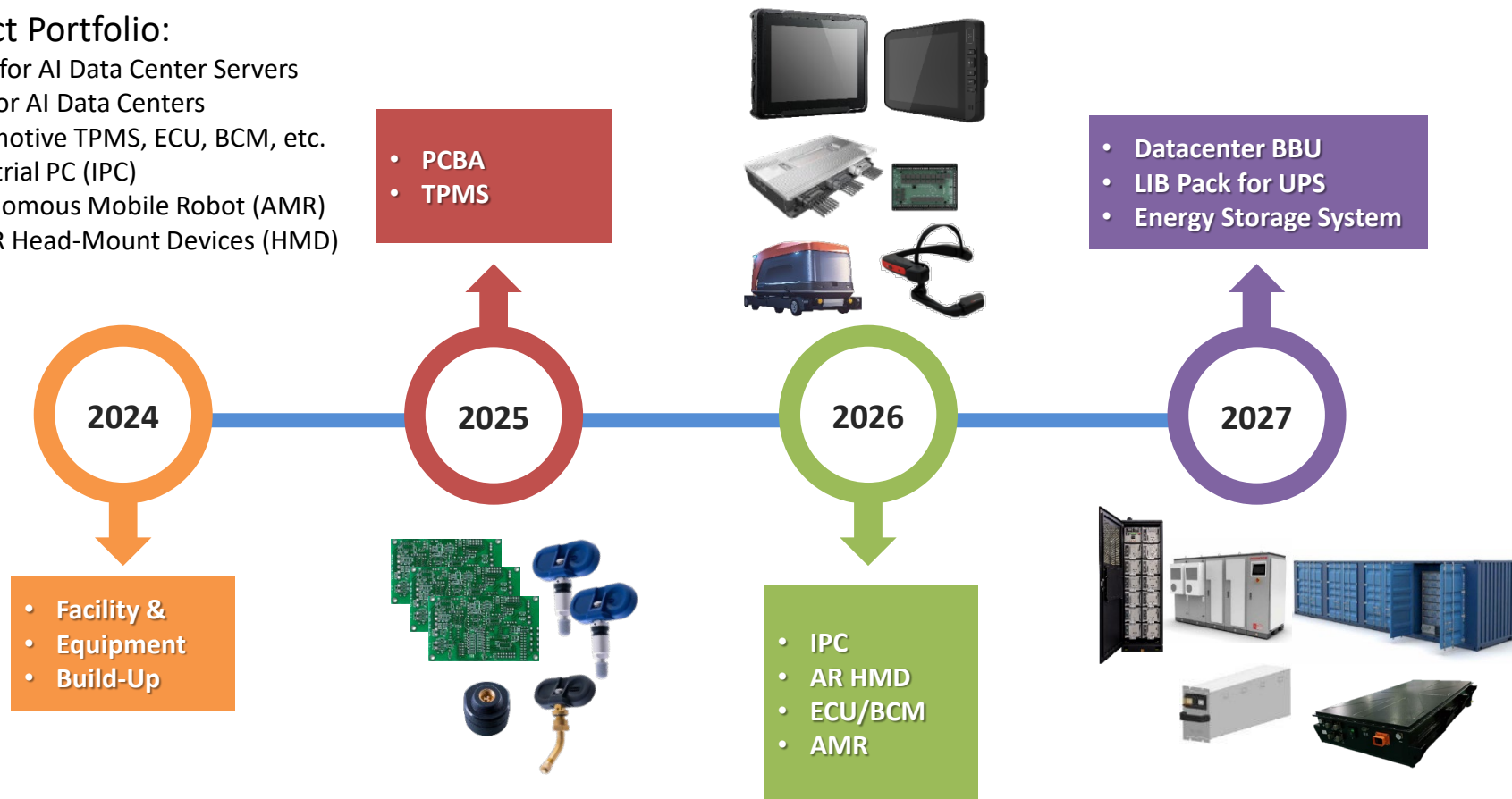
Location: Zhenjiang,
Jiangsu, China

ESS, Li-Ion Battery Pack

美國德州Plano廠時程及產品規劃

➤ Product Portfolio:

- ✓ PCBA for AI Data Center Servers
- ✓ BBU for AI Data Centers
- ✓ Automotive TPMS, ECU, BCM, etc.
- ✓ Industrial PC (IPC)
- ✓ Autonomous Mobile Robot (AMR)
- ✓ AR/VR Head-Mount Devices (HMD)





提問討論



Thank You