

Zhen Ding Technology Holding (4958 TT)

2022 Analyst Day

June 27th, 2022

- Zhen Ding Technology Holding's statements of its current expectations are forward looking statements subject to significant risks and uncertainties and actual results may differ materially from those contained in the forward-looking statements.
- Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events, or otherwise.

Zhen Ding (ZDT) At a Glance



#1

**PCB Manufacturer
Worldwide**

2006 Founded

(Former Foxconn Advanced
Tech, 1999)

Taoyuan, Taiwan

Headquarters

44,300

Employees (2021 Average)



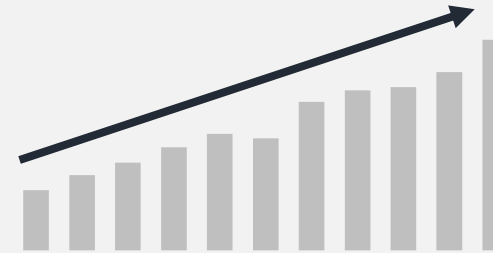
22 Facilities
Located in
Mainland China,
Taiwan, India

NT\$155.0 Bn

Revenue in 2021
(+18.1% YoY)

+13%

2011-2021
Revenue CAGR



1,288

Accumulated Valid Patents

92%

Invention Patents



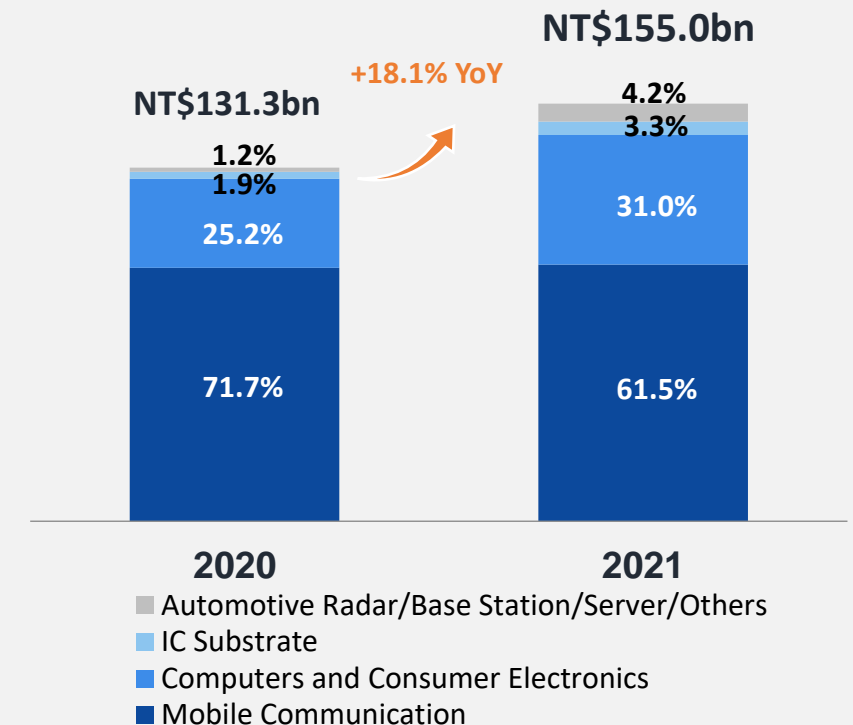
NT\$114.6 Bn

Market Cap as of
May 31st, 2022

16.9%

10Y Average ROE

Revenue Breakdown – By Applications





Why Invest in ZDT?

1

World's largest PCB manufacturer with stable long-term growth:

ZDT has become the world's largest PCB manufacturer since 2017. We have achieved a 13.3% revenue CAGR in the past ten years (2011-2021).

2

Leverage One ZDT synergies to further widen the market share gap:

With One ZDT as the core strategy, we will continue to drive steady growth by leveraging the synergies from one-stop shopping. ZDT's global PCB market share was 6.8% in 2021, and we aim to increase it to 10% by 2030.

3

Aggressive expansion in IC substrate, driving both revenue and profit growth:

ZDT plans to invest NT\$60 billion capex for IC substrates in the next four years, with NT\$15 billion per year. We aim to grow our IC substrate revenue by >50% per year in the next four years, and strive to become one of the top five global IC substrate suppliers by 2030.

4

Global manufacturing footprint:

In addition to three major manufacturing campuses in Mainland China, ZDT also owns manufacturing plants in Taiwan and India. In the future, ZDT will keep expand its global manufacturing bases to serve diversified customer needs.



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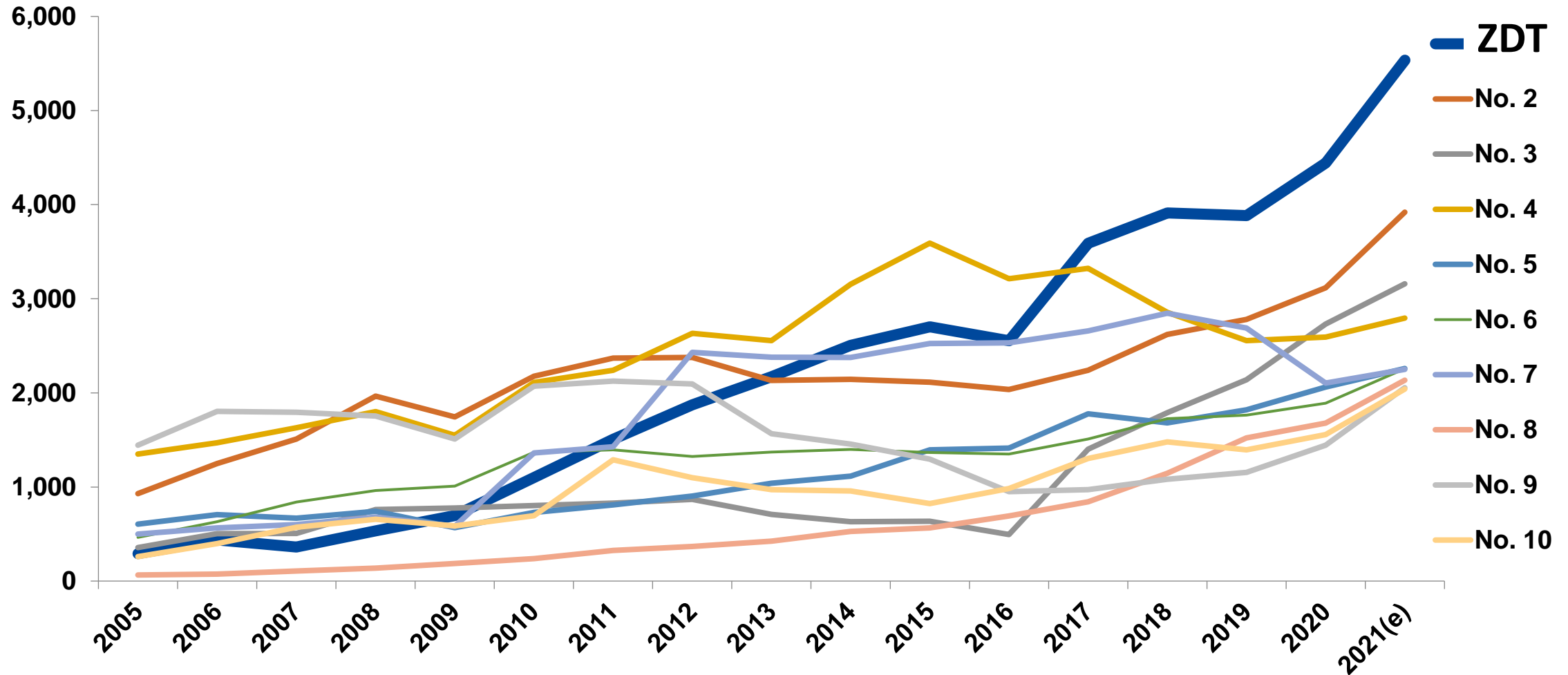
Zhen Ding Tech. Holding

World's Largest PCB Manufacturer with Stable Long-term Growth

ZDT Has Maintained Robust Revenue Growth

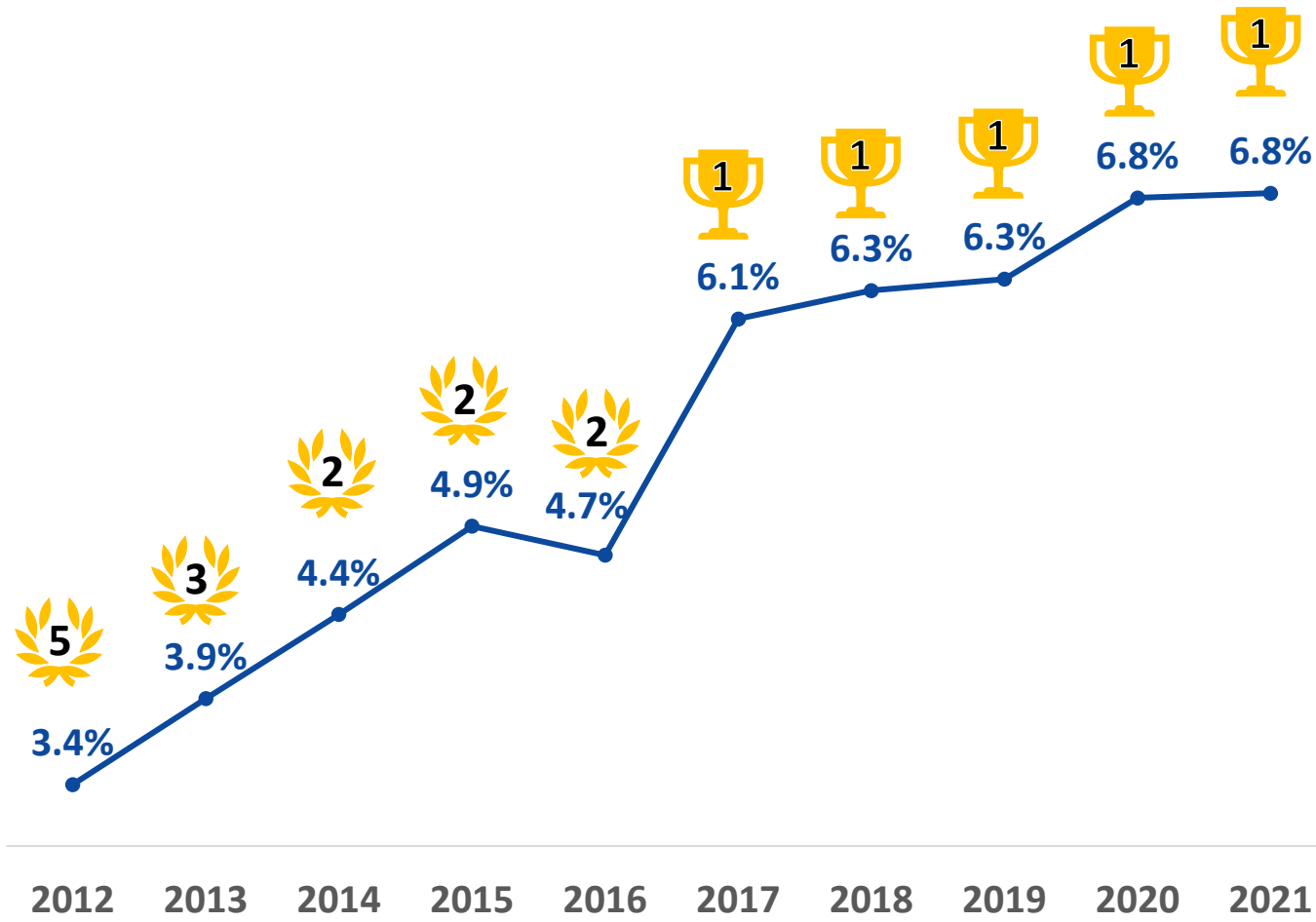
2021 Global Top 10 PCB Companies Revenue Trends

Unit: US\$ million



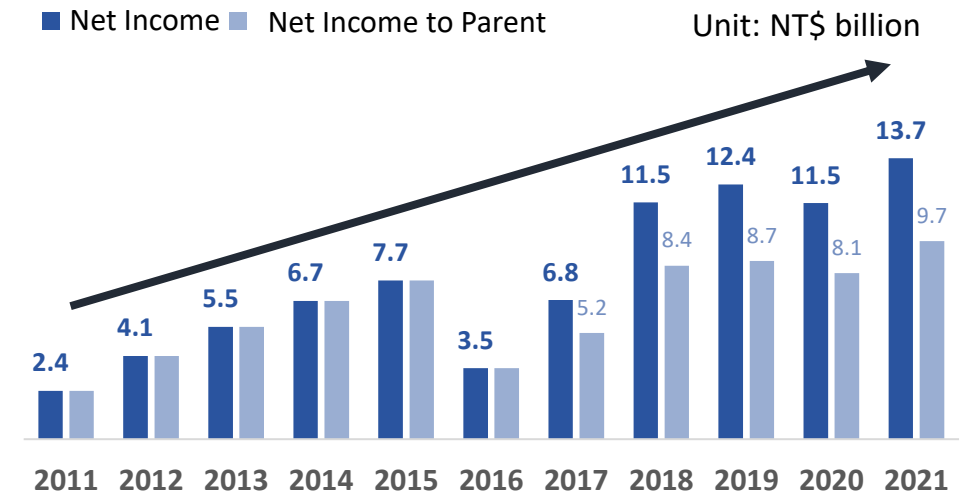
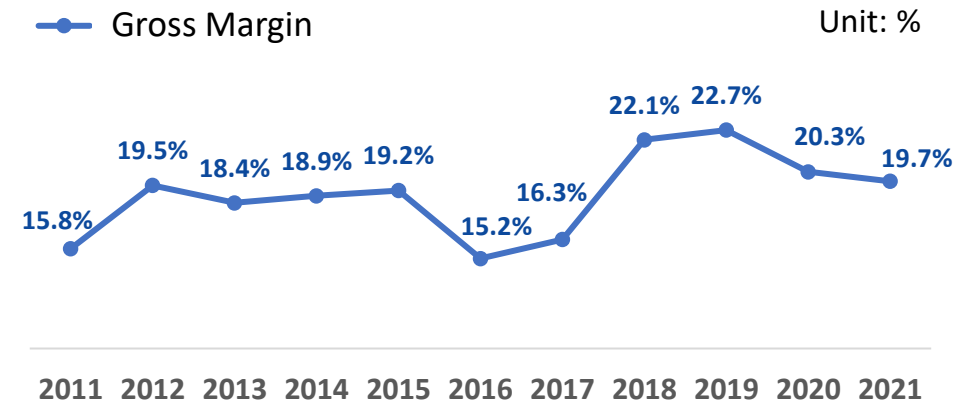
Source: NT Information; Prismark (2022/02)

ZDT: Continued Market Share Gain in the Global PCB Market



Source : Prismark

Stable Profitability





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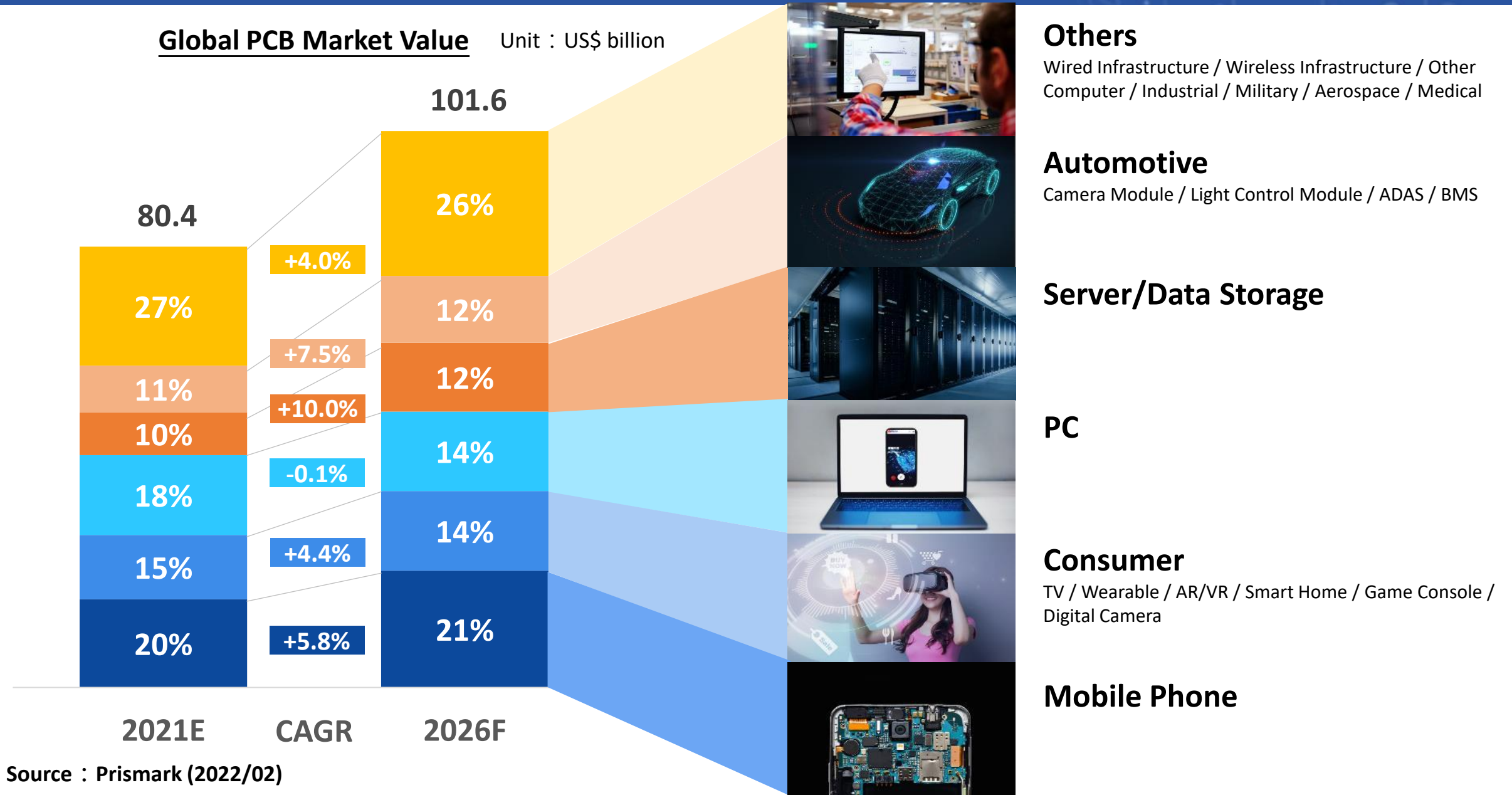
Zhen Ding Tech. Holding

Leverage One ZDT Synergies to Further Widen the Market Share Gap

Aim to Reach 10% Global PCB Market Share by 2030

Global PCB Market: All Applications will Grow, Except for PC

Global PCB Market Value Unit : US\$ billion



Four Key Applications to Drive Growth in PCB Industry

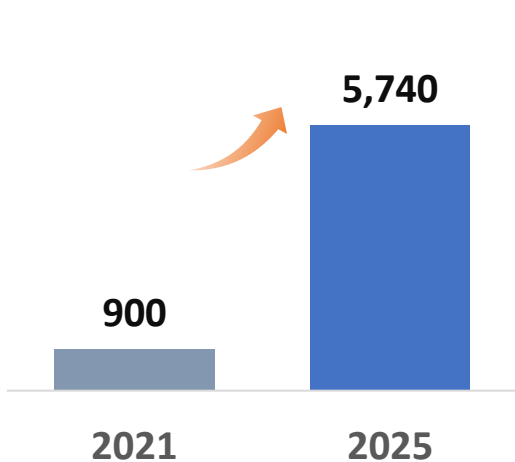
Foldable Phone

Metaverse

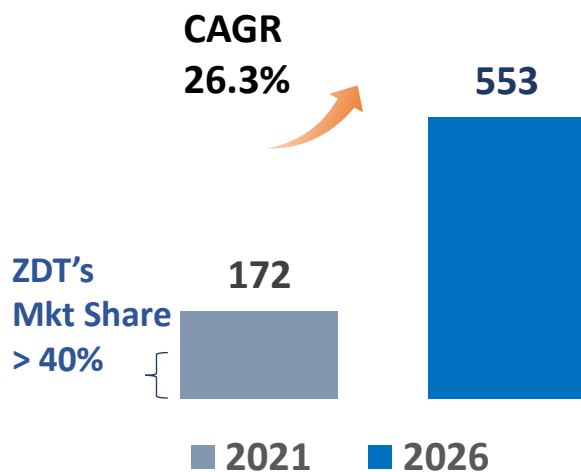
High-Performance Cloud
Computing Technology

Intelligent Internet of Vehicles
(IoV) Ecosystem

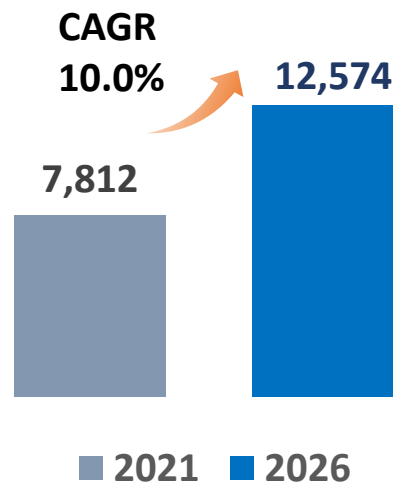
Global Foldable Phone Market
(10 thousand units)



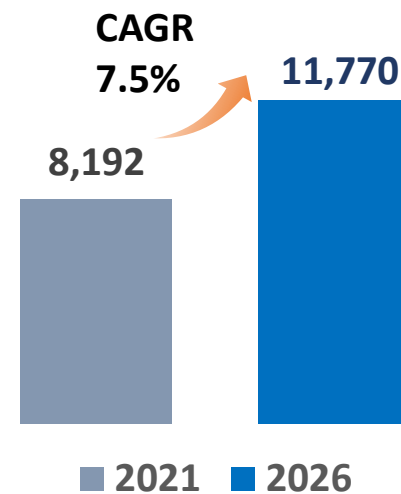
AR/VR Headset PCB Market
(US\$ million)



Server/Storage PCB Market
(US\$ million)



Automotive Electronics PCB Market
(US\$ million)



Source : Xiangcai Securities 、 DSCC (2022/3) 、 Prismark 、 IDC (2022/2)

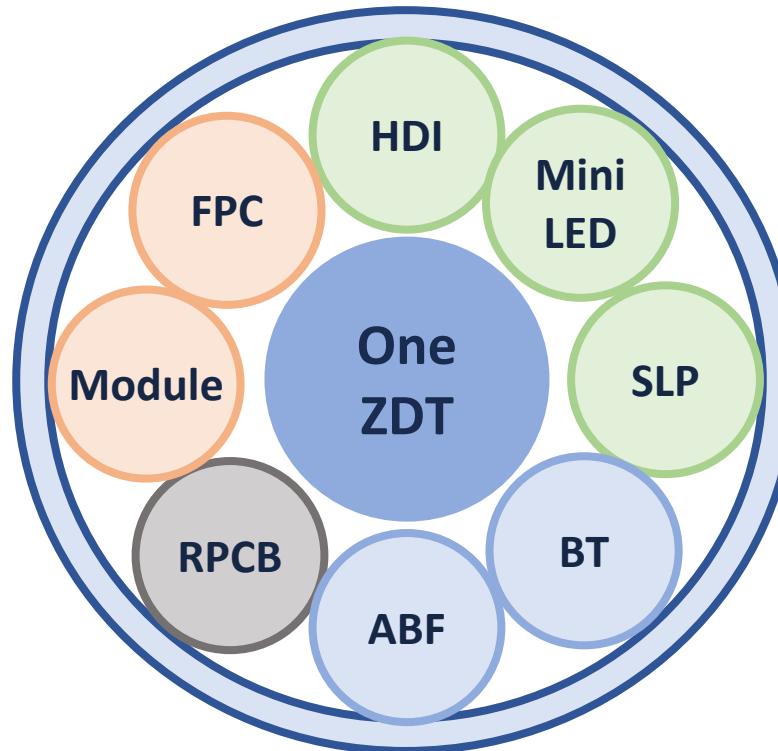
One ZDT: One Stop Shopping Synergies

FPC (+Module)

- 5G Applications
- AR/VR Metaverse
- New Energy
- Intelligent Vehicles
- Next-gen Display

RPCB(+Base Station + Automotive PCB + Server)

- High Performance Computing
- 5G Base Station
- Next-gen Radar PCB
- Intelligent Vehicles
- High-end Server & AI



HDI(+ SLP+Mini LED)

- Advanced HDI, SLP
- NB, Automotive HDI
- 5G AiP & SiP
- AR/VR Metaverse
- Mini LED/Micro LED

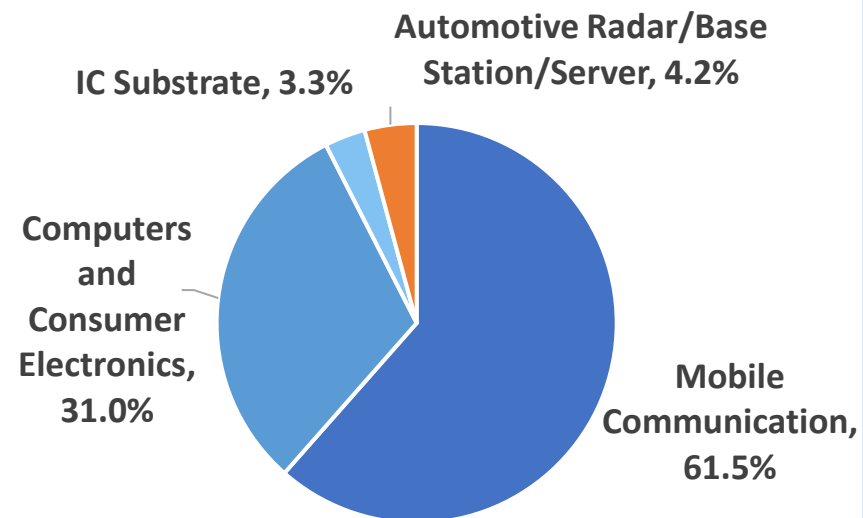
IC Substrate (BT+ABF)

- 5G Chips
- Cloud HPC
- Server & AI
- AR/VR Metaverse
- Intelligent Vehicles

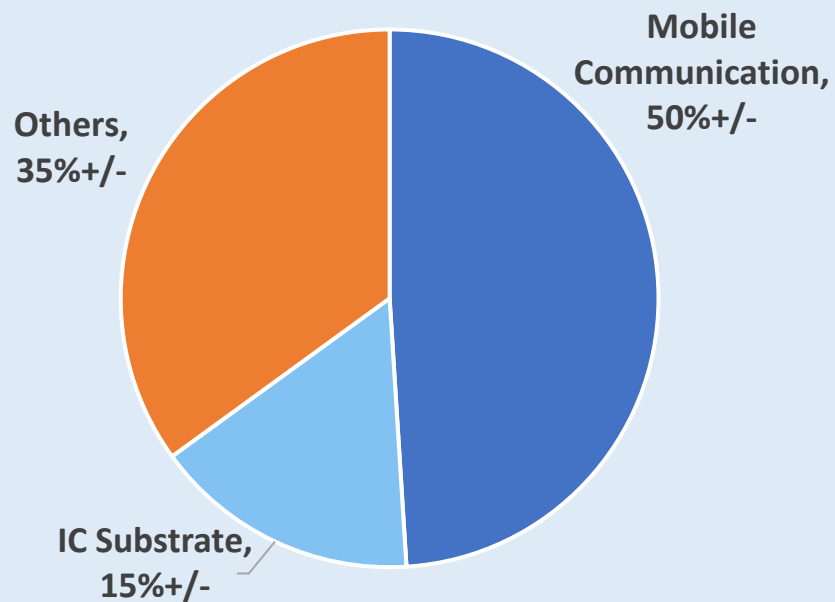
Supply chain management is getting more complex. Customers focus on supply chain integration, instead of seeking the lowest cost through division.

One ZDT: Aim to Reach 10% Global PCB Market Share by 2030

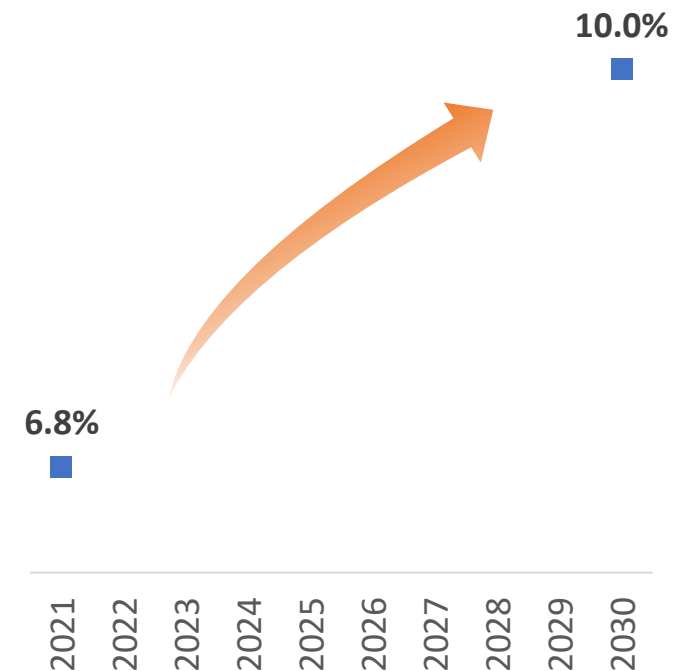
2021 Revenue by Application



2025 Target Revenue by Application



Aim to Reach 10% Global Market Share by 2030



Increase # of Valid Patents, Further Strengthen R&D Capability

ZDT's Accumulated Valid Patents

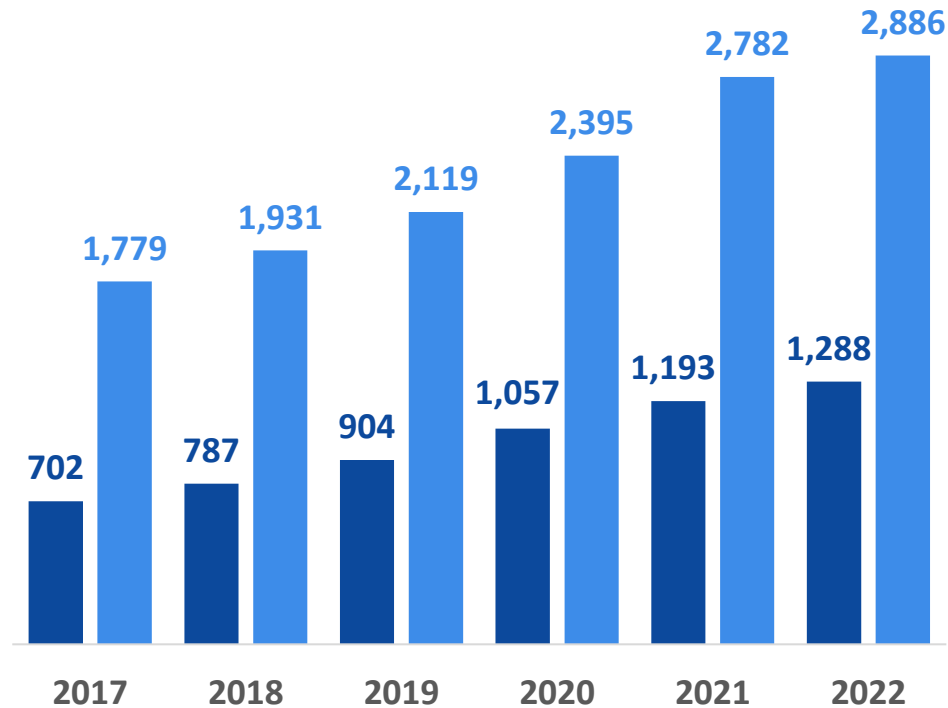
Valid Patents Patents applied

1,288

Valid Patents

92%

Invention Patents

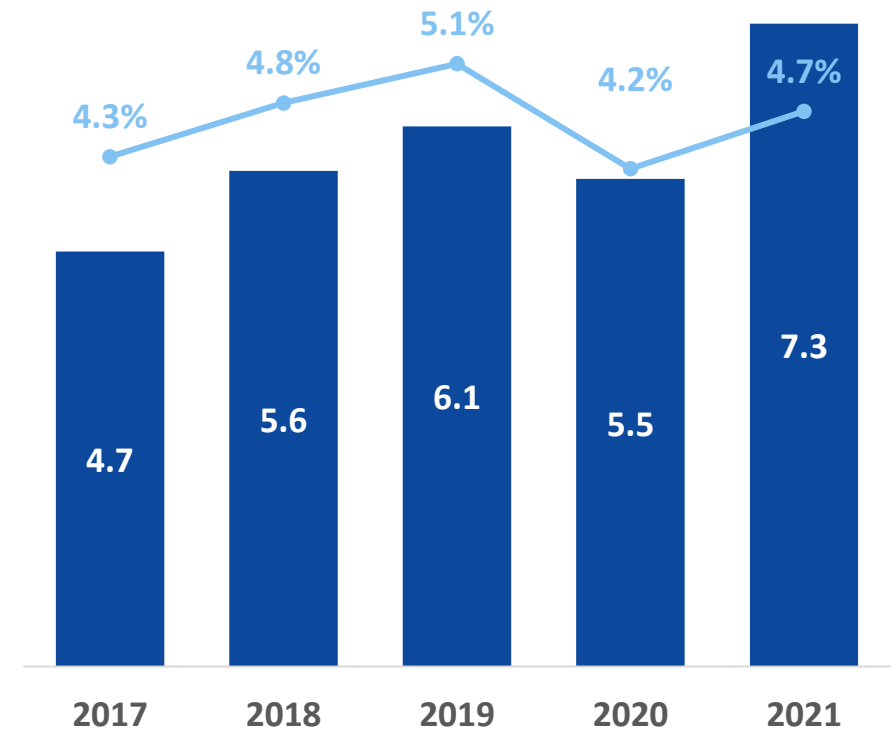


As of 2022/5/31

ZDT's R&D Expenses

Unit: NT\$ billion

R&D expenses R&D as % of revenue





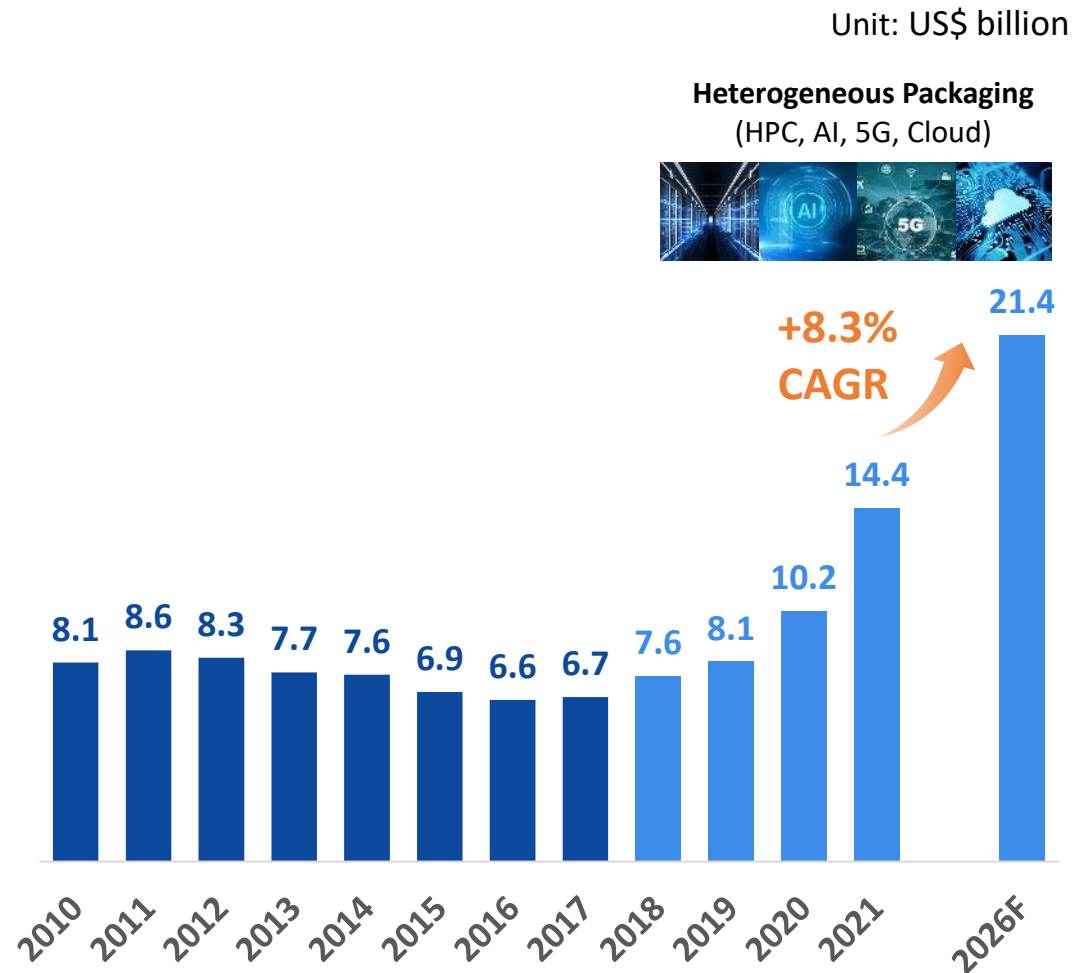
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Zhen Ding Tech. Holding

Aggressive Expansion in IC Substrate, Driving Both Revenue and Profit Growth

Aim to Become One of the Top Five in the World by 2030

Global Package Substrate (ABF+BT) Market Value

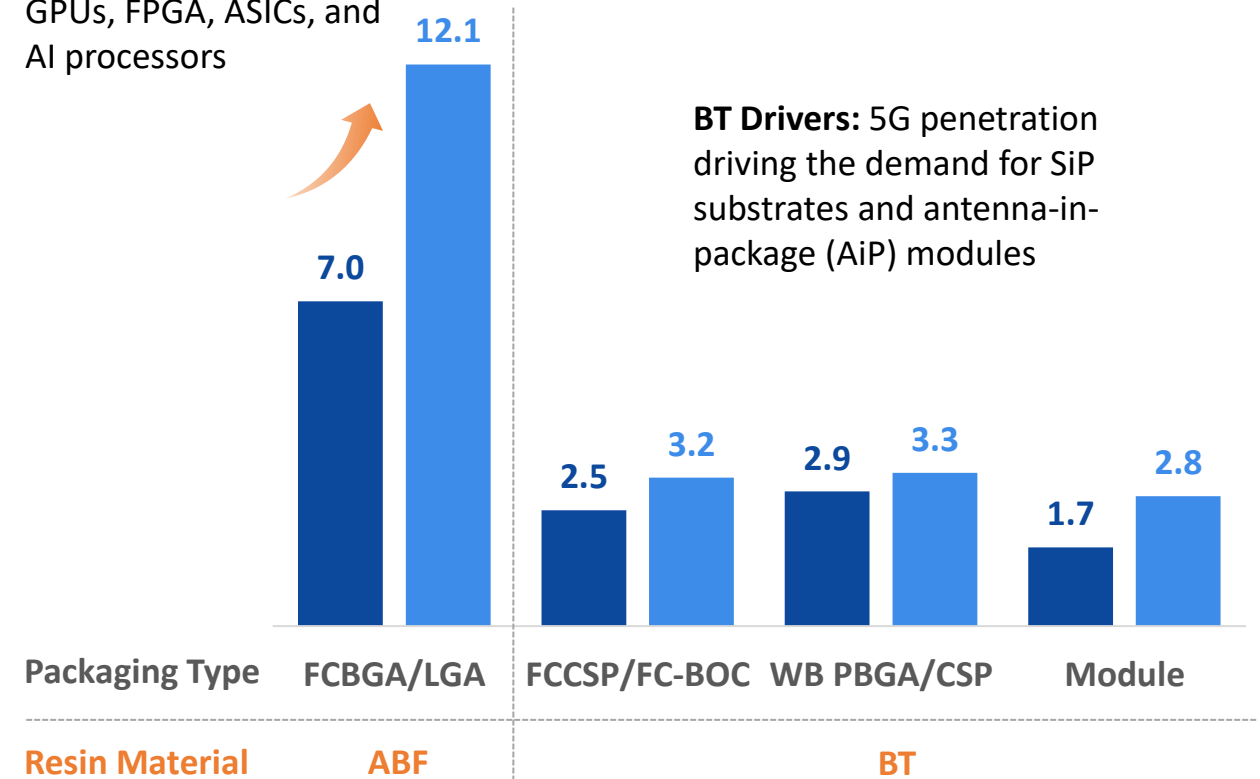


Source: Prismark (2022/05)

Global Package Substrate Market by Product Type

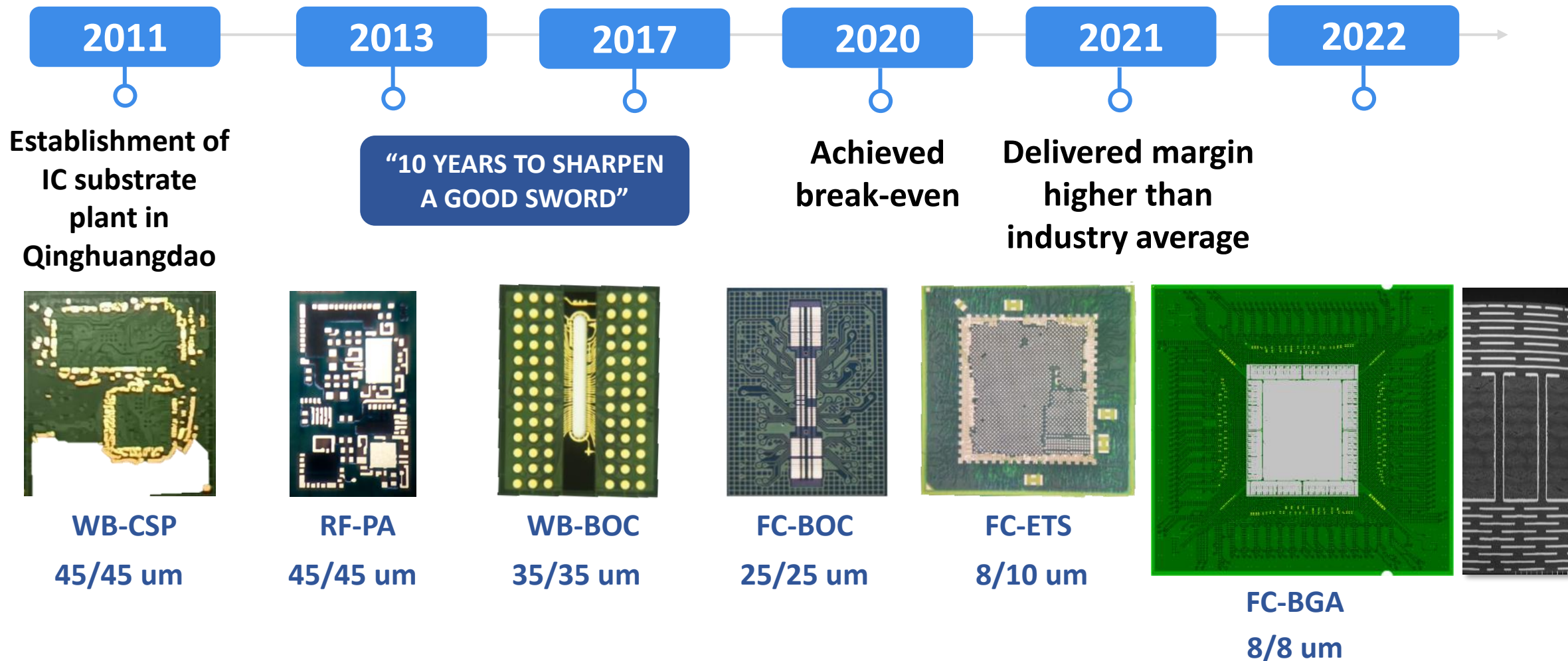
ABF Drivers: Advanced 2.5D/3D packaged CPUs, GPUs, FPGA, ASICs, and AI processors

■ 2021E ■ 2026F Unit: US\$ billion



Source: Prismark (2022/02)

ZDT's IC Substrate Development Path



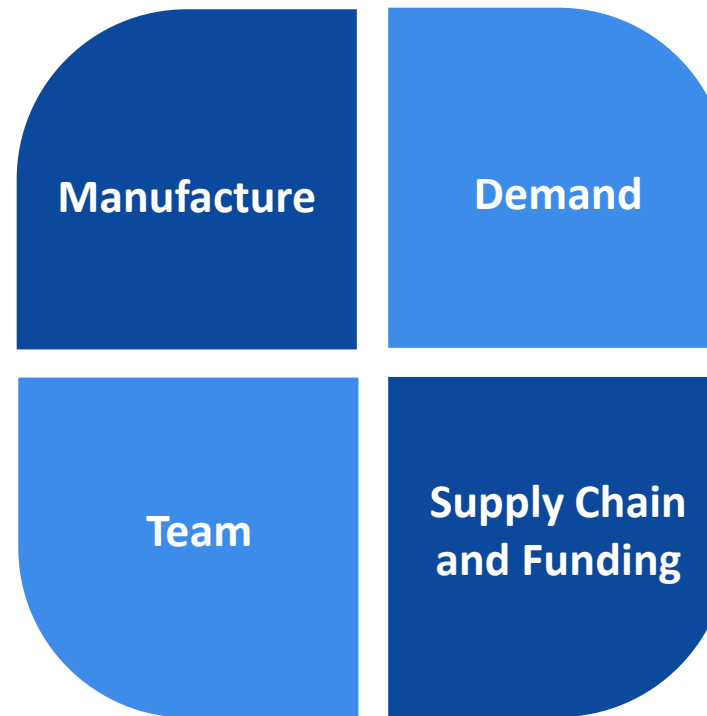
ZDT is Ready to Gain Market Share

Build up advanced smart fabs that align with the standard of semiconductor fabs

- The key to increase IC substrate yields and quality is reducing handling with higher level of automation
- ZDT's newly-constructed smart fabs combined with the most advanced equipment create great competitive advantages
- We deploy a big data processing system, which is used in the production of semiconductors, to improve manufacturing efficiency and quality

Industry-leading management team

- ZDT's General Manager is very experienced in building IC substrate fabs. He also has the expertise in technology, quality control, and management
- Over 120 managers have an average experience of 10+ years in the industry
- As of 1Q22, we owned an IC substrate team of 1,500 employees. We expect this number to double by the end of 2022.



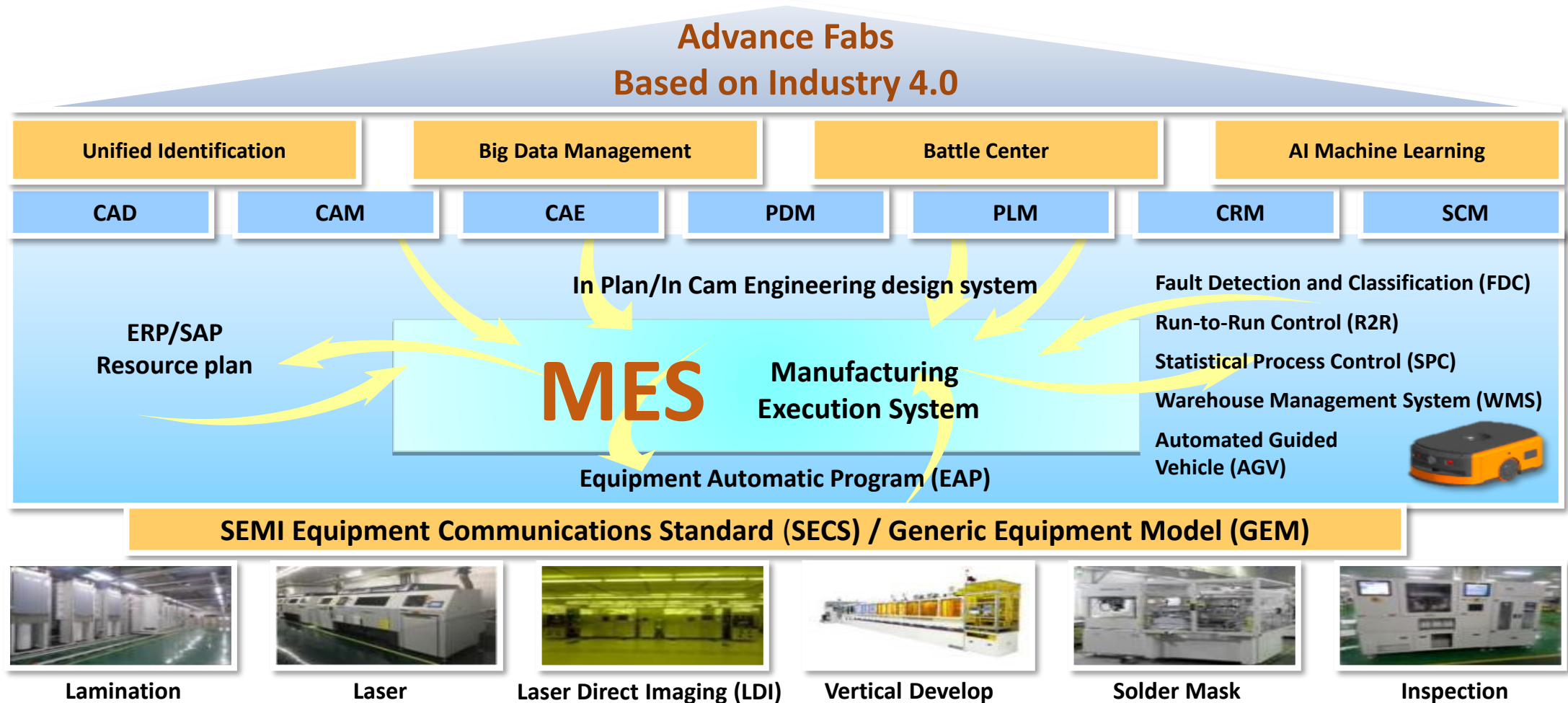
Clear customer orders, high order visibility

- We collaborate with clients closely on early product development. Our ABF capacity has been booked by customers through 2027
- After BT Fab 2 enters mass production, the contribution from FCCSP will increase significantly, so as multi-layer products
- For ABF, we initially target mid-to high end products with 8L~14L, focusing on GPU, AI and Network applications. We will continue to increase the contribution from high-layer count products

Long-term partnership with suppliers, solid financial strength

- Our strategy of “becoming a customer of choice with suppliers” ensures us to get equipment on schedule
- Our healthy financial structure offers solid funding support to future capex for the IC substrate business

Goal: Build up a world-class ABF substrate manufacturing site, and be the world's most advanced and largest high-end BT substrate supplier



ZDT has built three smart factories in the past three years, which have significant benefits in yield rate and efficiency. On this basis, the new IC substrate plants will continue to enhance the depth of intelligence and the breadth of systems.



Qinghuangdao BT Substrate Plant



Shenzhen ABF Substrate Plant



Product

FC-CSP

WB-CSP

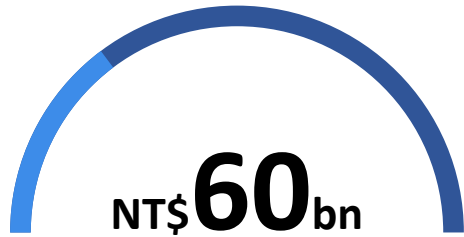
Memory

ABF FCBGA

IC Substrate Capacity Expansion Plan (2022~2025)

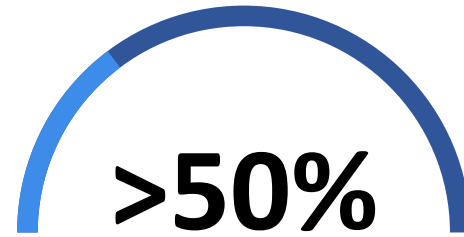
| | | 2022 | | | | 2023 | | | | 2024 | | | | 2025 | | | |
|--|-------------------------------------|--|--------------|----------------------|----------------------|---|----|----|----|---------------------|----|--|----------------------|-----------------|----|----|----|
| | | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q |
| QHD BT Substrate Plant (Each Fab's floor area: 30,000 m ²) | Fab 1 | Utilization at 90%+ with leading quality | | | | | | | | | | | | | | | |
| | Fab 2 | Fab construction | | | | | | | | | | | | | | | |
| | | | Installation | | | | | | | | | | | | | | |
| | | | | Sample certification | | | | | | | | | | | | | |
| | | | | Mass production | | | | | | Utilization at 90%+ | | | | | | | |
| SZ ABF Substrate Plant (Two Fabs' floor area in total: 170,000 m ²) | Fab 1 (Mid to high-end products) | Fab construction | | | | | | | | | | | | | | | |
| | | | | Installation | | | | | | | | | | | | | |
| | | | | | Sample certification | | | | | | | | | | | | |
| | | | | | | Mass production, target yield: comparable to tier 1 peers | | | | | | Full utilization, target yield: comparable to tier 1 peers | | | | | |
| | Fab 2 (High-end products) | Fab construction | | | | | | | | | | Installation | | | | | |
| | | | | | | | | | | | | | Sample certification | | | | |
| | | | | | | | | | | | | | | Mass production | | | |

IC Substrate Goals



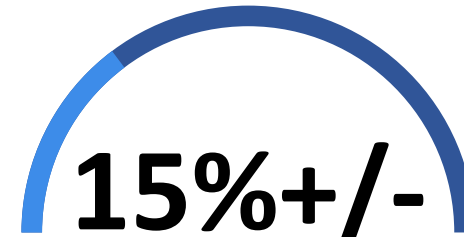
Capex for IC Substrate:

Plan to invest NT\$60bn in the next 4 years, with NT\$15bn per year



Revenue from IC Substrate:

Continue to grow >50% annually in the next 4 years



Revenue from IC Substrate:

Account for 15 %+/- of company's consolidated revenue in 2025



IC Substrate Market Share:

Aim to become one of the global top 5 companies in the IC substrate market in 2030



Global Manufacturing Footprint

Five Major Global Manufacturing Campuses

Multiple manufacturing campuses to fulfill clients' needs

China - Qinghuangdao



Qinghuangdao Park
(FPC & advanced module
/SLP High-end HDI)



BT Substrate Park

China - Huai'an



Huai'an Park 1
(RPCB/HDI)



Huai'an Park 2
(FPC & advanced module
/HDI/ Mini LED)



Huai'an Park 3
(High-end
HDI/MSAP)

Taiwan



Kaohsiung Park
(FPC and advanced
module)



Taoyuan Boardtek Park
(PCB for networking,
HPC, automotive related
applications)

China - Shenzhen



Shenzhen Park 1
(FPC and advanced
module/HDI)



Shenzhen Park 2
(FPC and advanced
module)



ABF Substrate Park

India



Chennai Park
(FPC and advanced
module)

Capacity Expansion Plans



Qinghuangdao BT Substrate Fab:
FC-CSP/WB-CSP/Memory



Shenzhen ABF Substrate Fab: FCBGA



Kaohsiung Luzhu Science Park:
FPC and Advanced Module Production Line



Huai'an Park 3: High-end HDI/MSAP



Factory Planning

Our site selection along coasts and discharge management plan removes us from areas of high environmental sensitivity and all of our factories have necessary environmental permits in accordance with the regulations.

We have created green industrial parks based on principles of environmental sustainability, allowing us to save energy, water, and resources while reducing our waste, carbon generation and production costs. The parks embrace three-element design: economic, ecological, and ergonomic production and lifestyles.

Through the use of smart technologies on lighting, heating, power supply, cooling and AI management, we make continuous improvements to our energy efficiency and creating a sustainable and green future.

Selecting Eco-friendly Advanced Equipment

We adopts equipment from the top three brands in the world, focusing on low energy consumption and low emission, and we co-develop with them if necessary.

Prior to procuring equipment, we conduct a thorough environmental protection and energy conservation assessment, promoting features such as heat recovery, water reuse, and waste recycling in all our production and utility equipment.

Wastewater Treatment

Our wastewater is classified into 20~25 categories according to its contents and characteristics. Each category of wastewater is separately collected, treated, and/or recycled.

We have installed 10 major treatment systems established according to each of these characteristics. Also adopting a number of high-efficiency treatment systems, as well as multi-stage treatment processes, three-dimensional layouts, and smart central control systems to maximize the efficiency of all treatment plants.

Water quality data and real-time quantitative monitoring of effluent water are directly transferred round-the-clock to the local environmental protection agency, ensuring that the treated wastewater fully complies with national/local environmental standards.

Air Exhaust Treatment

Air exhaust is divided into 4~6 different categories, and each is classified and treated separately.

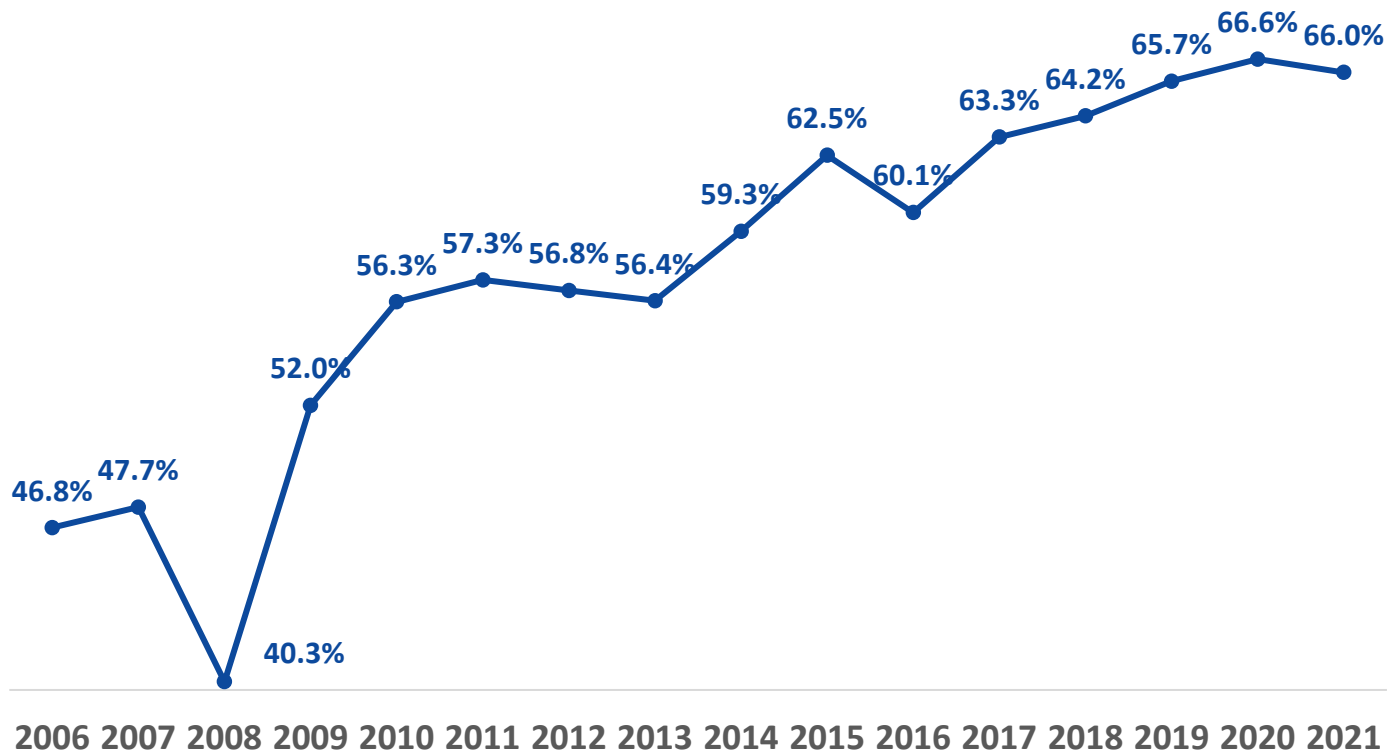
The treated exhaust collected during the production process is regularly sampled and analyzed by third party inspection groups.

The emission concentrations of all emissions for all plants are far less than the maximums set by national environmental standards

Solid Waste Treatment

From the source of production process, the solid waste is reduced, recycled and rendered harmless. All process is managed through online platform (WMS). Qualified outsourcing partners will do regular checks.

Top 30 PCB manufacturers' revenue market share: Top players have been consolidating market share



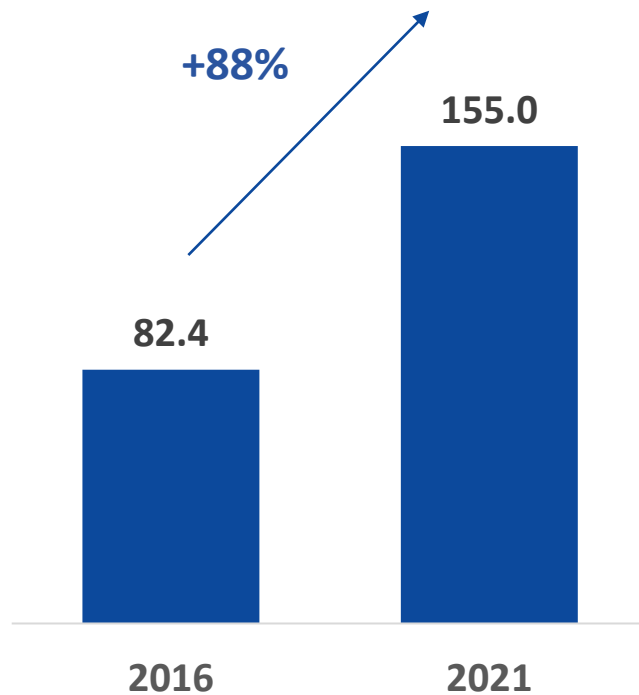
Source : Prismark

- As environmental regulations become more stringent and fine line requirements get more advanced, only limited PCB companies can offer high-tech/high-quality products while complying to all environmental regulations. We believe top players will continue to consolidate market share.
- ZDT's pollutant discharge is far less than the maximums set by governments. Our water recycling rate exceeds **50%** and waste recycling rate exceeds **90%**.
- In our U.S. client's supplier evaluation, ZDT's four business units all scored higher than the average of the client's total suppliers. Specifically, our FPC module BU is the leader among all suppliers.

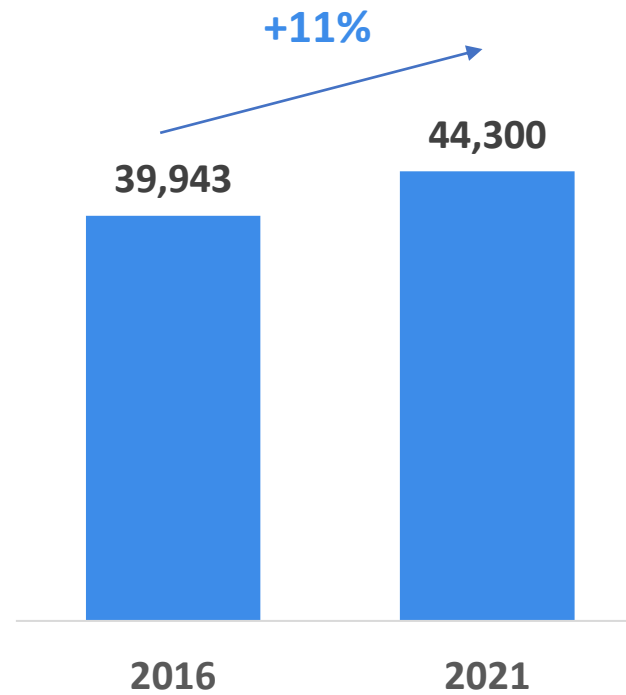
Achieve Desired Results from Automation and Smart Fab

Consolidated Revenue

Unit: NT\$ billion

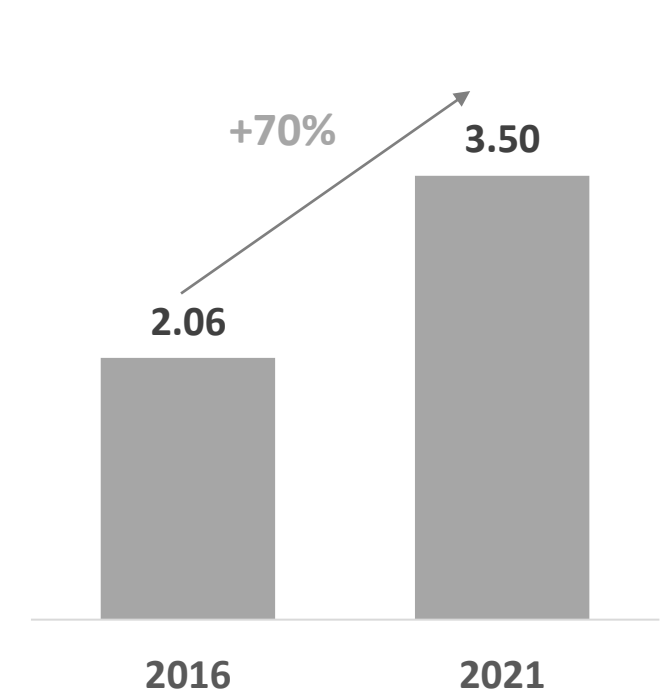


Avg. Number of Employee



Avg. Revenue per Employee

Unit: NT\$ million





Commitment to EPS + ESG Blueprint

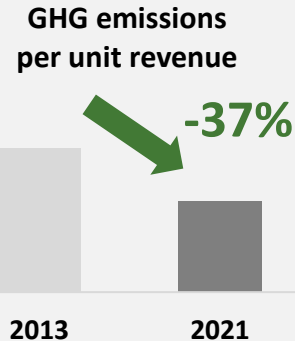
ENVIRONMENT

Implement the highest environmental standards in the industry

Reduce GHG Emissions

In 2021, reduced GHG emissions per unit revenue by **37%** compared to 2013

We have set ambitious reduction levels for our company in line with Science-based targets



Water Management

In 2019, our manufacturing sites in Shenzhen **became the first in the PCB industry** to receive the Alliance for Water Stewardship (AWS) Platinum Certification. In 2020, all manufacturing sites in China obtained the AWS Platinum Certification

2021 Water Recycling Rate
50%↑

Waste Management

All manufacturing sites in China achieved the UL 2799 Platinum Certification of Zero Waste to landfill for manufacturing

2021 Waste Recycling Rate
90%↑

SOCIAL

Benchmark international human rights standards and prioritize human capital development

Human Rights

In May 2021, ZDT became **a member of BSR and RBA**, benchmarking international human rights standards

Talent Retention

In 2021, retention rate of key talent reached **93%**

GOVERNANCE

Ongoing improvements in corporate governance, risk management and comprehensive information disclosure

Board Governance

Established a Nomination Committee and Sustainability Committee at Board level

Supply Chain Management

100% of our suppliers signed our Vendor Commitment which covers ethical behavior, environmental impacts and human rights

Information Security

Information security committee established

Innovation Management

2,886 patents applied. **1,288** global patents obtained, **92%** of which are invention patents (as of 2021/5/31)



TWSE Corporate Governance Evaluation

Ranked in the top 25 of the electronics companies whose market cap are above US\$ 10 bn



FTSE4Good TIP Taiwan ESG Index

Selected as a constituent of FTSE4Good TIP Taiwan ESG Index for three consecutive years (2020-2022)



TWSE Corporate Governance 100 Index (CG100)

Selected as a constituent of TWSE Corporate Governance 100 Index for three consecutive years (2019-2021)



Wind ESG

Avary Holding, a subsidiary of ZDT, received a ESG rating of A, ranking 16th in the industry (2022/3)

S&P Global

S&P Global Corporate Sustainability Assessment (CSA*)

2021 S&P Global ESG score outperformed 86% of companies in the industry



CDP Scoring

Received “B” in CDP Water Security Scoring and “B-” in CDP Climate Change Scoring

*the basis for many ESG indices including DJSI



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Zhen Ding Tech. Holding

Financial Results

2011-2021 Financial Summary

Unit: NT\$ million

| Year | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|-------------------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| Revenue | 44,280 | 55,369 | 64,483 | 75,954 | 85,738 | 82,393 | 109,238 | 117,913 | 120,068 | 131,279 | 155,022 |
| Gross Profit | 6,993 | 10,775 | 11,894 | 14,323 | 16,427 | 12,542 | 17,833 | 26,061 | 27,222 | 26,584 | 30,537 |
| Net Income | 2,356 | 4,056 | 5,471 | 6,735 | 7,731 | 3,456 | 6,772 | 11,536 | 12,402 | 11,508 | 13,694 |
| Net Income to Parent | 2,356 | 4,056 | 5,471 | 6,735 | 7,731 | 3,456 | 5,172 | 8,448 | 8,685 | 8,095 | 9,651 |
| Depreciation & Amortization | 3,008 | 3,375 | 3,742 | 4,293 | 4,850 | 5,295 | 5,679 | 6,820 | 7,955 | 8,405 | 11,875 |
| EPS (NT\$) | 3.30 | 5.49 | 7.41 | 9.12 | 9.80 | 4.29 | 6.43 | 10.50 | 9.93 | 8.90 | 10.21 |
| DPS (NT\$) | 1.50 | 2.50 | 3.00 | 3.67 | 4.50 | 2.20 | 3.30 | 4.46 | 4.50 | 4.50 | 5.00 |
| Payout Ratio (%) | 45.45% | 45.54% | 40.49% | 40.24% | 45.92% | 51.28% | 51.32% | 42.48% | 45.32% | 50.56% | 48.97% |
| Cash and Cash Equivalents* | 4,084 | 8,756 | 10,016 | 23,482 | 31,572 | 30,241 | 33,296 | 49,154 | 43,071 | 46,775 | 35,179 |
| Property, Plant and Equipment | 27,097 | 26,637 | 27,843 | 30,073 | 32,074 | 32,262 | 36,681 | 41,913 | 46,243 | 68,177 | 86,073 |
| Capital | 6,699 | 7,034 | 7,386 | 7,386 | 8,047 | 8,047 | 8,047 | 8,047 | 9,022 | 9,470 | 9,470 |
| ROE (%) | 15.34% | 21.27% | 23.77% | 23.33% | 20.82% | 8.59% | 14.49% | 17.30% | 14.72% | 11.84% | 12.59% |
| Debt Ratio (%) | 67.03% | 66.28% | 64.06% | 62.54% | 53.70% | 59.72% | 55.33% | 44.25% | 35.41% | 42.56% | 42.01% |

* Including current financial assets at amortized cost (time deposits, etc.)

Consolidated Statements of Income

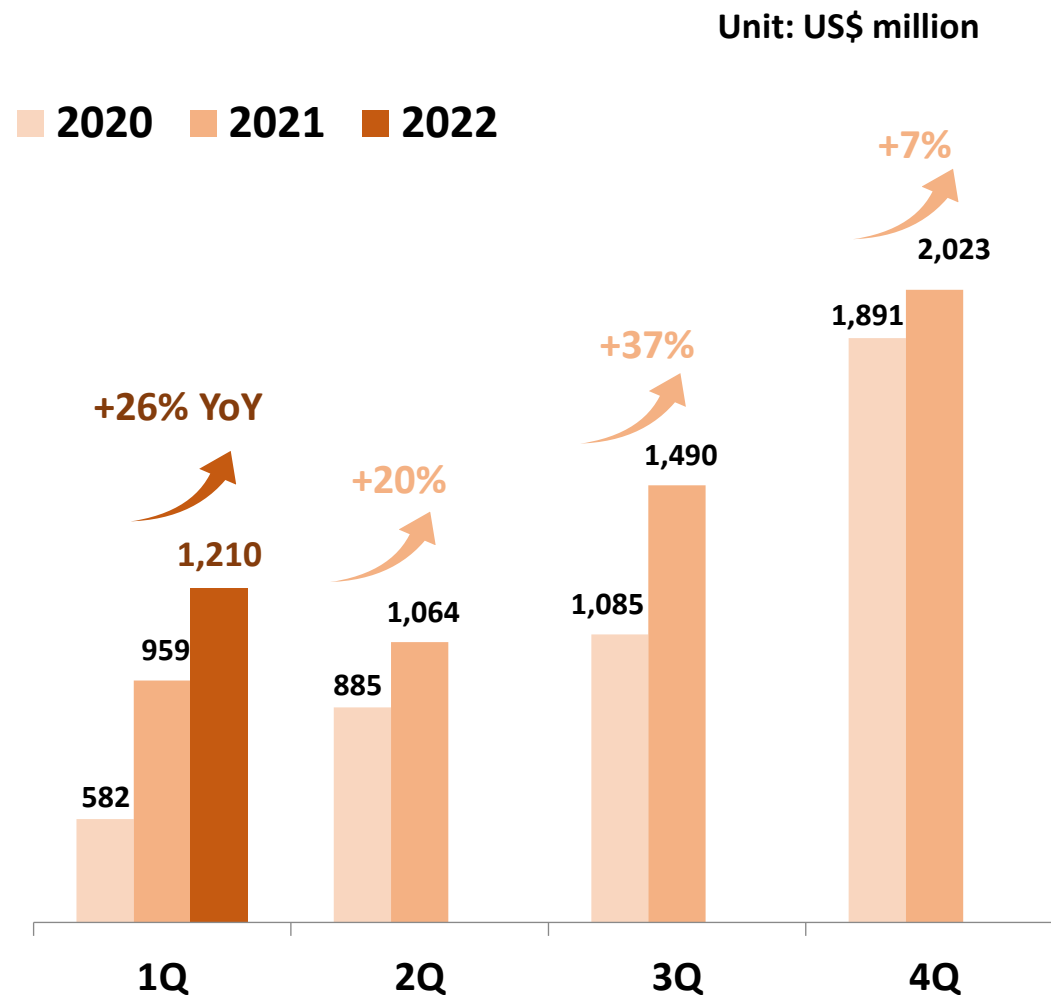
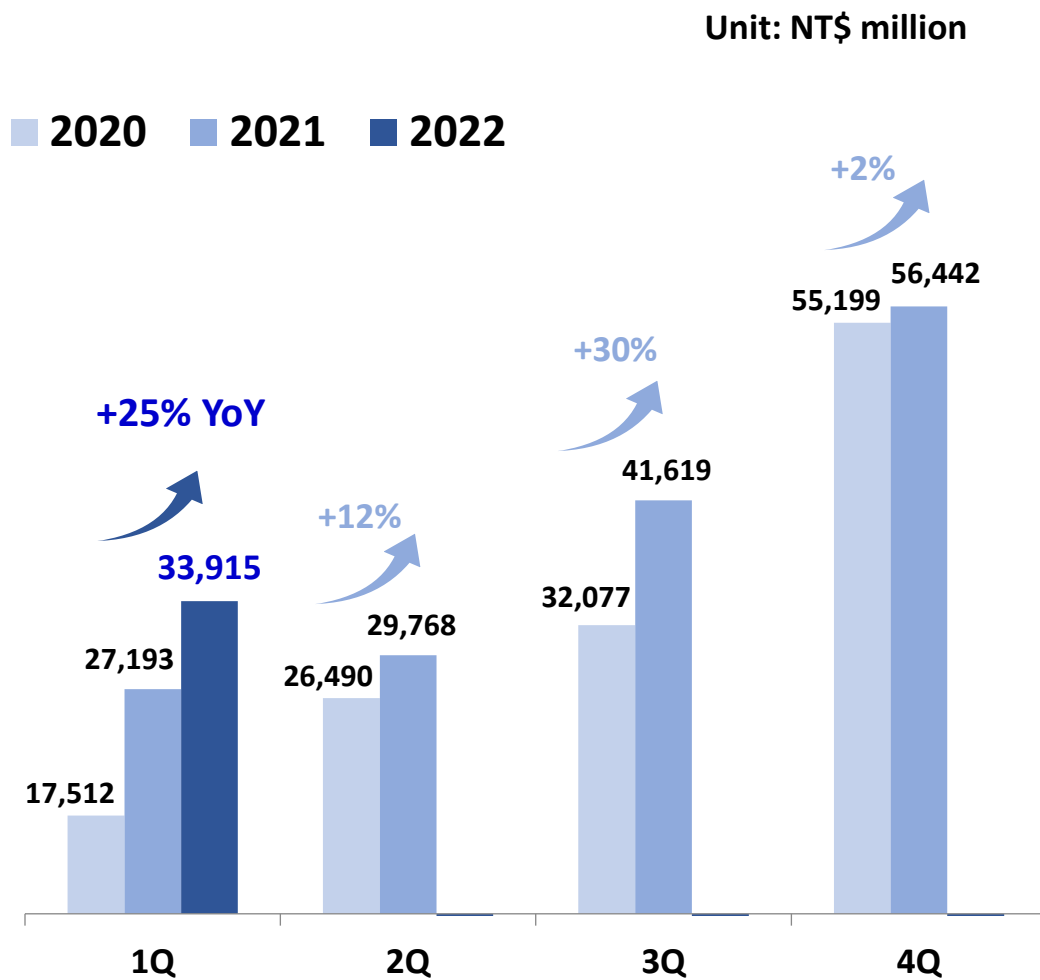
(Unit: NT\$ million, unless otherwise stated)

| | 1Q22 | 1Q21 | YoY (%) |
|-----------------------------------|--------------|--------------|-----------------|
| Revenue (US\$ million) | 1,210 | 958 | +26.3% |
| Revenue | 33,915 | 27,193 | +24.7% |
| Gross Profit | 6,387 | 4,752 | +34.4% |
| Gross Margin | 18.8% | 17.5% | +1.3 pts |
| Operating Expenses | 3,491 | 3,421 | +2.0% |
| Operating Income | 2,896 | 1,331 | +117.6% |
| Operating Margin | 8.5% | 4.9% | +3.6 pts |
| Total Non-Operating Income (Loss) | 426 | 580 | -26.6% |
| Net Income | 2,775 | 1,391 | +99.6% |
| Net Income to Parent | 1,873 | 948 | +97.6% |
| Net Margin | 8.2% | 5.1% | +3.1 pts |
| EPS (NT\$) | 1.98 | 1.00 | +99.0% |
| ROE | 9.6% | 5.4% | + 4.2. pts |
| Average Exchange Rate | 28.032 | 28.370 | |

* 1Q22 weighted average of shares outstanding: 944,956 thousand shares

** ROE is annualized data calculated based on the average of equity attributable to owners of parent

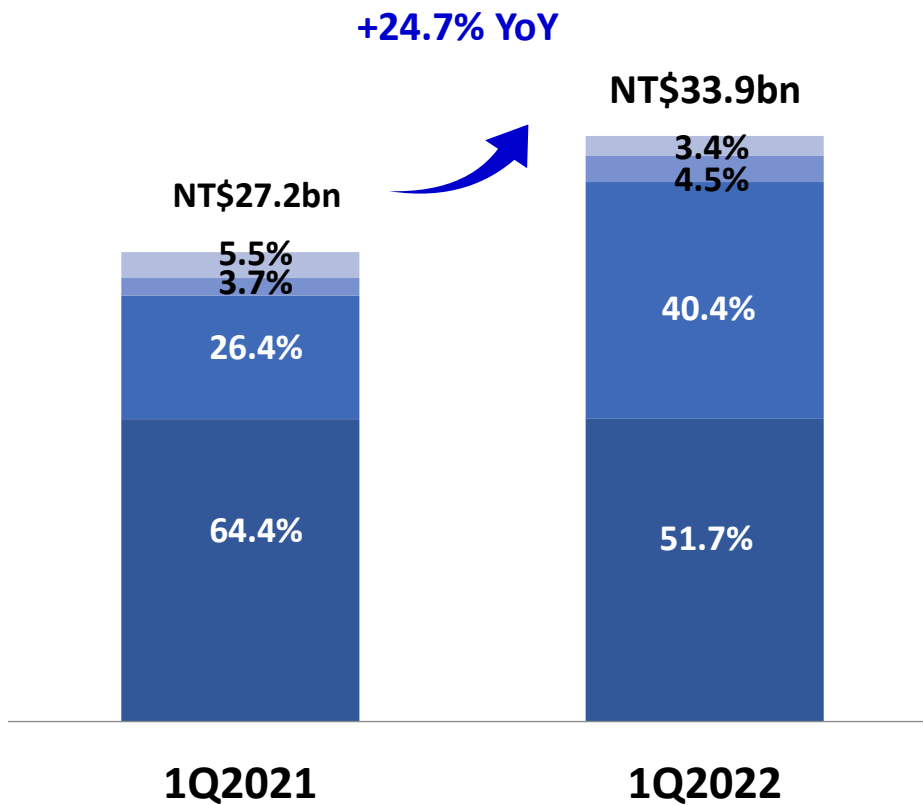
Quarterly Revenue Trends



1Q22 Revenue Breakdown – By Applications

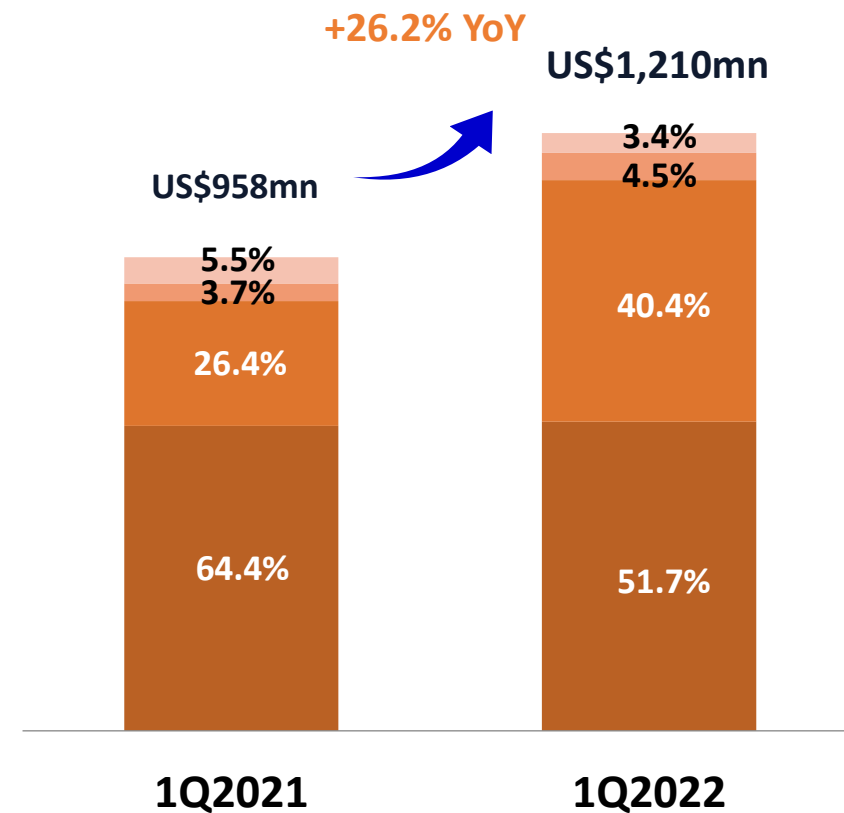
Revenue (NT\$) YoY

- Automotive Radar/Base Station/Server/Others
- IC Substrate
- Computers and Consumer Electronics
- Mobile Communication



Revenue (US\$) YoY

- Automotive Radar/Base Station/Server/Others
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Consolidated Balance Sheet and Key Indices

Unit: NT\$ million

| | 2022-3-31 | | 2021-12-31 | | 2021-3-31 | |
|--|----------------|---------------|----------------|---------------|----------------|---------------|
| | Amount | % | Amount | % | Amount | % |
| Cash and Cash Equivalents** | 42,605 | 21.2% | 35,179 | 18.0% | 48,757 | 27.6% |
| Notes & Accounts Receivable | 26,569 | 13.3% | 38,669 | 19.8% | 20,273 | 11.5% |
| Inventories | 19,754 | 9.8% | 17,675 | 9.0% | 16,857 | 9.6% |
| Property, Plant and Equipment | 93,471 | 46.6% | 86,073 | 44.0% | 72,387 | 41.0% |
| Total Assets | 200,579 | 100.0% | 195,755 | 100.0% | 176,475 | 100.0% |
| Current Liabilities | 55,892 | 27.9% | 56,880 | 29.1% | 61,191 | 34.7% |
| Interest-bearing Long-term liabilities | 18,966 | 9.5% | 17,982 | 9.2% | 11,012 | 6.2% |
| Total Liabilities | 82,544 | 41.1% | 82,235 | 42.0% | 75,397 | 42.6% |
| Total Equity | 118,035 | 58.8% | 113,520 | 58.0% | 101,077 | 57.3% |

Key Indices

| | | | |
|-------------------------|------|------|------|
| A/R Turnover Days | 86 | 84 | 90 |
| Inventory Turnover Days | 66 | 48 | 67 |
| Current Ratio (x) | 1.66 | 1.69 | 1.47 |
| PPE Turnover (x) *** | 1.51 | 1.80 | 1.55 |

* Shares outstanding as of 2022/3/31: 944,956 thousand shares

** Including current financial assets at amortized cost (time deposits, etc.)

*** PPE Turnover = annualized net revenue / average net property, plant and equipment

Consolidated Statements of Cash Flow

Unit: NT\$ million

| | 1Q22 | 4Q21 | 1Q21 |
|--|---------------|---------------|---------------|
| Beginning Balance | 33,790 | 30,336 | 44,223 |
| Cash Inflow Generated from Operations | 14,192 | 7,768 | 7,976 |
| Capital Expenditures | (7,661) | (7,184) | (7,589) |
| Cash Dividend Paid | - | - | - |
| Increase (Decrease) of Short-term Debt | (3,050) | (2,939) | 1,999 |
| Investments and Others | 2,715 | 5,808 | 150 |
| Ending Balance | 39,986 | 33,790 | 46,759 |



Q&A



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THANK YOU