



# TXC Corporation Investor Conference

November, 2024

# Disclaimer

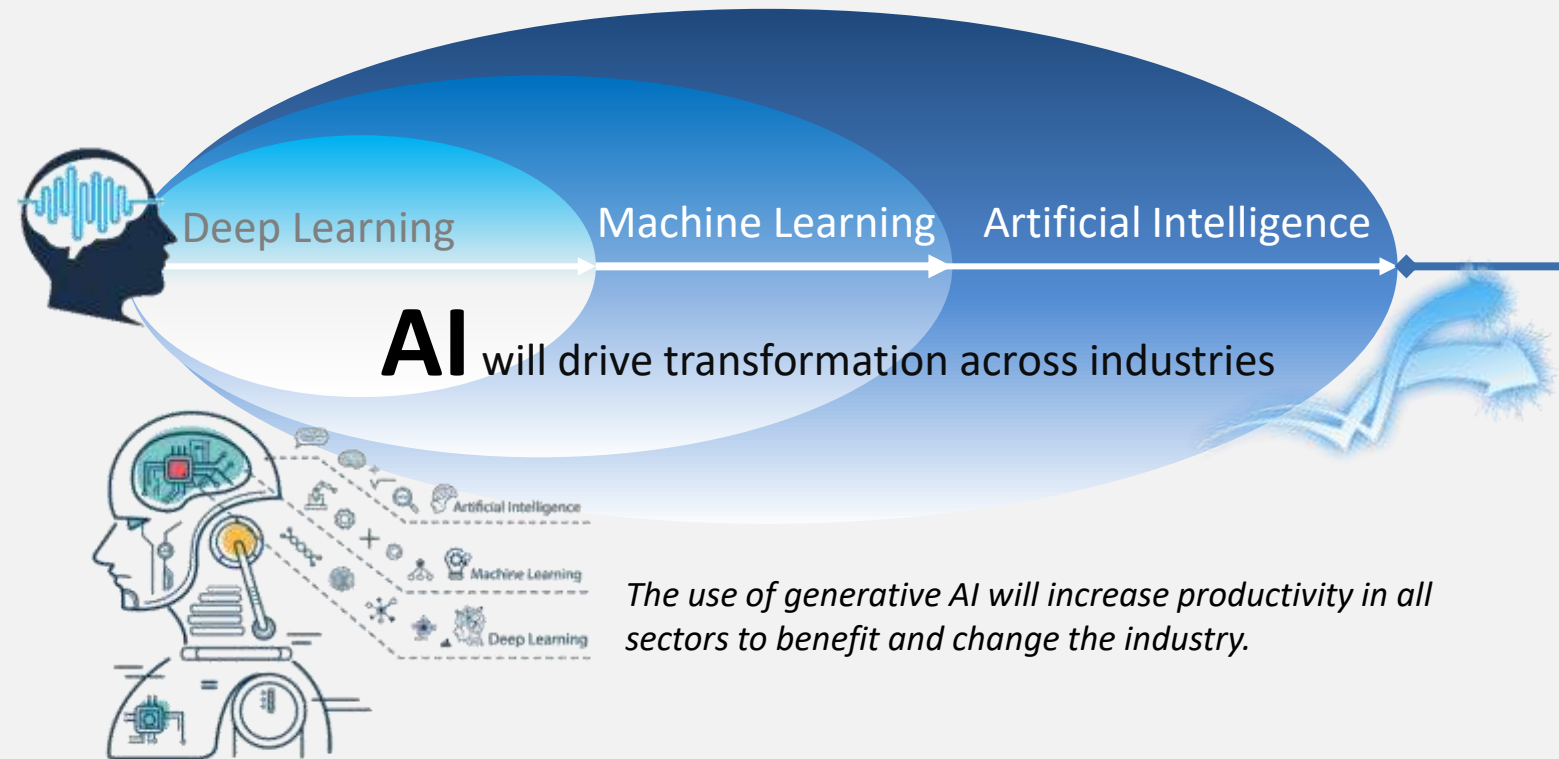
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- Except for statements in respect of historical matters, the statements in this release are forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual performance, financial condition or results of operations of TXC to be materially different from what may be implied by such forward-looking statements.
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- The statements in respect of historical matters may contain unaudited information, which may have certain deficiency or weakness so as not to fairly present financial condition or the results of operations of TXC.

# Fundamental of Artificial Intelligence

Data-Collecting, Inferencing, Training, Processing, and Communication

Diverged Purpose & Functions of AI, such as **Generative AI**, **Machine Learning**, and **Neural Language** play a very key role in future technology



## Collecting (Data Input & Processing)

### End Devices Increase by Sensing



- Data Collection
- Preprocessing
- Prediction & Prevention

## Training & Learning

### AI – based Data Infrastructure



- Model Selection
- Training
- Validation and Testing

## Inferencing & Communication

### Adaptive AI Everywhere



- Continuous Learning
- Feedback Loops

# Leading Timing Industry Moving Forward

Evolved Sensing, Computing, & Communication Technology with AI-Powered Ecosystem



**Innovative Leadership**  
in High Growth Rate Market  
Segments. (8~10+% R&D Investment)



**Precise Timing Solution**  
For Telecommunication & Data  
Computing



**Higher Frequency & Miniature**  
For Communications  
Optimization



# Focus ON, Key Growth Segments

AI-Powered Ecosystem outcomes enormous opportunities

Revolutionized Technology To Accelerate and Enhance the AI-Powered Ecosystem

5G-A



AI-Powered



Automotive



- ✓ From 5G to 5G-Advanced
- ✓ Upgrade on Communication Network

- ✓ Upgrade on Fundamental Infra
- ✓ Boost Network Efficiency

- ✓ Electrification on the way
- ✓ Autonomous Driving Vehicle

# Key Growth Factors Behind AI-Powered Ecosystem

Define Our Targets By Focus Segments and Identify The Challenge We shall Overcome by all means as *ONE TEAM*

## Compute

### High Density Computation

By Gathering Massive Data via process in various training model to give prompt response by intelligence inferencing.



## Synchronize

### Ultra Low Network Latency

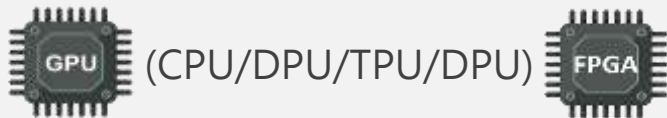
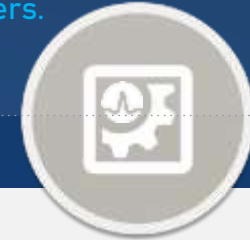
Consistency and Accuracy for Real-Time Processing with more efficient resources Utilization.



## Communicate

### Seamless Data Transmission

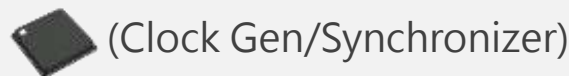
By Ensuring that data bandwidth, transfer speeds, and memory do not limit the potential of AI is leading hyper-scalers to pour billions into data centers.



(CPU/DPU/TPU/DPU)



**IEEE 1588 PTP**  
**SyncE**  
**TSN** (Protocol)



(Clock Gen/Synchronizer)

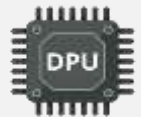
**PCI EXPRESS**

(PCIe)



(Smart NIC)

**NVLink™**



**SerDes**



(Optical DSP)



# Key Ecosystem Segments Powered & Stack By AI

A system allow proliferative apps to provide assistance on multiple cases with AI-Powered applications. Industries will be revolutionized by multiple scenarios cases embedded with GAI-Powered contents.

## AI-Powered Infrastructure



**CAGR : 20.12%** (from 2024 to 2029)



## AI-Boosted Communications

### Innovative Technologies Acceleration



- Wide Area : 5G, 5G-RedCap, NTN
- Local Area : Wi-Fi / BT / UWB / LoPWAN
- Ethernet / SerDes / Optical Network



## Edge Compute Devices



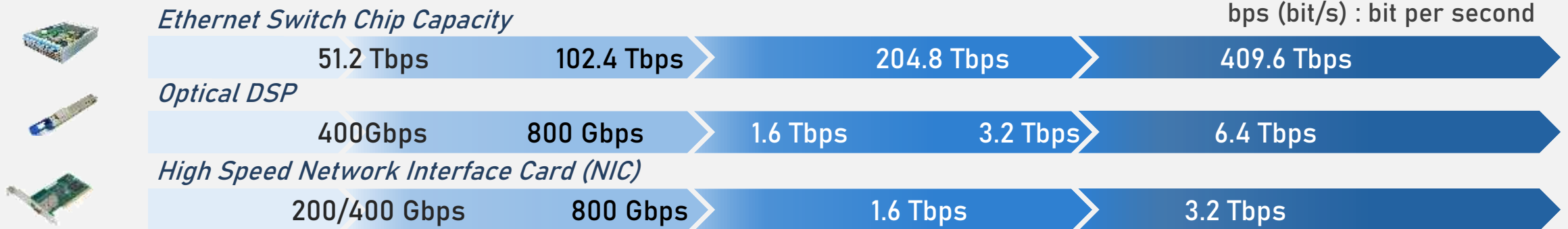
**Device set : 29.7** billion (2028)

# AI Drives Higher Performance in Data Infrastructure

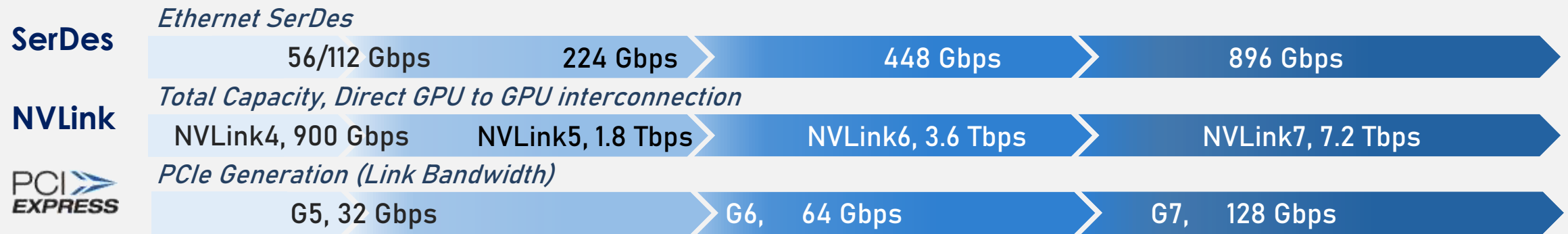
Data bandwidth in speedy network with ultra low latency with limitless potential for hyper-scaling data network



## Equipment & Devices Transmission Capacity



## Transmission Protocols





# Fundamental Outlook of AI Infrastructure

What we care is Not Only About AI-Server, it's about the whole overview of "How data been training and inferencing!"



## Key Applications Opportunities from AI Infrastructure

Compute Tray **x18**  
Computing Baseboard + Interposer

A/ML **x16~32**  
Accelerator Card

Switch Tray **x9**

(Support 8x NC maximum per tray)  
(14.4TB/s support 16 Port w/400G)

SmartNC **x72**  
◀For Network Data Security / Distribute▶

### Timing Product Key Trends

- ✓ Usage
- ✓ Product Matrix Diversified
- ✓ Product ASP +



### Advanced Oscillator Family

- ✓ Higher Frequency (~312.5MHz)
- ✓ Miniature (~2.0x1.6mm)
- ✓ Ultra-Low Jitter (~50fs)



### Precise Oscillator Family

- ✓ Higher Frequency (~156.25MHz)
- ✓ Ultra-Stability (~+/-10~150ppb)
- ✓ Anti-Air Flow Scenario

# Fundamental Outlook of AI Infrastructure

The concept of Network Architecture can be referred to data center, enterprise, and carrier network deployment business.

# Intelligent Network



## Key Applications Opportunities from AI Infrastructure

### Optical Module



(Maximum 64 port for 51.2T Switch)

### ToR/Leaf Switch



(PCIe Gen5 / 112G SerDes Support)

General-Purposed  
(Required Sets determined by Network deployment)

### Security Firewall

(PCIe Gen5 / 112G SerDes Support)

★ (Low Latency / PTP optional) ★

### Spine Switches



★ (PTP/IEEE1588) ★

### Timing Product Key Trends

- ✓ Product Matrix Diversified
- ✓ Product ASP +



### Advanced Oscillator Family

- ✓ Higher Frequency (~625MHz)
- ✓ Miniature (~2.0x1.6mm)
- ✓ Ultra-Low Jitter (~30fs)
- ✓ Tighter Stability (+/-20ppm)



### Precise Oscillator Family

- ✓ Ultra-Stability (~+/-10~150ppb)
- ✓ Extended Holdover (~24 hrs)

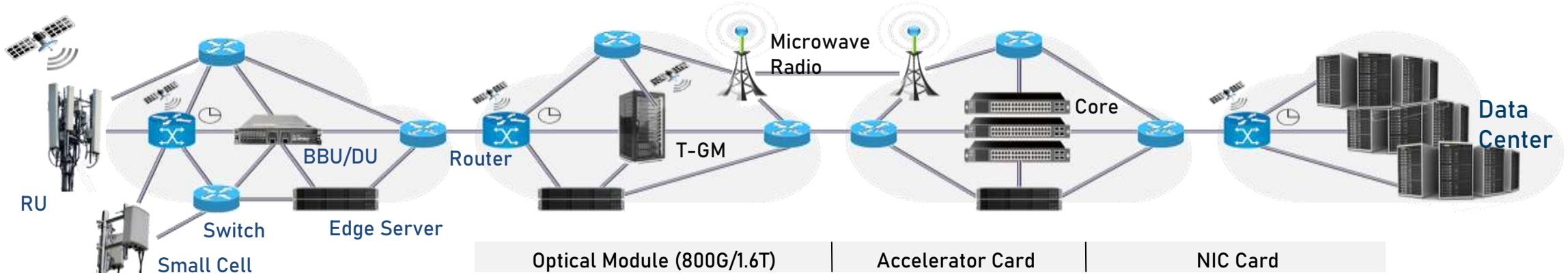
# Revolutionize 5G-A RAN with Innovation

Expand Business by AI-Enhanced Driven **Advanced Oscillators Product Family**

AI-RAN

Core / Optical Network

Datacenter



**Power Saving & Bandwidth Efficiency**



**Transport Network  
(Extended 8-24 Hrs Holdover)**



**Computation Enhancement**



**Extreme Weather at Radio**



**Network Enhancement**



**Synchronize in datacenter**

# Making Every Synchronization Better

Precise Oscillator for Seamless Data transmission with Real-time compensation

## ThermSym Platform™



ThermSymEros

Industry smallest OCXO 5x3mm

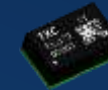
ThermSymHecules

Industry Highest Ta up-to 105C

ThermSymChronos

Holdover 4~6 hours in 9x7mm

## ★New Precise Product Solution★ Xterniti Platform™ AI-Powered OCXO



Xterniti

- Resonator temperature output
- Hysteresis Compensation
- Stratum 3 performs like stratum 2
- 24 hours < 1μs in constant Ta
- 8~24 hours < 1μs in dynamic Ta



AI-ON Devices

# AI-On Device By Connectivity & Computation

## Optimized Solution Matrix

Hybrid Connectivity + AI On Devices will drive multiple mobile use cases at Edge side for end users



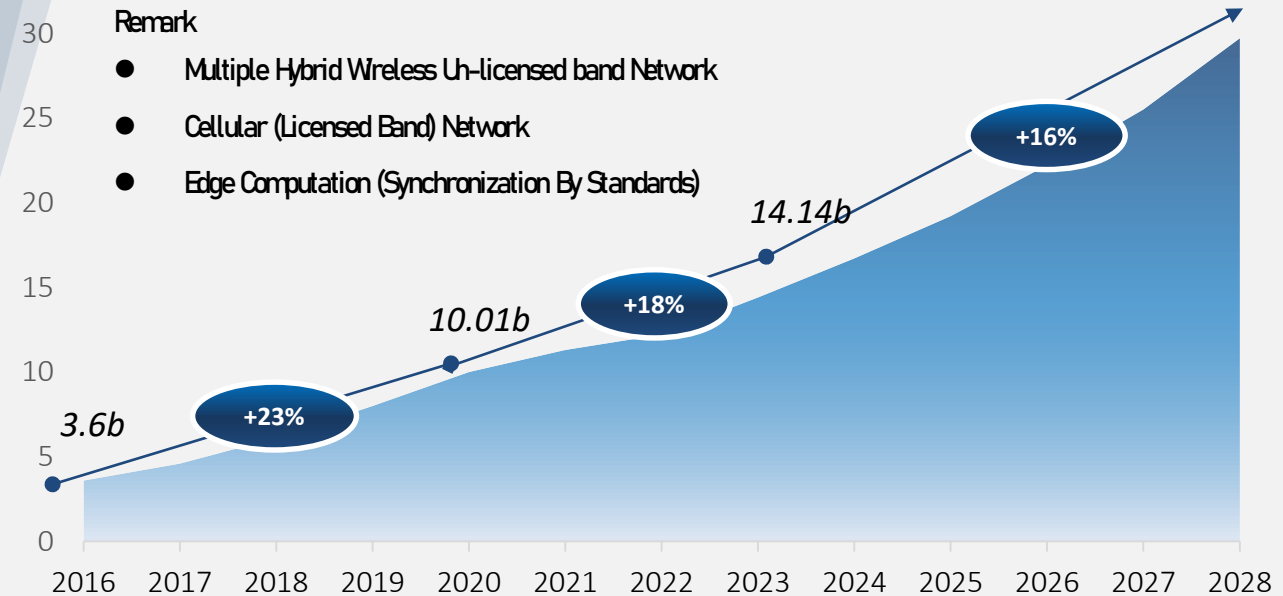
- ✓ New Generation Technology Adoption
- ✓ Usage+
- ✓ Product Matrix Diversified (Miniature + Higher Frequency)

### Global IoT Connected Devices Market Trends By Technologies

Connectivity Type	CAGR (23 ~ 28)	Major Technologies
★ WPAN (P: Personal)	16%	Bluetooth, Zigbee, Thread, IEEE 802.15.4
★ WLAN (L: Local)	16%	WiFi, Bluetooth
Cellular IoT (exclude 5G, LPWA)	8%	Lte
★ LPWAN (LP: Low Power)	27%	LoRa, NB-IoT, LTE-M, Sigfox, Sub-1GHz
★ Cellular 5G IoT	87%	5G, 5G Redcap
Wired IoT	10%	Ethernet, Fibers, PLC...
WNAN (N: Neighbor)	8%	Wi-SUN

Number of Global active IoT installed connections in Billions Unit

Unit : Billions



Remark

- Multiple Hybrid Wireless Un-licensed band Network
- Cellular (Licensed Band) Network
- Edge Computation (Synchronization By Standards)

# Automotive Blueprint Strategy

~25% of Total Sales

## Key Growth Drivers By Applications & Scenarios

- Advancements in Autonomous Driving Technologies
- Connectivity and Infotainment System Upgrade
- Innovation in Vehicle-to-Everything

## Automotive



## Expanding Automotive Ecosystem Growth Applications

★ Autonomous Driving



Smart Cockpit ★



Safety & Motion

Body Control

## Key Target Applications & Products

- ↑ Key ADAS components for Autonomous Driving (Radar / Camera / HPC)  
 *Standard Oscillators & High Frequency Advanced Oscillator*
- ↑ Key Users Experience Enhancement (Fusion of Cockpit, Cluster, & Infotainment)  
 *High Frequency Crystal & TSX <Telematics + Connectivity>*
- ↑ Vehicle Electrification of Applications Giants (Global Tier 1)

# Building Blueprints for Sustainable Growth

Comprehensive Automotive Ecosystem to Define Key Tier 1 to Boost up Our Revenue

2020 - NOW

NEAR TERM (2025 - 2027)

MID TERM (2027 - 2030~)

## Review , Plan, & Execution of Blueprint

- Key Growth from Electric Vehicle Players
- Key Accounts Penetration
- Increase Market Allocation



## Expanding of Blueprint

- Deployment of regional automotive customers
- Exploration of Tier 1 Suppliers for Automotive Brands
- Expand end customers by application
- IDH's reference design and promotion of end customers

15%

2023 Market Share

Source: QYR Research Jul. 2024

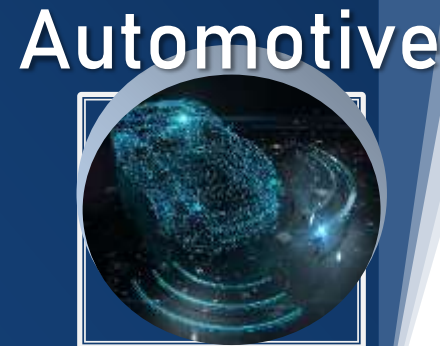
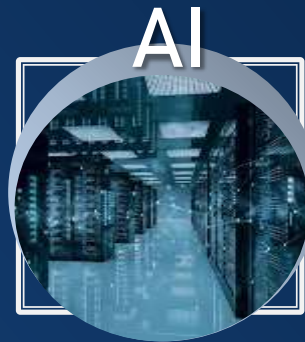


Timing Industry Leader

Market Share

20%+

# Comprehensive AI-Powered Ecosystem Blueprint Strategy



## Expanding Key Business Segments

### Double % Growth of Total Sales

- Advanced/Precise Oscillator Family
- Telecom/Datacom for IDH & Tier1

### 25%+ Growth of Total Sales

- High Freq/Advanced Oscillator Family/Crystal/TSX
- ADAS/Smart Cockpit/EV for Tier1



# 2023 Corporate Snapshot

## Highlights

### Key Market Segments

5G-A, Automotive, AI-Powered Comprehensive Ecosystem

### Optimized Product Portfolio

Miniature / Higher Frequency / Tighter Stability / Low Phase Noise / Low Power Consumption

### New Production Facilities

Initiate Oversea Facility Plan

Sales Revenue (USD\$)

**\$350<sub>M</sub>**

Automotive

**16%▲**

Miniature Product(%)

**44%▲**

Qty shipped (pcs)

**3.5<sub>B</sub>**

Mobile Communication

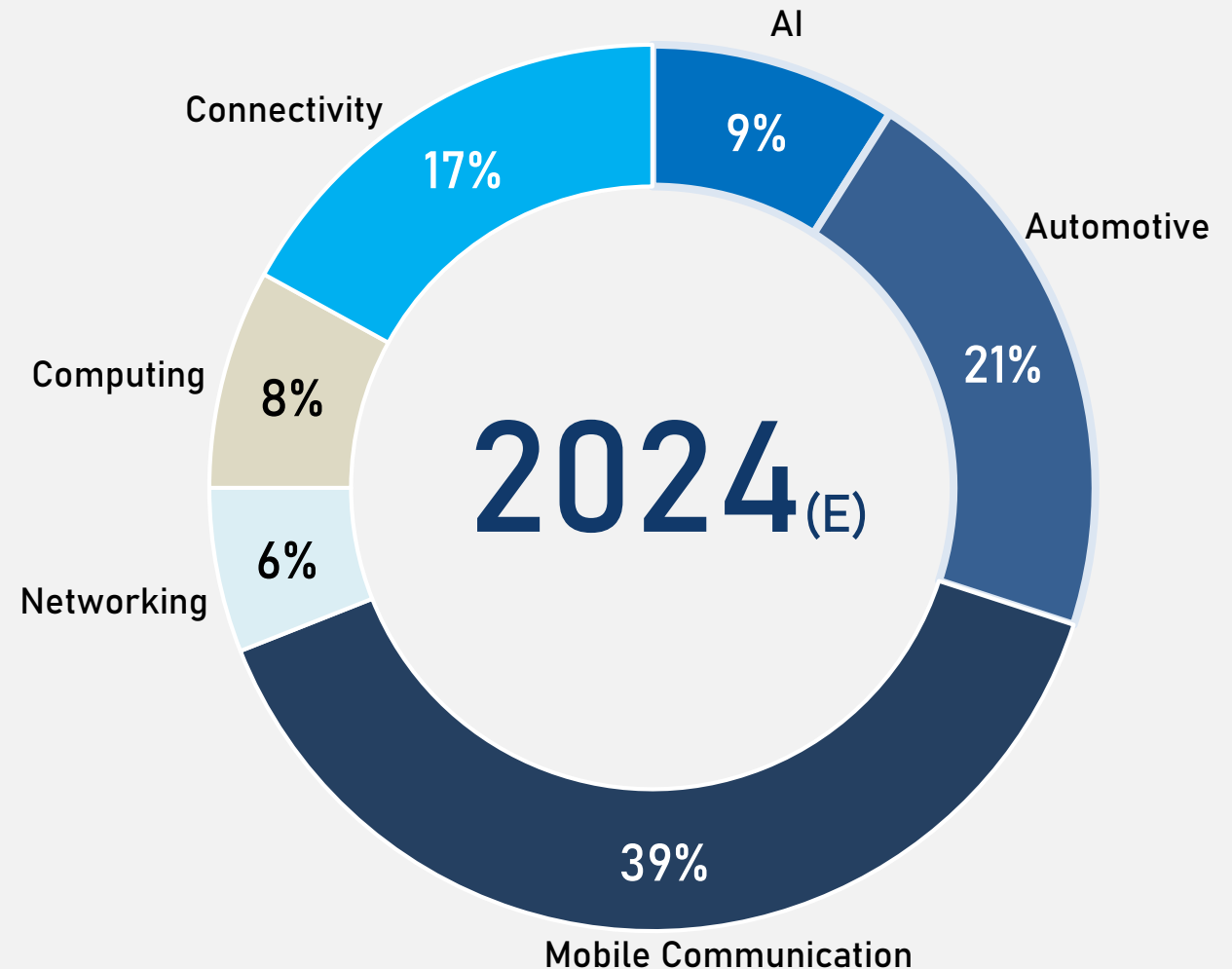
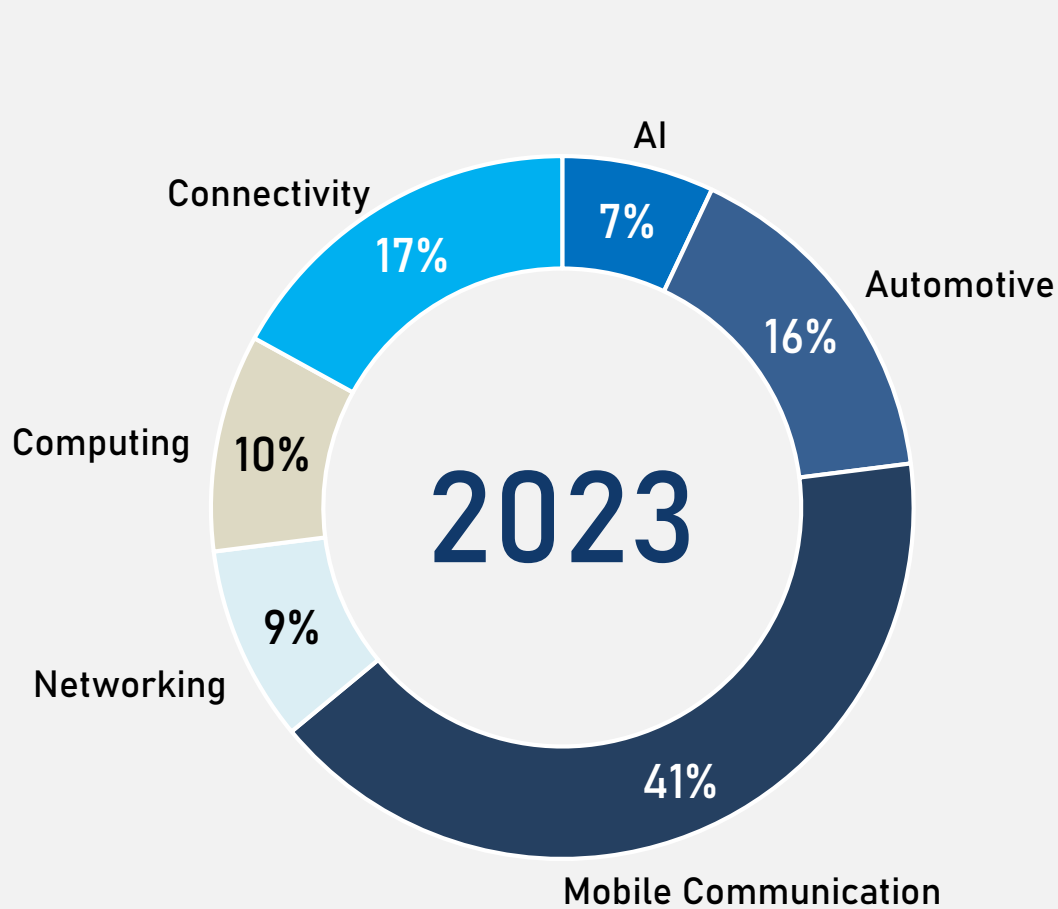
**41%▲**

Advanced Product %

**17.4%▲**

# Key Industry Segment Breakdown

Focus on Potential Market with sustainable growth



# Statements of Comprehensive Income

Growth with Stable & Health Financial Status

Unit: NT\$ Million	Q3'24	Q2'24	QoQ	YOY	Q1~Q3'24	Q1~Q3'23	YOY
Net Revenue	3,668	2,923	25.51%	18.87%	9,345	7,810	19.65%
Gross Profit	1,282	1,074	19.33%	17.96%	3,356	2,712	23.72%
Operating Expenses	595	562	5.82%	10.79%	1,690	1,461	15.65%
Operating Profit	687	512	34.15%	24.95%	1,665	1,251	33.15%
Non-Operating Items	-79	113	-170.29%	-146.34%	215	318	-32.35%
Income before Tax	608	625	-2.72%	-15.68%	1,880	1,569	19.88%
Net Income (attributed to the parent)	514	517	-0.64%	-14.10%	1,568	1,306	20.13%
Basic EPS (NT\$)	1.5	1.67	-10.18%	-22.68%	4.93	4.22	16.82%
Gross Margin(%)	34.95%	36.75%			35.91%	34.73%	
OPEX(%)	16.21%	19.22%			18.09%	18.71%	
Operating Margin(%)	18.74%	17.53%			17.82%	16.02%	
Income before Tax Margin(%)	16.58%	21.39%			20.12%	20.08%	
NI(%) (attributed to the parent)	14.01%	17.70%			16.78%	16.72%	

\* : based on current shipment estimates

\*\* : EPS before tax(NT\$) are calculated based on the number of shares at the end of the month. As of SEP 2024, the capital amount is NTD 3.43 billion.

# Balance Sheet

## Growth with Stable & Health Financial Status

Unit: NT\$ Million	Sep. '24		Dec. '23		Sep. '23	
Item	Amount	Portion(%)	Amount	Portion(%)	Amount	Portion(%)
Cash & Cash equivalents	4,324	19.5%	4,204	22.3%	3,521	18.9%
NR+AR	3,611	16.3%	3,255	17.3%	3,426	18.4%
Inventories	2,774	12.5%	2,470	13.1%	2,382	12.8%
Current Assets	12,886	58.3%	10,812	57.4%	10,289	55.3%
Total Assets	22,121	100.0%	18,822	100.0%	18,596	100.0%
Current Liabilities	4,347	19.7%	4,768	25.3%	4,534	24.4%
Non-current Liabilities	2,086	9.4%	2,180	11.6%	2,326	12.5%
Total Liabilities	6,433	29.1%	6,949	36.9%	6,860	36.9%
Total Shareholders' Equity	15,688	70.9%	11,874	63.1%	11,736	63.1%
AR Turnover Days	101		115		123	
Inventory Turnover Days	120		135		136	
Current Ratio(%)	296%		227%		227%	
Debt Ratio(%)	29.1%		36.9%		36.9%	
ROA(%)	10.5%		9.1%		9.3%	
ROE(%)	15.2%		14.1%		14.4%	

# 2024 CAPEX

Core technology enhancement, Smart Factory, Overseas Factory



## A+ Enhancements

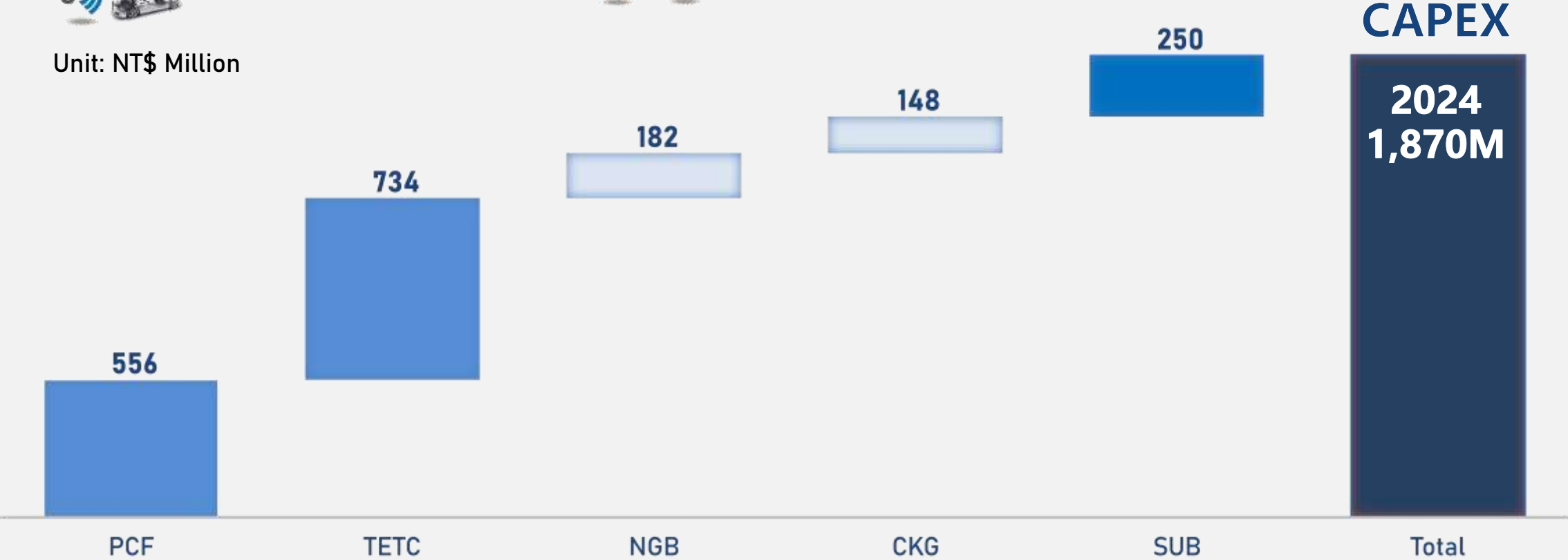
- ✓ Core Technology
- ✓ Advanced Process



## Smart Factory

- ✓ Green & Renew Energy
- ✓ Industrial Automation

Unit: NT\$ Million

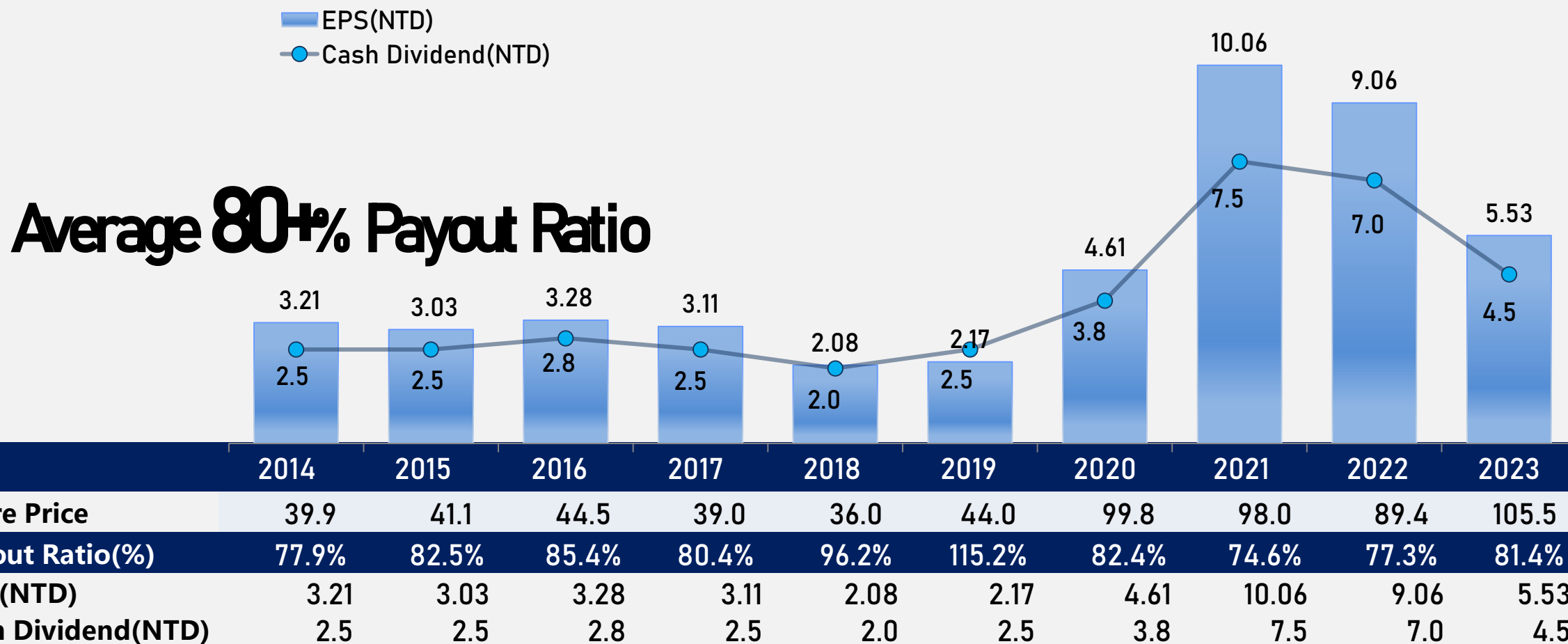


## CAPEX

**2024**  
**1,870M**

# EPS & DPS

High Dividends Payout, with Sustainable Business Growth



# Environments, Sustainability, Governance

We Care, We Commit, We Dedicate  
Healthy Growth with Value based Sustainability

2024 RE% **6** % (On Schedule)

Roadmap to Net Zero Carbon  
RE 30 By 2030  
RE100 By 2050

MORNINGSTAR SUSTAINALYTICS

ESG Risk Rating

**17.7** pts (Low Risk)



Top 6%~20% Listed Corporates of the 10th Corporate Governance Evaluation



"Taiwan Best-in-Class 100"



"Conform to 1.5°C temperature control target" label from Common Wealth Magazine



ISO14064 / ISO14067 / ISO 50001



# Q&A Section

Thank You